Master thesis

An analysis and valuation of the Eltek Group

By

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This Master Thesis is carried out as a part of the education at the University of Agder and is therefore approved as a part of this education. However, this does not imply that the University answers for the methods that are used or the conclusions that are drawn.

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Acknowledgement

This master thesis is written as a concluding part of the MSc Business Administration program at University of Agder. The thesis is mandatory and constitutes 30 credits.

The subject for the thesis is based on my interest for the specialization of my MSc; Financial Economics and Management. I spent my final year of the program in Paris, as a double degree seeking student at INSEEC Business School where I took the courses "Financial analysis" and "Company Valuation". The syllabus led me to the choice of subject for the thesis. I limited the choice of company to Norwegian companies listed on the Oslo Stock Exchange. Previous employment and knowledge of Nera Networks led me to the decision to evaluate the holding company, Eltek Group.

The writing process has been both intense and educational, and I have gained much knowledge and understanding about the components and forces that build and drive the value of a company. I hope to benefit from the experience in the future.

I would like to thank Ib Erik Eriksen for long-distance guidance during the writing process. I would also like to thank my family, friends, and Niklas for help, support and motivation.

Paris, 08.06.2010

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Kine Sagstad

Abstract

The purpose of this paper is to provide the reader with a theoretical value of the Eltek Group, based on a strategic – and a financial analysis. The outline of the paper is mainly built upon the valuation framework developed by Penman (2010), and the valuation process is based on the valuation guidelines provided by Copeland, Murrin, et al. (1994).

The data of the paper is restricted to publicly available information as the Eltek Group is a listed company. Therefore, numerous assumptions have been made in order to estimate the value per share. I believe these assumptions are realistic and that the computed value is the best current estimate.

The paper is divided into 4 main chapters; Company description, Theoretical investigation, Methodical approach and Analytical investigation. In the first part of the paper I describe the Eltek Group; the history, the business segments and the markets. I then examine the relevant valuation literature and different approaches to a company valuation in chapter 2. In chapter 3 the methodology of the analytical part of the paper is described.

The most important part of the paper is chapter 4; the analytical investigation of Eltek. I start with a thorough financial analysis of Eltek and the two main business segments. In order to provide an accurate picture of the financial health of the company, the financial statements are adjusted prior to the profitability analysis. The Net Operating Profit Less Tax (NOPLAT) and the key value drivers behind the performance of Eltek is then identified and evaluated. Chapter 4.4 constitutes the forecasting part of the paper. By investigating the historical financial statements and the correlations between the value drivers, an explicit forecast of 6 years is presented. The continuing value covers the period after the explicit forecast period. This value is discounted by the Value Driver Formula. Combined with the discounted value of the explicit forecasted Free Cash Flows, the value per share estimate is computed by applying the Discounted Free Cash Flow (DFCF) method.

The resulting estimated share price is NOK 2.710. I conclude that the Eltek Group is slightly undervalued the 5th of June 2010, but that the underlying company value is principally reflected in the share price.

All numbers in the tables of this paper are listed in millions, unless stated otherwise. A list of the abbreviations used in the paper is included in Appendix A.

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1.1. Company description

The Eltek Group, hereafter noted Eltek, is a supplier to the telecommunication industry. Eltek consists of the holding company - Eltek ASA, Eltek Valere, Nera Networks and Nera Telecommunications. Eltek Valere and Nera Networks are 100% owned by Eltek, while Nera Telecommunication is owned by 50.5%.

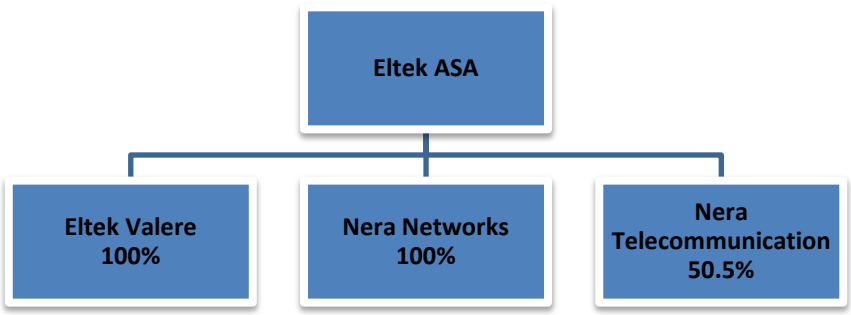


Figure 1: Business model

The headquarters of Eltek is located in Drammen, while the regional headquarters of Nera Networks and Eltek Valere are located in Bergen and Dallas. The company operates through offices in 39 countries, and employs more than 3 000 people. Eltek supplies products to over 100 countries worldwide. This reflects the global perspective of the company. The served markets are divided into three segments; EMEA (Europe, the Middle East and Africa), Americas (North- and South America) and Asia Pacific.

Eltek is listed on the Oslo Stock Exchange under the ticker ELT. The development of the share price over the period between 01.01.2006 and 01.01.2010 is shown by the graph in Figure 2.

Figure 2: Historical development of ELT (www.dn.no 2010)

The last five years have been relatively turbulent for Eltek. A merger with Nera Networks and an acquisition of Eltek Valere have resulted in large restructurings and changes. The outsourcing of Nera Network's production to Slovakia also involved larger restructurings. In addition, the management of Eltek has gone through larger changes and replacements in recent years. After the current CEO at the time was charged for insider trading in February, 2008, 3 others have filled the position, including the current CEO Rune Finne. There have also been numerous changes in the management of the daughter companies in this period.

1.2. Company history

The history of Eltek has been characterized by expansion through internationalization and mergers and acquisitions. Therefore, it consists of several separate timelines for each of the acquired companies. I will focus on the history of Eltek Energy and Nera Networks.

Eltek Energy

Eltek Energy was established in Drammen, Norway in 1970. In 1983 the company started an internationalization process, through the establishment of a company branch in the UK. This process accelerated in the following years after 1994, with establishments in China, Germany, Poland, Singapore, France, Sweden, Australia, Russia and the United States to mention a few. In 1998, Eltek Energy was listed on the Oslo Stock Exchange.

Eltek Energy has grown and expanded its markets through a number of mergers and acquisitions. The first merger was with the American company PCP, and took place in 2000. Since then, 5 mergers or acquisitions have been successfully completed. A merger between Eltek Energy and Nera Networks was finalized in October 2006, which created the merged

company Eltek ASA. As both the two companies were market leaders at the time, the goal of the merger was to obtain a unique position in the market for telecommunication. Combining the companies resulted in large resources and opportunities for economies of scale. In 2007, Eltek ASA acquired the North American company Valere Power Inc., resulting in the creation of the daughter company Eltek Valere. The motivation of the acquisition was to strengthen Eltek's market position in the United States and India.

Nera Networks

Nera was founded in Bergen, Norway, in 1947. The history of Nera is also characterized by mergers and acquisitions. The company was acquired by Elektrisk Bureau in 1977. In 1986, Nera changed its name to ABB Nera after a merger with ASEA. The Singaporean company Nera Telecommunications was acquired by Nera in 1999 through an ownership of 50.5%. In 1995, Nera was listed on the Oslo Stock Exchange and at the same time on NASDAQ. However, in 2002 the company was delisted.

1.3. Business operations and markets

The different operations of Eltek are carried out through the three daughter companies. Eltek Valere is a producer of energy systems, Nera Networks' operations are in the industry of transmissions, and Nera Telecommunications operates in the telecom and infocom industry.

Eltek Valere

The operations of Eltek Valere involve development and marketing of energy systems. The products consist of complex turn-key solutions which the company designs, builds and furnishes. In addition, the company develops fixed system solutions for original equipment manufacturers.

The business of Eltek Valere can be further explained by investigating the main components of the developed energy systems. The purpose of the energy systems is to secure telecom infrastructure and to provide backup power. The systems are made up of three main components; rectifiers, batteries and a monitoring system. The rectifiers convert high-voltage into lower-voltage in order to enable the telecom equipment to function properly. A telecom power system contains several rectifiers, depending on the size and requirements of the system. The batteries are especially important due to the threats of power failure. They

provide security and are the most vulnerable part of the system. Therefore, they must be controlled and monitored frequently. The monitoring system is the essence of the system. Its functions are to monitor and control the system, either directly through displays and keypads, or indirectly through a computer and a networks system, such as the internet.

Eltek Valere is established in the Direct Current (DC) Power Systems market, which is characterized by many different competitors. The growth of this market can be linked to the development of the telecom operators' investments in infrastructure. As the fastest growing company in the DC Power Systems industry, Eltek Valere outperformed the industry growth in 2008. In 2009 the market experienced a downturn due to the global financial crisis. The declines of Eltek Valere were lower than those of the competitors.

Eltek Valere's current market position in terms of market share is the second after the market leader, Emerson. In 2008, Emerson's market share was 15%, while Eltek Valere was close behind with a market share of 13%. The other largest competitors in the market were Tyco and Delta, with market shares of respectively 4% and 3%. Other competitors included Power One, Argus, Shindengen, Eaton and Saft, with shares of approximately 2% of the market each (Eltek Company Presentation, 2008). In addition to these global competitors there are large national and regional suppliers covering different geographic parts of the market.

After the global financial crisis, the market has been expected to alleviate, as the telecom operators will become more cautious with their investments. However, Eltek Valere recognizes potentials in other growing markets, such as the replacement market and the electrical car battery market.

Nera Networks

Nera Networks is a supplier to the global microwave transmissions market. The company produces equipment for wireless transmission. More specifically, the products provide the mechanisms for transmitting and receiving microwave signals for telecom traffic, and ranges from high capacity radio products to antennas and network management hardware and software. The activities of Nera Networks involve design, planning, development, assembly and logistics, installation and training and support of these products. In 2008, Nera Network's production was moved the city Liptovský Hrádok in Slovakia.

The wireless transmission products of Nera Networks are sold to communication network owners, involving most segments in the telecoms industry. The industry is characterized by

numerous competitors, which can be divided into two groups; the pure transmission companies delivering telecom components and products, and the systems integrators delivering complete networks. Nera Networks can be placed in the former category. The direct main competitors are therefore the other pure transmission companies in the industry. These competitors include Aviat Networks and Ceragon. The system integrator group includes larger companies such as Ericsson, Nokia Siemens and Alcatel-Lucent, who are also customers of Eltek. In addition, the Chinese companies Huawei and ZTE have entered the market in recent years.

The market can be divided into three segments; the mobile market, ISP/Enterprise market and the backbone market. These segments account for respectively 60-70%, 10% and 20-30% of the overall market. Nera Networks' market share is largest in the backbone market, accounting for approximately 15%. The company's market shares in the mobile and the ISP/Enterprise market are approximately 2% and 10% respectively. The total market revenues have been estimated to be approximately $6.5 billion in 2009 and above $7 billion in 2010. Until 2013, the annual market growth has been estimated to be 12% in terms of units, and 5% in terms of revenues.

Through its most important product range, the Evolution Series, Nera Networks is present in the Software Programmable Radio Segment. The share of this market constitutes approximately 4%. This particular market is expected to grow by 14% annually.

Nera Telecommunications

The operations of Nera Telecommunications Ltd are divided into two business areas; telecommunications and infocom. The activities within telecommunications include sales, installation and implementation of the networks produced by Nera Networks and Nera Satcom (now part of Thrane&Thrane). Within the second business area; infocom, the company designs, implements and supports IT networks.

In 2008, the Telecom business segment experienced a decrease in revenue of 16.9%. The reason for the decline was mainly project delays leading to lower sales. The global financial crisis has led the mobile operators to reduce their capital expenditures, affecting the market demand for Nera Telecommunications. Despite this caution the currency adjusted increase in revenues for the segment was 11.0% in 2009. The telecommunications market is still

characterized by intense competition for market shares. Therefore, it is essential to establish long-term relations with the mobile operators to secure continued operations.

The performance of the Infocom market was positive in 2008 recording an increase in revenue of 16.5%, and an increase in profit from operations of 30.6%. This market was less affected by the 2008 global financial crisis, because the services in the market are fundamental to both businesses and consumers. In 2009, the profits of this segment increased by 3.0%. The Infocom market is covered by some regional competitors in addition to a few global competitors. Similarly to the Telecom segment, the competition in the market is very strong.

The geographical distribution of the sales of Eltek Valere and Nera Networks are displayed in Figure 3. Europe, the Middle East and Africa, in addition to the Americas, are the most important regions for both companies.

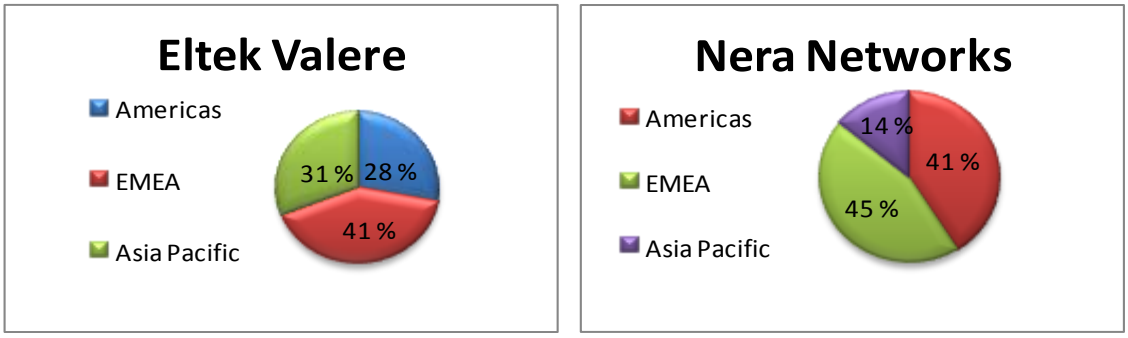


Figure 3: Sales by regions

2.0 Theoretical investigation

This section will introduce relevant literature concerning the process of valuing a company, and the different applicable approaches. Section 2.1 presents the most common and recognized methods of valuation, divided into the subcategories *Valuation Multiples* and *Fundamental methods*. The process of identifying the appropriate discount rate to be applied in the discounting valuation methods is also included in this section, based on three alternative methods; the Capital Asset Pricing Model, the Arbitrage Pricing Model and the Weighted Average Cost of Capital method. Section 2.2 describes the models and the theory behind the strategic analysis in the second part of the paper, and section 2.3 examines the theory of the financial analysis, including financial ratios and adjustments of the financial statements.

2.1. Methods of valuation

Today, companies all over the world are experiencing increased pressure in the marketplace due to internationalization and globalization. Valuation of companies is no longer exclusively performed by investors or acquirers, but by anyone with an interest in the company. There can be a number of different reasons to value a company, ranging from possible mergers or acquisitions to compensation schemes based on value or public offerings (Fernández 2007). The performance of managers is today reflected through the share price of the company. Therefore, company valuation is now emphasized within corporate management, and the managements of more and more companies keep the share price in mind and work towards maximizing the share value (Gaughan 1999, p. 492)

There are certain aspects one must take into account when valuing a company. First of all, the valuation should be future oriented (Meitner 2006, p. 7). However, investigating the company's past performance may also be relevant, and should be conducted as the first step of the valuation (Copeland, Murrin et al. 1994, p. 154). Empirical investigations have shown that there often is a high correlation between the profitability of already executed investments and the profitability of future investments (Gjesdal and Johnsen 1999). Furthermore, the focus of the valuation should not only be on the financial aspects of the company – it should involve all value-creating aspects. It is also important to consider both the future risks and potential benefits of the company (Meitner 2006, p. 8).

The basic issues of a company valuation is how much capital the company is able to invest and which rate of return the company can achieve on this invested capital (Gjesdal and Johnsen 1999). The invested capital and the rate of return can be characterized as the key value drivers of the company's cash flows, and thereby also the value of the company (Copeland, Murrin et al. 1994, p. 104). The valuation should include a time perspective related to the value drivers and investigate how they will develop over time (Gjesdal and Johnsen 1999).

2.1.1. Valuation multiples

The valuation methods using multiples are the most common methods of valuation, and have been popular in practice. The main advantages of these methods are that they are simple and easy to use, do not require any forecasting, and thereby require less time and costs than more thorough methods (Dyrnes 2004). In addition, multiples reflect the underlying principle of company valuation; that value is related to future expected earnings and risk. Due to these advantages, multiples are often used as a substitute for more thorough valuation methods.

On the other side, one of the disadvantages of valuation multiples are the risk of ignoring relevant information. Furthermore, the results of one valuation multiple might differ from the result of another. When a company is experiencing losses the valuation multiples are not useful for comparisons, because of the negative effects in the fractions (Penman 2010). Valuation methods using multiples can also be complementary to other valuation methods (Liu, Nissim et al. 2001).

2.1.1.1. The Price/Earnings method

The Price/Earnings (P/E) method is the most common of the valuation multiples, and is calculated by dividing the share price with Earnings per Share (EPS).

$$\frac{P}{E} = \frac{Share\ price}{Earnings\ per\ share}$$

The justification behind the P/E method is that a buyer of a stock or a company will indirectly buy the rights to the future earnings of the company in question (Berk and DeMarzo 2007, p.

262). Therefore, the value of the company is measured by multiplying the current EPS with the average P/E ratio of comparable companies;

$$\boldsymbol{Value = \frac{P}{E} \times EPS}$$

In this equation earnings per share are both the denominator and the scaling factor. This increases the importance of consistency. The scaling factor should be calculated the same way by both the company and the companies used for comparison. It is also important that the scaling factors are calculated for the same time period. If the price of one of the comparable companies is affected by one-time events, this should be corrected for both in the scaling factor and in the price used to determine the multiple (Dyrnes 2004).

For the purpose of valuing a company, the so-called Forward P/E ratio can be a more appropriate measure of value. This ratio involves using the projected earnings of the next 12 months, instead of the last 12 months. This is backed by one of the requirements of a valuation; that it should be forward oriented (Meitner 2006, p. 7).

2.1.1.2. The Market/Book method

The Market-to-Book (M/B) ratio is calculated by dividing the market value of equity with the book value of equity.

$$\boldsymbol{M/B = \frac{Market\ value\ equity}{Book\ value\ equity}}$$

A M/B ratio of a higher value than 1 indicates that the utilizing value of the assets is higher than the historical cost (Berk and DeMarzo 2007, p. 26). The M/B ratio reflects investors' expectations and how they view the company (Gaughan 1999). Careless use of the P/E ratio or the M/B ratio in periods characterized by inflation can lead to undervaluation due to the existence of biasness in the accounting figures (Gjesdal 2004).

2.1.1.3. The Price/Sales method

The Price-to-Sales (P/S) method focuses on revenues rather than profit, and is therefore more appropriate for evaluating companies operating in markets characterized by high growth. The justification of using this method is that some companies, especially start-up companies, may be investing heavily in order to grow quickly and are therefore not generating operating profits (Coffey, Garrow et al. 2002, p. 63). For these companies, a valuation based on revenues could therefore generate a more accurate company value.

$$P/S = \frac{Market\ value\ equity}{Sales}$$

2.1.1.4. Enterprise Value multiples

The advantage of using enterprise value in multiples is that it reflects the entire underlying value of the company, and not just the value of the equity. The enterprise value is most commonly divided by a measure for earnings or cash flows before interest payments, such as Earnings Before Interest and Tax (EBIT) or Earnings Before Interest, Tax, Depreciation and Amortization (EBITDA) (Berk and DeMarzo 2007, p. 263).

The Enterprise multiple can be calculated as;

$$Enterprise\ multiple = \frac{EV}{EBITDA}$$

EV = Enterprise value

EBITDA = Earnings before interest depreciation and amortization

A low Enterprise Multiple indicates that the company is undervalued. The ratio is especially useful for comparing international companies or companies located in different countries, because it eliminates any effect of the home country's taxation policies.

Some Enterprise Value multiples can be calculated by using different measures than earnings. An example is the Enterprise Price-to-Book (P/B) ratio;

$$Enterprise\ \frac{P}{B} = \frac{Value\ of\ net\ operating\ assets}{Net\ operating\ assets}$$

The Standard P/B ratio is calculated as;

$$Std\ \frac{P}{B} = Enterprise\ \frac{P}{B} + [Fin.lev.\left(Enterprise\frac{P}{B} - 1\right)]$$

Fin.lev = financial leverage

The difference between the Enterprise P/B and the Standard P/B is the effect of leverage. The difference also increases in relation to the Standard P/B's distance from the normal of 1.0.

2.1.2. Fundamental methods

The fundamental methods are more comprehensive than the multiple valuation methods. Therefore, more time and resources are required to apply these methods. On the positive side, they provide a more accurate and reliable value estimate than the multiple valuation methods (Copeland, Murrin et al. 1994, p. 70).

2.1.2.1. Discounted Cash Flow methods

The Discounted Cash Flow (DCF) method involves discounting the expected future cash flows with a discount rate that reflects the risk of the company. The DCF method values the future equity of the company while the Entity DCF method includes the value that is available to all investors, and not just the equity holders. With the latter method, the equity value can be found by subtracting the interest-bearing debt from the present value of total assets (Copeland, Murrin et al. 1994, p. 132).

The purpose of the DCF method is to identify the value of future cash flows that are available for the equity holders. This involves the future cash flows that are left after all expenses, investments, interests and taxes have been paid.

$$\boldsymbol{Equity\ value} = \sum_{t=1}^{\infty} \frac{\boldsymbol{CF_t}}{(\mathbf{1} + \mathbf{r_E})^t}$$

CF_t= Cash flows available to equity holders at time t

r_E = equity cost of capital

The appropriate discount rate for the application of this model is the equity cost of capital, which can be calculated by using the Capital Asset Pricing Model or the Arbitrage Pricing Model. I will explain both these models in section 2.1.4.1 and 2.1.4.2 respectively. According to Copeland, Murrin, et al. (1994) the DCF method can be separated into two frameworks; the *Discounted Free Cash Flow (DFCF) method* and the E*conomic profit method.*

Discounted Free Cash Flow (DFCF) method

With this model, the value of the company equals the value of the discounted future free cash flows. The free cash flows can be defined as;

$$\boldsymbol{FCF = NOPLAT + D_t - CAPEX - \Delta WC}$$

NOPLAT = Net Operating Profit Less Adjusted Taxes

D_t = depreciation in period t

CAPEX = Capital expenditures

ΔWC = Change working capital from period t-1 to period t

The free cash flows reflect the cash of the company before the equity and debt holders are paid. Therefore, this model involves the value to both equity holder and creditors. The value of the company is found by discounting the free cash flows.

$$\boldsymbol{Value = PV\left(FCF_{Explicit\ period}\right) + PV\left(FCF_{Continuing\ value\ period}\right)}$$

$FCF_{Explicit\ \ period}$ = Free cash flows in the explicit forecasted period

$FCF_{Continuing\ \ value\ \ period}$ = Free cash flows after in the continuing value period

The share price of the company can then be found by subtracting the value of debt from the estimated value, and dividing the results by the number of shares outstanding.

$$\boldsymbol{Share\ price = \frac{Value - Debt}{Shares\ outstanding}}$$

The difference between the DCF method and the DFCF method is that when using the latter method, one should use the W*eighted Average Cost of Capital* as the discount rate rather than the *Equity* C*ost of Capital* that should be used with the DCF method (Berk and DeMarzo 2007, p. 259). I will explain the calculation of the Weighted Average Cost of Capital in section 2.1.4.3.

Economic profit model

According to Copeland, Murrin et al. (1994) there are two key drivers of cash flow and value; the growth rate of the company and the Return on Invested Capital (ROIC). The Economic Profit method transforms the key value drivers into a monetary figure, and states that the value of a company is equal to the invested capital and the present value of the annually created future value of the company. The value created in one period of time is the economic profit.

$$\boldsymbol{Economic\ profit = Inv.cap \times (ROIC - WACC)}$$

$$\boldsymbol{Economic\ profit = NOPLAT - (Inv.cap \times WACC)}$$

ROIC= return on invested capital

WACC = Weighted Average Cost of Capital

NOPLAT= Net Operating Profit Less Adjusted Taxes

The value of the company is found by adding the invested capital and the present value of future economic profit;

$$\boldsymbol{Value = Inv.cap + PV\ (Projected\ economic\ profit)}$$

Entity DCF method

The Entity DCF method values a company based on the cash flows that are available to all investors after the debt and any superior claims have been paid. The advantages of the Entity DCF method are that it identifies sources of value beyond equity, discover key leverage areas and is consistent with the capital budgeting process of a company. If the discount rates reflect the appropriate risks of the company then both the DCF method and the Entity DCF method should result in equal company value (Copeland, Murrin et al. 1994, p. 132).

2.1.2.2. Dividend Discount Method (DDM)

The general dividend discount method involves finding the present value of all future dividends. Companies that are going concerns are expected to payout dividends for infinity. It would be difficult to forecast for infinity, but the dividends for a finite period of time can be projected. The continuing value P_T, which is included in the payoff must also be calculated. This can be done by finding the value of a perpetuity with growth and discounting it to present value (Penman 2010). The last fraction of the equation below represents this continuing value.

$$\boldsymbol{Value = \frac{d_1}{r_E} + \frac{d_2}{r_E} + \cdots + \frac{d_T}{r_{E^T}} + \frac{\frac{d_{T+1}}{r_E - g}}{r_E^T}}$$

If the constant growth starts in the first period, the valuation model will be equal to the constant growth model. The main assumption of this method is that the dividends will grow at a constant rate, *g*. The share price today is found by dividing the expected dividends next year by the Equity Cost of Capital, r_E, less the growth, *g*.

$$Value = \frac{d_1}{r_E - g}$$

The method requires that the cost of capital is larger than the constant growth in dividends. The justification of this assumption is that a company may experience a growth in dividends that is higher than the cost of capital, but only for a temporary period of time (Berk and DeMarzo 2007, p. 249).

2.1.2.3. The Super Profit Method

The concept of super profit is equal to residual income or abnormal earnings. The Super Profit Method claims that the value of a company is equal to the book value added the net present value of future super profits. This value will be identical to the value found by using the DCF method (Gjesdal 1999).

$$Value = \sum_{t=1}^{\infty} \frac{C_t}{(1+r)^t} = B_0 + \sum_{t=1}^{T} \frac{C_t - D_t - rB_t - 1}{(1+r)^t}$$

C_t= the cash flow in period t

D_t= the depreciation in period t

r = cost of capital

B_t= book value in period t.

Goodwill is defined as the difference between economic value and book value. With this equation, goodwill is equal to the present value of future super profit (Gjesdal 1999). By dividing both sides of the equation with the book value of capital, the economic value can be expressed in relation to the book value;

$$\frac{Value}{(Book\ value)} = 1 + \sum_{t=1}^{\infty} \frac{(i_t - r)(1+g)^{t-1}}{(1+r)^t}$$

i_t= the internal rate of return in period t

g= the growth of capital, assumed to be constant

The internal rate of return less the cost of capital expresses the return on the invested capital, while the growth of the capital is included through the measure of growth, *g* (Gjesdal 1999).

In other words, the advantage of the Super Profit method is that it includes the key value drivers, which emphasizes the fact that growth in itself does not create value – only growth from strictly profitable investments create value (Gjesdal 1999).

2.1.3. Continuing value aspect of the fundamental methods

One of the main disadvantages of the discounting valuation models are the involved time aspects. The valuations include long time periods, but most often focus more on the near future rather than the distant future. The DCF method discounts the projected cash flows in the near future, in addition to the continuing value. The problem is the size of the continuing value part, which often is above 50% of the value of the company. This problem is larger when using the DCF method than the Super Profit method. The Super Profit method includes only the goodwill at the point in time where the near – and distant future meets. This goodwill accounts for less of the value than the continuing value would (Gjesdal 1999).

2.1.4. Determining the appropriate discount rate

In this section I will introduce three different methods to determine the applicable discount rates for the fundamental methods presented in section 2.1.2. The discount rate to be applied in the DCF method should be the cost of capital, which can be computed by using either the Capital Asset Pricing Model or the Arbitrage Pricing Model. Both methods have measurement problems, but are theoretically correct. The appropriate discount rate for the DFCF method can be calculated by using the Weighted Average Cost of Capital method.

2.1.4.1. Capital Asset Pricing Model

With the Capital Asset Pricing Model (CAPM), the cost of capital is estimated by a function of the risk free rate of the market, the systematic risk of the company and the market premium. I will further explain each of these variables below.

$$\boldsymbol{Cost\ of\ capital} = r_f + \beta[E(r_m) - r_f]$$

r_f = the risk free rate of the market

β = measure for the systematic risk of the company

$[E(r_m) - r_f]$ = the market premium.

Determining the risk-free rate

In theory, the risk-free rate is the rate of return on a security with no risk of defaulting, and should be estimated using a zero-beta portfolio. However, this is impossible in practice. The recommended alternative is to estimate the risk-free rate using medium-term government securities – the rate for 10-year Treasury bonds (Copeland, Murrin et al. 1994, p. 259). The duration of such bonds is close to the normal duration of projected cash flows and is less sensitive to changes in inflation.

Determining the market risk premium

The market risk premium is equal to the expected return of the market less the risk free rate of the market. The market risk premium reflects the expectations of the investor - the required return for taking the risk represented by the β (Berk and DeMarzo 2007, p. 69). The expected risk for the company is the beta times the market risk premium. According to Damodaran (1996), there are three factors that determine the size of the market risk premium; variance in the underlying economy, political risk and structure of the market. In general, economical volatility and political instability lead to requirements of larger market risk premiums. In some markets companies are large, diversified and stable. The required market risk premiums in these markets should be lower than in other markets. Damodaran (1996) has estimated risk premiums related to the Government bond rates in different geographical areas, characterized by varying risk levels, to show these impacting factors in effect. The results are listed in Table 1.

Financial markets characteristics	Premium over Government bond rate
Emerging markets with political risk (South America, East European markets)	8,50 %
Emerging markets (Asian markets other than Japan, Mexico)	7,50 %
Developed markets with wide listings (US, UK, Japan)	5,50 %
Developed markets with limited listings (Western European markets other than Germany and Switzerland)	4.5-5.5%
Developed markets with limited listings and stable economies (Germany, Switzerland)	3.5-4%

Table 1: Estimated market risk premiums (Damodaran 1996)

According to Copeland, Murrin et.al (1994), the market risk premium should be set based on a long timeframe to eliminate any affect of irregularities in the measurement. Furthermore, a geometric average of rates of return should be used because it represents the actual return of the period better than an arithmetic average.

Determining beta

Beta is a measure for the systematic risk of the company. This risk is outside the company's control, and cannot be eliminated by diversification (Davis and Pointon 1994, p. 100). The beta is calculated by dividing the covariance of the company return and the return of the market with the volatility of the market.

$$\beta = \frac{Cov\,(R_i, R_{Mkt})}{Var(R_{Mkt})}$$

R_i = the return of the company

R_{Mkt} = the return of the market

A high beta entails a high level of market risk facing the company. This should be accounted for by a higher discount rate (Davis and Pointon 1994, p. 104). The beta of the average company is equal to 1.0, because the beta of the entire market portfolio is equal to 1.0. It is unusual for a company to have a beta above 2.0 or below 0.1 (Copeland, Murrin et al. 1994, p.

258). Even though the beta measures the investor's expectations for the future, the correlation and volatility of the security and market return, it is common to estimate beta based on historical data. This can be done by applying a linear regression of the stock returns against the market returns (Berk and DeMarzo 2007, p. 382). Beta is the slope of the regression equation.

$$\boldsymbol{R_j = a + \beta R_m}$$

By comparing the intercept of the regression a, to $R_f(1-\beta)$, the stock's performance according to the CAPM can be measured. If $a > R_f(1-\beta)$, then the stock in question performed better than expected during the regression period (Damodaran 1996).

There are some important factors to take into consideration when calculating a company's beta. Most beta estimates are calculated based on a five-year period. A longer estimation period entails more data. However, a longer time period increases the chance that the risk characteristics of the company might change. Using weekly or monthly returns in the calculation can reduce any bias in the estimate. Lastly, the beta estimate resulting from the regression analysis should be adjusted due to the probability of estimation errors and the fact that betas tend to regress towards the average (Damodaran 1996).

2.1.4.2. Arbitrage Pricing Model

$$\boldsymbol{Cost\ of\ capital = r_f + \beta_1[E(F_1) - r_f] + \cdots + \beta_k[E(F_k) - r_f]}$$

$E(F_k)$= the expected rate of return of a portfolio

β_k= the sensitivity of the stock return to the k^{th} factor.

The difference between the CAPM and the Arbitrage Pricing Model (APM) is that the latter involves several measures for risk, each representing the sensitivity of the company's stock to an underlying economic factor. According to Copeland, Murrin et al. (1994), there are five fundamental factors that should be included in the APM. These are the industrial production

index, the short-term real rate, the short-term inflation, the long-term inflation and the default risk. One of the advantages of the APM is that it can be useful for identifying the relevant risks facing the company.

2.1.4.3. The Weighted Average Cost of Capital method

$$WACC = \frac{E}{E+D} \times r_E + \frac{D}{E+D} \times r_D(1 - T_C)$$

E = the market value of equity

D = the market value of debt

r_E = equity cost of capital

r_D = debt cost of capital

T_C = the marginal corporate tax rate

The calculated Weighted Average Cost of Capital (WACC) reflects the total risk of the company, which means the risk of both the equity and the debt. The WACC is the return that the company must generate in order to compensate both the investors and the creditors for the risk they are taking. In other words, WACC consists of the required rate of return of the creditors plus the required rate of return of the investors. The DFCF method involves discounting after-tax free cash flows. Therefore, the after-tax WACC is the appropriate discounting rate to be applied in the method.

2.2. Strategic analysis

2.2.1. Porter's five forces

According to Porter (1987) there are five factors or forces that affect the profitability of any company in any industry. However, the strength and importance of each force differ from industry to industry. These forces are the bargaining power of suppliers, threat of new entrants, bargaining power of buyers, threat of substitute products/services and rivalry among existing competitors.

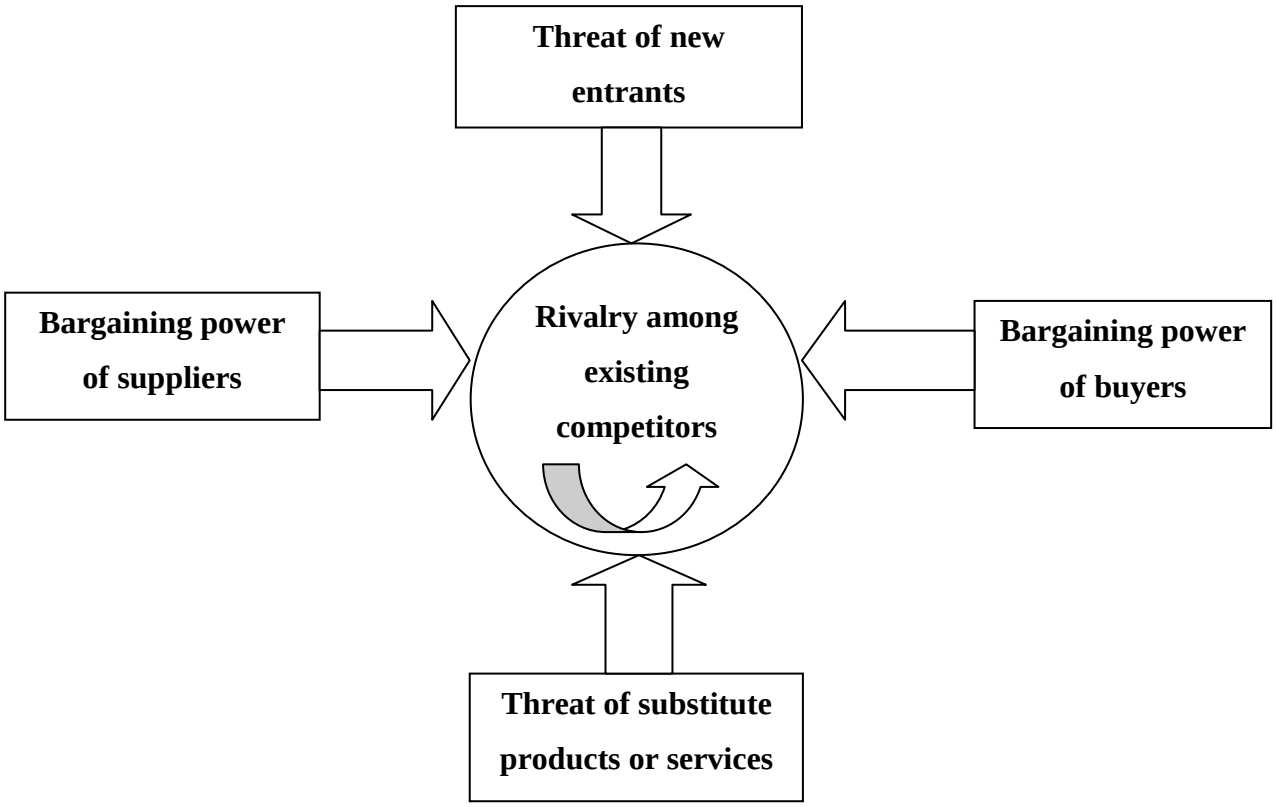


Figure 4: Porter's five forces (Porter 2008)

The idea behind Porter's model is that the strongest forces in an industry determine the profitability of the companies in that industry. These companies should therefore take the most important forces into account when formulating the company strategy (Porter 1980). Each of the five forces will be investigated below.

Rivalry among existing competitors

The degree of rivalry in an industry depends on the intensity of the competition as well as the basis for competing. The intensity of the competition can increase due to a number of factors,

such as a large number of competitors, slow industry growth rate, high exit barriers, high level of commitment among competitors and unclear industry signals. The industry profitability is also dependent on the competing dimensions of the companies, and whether all competitors compete on the same basis.

In some industries the competition is based on price, which often leads to price wars. This is more likely to occur in industries with similar or perishable products, where fixed costs are high and marginal costs are low. Competition based on price are more likely to erode the industry profitability, due to the fact that it removes the profits out of the industry and to the customers, who in addition will pay less attention to product features or services (Porter 2008). Competition based on other dimensions than price will have a smaller negative effect on the profitability. Rivalry in an industry may also have a positive effect on the industry profitability. If the products are different, the competitors serve different segments in the market or strong branding exists, then the market can be expanded by the competition.

Threat of new entrants

New entrants to an industry pose an important threat as they bring new capacity and ambitions to obtain market share. These factors pressure the prices, costs and the rate of investment in the industry. When the threat of new entrants is high, the existing competitors must keep the prices low or increase their investments in order to discourage these potential competitors from entering the market. The threat of entry increases in relation to low barriers of entry and low customer expectations (Porter 2008). It is important to emphasize the fact that the threat of new entrants can change due to the strategic decisions taken by the companies in the industries (Mintzberg, Quinn et al. 1995, p. 68).

There are 7 types of barriers to entry that prevent new competitors from entering the market; the supply-side economies of scale, the demand-side benefits of scale, customer switching costs, capital requirements, incumbency advantages independent of size, unequal access to distribution channels and restrictive government policy.

Threat of substitute products or services

Substitute products are different products which cover similar market needs. Such products are less obvious than direct products, and are therefore easy to overlook. A high number of substitute products can affect the industry profitability negatively, because they create a ceiling for the industry prices (Porter 2008). If the industry competitors price their products

too high, the potential customers may choose the substitute products that are priced at a lower level. In general, the threat of substitute products is high if they offer more value for a lower price and if the switching costs for buyers are low.

Bargaining power of suppliers

The suppliers represent an important force, because a powerful supplier may be able to dictate the prices, reduce the quality of the products or shift costs downwards to the industry companies. There are a number of factors that impact the power of suppliers; the number of suppliers, the number of markets or industries the supplier serves, the costs of switching suppliers for the company, the degree of differentiation of the supplier's products, the number of substitute supplying products and the possibility of a supplier expansion through a downward integration (Porter 2008).

Bargaining power of buyers

The buyers can reduce the industry profitability by doing the opposite than the suppliers. The buyers can pressure the prices down, demand higher product quality and use for instance product comparisons to set the competitors up against each other. The power of buyers increase if there are few buyers in the market, they purchase in large quantities, the products are undifferentiated, the costs of switching suppliers are low for the buyer and if the buyers can integrate upwards and start to produce the suppliers' products themselves (Porter 2008). A company should only sell to the entire customer market if the product is unique or obtains a low-cost position. Otherwise, supplying the entire market would increase the vulnerability of the company. Therefore, the selection of customers should be viewed as a strategic decision (Mintzberg, Quinn et al. 1995, p. 70).

2.2.2. Porter's generic strategies

Porter's Generic Strategies is one of the most recognized and discussed strategic models. According to Porter (1980) there are three different strategies from which companies can gain competitive advantage; cost leadership, differentiation and focus. Each of these strategies involve different organization, control and incentive systems. The model below shows these strategies in relation to competitive advantage and competitive scope. The competitive scope ranges from broad to narrow, depending on the focus of the company in terms of industries,

segments and geographical regions. Each of the different generic strategies is described below.

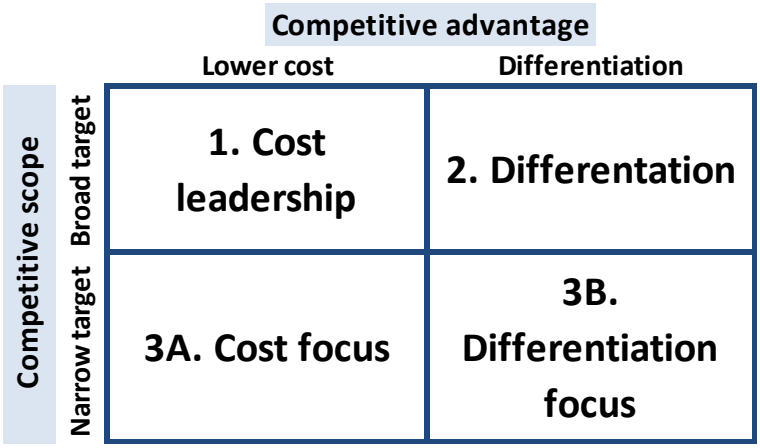


Figure 5: Porter's generic strategies (Porter 1980)

Cost leadership

As the name indicates, the cost leadership strategy focuses on minimizing production costs by standardizing the products. This strategy will be especially appropriate when the market consumers are price-sensitive, when it is difficult to differentiate the products and achieve branding benefits, or when the customers have high bargaining power. The goal of the strategy is to gain market shares by keeping lower prices than the competitors (David 1995, p. 68).

Differentiation

A differentiation strategy will only be successful under certain circumstances. If the products are standardized or can easily be copied by competitors, it is difficult to gain competitive advantage by pursuing a differentiation strategy. However, if successful, such a strategy can enable a company to set higher prices and gain customer loyalty. Before choosing to pursue a differentiation strategy, it is important to carefully investigate the needs and expectations of the market (David 1995, p. 69).

Focus

The focus strategy entails focusing on serving a smaller segment of the market. Therefore, the industry must be large for such a strategy to be successful. In addition, a successful focus strategy requires an uncovered part of the market where customers have special preferences.

The risk of pursuing a focus strategy is that competitors may follow once the company is making profit in the particular market segment (David 1995, p. 69).

A company pursuing all of these generic strategies will end up to be "stuck in the middle" and fail (Mintzberg, Quinn et al. 1995, p. 78).

2.2.3. SWOT analysis

The SWOT analysis includes identifying and regarding internal aspects, *Strengths and Weaknesses*, and external aspects, *Opportunities and Threats*, of the company. By weighing the positive and negative aspects of both the company and the environment affecting the company's operations against each other, the current strategic position of the company can be evaluated. In addition, the results of the SWOT can contribute to determine the appropriate competitive strategy to achieve competitive advantage, and the related resources needed for implementation.

2.3. Financial analysis

Accounting figures represent the cash flow vectors and the historical investments and is thus important in a valuation (Gjesdal 2004). The purpose of a financial analysis is to identify any issues that need to be addressed in relation to a valuation of a company (Gaughan 1999, p. 461). The choice of valuation method does not affect the procedures used to measure financial performance. The valuation method merely determine the interpretation of the performance results (Gjesdal 2001).

2.3.1. Financial ratio analysis

The advantages of performing a financial ratio analysis is that one can easily compare the results with other companies or benchmarks. Ratio analysis standardizes financial data to reduce the effect of factors that differ the companies, and enable company comparisons (Gaughan 1999, p. 473). A financial ratio by itself is relatively useless. A comparison is necessary for an interpretation to create valuable results. This comparison can be made in three different ways. First of all, the financial ratios can be applied to the DuPont's system of analysis. I will explain this system in section 2.3.1.1. Secondly, the interpretation of the financial ratios can be based on the historical ratios of the company, the goals or the key ratios of the management. Lastly, the financial ratios can be compared to other comparable companies or benchmarks. The selection of such companies or benchmarks requires careful considerations (Campsey and Brigham 1991). In the following section I will explain the most common financial ratios, divided into the categories *liquidity and solvency ratios, activity ratios* and *profitability ratios.*

The main disadvantage of financial ratios is that the profitability is based upon the earnings or other financial figures of one single time period. The problem is that the figures can vary significantly over time, which will lead to inaccurate ratios that do not reflect the true situation of the company (Damodaran 1996).

Liquidity and solvency ratios

The liquidity estimates the ability of the company to meet its obligations and thereby remain solvent. A solvent company is able to pay the bills when they fall due. Lacking liquidity may lead to distress for the company and in the worst cases even to bankruptcy.

$$Current\ ratio = \frac{Current\ assets}{Current\ liabilities}$$

The current ratio indicates to what extent the company can pay off the short-term creditors with assets that are expected to be converted into cash in the near future. A thumb rule states that the current ratio should be above 1. However, it is more important to look at the trend of the current ratio. A negative trend might imply potential cash problems in the future.

$$Quick\ ratio = \frac{Most\ liquid\ current\ assets}{Current\ liabilities}$$

The different types of current assets are not necessarily equally liquid. For example, inventories are often considered to be the least liquid assets of the current assets, because it can take a long time to sell it. The quick ratio can therefore be an important indicator, as it shows the company's ability to pay off the short-term obligations in a shorter time period than the current ratio (Campsey and Brigham 1991). A current ratio that is larger than the quick ratio indicates that the inventory is the most important assets.

$$Working\ capital = Current\ \ Assets - Current\ liabilities$$

The working capital is a measure for the operating liquidity of the company. This ratio identifies whether the company will be able to continue its operations and satisfy the maturing short-term debt or operational expenses with available funds.

Financial leverage ratios

The financial leverage ratios identify the total capitalization of the company, in other words the amount of debt relative to the amount of equity. There are three implications of debt; it enables the owners to control the company without large investments, it shifts the risk of bankruptcy towards the creditors and it involves benefits in terms of tax shields (Campsey and Brigham 1991, p. 188).

$$Debt\ ratio = \frac{Total\ liabilities}{Total\ assets}$$

The debt ratio reflects the company's ability to pay its debt, based on the total assets. The result of this ratio is the percentage of total funds that is provided by the creditors. The creditors desire low debt ratios, while the owners might want to increase the debt ratios to avoid the need to issue more stock (Campsey and Brigham 1991).

$$\textbf{Times interest earned} = \frac{\textbf{EBIT}}{\textbf{Interest expenses}}$$

The times interest earned ratio identifies how much the operating income (EBIT) may decrease by before the company will experience difficulties to pay the interest on its debt. Companies in highly cyclical industries should have higher times interest earned ratios (Gaughan 1999).

Activity ratios

The purpose of the activity ratios is to determine how effectively the company is utilizing and managing its assets. There should be a healthy relation between the value of the assets and the projected operating level.

$$\textbf{Av. collection period} = \frac{\textbf{Accounts receivable}}{\textbf{Credit sales}} \times \mathbf{360}$$

The average collection period measures on average how long it takes for the company to collect the account receivables. The results of this ratio must be related to the sales terms of the company.

$$\textbf{Inventory turnover} = \frac{\textbf{Cost of goods sold}}{\textbf{Average inventory}}$$

The inventory turnover measures how long it will take the company to sell the entire inventory and then fill it up again. If the operations of the company are highly seasonal, this ratio should be based on average monthly inventory. The inventory turnover should not be compared to other companies or benchmarks without a thorough investigation of both companies (Gaughan 1999).

$$Fixed\ asset\ turnover = \frac{Sales}{Net\ fixed\ assets}$$

The fixed asset turnover indicates how well the company is utilizing the fixed assets to generate sales. There are several problems related to a comparison of fixed asset turnovers. Because the ratio is based on the historical costs of the assets, younger companies that have purchased the fixed assets more recently might have lower fixed asset turnovers than older companies (Gaughan 1999).

$$Total\ asset\ turnover = \frac{Sales}{Total\ assets}$$

The company's ability to generate sales by effectively utilizing the total assets is measured by the total asset turnover.

Profitability ratios

The purpose of the profitability ratios is to identify the total effect of liquidity, asset and debt management combined. With these ratios the profit is measured in relation to sales volume.

$$Gross\ profit\ margin = \frac{Gross\ profit}{Sales}$$

The historical trend of the gross profit margin is especially important in the process of evaluating a company's financial health. The gross profit ratio represents the profit the company is able to generate purely based on its product; the difference between the selling price and the purchase price or cost of production. A negative trend in the gross profit margin can be due to increases in the purchase prices of for instance materials, or it might be due to decreased efficiency within the company.

$$Net\ profit\ margin = \frac{Earnings\ after\ taxes}{Sales}$$

The net profit margin measures the after-tax income per dollar of sales. This ratio varies greatly from industry to industry, and is therefore not an absolute measure of the success of a

company (Gaughan 1999, p. 478). Therefore, it is more essential to investigate the historical trend of the company's net profit margin.

2.3.1.1. The DuPont system

The DuPont system is commonly used to create an overview of the profitability of a company. The system links the financial ratios together to identify the factors that have an impact on the profitability of the company. The purpose of the system is to identify ways to improve the company's performance (Campsey and Brigham 1991, p. 198).

The model starts with Return on Equity (ROE), which is equal to the Return on Assets (ROA) multiplied by Assets/Equity. ROA can be split into profit margin multiplied by Total Assets Turnover. A company's ability to earn a higher ROA is limited by competition. If the expected ROA is fixed by competition, there will be a trade-off between the profit margin and the Sales-to-Assets ratio. This can be an explanation for why some companies operate on low profit margins, or low Sales-to-Asset ratios. A gain in profit margin is often offset by a loss in Sales-to-Assets (Myers and Brealey 2000, p. 834).

Furthermore, the Sales-to-Assets ratio is made up by the total assets divided by sales. The total assets consist of fixed assets and current assets, which again can be split into cash, marketable securities, accounts receivables and inventories. The profit margin is equal to the net income divided by the sales. Net income consists of sales less total costs, which include operating costs, interest, depreciation and taxes.

$$ROE = \frac{Earnings\ after\ taxes}{Average\ equity}$$

Normally, the ROE is calculated by including both the preferred stock and the common stock in the denominator. The ratio can be viewed as the rate of return on the stockholder's investments. One disadvantage is the fact that the ratio is based on balance sheet items, which normally are updated only once a year. Therefore, the denominator might not reflect the appropriate equity value throughout the entire year. This problem can be reduced by utilizing the equity value in the quarterly balance sheet statements of the company. It is important to emphasize that a high ROE not necessarily means a high return on investment for the investors. This is due to the difference between the book value and the market value of the

equity. Furthermore, the ROE is affected by the financial leverage of the company. If the company increases its debt the result can be increased earnings after taxes, while the stockholder's equity remains constant. Therefore, the higher the better is not necessarily the case when it comes to the ROE (Gaughan 1999).

$$ROA = \frac{Net\ Income}{Total\ assets}$$

The ROA measures how much after tax profit the company is able to generate from its total assets - how efficient the management of the company's assets is. One of the problems of this ratio is the fact that it is based on the book value of the assets. Therefore, a decision should not be solely based on the results of the ROA.

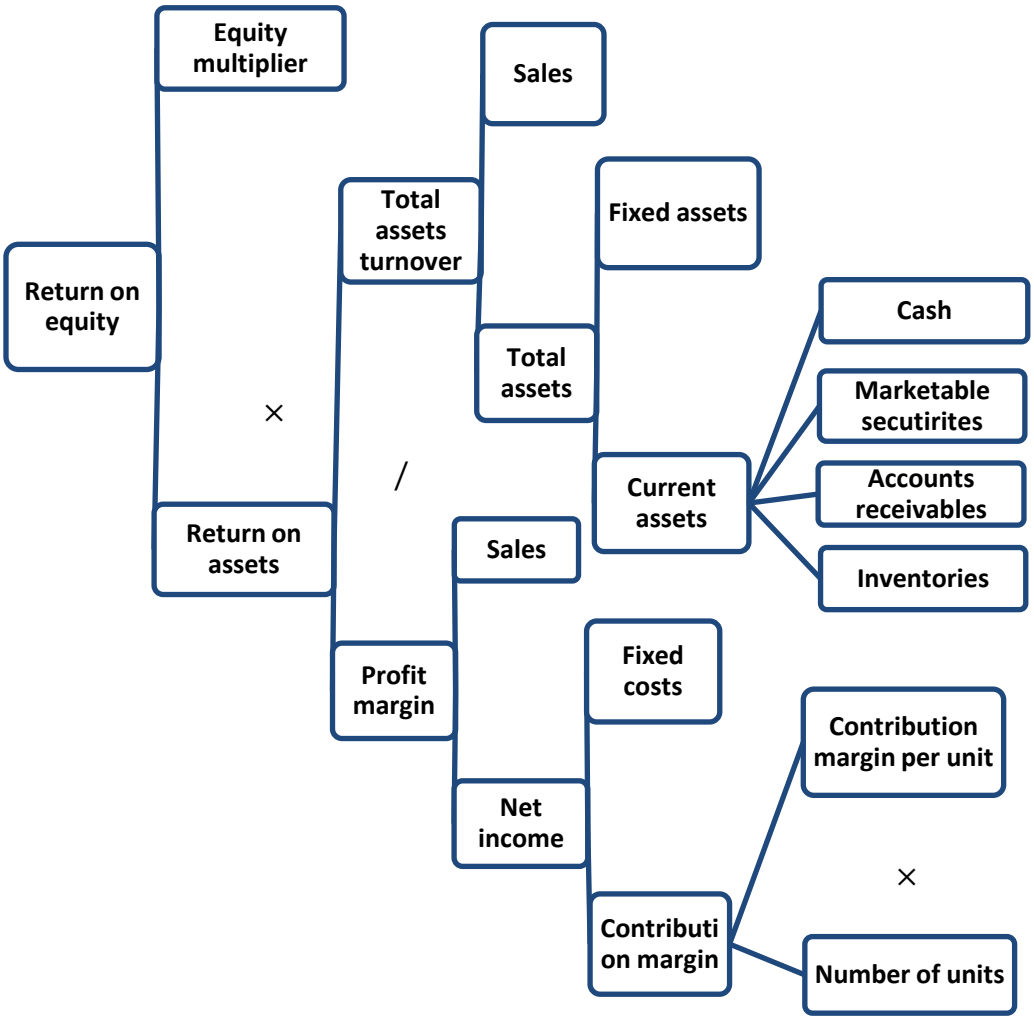


Figure 6: The DuPont chart (Campsey and Brigham 1991)

2.3.2. Financial statement analysis

The financial statements are an important source of information related to a valuation of a company (Gjesdal 2007). The main objective of business is to maximize the shareholder wealth or the firm value. This should be kept in mind when performing a financial statement analysis (Gallinger and Poe 1995, p. 743). The key of forecasting is to identify how the value drivers will affect the performance of the company (Copeland, Murrin et al. 1994). I will explain the forecasting process in more detail in section 2.3.2.2. Section 2.3.2.1 presents adjustments that should be done to the financial statements before identifying the value drivers that are the basis for forecasting the company's future position.

2.3.2.1. Adjusting the financial statements

Recent literature emphasizes the importance of specifying the financial statements before conducting a financial statement analysis in order to achieve a perspective of investors. To be able to accurately value a company in terms of profitability, the first step is to regroup the accounting figures. How detailed the adjustment process should be varies from situation to situation, and is dependent on the goal of the analyzer. In any case the process involves separating the operational assets from the financial assets, and normal earnings from the extraordinary earnings. One year's result might differ from normal results due to either accounting reasons, such as changes in accounting principles, or due to abnormal economic factors, such as lack of raw materials or production problems. Such results should be classified as abnormal or extraordinary. Results from discontinuing operations should also be defined as extraordinary earnings.

It is also important to make sure that there is consistency in the financial statements, because a financial analysis involves connecting income statement items with balance sheet items (Gjesdal 2007). The focus of the adjusted financial statements should be the key value drivers of the company. These key drivers create the free cash flows, and involve the growth rate of the company and the return on invested capital (ROIC). The first step in this process is to calculate the Net Operating Profit Less Adjusted Taxes (NOPLAT) (Copeland, Murrin et al. 1994).

Four central concepts are relevant in relation to the adjusted financial statements; Return on Capital Employed (ROCE), Return on Operational Capital (ROOC), Return on Total Assets (ROTA) and Economic profit.

$$ROCE = \frac{Operating\ profit + financial\ income}{Total\ Net\ Assets - non\ interest\ bearing\ debt}$$

Capital employed can be defined as equity plus interest-bearing debt or as total assets less non-interest bearing debt. ROCE is thereby found by dividing the operating profit and financial income with capital employed. ROCE measures the performance of equity – the total value creation of the assets, and has received much attention in recent years. The main problem with ROCE is to separate interest bearing debt from non interest bearing debt. Furthermore, ROCE is not explicitly included in a company's financial statements. To calculate this ratio, one must consult the notes of the financial statements.

$$ROOC = \frac{Operating\ profit + financial\ income}{Total\ Assets - fin.cap. - non\ interest\ bearing\ debt}$$

A definition of the operational capital is equity plus interest bearing debt less non-operational capital. Normally, the latter is equal to financial capital. Alternatively, operational capital can be defined as capital employed less financial capital or total net assets less financial capital and non-interest bearing debt (Gjesdal 2001). ROOC is essential in a company valuation, and it is important to distinguish this ratio from the return on other investments (Gjesdal 2007).

As shown in the equations, ROCE is equal to ROOC when financial capital is non-existent. The reason for extracting the financial capital from the capital employed is the different measurements and management of financial capital and operational capital. Performance of financial capital should be measured in terms of market values, while accounting figures should be the basis for measuring operational capital (Gjesdal and Johnsen 1999). Companies are usually valued by adding the market value of the financial capital to the discounted value of future earnings (Gjesdal 2007).

$$ROTA = \frac{Operating\ profit + financial\ income}{Average\ Total\ Net\ Assets}$$

ROTA measures the return on all invested capital of the company. Furthermore, ROTA indicates how well the management is using the assets to generate profit, before any obligations are met. By using the average total net assets in the denominator of the equation, any changes in the assets occurring during the year are taken into account. ROTA does not consider financial costs or tax, and thereby differs from the ROA that is included in the DuPont's system.

2.3.2.2. Forecasting financial statements

The forecasted financial statements are the essence of a fundamental valuation. Such statements should be built by forecasting individual income-statement and balance-sheet items related to the value drivers of the company. The value of the company is calculated by converting the information found in the predicted financial statements. The current financial statements are also of value, because they are the basis for the forecast (Penman 2010).

There are several approaches to the forecasting process. The most common is to develop a demand-driven forecast with sales as the origin. The purpose is to eliminate the size of the company to enable comparisons with other companies in the industry (Penman 2010). The majority of the variables can be derived from the sales (Copeland, Murrin et al. 1994). Each value driving item of the income statement is presented as a percentage of the sales and can be based on the previous income statement or on an average of several previous statements. The percentages can also be based on managerial knowledge. The assumption behind this method is that the percentage of each item is constant in relation to the sales. Therefore, the method is most appropriate for companies with stable relationships between sales and expenses (Gallinger and Poe 1995, p. 761). Decomposing the forecasted ROIC can be useful as a control of consistency of the value drivers.

An alternative or supplement to the demand-driven forecast can be to perform a correlation analysis. Such an analysis enables the analyst to find the relations between any variables instead of merely the sales. Another method for projecting the financial statements is the trend analysis, which involves relating the financial statement figures to a base year index for each

item. The purpose is to identify the development of the company over a chosen period of time (Penman 2010).

3.0 Methodical approach

The fourth part of the paper is an analytical investigation of Eltek, with the purpose of supporting a value estimate of the company. This section explains the approaches and methods taken to reach the goal. Section 3.1 will identify the most appropriate method for the valuation of Eltek. This model will be applied in section 4.5. However, first I will perform a strategic – and a financial analysis in section 4.1 and 4.2 respectively.

The analysis and findings of this paper will be based on publicly available information and data. The data used in the analyses will be collected directly from Eltek through different publications, or indirectly through secondary data. Because Eltek is a publically listed company it will not be possible for me to obtain any inside information that will affect the valuation of the company.

3.1. Chosen valuation method

The appropriate valuation method for a given company depends on the industry the company operates in, in which phase of the lifecycle the company currently is located and whether the company is a going concern (Damodaran 1996). In addition, the level of available information about the company can be a determining factor in the choice of a valuation method.

Eltek Energy has been operating since 1970, while Nera has been in operations even longer, since 1947. In other words, the companies of the Eltek Group today are well experienced and established, and are located in the maturity phase of the company lifecycle. Eltek as a merged entity of the different companies are relatively young. However, I will still classify Eltek as a mature company. The company has experienced decreasing profitability and earnings the last few years in relation to a declining market. It can be discussed whether Eltek is entering the declining phase of the lifecycle or if the decreased sales are merely due to the industry downturn and reduced demand related to the market uncertainty and invisibility. I expect the downturn to be only temporary for Eltek, and classify Eltek as a mature company.

In the auditor report attached to Eltek's annual report of 2008, PricewaterhouseCoopers stated that Eltek is a going concern in consistency with the financial statements and in compliance with laws and regulations. This assumption of going concern indicates that Eltek is planning to continue its operations in the foreseeable future. The Report of the Board of Directors of

2008 confirms this; the Directors state that the assumption of going concern was realistic at the date of the financial statement preparations.

Eltek is a listed company, and publishes its annual reports, including all financial statements and the corresponding notes, each year. The level of available information is therefore sufficient to perform a thorough valuation of Eltek.

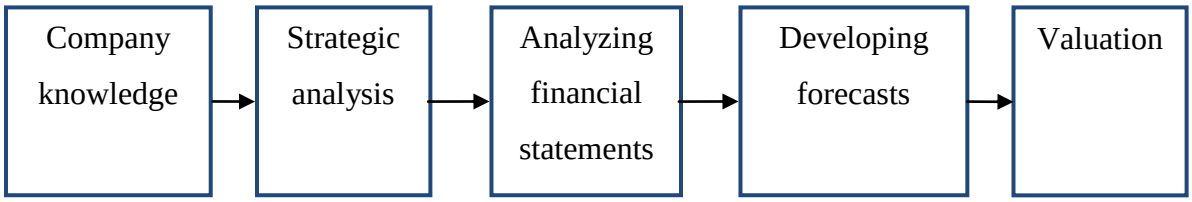


Figure 7: The process of a fundamental valuation (Penman 2010)

I will perform a fundamental valuation of Eltek, which will be based on the valuation framework developed by Penman (2010), presented in Figure 7. This framework divides the process of a valuation into five steps; Company knowledge, Strategic analysis, Analyzing financial statements, Developing forecasts and Valuation, which also constitutes the outline of this paper.

Based on my presentation of the valuation methods in the first part of this paper, I have chosen to apply a fundamental method to value Eltek. The reason for my choice is that the fundamental methods are based on detailed, careful forecasts of the future of the company. Furthermore, I have chosen to apply the Discounted Free Cash Flow (DFCF) method to compute a value estimate for Eltek. I will apply the method in section 4.5. However, first I will perform a strategic - and a financial analysis, as described in the theoretical investigation in Chapter 2. The purpose of these analyses is to support the final value estimate. The valuation process and computations will be based on the framework presented by Copeland, Murrin, et al. (1994).

For technological industries that are highly dependent on R&D, as is the case for Eltek, financial information is less likely to provide value relevant information than in other industries. The reason is that the companies in these industries often tend to make large investments which are expensed in the financial statements. This can lead to reduced or irrelevant earnings- and book value figures. However, a combination of financial information and nonfinancial information can result in more accurate value estimates. The study of

nonfinancial information should be based on the industry the company is operating in (Amir and Baruch 1996). This motivates my decision to perform both a strategic and a financial analysis, in addition to the valuation.

4.0 Analytical investigation of Eltek

4.1. Strategic analysis of Eltek

The three daughter companies of Eltek ASA, Eltek Valere, Nera Networks and Nera Telecommunications operate in different markets, targeting different customer groups. Therefore, it will be more constructive to describe the different industry forces for each of these companies separately. A large part of the operations of Nera Telecommunications consist of supplying the products of Nera Networks in the Asian market. Because of this, the strategy and outlook of Nera Telecommunications is linked to those of Nera Networks. The discussion of Nera Networks will also apply for Nera Telecommunications.

The strategy of Eltek involves becoming the market leader in terms of technology and customer satisfaction. The strategy is defined in six different areas which sums up the overall strategy; R&D, cost-efficiency, aggressive sales and marketing, strategic partnerships, global expansion and quality. In addition to this overriding strategy, each of Eltek's three business units has its own strategy. Eltek's core values are to be customer centric, technologically ambitious, competitive and culturally sensitive.

The vision of Eltek Valere is to become "The greatest power in the industry". Eltek Valere's strategies to face the decreased market demand are cost control, operational excellence and cash conservation. In addition, the company continues to focus on the historical strategies, which has been strong focus on R&D, continuous quest for cost-efficiency, aggressive sales, strategic partnerships with Original Equipment Manufacturers (OEMs), geographic expansion and sharp quality focus. In 2009, Eltek Valere was ranked number 980 on EU's industrial R&D scoreboard of the top 1000 companies outside the EU, which included the companies that invested the most in research and development. This high level of investment in R&D has enabled Eltek Valere to develop High Efficiency power solutions that reduce waste by 50% or more, in addition to Hybrid solutions. These products and solutions represent great advantages for Eltek Valere, linked to the world trend and focus on the environment.

Nera Networks has experienced declining demand and consequential liquidity problems in the recent years. Because of this, the initial plan of the management is limited to the foreseeable future. Nera Networks' focus will be on the Evolution Series products, and the company expects that these products will improve the competitive position of the company as the transmission market expands. Therefore, the main strategy will be to further develop and

strengthen the Evolution Series products. In addition, actions will be taken to improve the liquidity and cash flow of the company.

The sales of Eltek are mainly generated by business-to-business activity. Eltek is established in the overall telecommunications (telecom) equipment industry, which supplies products and services to the telecommunication operators. The telecom equipment market can be divided into two segments; the wireless – and the wireline communication segments. The wireline segment consists of more traditional telecom networks and can be regarded as a mature market. This segment is established in most markets all over the world. The opportunities lie in the wireless market. This market segment can be further divided into the terminal part of the market and the infrastructure market. Eltek is established as a supplier in the latter market.

4.1.1. Porter's five forces analysis of Eltek

Rivalry among existing competitors

The global telecom equipment market is characterized by fierce competition. There are a number of direct competitors that supply the global market. In addition, regional competitors can pose an additional competitive force. Both Eltek Valere and Nera Networks face particularly large competitors in the markets, such as Ericsson, Emerson and Nokia Siemens. These companies have much larger capital reserves and can therefore invest more in R&D and easily expand. The large size of these companies poses a particularly large threat for Eltek, because there are great potentials of gaining economies of scales in the industries. In addition, size has proven to be important in the global competition of winning supply contracts with the larger telecommunication operators.

On the other side, the largest competitors are established in many different industries simultaneously and focus on many different areas. This could present advantages for Eltek Valere and Nera Networks, as they are specialized in more narrow markets. Eltek Valere's position behind the market leader proves the competitiveness of the company. In addition, Eltek Valere is the market leader in one of the market segments; the High Efficiency (HE) market. The company has won a number of prices for being "green", and benefits from this as there are great potentials in the markets for environmental solutions. For Nera Networks the situation is different; the strong competition in the market has created large problems in terms of developments and profitability. In particular, Chinese competitors that have entered the

market in recent years pose a large threat for Nera Networks. These new establishers have largely increased the competition and created price pressures in the market (Bjerkholt 2010).

Threat of new entrants

Economies of scale

There are great opportunities of achieving economies of scale in the telecom equipment Industry. The operations are highly dependent on technology, both in terms of production and in terms of the products and services. Therefore, a larger company may achieve economies of scale and benefit from lower production costs per unit through larger production volumes or more efficient production technology. Ever since the foundation of Eltek, the strategy of the company has partially been to grow by expansion through mergers and acquisitions. One of the main justifications behind the merger and acquisition with Nera Networks and Valere Power was the potential of gaining economies of scale.

The high level of economies of scale in the industry can reduce the potential threat of new entrants. Companies that consider entering the market might be scared off by large existing competitors that are currently benefiting from economies of scale. If they do choose to enter, it will be difficult to compete against these companies.

Demand-side benefits of scale

The profitability in the industry is largely driven by the ability to win contracts and thereby achieve large numbers of order entries. Historically, the largest competitors have been known to have possessed advantages due to their sizes in negotiations of contracts. The telecom operators tend to choose the largest suppliers of equipment, especially when it comes to high value contracts. The risk for the smaller companies, such as Eltek, is that the telecom operators automatically select the largest companies without making any comparisons of the offerings.

Customer switching costs

The products in the telecom equipment industry are mostly complex technological products or solutions that require installation, training and support. The sales are mostly based on contracts, which entails that the costs of switching suppliers can be very costly for the customers. This can represent an advantage for the already established competitors in the

industry, but can also imply that it can be difficult to expand the market shares in the competitive markets.

Capital requirements

The telecom equipment market is characterized by rapid technological developments. To be able to achieve success in the market, the competitors are dependent on developing new products and telecom solutions. Technology is one of the key success factors. Therefore, the capital investments in R&D are large. For a new entrant, the initial capital investment requirements would be especially high. In other words, the capital requirements in the market might represent a barrier for new competitors to enter the market.

Access to distribution channels

The products of Eltek are to a high degree distributed by Original Equipment Manufacturers (OEMs). Despite what the name may indicate, these OEMs sell the products of the Telecom Equipment manufacturers under their own brandings. Eltek has among others contracts with specialized OEMs in China and Brazil. There are many OEMs in all regions of the world, which entails that it is relatively easy to gain access to distribution channels for new entrants in the market.

Threat of substitutes

The products of Eltek are applied to build the infrastructure and components driving the telecom industry. However, the essential value of the products is added by the telecom operators. In some industries it can be relatively easy for suppliers or buyers to produce substitute products and enter the industry through downwards – or upwards integration. The fact that several of the buyers of Eltek, such as Nokia Siemens Network, Ericsson and Alcatel-Lucent, are also competitors of the company, indicate the great risk of buyer integration into the industry. The telecom operators are particularly large companies, and possess the required capital to perform an upwards integration into their supplier industry. Such integration is partly the reason for the increased competition in the industry.

The other buyers of Eltek include governments and militaries, which are highly unlikely to integrate into the industry.

The telecom equipment industry is, as mentioned, driven by technological developments and R&D. An additional threat for Eltek in terms of substitutes is the risk that the competitors will

develop new technology and products and thereby capture Eltek's market shares. Staying up to date in terms of technology and advancements is essential for continuous operations.

Bargaining power of buyers

Eltek is mainly operating in the business-to-business market, and the customers consist of telecom operators, governments and militaries. A relatively large percentage of Eltek's sales are generated from contracts with OEMs. Through these contracts the OEMs distribute Eltek's products under their own brand and name. These companies include several of the larger telecom operators, such as Nokia Siemens Networks, Ericsson and Lucent-Alcatel.

Corresponding to the large number of competitors in the industry, the competition of winning contracts and building long-term relationships with the buyers are fierce. The number of buyers is lower than the number of competitors, which may shift the bargaining power towards the buyers.

On the other hand, the products in the industry are not standardized, and product solutions might be customized after the needs of the customers. The sales are regulated through contracts. In addition, the switching costs of the buyers are relatively high. The result might be more loyal buyers and longer customer relationships.

There have been several consolidations among Eltek's buyers in recent years. For instance, Nokia and Siemens have merged resulting in Nokia Siemens Networks and Ericsson has consolidated with Axxessit and Marconi. The fact that the buyer companies are consolidating represents a threat for Eltek. Larger, more powerful buyers could result in much larger pressures. In addition, these consolidated companies are also competitors of Eltek in some of the market segments. The telecom equipment suppliers have traditionally been dependent on the telecom operators, as they constituted the entire market and the market demand. Recently, Eltek has recognized possibilities in other industries and markets. For instance, Eltek Valere is about to enter the electric car industry after identifying great potentials for the developed battery technology.

Bargaining power of suppliers

The suppliers of Eltek are mainly producers of smaller components that in combination with other parts and software make up the final products of Eltek. There are numerous suppliers in different regions all over the world. The products are standardized, and the real product value

is added by the telecom equipment manufacturers (Eltek) and the OEMs that distribute the products, as well as the telecom operators themselves. The purchases are on an order basis, and there are no long-term contracts involved.

All these factors combined conclude that Eltek possesses the bargaining power in the relationships with the suppliers.

4.1.1.1. Summary and conclusion of Porter's five forces analysis of Eltek

The industries of both Eltek Valere and Nera Networks are highly competitive. Eltek Valere is performing relatively well compared to the competitors. One of the largest challenges for Eltek is to increase the competitiveness of Nera Networks. I regard the rivalry among existing competitors as the strongest force affecting Eltek's industry. The combination of large potentials for economies of scale, a positive relation between larger size and the ability to win contracts, high switching costs for buyers and large capital requirements implies that it will be both costly and difficult for potential new establishers to enter the market. Based on this, I regard the threat of new entrants as relatively low.

In addition, the risk that buyers will enter the industry through upward integration is high. Several of the larger telecom operators have already entered the industry through upward integrations. The risk of competitors developing new products that will become substitutes to Eltek's products is also high. This emphasizes the importance of R&D in the industry.

Traditionally, the telecom equipment manufacturers have been dependent on the investments of the Telecom operators, and the bargaining power of these operators has been relatively high. Increased size of these companies might entail larger bargaining power, which can be regarded as a threat for the Eltek. On the other side, possibilities in other markets and industries can decrease Eltek's dependence on the telecom operators. All in all, I regard the bargaining power of buyers in the industry as very strong. The bargaining power of the suppliers can be evaluated as relatively low. The suppliers do not have the opportunity to put pressure on the telecom equipment manufacturers and is unable to dictate prices or change the quality of the prices without losing the customers to a competitor.

The telecom industry is characterized by rapid changes and demand for technological advancements and developments. Several parts of the industry and markets can be regarded as

mature and satisfied, but due to the continuous advancements there are still some potential for growth in the industry. However, the intense industry competition leads me to conclude that the telecom equipment industry is unattractive. Both Eltek Valere and Nera Networks are niche players, located in narrow markets. Such strategies might be essential for survival in the industry. Furthermore, the difficulties in the industry emphasize the importance of opportunities of expansions into more attractive markets, such as the electrical car industry.

4.1.2. SWOT analysis of Eltek

Strengths • Specialized in narrow markets • Versatility through the three business segments – strong product mix • Global presence • "Green" product solutions of Eltek Valere	**Weaknesses** • Cash flow and working capital management problems – may lead to disadvantages in terms of R&D • Lack of cash and liquidity • Increased competition due to Chinese competitors • Unchanged strategy despite a mature and declining market
Opportunities • Eltek Valere: Batteries electric cars • Wireless expansion in Asia, especially the Chinese market • Growing replacement market – Eltek Valere	**Threats** • Large, powerful competitors in the industry • Consolidation of both competitors and buyers • Rapid technological developments in the industry

Table 2: SWOT analysis of Eltek

4.1.3. Generic strategies

Both Eltek Valere and Nera Networks (including Nera Telecommunications) are established in narrow market segments in the industry. In recent years, the Board of Directors of Eltek has claimed that the main focus of the company management will be on costs. However, Eltek can still be regarded as a niche player with a differentiation strategy. The market segments served are relatively narrow compared to the entire industry, which leads me to conclude that Eltek follows a *differentiation focus* strategy. Such a strategy requires a large industry including smaller market segments with different preferences, which is the case for the telecom equipment industry.

The largest risk for Eltek is that competitors might follow and enter the more narrow markets. Both existing and new established competitors have entered the markets of Eltek in recent years. The increased competition might partially be the reason for the declining profits. This implies that the current strategy of Eltek might not enable to company to achieve competitive advantages in the foreseeable future.

4.2. Financial analysis of Eltek

A financial analysis of each of these daughter companies of Eltek could provide a more detailed and accurate picture of the financial health of the merged company. However, Eltek only reports limited financial figures for each of these business segments, restraining the possibilities for a complete financial analysis of each business segment. I will conduct a complete analysis of the consolidated financial statements. In order to locate the underlying drivers of the financials, I will investigate the available financial figures for both Nera Networks and Eltek Valere compared to the two main competitors. In section 4.2.6 the reported income statements and balance sheets of 2005-2009 will be adjusted to reflect an investor perspective. The adjusted financial statements will be the basis for a profitability analysis.

The basis of the financial analysis will be Eltek's annual reports of 2005-2009. I will in addition analyze the first quarterly report of 2010 in order to update the picture of Eltek's financial situation as much as possible. Furthermore, I will consult the notes of the annual reports to be able to specify the figures in the financial statements.

During the analyzed years the merger between Eltek and Nera Networks and the acquisition of Valere Power took place, which I expect to have affected the financial development of the company. This also implies that the figures before the mergers might not be representative for Eltek's situation today and that the company is not yet necessarily stable as a merged unit. Due to these mergers, a longer time period including years before 2005 would not add value to the analysis. Furthermore, the accuracy of comparing the results of different years, as well as identifying company trends based on the results, is reduced. However, I believe that the analysis of the financial figures is accurate and sufficient enough to support the final value estimate.

In 2005, Eltek changed accounting policy, and made the transition from Norwegian General Accepted Accounting Principles (NGAAP) to the International Financial Reporting Standards (IFRS). The transition will not affect my analysis.

4.2.1. Benchmark and comparable companies

Financial figures and ratios are of small value without comparisons to figures of competitors or industry benchmarks. As identified in the strategic analysis, the competitors of Eltek Valere are different from the competitors of Nera Networks. There are no direct competitors that Eltek ASA can be compared to. Section 4.2.5 consists of financial analyses of Nera Networks and Eltek Valere. The 2009 financial figures of Nera Networks will be compared to Aviat Networks and the figures of Eltek Valere will be compared to Emerson.

As mentioned in the strategic analysis, the market position of Eltek Valere is number two after Emerson. Together these two companies possess almost 30% of the entire market, while the rest of the competitors have market shares of approximately 2-4%. Emerson is a much larger company than Eltek Valere in terms of revenues, with annual sales of USD 11 783.0 million in 2009. Emerson divides its business into five business segments; process management, industrial automation, network power, climate technologies and appliance & tools. Emerson Network Power can be regarded as a comparable direct competitor of Eltek Valere.

4.2.2. Financial ratio analysis

	2009	2008	2007	2006	2005
Current assets	3379,3	4493,4	3 588,2	3 310,6	1 439,6
Most liquid current assets	2787,0	3510,4	2 741,5	2 544,4	1 071,0
Current liabilities	2418,9	3084,5	2 258,1	1 552,3	591,6
Current ratio	**1,397**	**1,457**	**1,589**	**2,133**	**2,433**
Quick ratio	**1,152**	**1,138**	**1,214**	**1,639**	**1,810**
Working capital	**960,4**	**1 408,9**	**1 330,1**	**1 758,3**	**848,0**

Table 3: Liquidity ratios

The most liquid current assets include trade and other receivables and cash and cash equivalents. Short-term deposits with financial institutions are included in this item. Eltek states that no cash is restricted, and I will assume that the deposits can be converted into cash in a short amount of time. The inventories, including raw materials, work in progress and

finished goods, are relatively less liquid, and is therefore excluded from the quick ratio. Derivative financial instruments are excluded for the same reason.

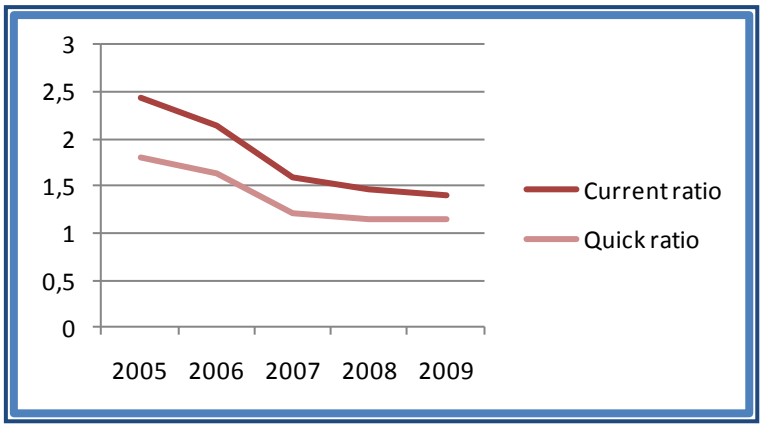


Figure 8: Development of current ratio and quick ratio

The current ratio for Eltek has been above 1.0 for the last five years, which satisfies the thumb rule. However, the continuing negative trend of the ratio is more important, as it indicates potential cash flow problems. The current ratio has been superior to the quick ratio the last five years. This implies that the inventories and other least liquid assets are the most important assets for Eltek. The ratio shows that the cash, cash equivalents and receivables of Eltek more than covers the current liabilities. Similar to the current ratio, the historical quick ratios show a negative trend between 2005 and 2008. In 2009, the quick ratio represented a slight improvement, which reflects the management's efforts to turn the negative trend around.

A 23.6% increase in sales between 2007 and 2008 entailed large increased working capital requirements. The working capital was increased by NOK 78.8 million to NOK 1408.9 million in 2008. The working capital requirements were one of the main problems of 2008, because inefficient working capital levels led to cash flow and liquidity problems for Eltek. The current liabilities accounted for 71.4% of the total liabilities. This emphasizes the need for large working capital reserves, which represents the available funds to service the current liabilities. The working capital decreased by NOK 448.5 million, to NOK 960.4 million, in 2009.

	2009	2008	2007	2006	2005
Total assets	4659,9	6171,2	5628,8	4785,9	1768,7
Working capital in % of total assets	**20,6 %**	**22,8 %**	**23,6 %**	**36,7 %**	**47,9 %**

Table 4: Working capital in % of total sales

The total assets increased significantly between 2005 and 2006, mainly due to the merger between Eltek and Nera. The merger between Eltek and Valere Power had a similar effect in 2007.

	2009	2008	2007	2006	2005
Times interest earned	0,007	-7,05	1,61	6,34	18,25

Table 5: Times interest earned

There was a negative trend in the times interest earned between 2005 and 2008. This trend indicated that the company was experiencing difficulties in paying the liabilities when they fell due. If the times interest earned ratio is below 1.0, the company is not generating enough cash to meet its obligations; the interests are higher than the available funds – the EBIT. A company will not be able to continue its operations indefinitely if the times interest earned ratio continues to be below 1. In 2008, the EBIT for Eltek was negative, and the ratio was therefore also negative. The improvement between 2008 and 2009 might be an indication that the company will be able to turn the trend around. However, the level of the times interest earned ratio of 2009 is not satisfying.

	2009	2008	2007	2006	2005
Total equity	1329,7	1850,8	2394,3	2406,6	916,0
Total assets	4659,9	6171,2	5628,8	4785,9	1768,7
Equity ratio	**28,5 %**	**30,0 %**	**42,5 %**	**50,3 %**	**51,8 %**
Debt ratio	**71,5 %**	**70,0 %**	**57,5 %**	**49,8 %**	**48,2 %**

Table 6: Equity ratio and debt ratio

Since 2006 there has been a continuous decrease in equity. The decrease of NOK 543.5 million in 2008 was due to a loss of NOK 824.1 million, including impairment of goodwill and changes in minority interests. The decrease was partially offset by a positive effect of an increase in share capital. The equity decrease of NOK 521.1 million in 2009 was the result of an asset impairment of NOK 190 million. A thumb rule states that the equity ratio should be

above 30%. Eltek has satisfied this rule between 2005 and 2008. In 2009, both the total assets and the equity were reduced, resulting in a slightly lower equity ratio.

Corresponding to the decreased equity ratio, the debt ratio has increased since 2005. This trend can reflect the company's increased need for funding, as well as the management's desire not to issue more share capital. In addition to increased liabilities in 2008, Eltek issued share capital for NOK 250 million. Despite the increased debt ratio in 2009, the total liabilities decreased by NOK 990.2 million. Share capital of NOK 30 million was issued in 2009. The high debt ratio in 2009 indicates that Eltek might experience difficulties in the near future if the economic downturn and declined sales continues.

The results of the three ratios above; the times interest earned ratio, the equity ratio and the debt ratio combined represent the financial strength of the company. Weak results of these ratios may be due to rapid expansion without accompanied profitability, which may be the main problem for Eltek.

	2009	2008	2007	2006	2005
Average collection period	78,8	116,3	110,9	153,9	92,9
Days accounts payable	58,71	78,05	90,91	107,40	83,70
Inventory turnover	5,64	5,07	4,62	4,14	4,45
Days to turnover inventory	63,9	71,0	77,9	87,0	80,9
Operating cycle	43,83	32,83	57,95	40,50	71,68

Table 7: Operating cycle

The average collection period was reduced by 43 days between 2006 and 2007. This positive development might be explained by the merger between Eltek and Nera Networks, as the average collection period of Nera Networks was lower than for Eltek. Between 2007 and 2008, the ratio increased again. Combined with a decreased average accounts payable period, this represented an unfortunate development for Eltek related to the cash problems the company was facing in 2008. The decrease of 37 days in 2009 indicates improvements in the cash management of Eltek. The improvement was partially due to changes in the terms of payments for the customers.

	2009	2008	2007	2006	2005
Gross profit margin	**23,2 %**	**22,9 %**	**23,5 %**	**24,8 %**	**28,5 %**
Net profit margin	**-3,4 %**	**-13,8 %**	**-1,46 %**	**3,42 %**	**8,24 %**

Table 8: Gross profit margin and net profit margin

The decrease in gross profit margin in 2008 was due to inventory adjustments and a warranty provision. Adjusted for these effects, the gross profit margin was 24.2% in 2008. The figures for 2009 show a gross margin of 23.2% which indicates a slight improvement from the reported gross profit margin of 2008.

The negative trend in the net profit margin until 2009 clearly indicates financial problems for Eltek. Most of the liquidity financial ratios points to cash problems for the company in 2008. The cash problems was recognized by the management of Eltek, and the financial goal of 2009 was to increase the cash generation, reduce days of sales outstanding, increase inventory turnover and improve the working capital management. The increase in net profit margin in 2009 is the result of these changes.

4.2.3. DuPont's analysis

	2009	2008	2007	2006	2005
Opening equity	1850,8	2394,3	2404,6	916	672,6
Closing equity	1329,7	1850,8	2394,3	2404,6	916
Average equity	**1590,3**	**2122,55**	**2399,45**	**1660,3**	**794,3**
Net income	-196,4	-824,1	-70,5	106,6	171,9
Return on equity	**-12,4 %**	**-38,8 %**	**-2,9 %**	**6,4 %**	**21,6 %**

Table 9: Return on Equity

The ROE can be compared to the required rate of return to investors, represented by the WACC. The ROE should be larger than the required return in order to satisfy the investors. As mentioned, the difference between the book value and the market value of the equity decreases the reliability of ROE. However, it still provides a rough indication of the performance of the company measured by the return to the investors. The ROE for the last three years clearly indicate the unsatisfying performance of Eltek. The WACC has been higher than the ROE since 2006. As displayed in Table 9, ROE has varied significantly in

recent years, mostly due to the net losses of the company. The reported financial statements are largely affected by extraordinary items, such as impairment of goodwill and restructuring costs related to the mergers and acquisitions. Financial literature argues that ROIC and ROCE are better measures of return than ROE. I will calculate these ratios based on the adjusted financial statements in section 4.2.7.

	2009	2008	2007	2006	2005
Return on assets (ROA)	-4,21 %	-13,35 %	-1,25 %	2,23 %	9,71 %
Equity multiplier	2,93	2,91	2,35	2,88	2,23
Total asset turnover	1,24	0,97	0,86	0,65	1,18

Table 10: Decomposition of Return on Equity

Based on the DuPont System, the ROE is made up by the ROA and the Equity multiplier. Thus, the ROA and the Equity multiplier can be useful to identify the reasons behind Eltek's poor performance and negative ROE trend the lasts five years. The problem for Eltek lies in the ROA, which has been negative the last three years. ROA is made up by net income and total assets. The net losses of 2007-2009 explain the corresponding negative ROEs in the period. The volatility of both ROA and ROE can also be explained by the volatility of the net losses. The total asset turnover has increased continuously since 2007, indicating that Eltek has increased the efficiency of the assets given their capacity.

4.2.4. Cash flow analysis

The most important financial figure of the cash flow statement is the operating cash flow, because it measures the cash generated from the business operations – the sales. The operating cash flow of Eltek has been unstable the last three years. Between 2006 and 2007, there was an increase in the operating cash flow of NOK 346.6 million, while between 2007 and 2008 there was a decrease of NOK 205.6 million. A negative trend in the operating cash flow indicates that the company is not generating enough cash. This was the case for Eltek in 2008, which has also been shown by the lacking liquidity of the company the same year. The operating cash flow of 2008 was negative of NOK 109.1 million, while it was positive of NOK 838.6 million in 2009, representing an improvement of NOK 945.2 million.

The investing cash flow represents the cash spent on capital expenditures during the year, as well as any acquisition investment. Eltek's net investing cash flow has also been unstable the last three years. This cash flow decreased by NOK 1680.8 million in 2007. In 2008 there was a further decrease of NOK 549.1 million while an improvement of NOK 99.3 million occurred in 2009. Without investments there will be no possibilities for future operations for any company.

Free cash flow calculation

	2009	2008	2007	2006
Operating cash flow	838,7	-109,10	96,50	-250,10
Investing cash flow	253,3	352,60	901,70	-779,10
Free cash flow	**585,4**	**-461,70**	**-805,20**	**529,00**

Table 11: Free cash flow

For a company with debt, the free cash flows can be calculated by subtracting the investing cash flow from the operating cash flow. This free cash flow is received by the equity holders of the company. The free cash flows represent the company's available cash to compensate the investors, beyond the cash that is needed to maintain the current growth. It is important to emphasize the fact that a negative free cash flow is not necessarily a bad sign; it could also indicate that the company is investing heavily. The negative free cash flows between 2006 and 2008 could represent Eltek's mergers with Nera Networks and Valere Power. There has been a continuous positive development in the free cash flow since 2007. In 2009, the ending free cash flow was NOK 585.4 million. This shows an improvement of NOK 1047.1 million since 2008. After the cash problems in 2007 and 2008, the most important financial objective of Eltek's management was to improve the cash position in 2009. This objective was reached based on the fact that all three of the business segments reported positive operating cash flows for the year. The cash flow improvement was achieved by improving the supply chain management, collection of cash and the payment terms for the customers.

4.2.5. Financial analysis of the business segments

The available financial information of Nera Networks and Eltek Valere is limited to the business segment information presented in the notes of the consolidated financial statements

of Eltek. Therefore, it is not possible to perform a complete financial ratio analysis of the business segments. The analyses will be based on historical figures between 2006 and 2009 and updated figures represented by the first quarterly financial statements of 2010.

4.2.5.1. Financial analysis of Nera Networks

I will compare the performance of Nera Networks to one of the main competitors; Aviat Networks.

	2009	2008	2007	2006	Aviat 2009		Q1 2010	Q1 2009
Revenue	1773,8	1656,8	1118,2	368,1	4348,5		342,9	456,4
Cost of sales	1437,7	1309,9	905,4	295,4	3233,1		281,7	362,4
Gross profit	**336,1**	**346,9**	**212,8**	**72,7**	**1115,4**		**61,2**	**94**
Operating costs	525,3	375,2	330,3	133,2	-3259,9		-79,9	81,5
Operating profit	**-189,2**	**-28,3**	**-117,5**	**-60,5**	**-2144,5**		**-18,7**	**12,5**
Depreciation	25,3	18,7	15,7	4,6	155,4		15,3	13,2
Amortization	63,9	43,7	31,1	7,1	83,8		-	-
Impairment	190,0	0,0	209,6	0,0	2013,4		0	0
EBITDA	**90,0**	**34,1**	**138,9**	**-48,8**	**108,1**		**-3,4**	**25,7**
Total assets	1221,4	2012,7	1700,6	1845,6	3838,8		1084,2	1687,1
Total liabilities	1396,7	1830,6	1382,4	917,5	1357,8		1358,8	1536,8
Total equity	-175,3	182,1	318,2	928,1	2481,0		-274,6	150,3
Gross profit margin	**18,9 %**	**20,9 %**	**19,0 %**	**19,8 %**	**25,7 %**		**17,8 %**	**20,6 %**
Operating margin	**-10,7 %**	**-1,7 %**	**-10,5 %**	**-16,4 %**	**-49,3 %**		**-5,5 %**	**2,7 %**
Equity ratio	**-14,4 %**	**9,0 %**	**18,7 %**	**50,3 %**	**64,6 %**		**-25,3 %**	**8,9 %**
Liabilities ratio	**114,4 %**	**91,0 %**	**81,3 %**	**49,7 %**	**35,4 %**		**125,3 %**	**91,1 %**
Total asset turnover	**1,5**	**0,8**	**0,7**	**0,2**	**1,1**		**0,32**	**0,27**

Table 12: Financial analysis of Nera Networks

The gross profit margin of Nera Networks has been relatively stable the last four years. Aviat Networks' gross profit margin for 2009 is 6.8 percentage points above Nera Networks', which signals that Aviat Networks is generating more profit based on its production. The operating profit of both companies was negative in 2009. Based on the operating margin, Nera Networks performed significantly better than Aviat in 2009. The operating loss of Aviat accounted for 49.3% of the total revenues of the company. However, this poor result was

mostly due to an impairment of NOK 2013.4 million, which is likely to be a one-time event. Therefore, the low operating profit of Aviat in 2009 might not be representative for the previous or future results of the company. A negative operating margin is not sustainable over time. Excluding the goodwill impairment of 2009 for Nera Networks, the operating profit would be NOK 0.8 million.

The sales are net figures, excluding the inter-segment revenues. The total segment revenue was NOK 1871.8 million in 2009 and NOK 1797.4 million in 2008. Based on these figures the growth between 2008 and 2009 was 4.14%. However, adjusted for currency effects, there was a decline in the total segment revenues of Nera Networks of 2%. The increase in revenues of 2009, due to currency effects, was offset by an increase in the operating costs of NOK 150.1 million and a decrease in gross profit of NOK 10.8 million, resulting in a decrease in the operating profit of NOK 160.9 million. The full year order entry declined by 3% in 2009, to NOK 1822.0 million, signaling the downturn of capital spending in the market.

In 2009 the total liabilities of Nera Networks was larger than the total assets, which means that the company was balance sheet insolvent. This is also reflected through the negative equity ratio, and a debt ratio above 100%. The development in the first quarter of 2010 shows that the ratio has decreased and the degree of insolvency is even larger. An insolvent company cannot continue its operations over long time periods. This strongly reflects the need for changes for Nera Networks.

The sales have decreased in the first quarter of 2010, mainly due to decreased investments in the telecom industry as a reaction to the economic downturn. With this low sales level Nera Networks is unable to achieve profits and the EBITDA shows a loss of NOK 3.4 million. This loss clearly reflects the setback for the company compared to the positive EBITDA of NOK 25.7 million the first quarter of 2010.

4.2.5.2. Financial analysis of Eltek Valere

Emerson reports particularly limited figures for the business segments in the annual reports. Therefore, the consolidated figures of Emerson for the fiscal year ended 30th September 2009 are also included in Table 13 below. The reported financial figures of Emerson have been converted into NOK, based on the exchange rate of 30th September 2009.

	2009	2008	2007	2006 ENERGY	Emerson Network Power 2009	Emerson 2009		Q1 2010	Q1 2009
Revenue	3214,2	3644,4	3054,1	2585,3	31187,2	128793,6		648,2	759,3
Cost of sales	2378,4	2778,1	2283,9	1924,3		81858,5		479,8	568,1
Gross profit	**835,8**	**866,3**	**770,2**	**661,0**		**46935,1**		**168,4**	**191,2**
Operating costs	632,6	1437,0	610,3	386,7		28935,1		151,0	159,0
Operating profit	**203,2**	**-570,7**	**159,9**	**274,3**	**3299,7**	**18000,0**		**17,4**	**32,2**
Depreciation	42,0	39,2	35,9	17,9	902,0	4230,9		33,0	34,0
Amortization	104,3	81,7	70,9	34,1	0,0	-		-	-
Impairment	0,0	735,5	0,0	0,0		0,0		0,0	0,0
EBITDA	**349,5**	**285,7**	**266,7**	**326,3**	**4201,7**	**22230,9**		**50,4**	**66,2**
Total assets	2334,5	2012,7	3234,2	2024,7	4915,0	122444,4		2264,0	2723,4
Total liabilities	1422,0	1830,6	1676,8	746,2		69410,4		1318,8	1863,8
Total equity	912,5	182,1	1557,4	1278,5		53034,0		945,2	859,6
Gross profit margin	**26,00 %**	**23,77 %**	**25,22 %**	**25,57 %**		**36,44 %**		**26,0 %**	**25,2 %**
Operating profit margin	**6,32 %**	**-15,66 %**	**5,24 %**	**10,61 %**	**10,58 %**	**13,98 %**		**2,7 %**	**4,2 %**
Equity ratio	**39,09 %**	**9,05 %**	**48,15 %**	**63,15 %**		**43,31 %**		**41,7 %**	**31,6 %**
Liabilities ratio	**60,91 %**	**90,95 %**	**51,85 %**	**36,85 %**		**56,69 %**		**58,3 %**	**68,4 %**
Total asset turnover	**1,38**	**1,81**	**0,94**	**1,28**		**1,05**		**0,29**	**0,28**

Table 13: Financial analysis of Eltek Valere

Between 2008 and 2009 the sales of Eltek Valere declined by 11.8% to NOK 3214.2 million. Adjusted for currency effects this decline totaled to 16%. The drop in sales indicates a declining market, which is also reflected through declines of the sales of competitors. The market has been affected strongly by the 2008 global financial crisis. Based on the first quarterly report of 2010, the difficulties in the market seem to continue. Eltek Valere reported a revenue decline of 14.6% for the first four months of 2010. On a currency adjusted basis the decline was lower, of 6%.

The gross profit margin of Eltek Valere has been relatively stable the last 4 years, with an improvement of 2.23 percentage points in 2009. This higher level of gross profit has been maintained in the first quarter of 2010. The impairment of NOK 735.5 million in 2007 was the main reason of the negative operating profit margin in that year. This impairment was due to changes made after Eltek's acquisition of the company. In 2009, the company manages to achieve a positive operating profit despite the revenue decline, mainly due to decreased operating costs. A continued decline in the market represents great risk for Eltek Valere, as the company will not be able to further decrease the operating costs on an indefinite basis.

Both the operating profit margin and the gross profit margin of Emerson are higher than Eltek Valere's. The operating profit margin of Emerson Network Power, which is directly comparable to Eltek Valere, is also higher. Based on these ratios Emerson is outperforming Eltek Valere. The total asset turnover of Eltek Valere is higher than the comparable turnover of Emerson. This indicates that Eltek Valere is utilizing the fixed asset more effectively than Emerson. It is important to take into account the differences in both size and industries in the comparison of Eltek Valere and Emerson. With this in mind, Eltek Valere is performing relatively well compared to its largest competitor.

4.2.6. Adjusted financial statements

The reported financial statements might not present the financial figures suitably for the purpose of a valuation. Investors tend to regard the financial figures from a different perspective than the management. In the following section I will adjust the reported financial statements of Eltek in the period between 2005 and 2009. The risk of the adjustment process is that the changes could create a less accurate picture of the financial health of Eltek than the reported financial statements. Therefore, only the most necessary adjustments will be included.

Adjusted income statement

The income statement should be reorganized in order to identify the NOPLAT. The use of NOPLAT for valuation purposes can be justified by the fact that the accounting treatment of the company should not affect the treatment for the financial analysis.

	2009	2008	2007	2006	2005
Sales	5777,9	5958,4	4820,8	3121,1	2085,7
Cost of goods sold	4403,3	4565,2	3666,5	2338,6	1487,4
Selling and marketing costs	498,4	509,0	460,3	241,5	153,1
Administrative costs	360,9	328,0	284,5	170,5	137,1
R&D and engineering costs	240,6	125,1	97,6	84,7	51,7
EBITDA	**274,7**	**431,1**	**311,9**	**285,8**	**256,4**
Depreciation	79,7	68,9	60,2	24,5	15,3
Operating lease cost	82,4	88,2	74,9	49,4	32
Adjusted EBITA	**112,6**	**274**	**176,8**	**211,9**	**209,1**
Operating cash taxes	-116,789	-136,727	-90,678	-484,140	-48,332
NOPLAT	**-4,189**	**137,273**	**86,122**	**-272,240**	**160,768**
Operating taxes					
Reported taxes	104,400	65,800	152,100	50,600	53,300
Tax on interest	-7,840	-10,400	-4,060	-3,530	-2,016
Tax shield on interest	38,528	38,400	19,350	10,890	5,040
Tax shield on lease interest	11,301	12,087	12,608	12,680	3,458
Loss (gains) on currency	-7,500	12,040	-16,020	1,900	-2,350
Operating taxes on EBIT	**138,889**	**117,927**	**163,978**	**72,540**	**57,432**
Increase/(decrease) in deferred tax assets	-22,100	18,800	-73,300	411,600	-9,100
Operating cash taxes on EBIT	**116,789**	**136,727**	**90,678**	**484,140**	**48,332**

Table 14: Adjusted income statement

Normal and extraordinary items

In 2008, several extraordinary items were included in the income statement under *Other (losses)/gains-net* and similarly in the balance sheet under *Provisions for other liabilities and charges*. Restructuring costs of NOK 35.3 million included severance and idle facility costs. Two tax claims of Nera Networks resulted in provision costs of NOK 61 million in the 2008 income statement. The total claim amounted to NOK 109.0 million, but on account of a disagreement of the figure, the company expected the total expense to be NOK 61 million. Furthermore, an impairment of the goodwill related to Nera Networks was made in 2008, totaling in NOK 728.1 million. All of these costs will be regarded as extraordinary, and will not be included in the adjusted financial statements.

Restructuring costs were also included in *Other (losses)/gains-net* in 2009, but the amount was reduced to NOK 20.2 million. In addition, other operating costs amounting to NOK 9.3 million were related to the change of CEO. I assume that other operating revenue of NOK 0.8

million is extraordinary revenue, and will therefore regard the entire post of *Other (losses)/gains-net* of 2009 as extraordinary items.

Taxes

Ideally, the income tax expense should be divided between the operational profit and the financial income. Due to the fact that the tax percentage may differ significantly from the normal tax of 28%, one is dependent on information from the company in order to perform this distribution (Gjesdal 2007). In the reported tax on income, tax shields and tax interests are included. These are not operating taxes and should be deducted. Deferred taxes are an estimate and are therefore not included in the operating taxes.

Adjusted balance sheet

	2009	2008	2007	2006	2005
Operating current assets	3367,8	4493,4	3571,8	3310,6	1439,6
Operating current liabilities	1484,9	2085,1	1702,3	1347,1	511,0
Operating working capital	**1882,9**	**2408,3**	**1869,5**	**1963,5**	**928,6**
Net PPE	389,6	521,5	358,7	223,1	82,1
Other non-current assets	2,1	6,4	13,2	12,5	0,9
Capitalized operating leases	605,8	647,8	692,9	722,8	726,9
Intangible assets	484,7	719,4	1270,4	757,3	186,8
Invested capital	**3365,1**	**4303,4**	**4204,7**	**3679,2**	**1925,3**
Deferred tax assets	394,5	421,2	394,7	478,5	56,4
Long-term investments	9,7	9,4	3,6	3,9	2,8
Total funds invested	**3769,3**	**4734,0**	**4603,0**	**4161,6**	**1984,5**
Historical invested capital					
Financial current liabilities	1039,2	999,4	539,4	205,2	80,5
Financial non-current liabilities	727,4	1142,2	940,9	775,5	261,2
Operating non-current liabilities	64,1	86,0	35,5	43,0	0,0
Capitalized operating leases	605,8	647,8	692,9	722,8	726,9
Debt and debt equivalents	**2436,5**	**2875,4**	**2208,7**	**1746,5**	**1068,6**
Deferred taxes	3,1	7,7	0,0	10,5	0,0
Total contributed equity	1329,7	1850,8	2394,3	2404,6	916,0
Total retained earnings	0,0	0,0	0,0	0,0	0,0
Equity and equity equivalents	1332,8	1858,5	2394,3	2415,1	916,0
Total funds invested	**3769,3**	**4733,9**	**4603,0**	**4161,6**	**1984,6**

Table 15: Adjusted balance sheet

Operating leases

Leasing assets can be a profitable option, because the company do not have to buy the assets, and thereby avoid any costs that would arise in the case of an acquisition, in addition to potential costs of debt financing. Based on this argument, leasing payments can be classified as financial expenses (Damodaran 1999). This reclassification involves converting the operational leasing commitments into debt, which is done by computing the present value of future leasing commitments. The appropriate discounting rate to be applied is the pre-tax cost of unsecured debt (Damodaran 1999).

Eltek has operational lease expenses totaling to NOK 83.8 million in 2009. The leased assets include land and building, company cars, office machinery, software and fittings. These assets are essential for the operations of Eltek, and I consider the assets necessary to maintain the current production level of Eltek in the future. Therefore, I assume that Eltek will sign new leasing contracts when the current contracts expire.

Due to lack of information regarding the operating lease contracts, I have assumed that the contracts were entered in 2005 and that the contract period until expiry is 10 years. This implies that Eltek will have to enter new contracts in 2016. According to annual report of 2009, the leasing expenses in 2015 are estimated to be NOK 5.4 million, which are low compared to the expenses of the former years of NOK 121.0 million. For consistency, I will apply leasing expenses of NOK 121.0 million in 2015 as well. Furthermore, I assume that the new contracts entered in 2016 entail leasing expenses of NOK 121.0 million each year for a period of 10 years. Based on this, the discounted leasing liability in 2016 is NOK 880.95 million, provided a constant discounting rate of 6.23%.

In this paper I suppose that Eltek will continue to lease for eternity. If the company should decide to acquire the assets rather than lease, the process would involve changes in the financial statements and the structure of the company.

Year	Lease payment	Interest expense	Reduction in lease liability	Lease liability
2005	32	12,351	19,649	726,87
2006	49,4	45,284	4,116	722,754
2007	74,9	45,028	29,872	692,882
2008	88,2	43,167	45,033	647,848
2009	82,4	40,361	42,039	605,809
2010	70,8	37,742	33,058	572,751
2011	121	35,682	85,318	487,433
2012	121	30,367	90,633	396,800
2013	121	24,721	96,279	300,521
2014	121	18,722	102,278	198,244
2015	121	12,351	108,649	89,594

Table 16: Operating lease expenses

The annual operating lease costs will be included as a separate item in the adjusted income statement, and the present value of the operating lease contracts will be included as both invested capital and debt in the balance sheet.

Dividends

With the use of IFRS, dividends are categorized as equity and not as current liabilities, as is the case with the use of NGAAP. Eltek has followed IFRS since 2005, and no adjustments are necessary.

Operational vs. financial assets

In the reported balance sheet, the assets are classified as current or non-current to reflect the time perspective of holding the assets. For the purpose of a valuation it is more useful to classify the assets according to whether the assets contribute to the operations or not. For Eltek, and most other companies, non-operational assets are financial assets.

The property, plant and equipment are directly related to the company operations, and will therefore be categorized as operational assets. Based on the same argument, the intangible assets will be classified as operational as well. Deferred taxes and other provisions for liabilities should be classified as operational assets. Investment in associates are often operational even though they might be regarded as financial investments (Gjesdal 2007). I will categorize the mentioned items as operational assets. Other investments include a 1.33% and a 5.41% holding of two companies; Vensafe AS and Aeromarce. Based on a similar judgment as that of investments in associates, these investments will be classified as

operational assets. Other non-current assets include prepaid expenses, loans and non-current receivables. These assets will be classified as operational, as they are clearly related to the operations of Eltek.

The item trade and other receivables include trade receivables, provisions for impairment and other receivables. The latter consists of refundable VAT, amounts due for contract work, deposits, prepaid expenses, loans and others. There is reason to believe that other receivables are operational assets (Gjesdal 2007). Therefore, the entire post of Trade and other receivables will be classified as operational assets. The same applies for the inventories. The part of the cash and cash equivalents that are necessary for the operations of Eltek should ideally be classified as operational, while the excess cash and cash equivalents should be categorized as financial. It can be difficult to determine the financial amount. Therefore, I will classify the entire cash and cash equivalents balance as operational assets. The purpose of the derivative financial instruments is to hedge against the cash flow exchange risk. These instruments will be classified as financial assets.

With the use of IFRS in the preparation of the financial statements, assets are to a higher degree recognized at fair value rather than with the use of NGAAP. Based on this, I will assume that the assets are recognized close to fair value, and will therefore not make any changes to estimate the market values.

Operational vs. financial liabilities

The total value creation of Eltek cannot be assigned to all the liabilities, because not all capital requires return. The value should only be assigned to the employed capital, which includes equity and interest-bearing-liabilities. The rest of the liabilities can be defined as non-interest bearing or operational.

The non-current borrowings will be classified as financial liabilities. The retirement benefit obligations are also classified as financial, which implies that the interest of the obligations and the effects of any changes in the discounting factor should be classified as a financial cost in the adjusted income statement. This classification is done in the reported income statement of Eltek. Thus, no reclassification is necessary.

Provisions for other liabilities and charges include provisions for restructuring, warranty provisions and other provisions. The provisions for restructuring can be classified as

operational liabilities, while the warranty will be classified as a financial liability. In 2008 other provisions consisted of options of minority shareholders to sell their shareholdings and a provision of NOK 61.0 million made by Nera Networks in relation to two VAT claims in Brazil. The put options were exercised in the beginning of 2010. The part of other provisions related to these options is classified as financial liabilities, while the part related to the VAT provision is classified as operational liabilities. Based on the fact that Nera Networks have disputed the VAT claims, I assume that it will take longer than 1 year until the claim is paid. Therefore, I classify the provision as a non-current liability (under operational liabilities).

According to Gjesdal (2007), the analyst must decide whether the deferred income tax liabilities should be classified as non-interest bearing, based on the fact that it is not really a liability but rather an adjustment of other asset- and liability items or if it should be regarded as interest-bearing and thereby included in the capital employed. I will classify the deferred income tax as non-interest bearing (operational).

The current borrowings consist of bank overdrafts, current portion of bank borrowings and other current borrowings. These borrowings will be classified as financial liabilities. The derivative financial instruments will also be classified as financial liabilities.

Theoretically, the trade creditors (accounts payables) can be regarded as interest-bearing if they are recognized at fair value. In that case, the interest cost that arises would be classified as financial cost. However, in practice the trade creditors are paid as an operational expense and should therefore be classified as an operational liability (Gjesdal 2007). Other payables include advances received from contract work, salary provisions, fee provisions, deferred income, accrued customer bonuses, deferred payment related to purchase of shares, public duties payable and other incurred costs. All of these payables are classified as operational liabilities. For the purpose of valuation, I will also classify the entire amount of trade creditors as operational liabilities.

Based on the same arguments as for deferred tax liabilities, current income tax payable is classified as operational liabilities. The current provisions for other liabilities and charges will be classified equally as the non-current provisions for other liabilities and charges, discussed above.

4.2.7. Value drivers

4.2.7.1. Decomposition of Return on Invested Capital

	2009	2008	2007	2006	2005
Gross margin	23,8 %	23,38 %	23,94 %	25,07 %	28,69 %
Operating costs ratio	20,46 %	17,63 %	19,03 %	17,50 %	17,93 %
Depreciation ratio	1,4 %	1,2 %	1,2 %	0,8 %	0,7 %
Operating WC ratio	0,33	0,40	0,39	0,63	0,45
Non-current asset/sales	0,26	0,32	0,48	0,55	0,48
Operating margin	1,95 %	4,60 %	3,67 %	6,79 %	10,03 %
Capital turns	1,72	1,38	1,15	0,85	1,08
Pre-tax ROIC	3,35 %	6,37 %	4,20 %	5,76 %	10,86 %
Cash tax rate	1,04	0,50	0,51	2,28	0,23
ROIC	**-0,124 %**	**3,190 %**	**2,048 %**	**-7,403 %**	**8,350 %**
NOPLAT	-4,19	137,27	86,12	-272,24	160,77
Invested capital	3365,11	4303,45	4204,68	3679,15	1925,27
ROIC	**-0,124 %**	**3,190 %**	**2,048 %**	**-7,400 %**	**8,350 %**

Table 17: Decomposition of Return on Invested Capital

The minimum requirement for ROIC is to equal the company's WACC. For Eltek, this requirement has not been satisfied since 2005. The negative ROIC related to the negative NOPLAT in 2006 was mostly due to an increase in deferred taxes of NOK 411.6 million. The computed historical ROIC ratios emphasize the unsatisfying performance of Eltek the last five years.

4.2.7.2. Return on Capital Employed

	2009	2008	2007	2006	2005
Operating profit	246,0	172,9	105,3	547,6	-157,2
Financial income	15,5	12,6	71,7	37,3	54,8
Total net assets	4730,8	6259,5	5687,3	4835,3	1800,6
Operational liabilities	1549,0	2171,1	1737,8	1390,1	511,0
ROCE	**8,22 %**	**4,54 %**	**4,48 %**	**16,98 %**	**-7,94 %**

Table 18: Return on Capital Employed

ROCE should always be larger than the cost of debt. Eltek's debt cost of capital was 6.23% in 2009 (calculated in section 4.3.2). Thus, the company satisfies the requirement in 2009. In the previous years the ROCE have been lower than the cost of debt. The computed cost of debt (section 4.3.3) between 2005 and 2008 was respectively 4%, 7.06%, 8.61% and 7.74%. The ROCE of 2005 is not applicable because the operating profit was negative.

4.2.7.3. Return on Operating Capital

	2009	2008	2007	2006	2005
Adjusted EBITA	112,6	274	176,8	211,9	209,1
Total net assets	4738,9	6323,8	5856,2	5071,2	2084,5
Financial capital	1420,2	2003,4	2638,1	2689,9	1231,8
Operational liabilities	1552,1	3022,1	1737,8	1400,6	511
ROOC	**6,37 %**	**21,10 %**	**11,94 %**	**21,61 %**	**61,19 %**

Table 19: Return on Operating Capital

The ROOC of Eltek has fluctuated between 2005 and 2009. The difference of ROCE and ROOC each year is due to the existence of financial capital. The trends of the two ratios have been similar.

4.2.7.4. Economic profit

	2009	2008	2007	2006	2005
NOPLAT	3,276	145,61	93,97	-264,86	158,726
Invested capital	2841,7	3743,8	3586,7	3005,8	1230,4
ROIC	0,12 %	3,89 %	2,62 %	-8,82 %	12,90 %
WACC	7,03 %	8,06 %	9,37 %	9,01 %	8,24 %
Spread	**-6,91 %**	**-4,17 %**	**-6,75 %**	**-17,83 %**	**4,66 %**
Economic profit	**-196,50**	**-156,14**	**-242,10**	**-535,68**	**57,34**

Table 20: Economic profit

The economic profit clearly reflects Eltek's performance each year. The negative economic profit the last four years signals that Eltek has actually destroyed value since 2006. The valued destroyed amounts to NOK 1130.42 million.

4.2.8. Conclusion of the financial analysis

Both the financial ratio analysis and the profitability analysis indicate that the financial health of Eltek is poor. The ratios concerning the company's liquidity satisfies general requirements, but the historical trend has been negative the last five years. The liquidity and cash problems have been recognized by the management of Eltek, and actions were taken in 2009. Eltek has experienced net losses in 2007, 2008 and 2009. Eltek is largely financed by debt, with a debt ratio of 71.5% in 2009. The net losses of the company entails that the interest of this debt must be paid by capital reserves, which is not sustainable over time.

However, it is important to take Eltek's recent expansions into account in this evaluation. A merger and an acquisition have been completed during the time period of the analysis. These acquisitions have led to large changes in the company which entails numerous costs. For instance, there have been large costs related to reorganizing the company, in addition to impairments of assets and goodwill. Normally an acquiring company takes advantage of the opportunity to restructure the entire company after an acquisition has been made. This is clearly the case for Eltek. Therefore, the historical financial analysis of the last five years is affected by these restructurings, and might not reflect the company's future. On the contrary, the changes and restructurings of Eltek after the acquisitions can indicate a "fresh" start for

the coming years. In other words, there is reason to believe that the large costs and the losses of recent years are related to the acquisitions and will not be repeated in the foreseeable future.

4.3. Weighted Average Cost of Capital

In order to compute the WACC, one must first identify the equity cost of capital and the debt cost of capital. I will estimate the equity cost of capital by utilizing the CAPM in section 4.3.1. The debt cost of capital will be estimated in section 4.3.2, based on the interest of the liabilities of Eltek. The WACC of 2009 is computed in section 4.3.3. Section 4.3.4 includes computations of the historical WACCs between 2005 and 2008.

4.3.1. Equity cost of capital

Estimation of beta – regression analysis

In this section I will estimate the beta based on the return of the shares of Eltek ASA and the return of the *Oslo Stock Exchange All Shares Index* (OSEAX). The OSEAX includes all shares that are listed on Oslo Stock Exchange (OSE). The data and the regression analysis are included in the appendices of the paper.

I have estimated the beta for Eltek based on the monthly returns of OSEAX and ELT in the period between 31.05.2005 and 30.04.2010, using tools for regression analysis in Microsoft Excel. The resulting beta was 1.50724. Reuters' estimated beta for Eltek was 1.50 May 3rd 2010. Finansavisen reported a corresponding beta of 0.9.

Adequacy of a regression model is measured by $\boldsymbol{R^2}$, which is 0.2760 in this case. This indicates that the market return explains approximately 27.6% of the Eltek stock return. In other words, 27.6% of Eltek's risk is market risk which cannot be eliminated by diversification. The adequacy of the model can be improved by increasing the number of independent variables in the model. However, by including more variables the risk of introducing errors is increased. The standard error of the regression is 0.18592. The

probability that the beta lies within the 95%-confidence interval, between -0.08989 and 0.00797, is 0.18592.

Research has shown that betas tend to regress towards the market beta, 1.0, over time. In addition, the beta based on historical data might not accurately reflect the future. Therefore, the calculated beta should be adjusted (Berk and DeMarzo 2007). The applicable equation is listed below.

$$\textbf{\textit{Adjusted beta}} = \frac{2}{3}\beta_i + \frac{1}{3}$$

Based on this equation, the adjusted beta for Eltek is equal to 1.33816. The adjusted beta is above the market beta of 1.0, and the shares of Eltek are therefore riskier than the market. Because Eltek is a global company, a beta based on a more global index located at another stock exchange might increase the accuracy of estimated market risk. However, the computed beta is believed to be adequate for the value estimate of this paper.

Market risk premium

Literature concerning the market risk premium in Norway is rare. However, Gjesdal and Johnsen (1999) claims that the average historical market risk premium of OSE was 6.2% between 1967 and 1998. It is impossible to estimate a 100% correct market risk premium for OSE, because it varies with the level of risk and the expectations of the investors at any point in time. Based on this, the future market risk premium level is expected to be slightly below the historical average. An estimated market risk premium of approximately 5% can be justified (Gjesdal and Johnsen 1999). This corresponds with Damodaran's estimation for developed markets with limited listings in Table 1, section 2.1.4.1 (of between 4.5-5.5%).

Risk-free interest rate

Based on the recommendations of Copeland, Murrin et al. (1994) I will base the risk-free interest rate of the CAPM on the 10-year Norwegian Treasury Bonds. According to the Norwegian Central Bank this interest rate was equal to 4% in 2009.

Calculating the equity cost of capital

The identified beta, market risk premium and risk-free interest rate can be inserted into the CAPM equation to compute the resulting equity costs of capital. The resulting equity cost of capital of Eltek is 10.69%.

$$r_E = 4\% + 1.33816 \times 5\% = 10.69\%$$

4.3.2. Debt cost of capital

Calculating the debt cost of capital with the use of the CAPM requires knowledge of the company's debt beta. To compute the debt beta one would need revenue turnover data, which is normally not publicly available. One of the main assumptions behind the CAPM is that the risk of the debt is equal to zero. However, this assumption is unrealistic; in real life it is not possible to borrow at the risk-free rate. The lower the possibility of bankruptcy for the company, the lower the debt beta should be (Bredesen 2005).

In 2009, the rent-bearing liabilities of Eltek consisted of current and non-current borrowings, amounting to NOK 1411.6 million. The borrowings are completed in different currencies; NOK, USD, EUR, SGD and HKD. The interest rates of these borrowings are related to NIBOR (The Norwegian Inter Bank Offered Rate), LIBOR (London Inter Bank Offered Rate) or EURIBOR (Euro Inter Bank Offered Rate), in addition to a risk premium added to the rates.

In 2009, minority shareholders of Eltek Valere exercised their put options and sold all their shares to Eltek, which now owns Eltek Valere by 100%. Eltek settled the repurchase by issuing promissory notes. These notes have a 24-month maturity and a coupon interest of 8%, increasing 1%-point every quarter with a maximum of 15%. The 31st of December 2009, the interest rate of these promissory notes was 8%.

The annual NIBOR rate of 2009 for a maturity of 12 months was 2.87 % (Norges Bank, 2009). The corresponding USD LIBOR rate was 1.559% and the 2009 average EURIBOR rate was 1.610% (Global-rates, 2009).

Total borrowing (NOK)	Currency	Interest rate	Interest rate 31.12-2009	Weight	Weighted interest rate
697,20	NOK	NIBOR + 3,5%	6,37 %	50,7608 %	3,23 %
351,80	USD	LIBOR + 3,5%	5,06 %	25,6134 %	1,30 %
11,10	EUR	EURIBOR + 3,5%	5,11 %	0,8082 %	0,04 %
55,30	SGD	LIBOR + 3,5%	5,06 %	4,0262 %	0,20 %
23,10	HKD	LIBOR + 3,5%	5,06 %	1,6818 %	0,09 %
235,00	USD	8% + 1%-point/quarter	8 %	17,1096 %	1,37 %
1373,50				**100,00 %**	**6,23 %**

Table 21: Debt cost of capital

Table 21 shows the amount of borrowings in NOK, the interest rates by 31st of December 2009, and the total weighted interest rate based on the weights of the debt. Based on this, I will apply the weighted average cost of debt of 6.23% to compute the WACC.

4.3.3. Computation of the Weighted Average Cost of Capital

The debt fraction and the equity fraction to be applied in the computation of WACC are based on the adjusted balance sheet. In 2009, the debt and debt equivalents accounted for NOK 2436.5 million (including operating lease liabilities of NOK 605.8 million) and the equity and equity equivalents accounted for NOK 1332.8 million. The total funds invested amounted to NOK 3245.9 million. The resulting debt fraction is therefore 64.64% and the corresponding equity ratio is 35.36%. Eltek's WACC of 2009 is 6.68%.

$$\boldsymbol{WACC = 35.36\% \times 10.69\% + 64.64\% \times 6.23\%(1 - 28\%) = 6,68\%}$$

4.3.4. Historical Weighted Average Cost of Capital

The applied annual average interbank rates between 2005 and 2009 are listed in Table 22 below.

	2009	2008	2007	2006	2005
NIBOR	2,87 %	6,24 %	5,34 %	3,53 %	2,57 %
LIBOR USD	1,56 %	3,09 %	5,12 %	5,33 %	4,03 %
EURIBOR	1,61 %	4,83 %	4,45 %	3,44 %	2,34 %
STIBOR	1,35 %	4,97 %	4,22 %	3,03 %	2,08 %

Table 22: Average Interbank Rates

The computed cost of debt for the previous years is listed in Table 23.

	2009	2008	2007	2006	2005
Weighted average interest rate	6,23 %	7,74 %	8,61 %	7,06 %	4 %

Table 23: Historical cost of capital

Table 24 presents the computation of the equity cost of capital, Re, and the WACC for each year between 2005 and 2009. The beta and the market risk premium are assumed to be constant, of 1.33816 and 5% respectively.

	2009	2008	2007	2006	2005
βe	1,33816	1,33816	1,33816	1,33816	1,33816
Rm - Rf	5,00 %	5,00 %	5,00 %	5,00 %	5,00 %
Rf	4,00 %	4,47 %	4,78 %	4,07 %	3,74 %
Re	**10,69 %**	**11,16 %**	**11,47 %**	**10,76 %**	**10,43 %**
Rd	6,23 %	7,74 %	8,61 %	7,06 %	4,00 %
Debt ratio	64,64 %	60,74 %	47,98 %	41,97 %	53,84 %
Equity ratio	35,36 %	39,26 %	52,02 %	58,03 %	46,16 %
WACC	**6,68 %**	**7,77 %**	**8,94 %**	**8,38 %**	**6,37 %**

Table 24: Historical Weighted Average Cost of Capital

4.4. Budgeting and projections

In this section I will forecast future financial statements of Eltek based on the findings of the strategic - and the financial analysis. The explicit forecast period will be six years; 2010 – 2015. The advantage of applying a longer time horizon is that the continuing value is reduced, and hence the accuracy of the forecast might be increased. In the case of Eltek, however, the financial analysis identified that the performance of recent years have been unstable. Thus, a shorter time horizon can increase the quality and probability of the projected figures.

The forecasting will be the basis for the calculations of the future free cash flows to be applied in the chosen valuation model. In addition to the explicit forecast period, I will estimate the continuing value based on the assumption of constant growth for Eltek after 2016. In other words, I assume that Eltek will reach steady state in 2016. The Value Driver Formula will be applied to discount the continuing value. To identify the historical value drivers of Eltek, I will perform a correlation analysis in section 4.4.1.

It is impossible to predict the future perfectly, and the projection of the future financial statements of Eltek will be based on my assumptions and estimations. Therefore, there will be a larger amount of uncertainty related to this part of the paper. After the final value estimation, I will perform a sensitivity analysis in order to identify the impact of the assumptions made in the budgeting phase of the paper. Due to the lack of comparable competitors or benchmarks for Eltek, a multiple analysis will not be applicable as a quality control for the estimated share price.

4.4.1. Correlation analysis

The last five years Eltek has grown due to the merger with Nera Networks and the acquisition of Eltek Valere. The results and figures of the financial statements have been affected by these acquisitions. A trend analysis where the results of one year is regarded as an index is therefore not applicable, because it would be difficult to determine which year that would be representative as a "normal" year for the company. As an alternative, I will perform a correlation analysis of the financial items.

The purpose of the correlation analysis is to identify the drivers of the income statement and balance sheet items. The correlations between the sales and the PPE, operating cost, intangible assets and operating working capital has been computed by applying tools for correlation analysis in Microsoft Excel.

The analysis concludes that the cost of sales, the selling and marketing costs and the administrative expenses are closely related to the sales. The correlation between the R&D and engineering costs and the sales are lower, but can still be regarded as strong. The explanation for the lower correlation might be that the R&D is related to future products of the company. The level of R&D is essential, as the industry is driven by these investments. I will not apply sales as the driver for these costs, but rather estimate the growth separately. Furthermore, the analysis shows that the depreciation costs are closely related to the sales. Depreciation costs are normally linked to the fixed assets. However, in Eltek's case this correlation is lower than the correlation between sales and depreciation.

The correlation between operating working capital and Net PPE is slightly higher than the correlation between operating working capital and sales. Net PPE is closely correlated with the sales, and the correlation between operating working capital and sales are also strong. Based on the fact that working capital management has been a key issue for Eltek the last year, I will discuss the growth driving the operating working capital independently.

Table 25 summarizes the computed correlations. The conclusions of the correlation analysis, the identified historical drivers, are listed in Table 26.

Correlation analysis	
Sales	1,0000000
Cost of sales	0,9999424
Selling and marketing costs	0,9886203
Administrative expenses	0,9831511
R&D and engineering	0,7494252
Depreciation	0,9785891
Net PPE	0,9660045
Intangible assets	0,4007049
Operating working capital	0,7924739

Table 25: Correlation analysis

4.4.2. Historical drivers

	2009	2008	2007	2006	2005	Driver
Cost of sales	76,21 %	76,62 %	76,06 %	74,93 %	71,31 %	Sales
Selling and marketing costs	8,63 %	8,54 %	9,55 %	7,74 %	7,34 %	Sales
Administrative costs	6,25 %	5,50 %	5,90 %	5,46 %	6,57 %	Sales
Depreciation	1,38 %	1,16 %	1,25 %	0,78 %	0,73 %	Sales
R&D and engineering costs	4,16 %	7,24 %	2,02 %	2,71 %	2,48 %	
Operating tax rate	97,05 %	46,86 %	46,85 %	124,99 %	75,91 %	Adjusted EBITA
Operating working capital	32,59 %	40,37 %	38,78 %	62,91 %	44,52 %	
Net PPE	6,74 %	8,75 %	7,44 %	7,15 %	3,94 %	Sales
Intangible assets	8,39 %	12,07 %	26,35 %	24,26 %	8,96 %	Sales

Table 26: Historical drivers

Table 26 presents different income statement – and balance sheet figures in percentage of the identified drivers. The R&D and engineering costs and the operating working capital are listed as a percentage of the sales. However, sales will not be applied as the driver for these items in the projected financial statements. I will discuss this further in the next section.

4.4.3. Forecasted drivers and ratios

Normally, it will take time to turn an unprofitable company profitable. In Eltek's case, however, the recent unprofitability is due to expansion and restructurings and can thereby be regarded as abnormal. Therefore, I will assume that the company will be able to generate profit again in the foreseeable future.

Sales

The correlation analysis identified the sales as the main key driver of the value of Eltek. The projected sales will be the basis for the prediction of future financial statements. In the beginning of 2010, both Nera Networks and Eltek Valere have won large contracts indicating improved results for the companies in 2010. On the basis of the strategic analysis, the future growth of Eltek can be split into the growth of Eltek Valere and the growth of Nera Networks, as well as the growth of Nera Telecommunications. The companies operate in different industries, and are adjusting to different market prospects.

Eltek Valere has outperformed the industry in terms of growth the last few years. Between 2008 and 2009 there was a decline in sales in correspondence to a downturn in the market. However, the company's setbacks caused by the global financial crisis were lower than the industry average. The company is now entering new markets and aims to supply new segments. The strategic analysis implied that Eltek Valere will be able to sustain a growth above the industry average. I assume that the products and solutions of the company, especially the High Efficiency and Hybrid solutions, will enable the company to grow by gaining market shares in both new and existing markets. This justifies the growth of 6% in 2011 and 8% in 2012 and 2013. I expect the growth to decline in 2014. Unless the company develops new solutions, I assume that the growth regress towards the world GDP growth in 2016.

Nera Networks on the other hand has underperformed compared to the main competitors in recent years. The company has gone through a turbulent period including movement of the production, internal restructurings and changes in the management. I assume that the turbulence is now over. Market analysts are expecting the telecom industry to decline in the upcoming years. This might negatively affect the operations of Nera Networks, unless the company is able to expand into new markets or introduce new products that keep the growth above the rest of the industry and enable the company to gain competitive advantages.

The decline in the sales the first quarter of 2010 compared to the first quarter of 2009 indicates continued recession in the market. However, Nera Networks has won important contracts in the start of 2010 and the prospects for the full year are improved results. This supports the projected growth of 3% in 2010. Analysts expect the Evolution Series to be able to drive the growth of the company in the upcoming years. Based on this, the assumed growth rates will be 6% in 2011 and 7% in 2012. I assume that the growth will decline to 5% in 2013 and 2014 and to 4% in 2015; provided that new product series that will further drive the growth has not been developed and introduced.

Nera Telecommunications experienced a strong growth of 20.2% (12% adjusted for currency effects) in 2009, despite a decrease of 32% in order entries. The competition in the market is particularly strong due to large Chinese competitors. Based on this, I expect the growth to decrease in the explicit forecast period. However, the company recognizes opportunities and potentials in both new and current markets. For instance, the Evolution Series has established

a good position for Nera Telecommunications in the transmission market, where there are possibilities for expansions in the Defense, Broadcast and Utilities market segments. Based on these opportunities, I assume that the growth of Nera Telecommunications will be positive in the entire explicit forecast period. The applied growth based on these arguments for 2010-2015 are 15%, 10%, 8%, 7%, 7% and 5%, respectively.

	2009	2010	2011	2012	2013	2014	2015
Inflation, average consumer prices in % change	2,449	3,671	2,993	2,874	2,891	2,901	2,895

Table 27: World inflation predictions (IMF 2010)

The predicted growth rates should be adjusted for the predicted world inflation in order to reflect the nominal growth of Eltek. Inflation in average consumer prices of 2009- 2015 predicted by the International Monetary Fund (IMF) is listed in Table 27. The growth including the inflation is computed in Table 28.

	2009 *	2010	2011	2012	2013	2014	2015
Eltek Valere	-11,8 %	3 %	6 %	8 %	8 %	6 %	5 %
Nera Networks	7,1 %	3 %	6 %	7 %	5 %	5 %	4 %
Nera Telecommunications	20,2 %	15 %	10 %	8 %	7 %	7 %	5 %
Eltek	**-3,03 %**	**4,8 %**	**6,6 %**	**7,7 %**	**7,0 %**	**5,9 %**	**4,7 %**
Inflation, average consumer prices	2,4 %	3,7 %	3,0 %	2,9 %	2,9 %	2,9 %	2,9 %
Nominal growth Eltek	**-5,50 %**	**8,68 %**	**9,80 %**	**10,82 %**	**10,10 %**	**8,97 %**	**7,74 %**

Table 28: Predicted nominal growth for Eltek * The growth for 2009 is not adjusted for currency effects

The risk of projecting the future based on the historical situation of the company is overestimation after a period of high growth or underestimation after a period of low growth. This has been taken in to account in the projections, and I believe that the growth based on the applied assumptions are the best current estimates.

Economic theory states that a company will not be able to generate profit in a market for an indefinite period of time. In 1991, Penman performed an empirical research of the development of companies' profitability over time. The research concluded that the

profitability of the companies regressed towards a common value, the required rate of return. For the infinite time period after the explicit forecasted period, the continuing part in the valuation, I will assume that the profitability of Eltek (measured by ROIC) will equal the required rate of return (reflected by the target WACC). Furthermore, I will assume that the growth of Eltek will equal the average economical growth. Eltek operates in several regions of the world, including both advanced and emerging or developing countries. The growth of these economies will differ, and it will not be constructive to review each and every one of them. After 2015 I will assume a market growth based on the average growth of the world economies. The IMF predicts the growth of the world's gross domestic product (GDP) to be 4.586% in 2015 (Table 29). The predictions between 2012 and 2015 are close to 4.5%. I will assume that this growth will level will be continued, and will apply a 4.5% growth for Eltek in the continuing value period.

	2009	2010	2011	2012	2013	2014	2015
GDP % change	-0,60	4,22	4,34	4,46	4,53	4,58	4,59
GDP in billion USD	57937,46	61781,49	65003,28	68701,47	72740,01	77132,39	81789,72

Table 29: World GDP predictions (IMF 2010)

Cost of sales

The correlation between the cost of sales and the sales is close to perfect. The last four years the cost of sales has been approximately 76% of the sales. The gross profit margin of Eltek Valere has been superior to the gross profit margin of Nera Networks the last five years. According to the annual report of 2009, improvement of the gross profit margin will be a priority for Nera Networks in 2010. Based on this, I will assume a gross profit margin of 23% for Nera Networks in the future. The resulting gross profit margin for Eltek will be approximately 24%, which corresponds with the historical cost of sales of 76%.

Operating costs

The driver of the selling and marketing costs is the sales, and the corresponding correlation is close to 1.0. The last five years, the selling and marketing costs have varied from 7.34% to 9.55% of the total sales. The forecast ratio will be the average of these five years; 8.35% of the total sales. The identified driver of the administrative costs is the sales, represented by a correlation close to 1.0. The administrative costs divided by the total sales have ranged

between 5.46% and 6.57% the last five years. The average of 5.94% will be set as the forecast ratio for these costs.

R&D and engineering

For the R&D and engineering costs I will estimate annual growths based on the figure of 2009. The estimated annual growths are 4%, 4%, 7%, 10%, 10% and 8% for the period of 2010– 2015. Research and development is especially important in Eltek's industry, as the growth is driven by technologically advancements. Both Eltek Valere and Nera Networks has recently introduced new technology and advanced products (Hybrid and High Efficiency products for Eltek Valere and the technology of the Evolution Series for Nera Networks). Based on this, I assume that the focus for the forthcoming years will be on the markets and not on further developments of products (so that the potential of the current products are fully exploited). This justifies the rather low growth of 4% in 2010 and 2011. After these years, I expect the current products to reach the maturity or decline phase of the product lifecycle, and assume that Eltek will invest more heavily in R&D and development of new products and technology. This argues for the higher growth of 7% in 2012, 10% in 2013 and 2014, and 8% in 2015. For the continuing value period, from 2016, I assume that the investments in R&D and engineering will be consistent with the average growth of the world economies, of 4.5%.

Depreciation

The depreciation in percentage of sales has increased continuously the last five years. I will assume the percentage of 2009 for the explicit forecast period years; 1.38%.

Other (losses)/gains – net

The last three years, *Other (losses)/gains – net* has mainly consisted of costs related to the acquisition of Eltek Valere and the merger with Nera Networks. The other included losses and gains have been of small value, and has barely affected the results of the company. I assume that the expansion period of Eltek is over for the foreseeable future, and that the company will rather focus on organic growth. Therefore, I will assume that *Other (losses)/gains – net* will be equal to zero in the explicit forecast period, as well as for the continuing value period.

Other non-current assets

The other non-current assets included in the adjusted balance sheets have been of low value the last three years, and the impact on the results has been insignificant. I will set these assets to zero in the forecasted periods.

Working capital

The correlation analysis concluded that the working capital is highly correlated with the sales. Improvement of the working capital has been a key focus for Eltek lately. In 2009 the working capital level was reduced to 32.58% of the sales. I will set this percentage for 2010 as well. I assume that working capital management will be maintained as a priority in the explicit forecast period, and that operating working capital in relation to sales will be further reduced. The assumed rates between 2011- 2015 are 31%, 30%, 28%, 28% and 28% respectively.

Net PPE

The forecast ratio for the Net PPE will be set as 7.5% of total sales, which is the average of the last four years.

Taxes

A historical examination of the operating tax rate divided by adjusted EBITA identifies great volatility. The ratio was especially high in 2006 and 2009. The correlation analysis concluded that there is not one single item that can be used as a forecast ratio. The operating taxes depend on a number of factors, such as the changes in deferred taxes, tax on financial income and tax shields of financial expenses. In addition Eltek operates on a global basis, and thereby follow a number of countries' tax procedures. Therefore, it is particularly difficult to accurately predict the future operating taxes. For consistency, I will apply the Norwegian corporate tax rate of 28% for the projected financial statements of Eltek. This is consistent with the tax rate applied in the computation of WACC. Any effect of the lower tax rate is thereby offset through the WACC.

In 2009 Eltek had net deferred tax assets of NOK 391.4 million in the balance sheet. IFRS procedures states that the deferred tax assets should only be recognized in the balance sheet if there are reason to believe that the company will be profitable in the future and that the

deferred tax assets can be utilized. The tax losses carry-forwards were NOK 2125.0 million. The global operations of Eltek complicate possibilities of utilizing the deferred tax assets, due to variations in taxation procedures and treatments in different countries. The available information is insufficient to enable a prediction of when or whether Eltek will be able to utilize the deferred tax assets. I will assume that Eltek will not be able to exploit the deferred tax assets in the forecasted time horizon, and will therefore not make any adjustments to the forecasted results.

Intangible assets

In 2009, the intangible assets consisted of goodwill constituting NOK 65.1 million, capitalized expenses totaling to NOK 292.9 million and other intangibles of NOK 126.7. The latter included intangible fixed assets related to the merger with Nera Networks and the acquisition of Eltek Valere, in addition to capitalized software costs. The remaining goodwill is related to Nera Telecommunications. I assume that this goodwill will be eliminated after a test of impairment in 2010. I also assume that the intangible assets related to Nera Networks and Eltek Valere will be eliminated through impairment in the near future. However, these costs will not be included in the forecasted calculation of NOPLAT, as they are not relevant for the purpose of a valuation. NOK 125.1 million of the capitalized expenses in 2009 were related to development of new products. Introduction of new products are essential for the continued business operations of Eltek, and I assume that these costs will be sustained and increased in the future. The remaining part of the capitalized expenses was effects of business combination acquisitions, and is assumed not to be maintained in the future.

The growth of the capitalized assets related to development of new products will be assumed to be consistent with the growth of the world economies in 2010, 2011 and 2012. The justification is that Eltek needs to become profitable and stable before a heavy investment in development of new products occur. In 2013, 2014 and 2015 the growth will be set to respectively 6.5%, 10% and 10%.

4.4.4. Forecasted NOPLAT and invested capital

	2009	2010	2011	2012	2013	2014	2015	2016
Sales	5777,90	6237,24	6829,16	7554,41	8317,41	9046,85	9747,07	10185,69
Cost of goods sold	4403,30	4740,30	5190,16	5741,35	6321,23	6875,60	7407,78	7741,12
Gross profit	**1374,60**	**1496,94**	**1639,00**	**1813,06**	**1996,18**	**2171,24**	**2339,30**	**2444,57**
Selling and marketing costs	498,40	520,81	570,23	630,79	694,50	755,41	813,88	850,51
Administrative costs	360,90	370,49	405,65	448,73	494,05	537,38	578,98	605,03
R&D and engineering costs	240,60	250,22	260,23	278,45	306,29	336,92	363,88	380,25
EBITDA	**274,70**	**355,41**	**402,88**	**455,08**	**501,33**	**541,53**	**582,56**	**608,78**
Depreciation	79,70	86,07	94,24	104,25	114,78	124,85	134,51	140,56
Operating lease cost	82,40	70,80	121,00	121,00	121,00	121,00	121,00	121,00
Adjusted EBITA	**112,60**	**198,54**	**187,64**	**229,83**	**265,55**	**295,68**	**327,05**	**347,22**
Operating cash taxes	-116,79	-55,59	-52,54	-64,35	-74,35	-82,79	-91,58	-97,22
NOPLAT	**-4,19**	**142,95**	**135,10**	**165,48**	**191,19**	**212,89**	**235,48**	**250,00**
Operating working capital	1882,90	2032,09	2117,04	2266,32	2328,87	2533,12	2729,18	2851,99
Net PPE	389,60	467,79	512,19	566,58	623,81	678,51	731,03	763,93
Other non-current assets	2,10	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Capitalized operating leases	605,80	572,75	487,43	396,80	300,52	198,24	89,59	880,95
Intangible assets	484,70	130,38	136,03	142,10	151,34	166,47	183,12	191,36
Invested capital	**3365,10**	**3203,01**	**3252,69**	**3371,81**	**3404,54**	**3576,34**	**3732,92**	**4688,23**

Table 30: Forecasted NOPLAT and invested capital

Table 30 displays the computed NOPLAT and invested capital for 2010- 2016 based on the discussed forecast ratios. The table shows that NOPLAT will have continued growth for the entire explicit forecast period, excluding 2011.

4.4.4.1. Decomposition of forecasted Return on Invested Capital

	2009	2010	2011	2012	2013	2014	2015	2016
Gross margin	23,8 %	24,00 %	24,00 %	24,00 %	24,00 %	24,00 %	24,00 %	24,00 %
Operating costs ratio	20,46 %	19,44 %	19,87 %	19,58 %	19,43 %	19,35 %	19,26 %	19,21 %
Depreciation ratio	1,4 %	1,38 %	1,38 %	1,38 %	1,38 %	1,38 %	1,38 %	1,38 %
Operating WC ratio	0,33	0,33	0,31	0,30	0,28	0,28	0,28	0,28
Non-current asset/sales	0,26	0,19	0,17	0,15	0,13	0,12	0,10	0,18
Operating margin	1,95 %	3,18 %	2,75 %	3,04 %	3,19 %	3,27 %	3,36 %	3,41 %
Capital turns	1,72	1,95	2,10	2,24	2,44	2,53	2,61	2,17
Pre-tax ROIC	3,35 %	6,20 %	5,77 %	6,82 %	7,80 %	8,27 %	8,76 %	7,41 %
Cash tax rate	1,04	0,28	0,28	0,28	0,28	0,28	0,28	0,28
ROIC	**-0,124 %**	**4,463 %**	**4,153 %**	**4,908 %**	**5,616 %**	**5,953 %**	**6,308 %**	**5,332 %**
NOPLAT	-4,19	142,948	135,098	165,480	191,193	212,889	235,479	249,996
Invested capital	3365,10	3203,01	3252,69	3371,81	3404,54	3576,34	3732,92	4688,23
ROIC	**-0,124 %**	**4,463 %**	**4,153 %**	**4,908 %**	**5,616 %**	**5,953 %**	**6,308 %**	**5,332 %**

Table 31: Decomposition of forecasted Return on Invested Capital

The decomposition of the forecasted ROIC is displayed in Table 31. The forecasted NOPLAT and invested capital results in higher levels of ROIC for the forecasted period than in the historical analysis period. The forecasted ROIC for 2010- 2015 does not fulfill the requirement of being larger than the target WACC of 6.35%, computed in section 4.4.5. After the explicit forecast period Eltek is assumed to enter the steady state phase, which entails that ROIC = WACC.

4.4.5. Target Weighted Average Cost of Capital

The reported equity ratio was 28.5% in 2009, reduced from 30% in 2008. In the first quarterly report of 2010 there has been a slight improvement in the equity ratio, to 28.9%. The adjusted equity ratio calculated for 2009 in section 4.3.3 based on the adjusted balance sheet was 36.36%, and the corresponding debt ratio was 64.64%. For the future, I assume that the target

equity ratio of Eltek is 30%, which will be applied in the calculation of the target WACC. The resulting debt ratio is 70%.

The risk free rate is assumed to be kept stable at 4%, and the risk premium is assumed to be constant of 5%. The beta of 1.33816 is applied in the computation of the cost of capital. The interest on debt is assumed to be stable at 6.23% for the entire forecasted horizon.

$$\boldsymbol{Target\ WACC = 30\% \times 10.69\% + 70\% \times 6.23\%(1 - 28\%) = 6.35\%}$$

The targeted WACC will be used as the discount factor for the projected free cash flows.

4.4.6. Projected Free Cash Flow

	2010	2011	2012	2013	2014	2015
NOPLAT	142,9	135,1	165,5	191,2	212,89	235,48
Depreciation	86,07	94,24	104,25	114,78	124,85	134,51
Gross cash flow	**229,0**	**229,3**	**269,7**	**306,0**	**337,7**	**370,0**
Investment in operating working capital	-149,19	-84,95	-149,29	-62,55	-204,24	-196,06
Net capital expenses	-164,27	-138,64	-158,65	-172,00	-179,55	-187,03
Investment in capitalized operating leases	33,05	85,32	90,63	96,28	102,28	108,65
Investment in intangibles	354,32	-5,66	-6,07	-9,24	-15,13	-16,65
Gross investment	**73,91**	**-143,92**	**-223,37**	**-147,51**	**-296,65**	**-291,09**
Free cash flow	**302,9**	**85,4**	**46,4**	**158,5**	**41,1**	**78,9**

Table 32: Projected Free Cash Flows

Table 32 displays the projected free cash flows in the explicit forecast period. The free cash flows are positive for the entire forecast period. However, the cash flows vary significantly. The fundamental valuation in section 4.5 will be performed by discounting the explicit free cash flows, in addition to the continuing value after the explicit forecast period.

4.5. Fundamental valuation of Eltek

4.5.1. Discounted Free Cash Flow method

	2010	2011	2012	2013	2014	2015
Free cash flow	302,9	85,4	46,4	158,5	41,1	78,9
Discount factor	0,940	0,884	0,831	0,782	0,735	0,691
Present value FCF	284,8	75,5	38,6	123,9	30,2	54,5
Present value	**607,5**					

Table 33: Present value of explicitly forecasted cash flows

Table 33 displays the present value of the forecasted free cash flows in the explicit forecast period. The applied discounting rate is the target WACC, which results in the displayed discounting factors for each year. The concluding present value of the forecasted free cash flows by the use of the DFCF method is NOK 607.5 million. The next step is to compute the present value of the continuing forecast period. The Driver Value formula listed below will be applied to compute the continuing value.

$$\textbf{\textit{Continuing value}} = \frac{\boldsymbol{NOPLAT_{2016}}\left[\mathbf{1} - \left(\frac{\boldsymbol{g}}{\boldsymbol{ROIC}}\right)\right]}{\boldsymbol{WACC - g}}$$

The variables and the concluding continuing value is displayed in Table 34.

NOPLAT 2016	250,00
Assumed growth	4,50 %
Targeted ROIC	6,35 %
Targeted WACC	6,35 %
Continuing value	**3937,01**
Discounting factor	0,69115
PV continuing value	**2721,080**

Table 34: Present value of continuing value estimate

The computed continuing value amounts to NOK 3937.01 million. The discounting factor is found by the equation $\frac{1}{(1+WACC)^t}$ where the applied WACC is the target WACC of 6.35% and

t = 6 years. The concluding present value of the continuing value is NOK 2721.080 million. This value is significantly larger than the present value of the explicit forecast period, as expected.

PV explicit forecast period	607,519
PV continuing value	2721,080
Total value	**3328,599**
Value of debt	2436,500
Value of equity	**892,099**
Number of shares outstanding	329,210
Share price	**2,710**

Table 35: Estimated share price

The total value of Eltek is calculated in Table 35. This value is computed by adding the present value of the explicit forecast period and the present value of the continuing value. The resulting value is NOK 3328.599 million. The value of debt is deducted from the total value in order to estimate the value of the equity. This debt value is equivalent to the value of debt applied in the computation of the WACC in section 4.3. The number of shares outstanding the 7th of June, 2010, was 329.210 million. The resulting price per share is NOK 2.710.

4.6. Sensitivity analysis

In order to evaluate the quality of the share price estimated in Table 35, I will in this section perform a sensitivity analysis. Such an analysis involves changing one variable at a time, keeping all other variables constant (cet.par). One can argue that this is also the weakness of the sensitivity analysis, due to the fact that in reality numerous variables are affecting the share price simultaneously. In addition, the variables might be interdependent, and changing one might entail impact on another.

The present value of the continuing value accounts for 81.7% of the total estimated value of Eltek, while the present value of the explicit forecasted period only accounts for 18.3%. In other words, the quality of the continuing value forecast is especially important for the

accuracy of the value estimate. Therefore the sensitivity analysis will be based on the drivers of the continuing value; WACC, ROIC and NOPLAT. One of the main assumptions applied for the continuing value period is that ROIC equals the WACC of 6.35%, which entails that the company is situated in the steady state phase. With this assumption, the growth has no impact on the continuing value.

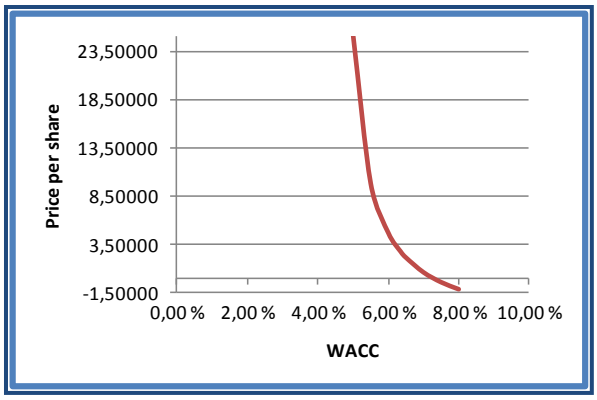
WACC	Continuing value	Price per share
5,00 %	14566,93	25,02665
5,50 %	7283,46	9,73514
6,00 %	4855,64	4,63837
6,35 %	**3937,01**	**2,70976**
6,50 %	3641,73	2,08984
7,00 %	2913,39	0,56073
7,50 %	2427,82	-0,45868
8,00 %	2080,99	-1,18683

ROIC	Continuing value	Price per share
5,00 %	1351,35135	-2,71865
5,50 %	2457,00246	-0,39741
6,00 %	3378,37838	1,53695
6,35 %	**3937,00787**	**2,70976**
6,50 %	4158,00416	3,17372
7,00 %	4826,25483	4,57667
7,50 %	5405,40541	5,79256
8,00 %	5912,16216	6,85646

Table 36: Sensitivity analysis of WACC

Table 37: Sensitivity analysis of ROIC

Both the WACC and the ROIC have been changed within the range of -1.35%-points/+1.65%-points. Table 36 and 37 summarizes the changes in price per share for changes in either the WACC or the ROIC, keeping all other variables constant. The results show that the share price is especially sensitive to changes in both WACC and ROIC. A WACC set too high results in an undervaluation of the company, and a too low WACC overvalues the company. A reduction of 0.85% - points in WACC results in a 3.59 times higher share price, while an increase of 0.65%- points decreases the share price 4.83 times. If the WACC is decreased to 5%, the share price increases by as much as 9.24 times. A reduction in ROIC of 0.85%-points would result in a theoretically negative share price. A 0.65%- points increase in ROIC results in a share price 1.69 times higher.



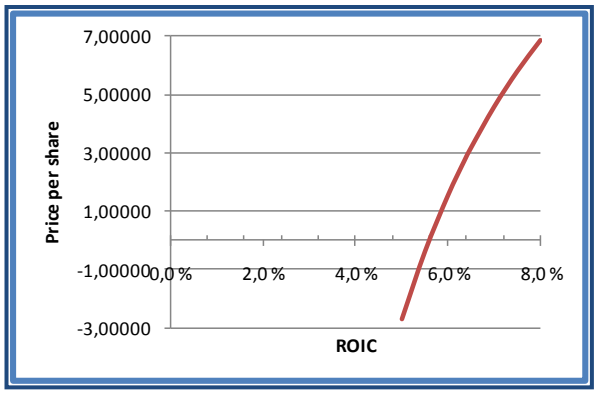


Figure 9: Sensitivity analysis of WACC

Figure 10: Sensitivity analysis of ROIC

The findings listed in Table 36 and 37 are displayed in graphical form above in Figure 9 and 10 respectively. The graphs clearly shows the high level of sensitivity of the share price related to changes in both the WACC and ROIC, cet. par.

WACC	Debt ratio	rd	Equity ratio	re
5,73 %	80 %	6,23 %	20 %	10,69 %
6,35 %	**70 %**	**6,23 %**	**30 %**	**10,69 %**
6,97 %	60 %	6,23 %	40 %	10,69 %
8,21 %	40 %	6,23 %	60 %	10,69 %
5,84 %	70 %	6,23 %	30 %	9 %
6,14 %	70 %	6,23 %	30 %	10 %
6,44 %	70 %	6,23 %	30 %	11 %
6,74 %	70 %	6,23 %	30 %	12 %
7,04 %	70 %	6,23 %	30 %	13 %
5,22 %	70 %	4 %	30 %	10,69 %
5,73 %	70 %	5 %	30 %	10,69 %
6,74 %	70 %	7 %	30 %	10,69 %
7,24 %	70 %	8 %	30 %	10,69 %
7,74 %	70 %	9 %	30 %	10,69 %

Table 38: Sensitivity analysis of WACC decomposed

To further evaluate the identified sensitivity, the WACC can be decomposed into the debt ratio, debt cost of capital, equity ratio and equity cost of capital. The tax rate is still assumed to be 28%. The findings are listed in Table 38. The WACC is especially sensitive to changes in the capital structure of Eltek; the debt - and equity ratio. The reason is that the cost of equity is significantly larger than the cost of debt. Thus a lower debt ratio and a higher equity ratio results in a higher WACC.

Change	NOPLAT 2016	Continuing value	Price per share
-25 %	187,50	2952,76	0,64339
-20 %	200,00	3149,61	1,05666
-15 %	212,50	3346,46	1,46993
-10 %	225,00	3543,31	1,88321
-5 %	237,50	3740,16	2,29648
0 %	**250,00**	**3937,01**	**2,70976**
5 %	262,50	4133,86	3,12303
10 %	275,00	4330,71	3,53630
15 %	287,50	4527,56	3,94958
20 %	300,00	4724,41	4,36385
25 %	312,50	4921,26	4,77613

Table 39: Sensitivity analysis of NOPLAT

The sensitivity of the share price to changes in NOPLAT has been analyzed by changing NOPLAT by the range between -25%/+25%, keeping WACC, ROIC and growth constant. The resulting share prices range from NOK 0.6434 to NOK 4.7761, equivalent to share price changes of between -76.3%/+76.3%. The impact of the changes is linked to my choice of explicit forecast period. The impact could be reduced by choosing a longer forecast period.

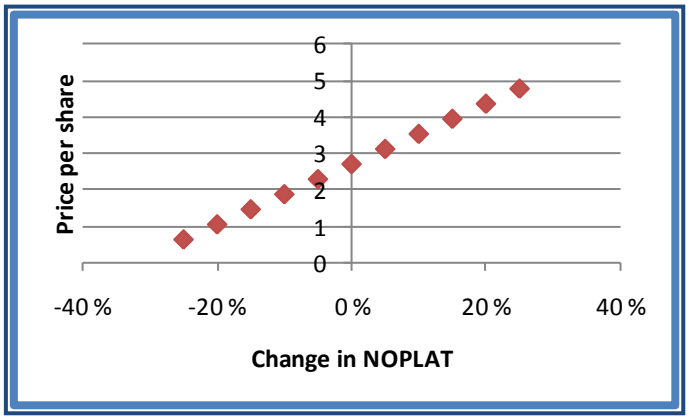


Figure 11: Sensitivity analysis of NOPLAT

The scatter plot in Figure 11 reveals a close to linear relationship between changes in NOPLAT and the resulting price per share. The correlation between the variables is positive, which means that an increase in NOPLAT leads to a corresponding increase in the price per share.

Change	Operating lease cost	NOPLAT	Price per share
-25 %	90,75	271,78	3,4298
-20 %	96,80	267,42	3,2857
-15 %	102,85	263,07	3,1419
-10 %	108,90	258,71	2,9977
-5 %	114,95	254,35	2,8536
0 %	**121,00**	**250,00**	**2,7098**
5 %	127,05	245,64	2,5656
10 %	133,10	241,29	2,4218
15 %	139,15	236,93	2,2776
20 %	145,20	232,57	2,1335
25 %	151,25	228,22	1,9897

Table 40: Sensitivity of operating lease expenses

In the adjusted financial statements I reclassified the current operating leases of Eltek as financial leases to increase the accuracy of the picture of Eltek's financial health. The treatment of the leases was explained in section 4.2.6. For the future, annual leasing costs of NOK 121.0 million have been estimated. This estimate is based on the leasing costs the last four years, due to lack of information about the expenses of the future. A historically based estimate entails uncertainty. Therefore, I have performed a sensitivity analysis of the share price related to changes in these expenses. The annual leasing costs have been changed between the range of -25%/+25%, and the resulting price per share are displayed in Table 40. The range of changes in the operating lease costs entails changes of between +26.57%/-26.57% in the share price. The sensitivity is significantly lower than that between NOPLAT and the share price. This is reasonable as the operating lease costs are only one of many variables that affect the NOPLAT.

4.6.1. Conclusion of the sensitivity analysis

The sensitivity analysis of the variables affecting the continuing value concludes that ROIC and WACC are the variables with the largest impact on the price per share. ROIC is made up of Invested Capital and NOPLAT. The analysis showed that a change in NOPLAT would lead to a linear change in the share price. The WACC is made up of the debt cost of capital, the equity cost of capital and the capital structure of the company. The analysis concluded that the share price is especially sensitive to changes in the capital structure, because the equity cost of capital is larger than the debt cost of capital. The equity cost of capital can be further

decomposed into the applied risk free rate and market premium, and the calculated beta. The price per share is therefore especially sensitive to any changes in these variables. The market risk premium is particularly difficult to estimate accurately and there is a higher level of uncertainty related to this variable.

Furthermore, the cost of debt included in the WACC consists of the weighted average debt cost of capital for Eltek. The costs are set as a percentage in addition to several Interbank Offered Rates, such as LIBOR, EURIBOR and NIBOR. These rates tend to fluctuate and the volatility can be high. For instance, the average NIBOR rate decreased to 2.87% from 6.24% in 2009, a decrease of 3.37%- points. Larger changes in the rates can entail significant changes in WACC, which thereby lead to changes in the present value of the continuing value of Eltek.

5.0 Conclusion

I have estimated a share price of Eltek by the application of the Discounted Free Cash Flow method. The basis for the valuation is the findings of the performed strategic – and financial analysis, market forecasts and analyst predictions, as well as my subjective expectations to the future performance of Eltek.

The strategic analysis concluded that the Telecom Equipment industry is relatively unattractive due to intense competition and low market prospects. Eltek is a niche player and aims to achieve profitability by serving more narrow parts of the market. However, the potentials for achieving competitive advantage in the industry are slim. Eltek has recognized opportunities of expanding into new markets, mainly through the business segment Eltek Valere. These new markets are partly the foundation of the expected future profit of the company, as identified in the budgeting part of the paper.

The findings of the financial analysis are highly affected by the mergers and acquisition performed by Eltek during the historical analysis period. The losses in recent years are partially due to costs related to restructurings and impairments. It is not unusual for a company to experience less profitable years after an acquisition, because the process provides an opportunity to give the company a full "makeover". Furthermore, the recent expansions of Eltek imply that the historical growth the last five years is inappropriate as an indication of the forecasted growth in the explicit forecast period.

According to my calculations, the total value of Eltek is NOK 3328.6 million. The total debt of the company, including the leasing liabilities, is NOK 2436.5 million. Thus the value of equity is equal to NOK 892.1 million. Divided by the number of shares, 329.21, the price per share has been computed as NOK 2.71.

The continuing value part accounts for 81.7% of the estimated value of Eltek. A sensitivity analysis was performed in order to evaluate the share price sensitivity to changes in this continuing value. The analysis concluded that the variables constituting the continuing value have an especially large impact on the share price.

Figure 12: Share price development last three months

Figure 12 displays the development of ELT in the period between 1st of April 2010 and 1st of June 2010. The figure shows that the share price has varied rather much. The top price of the period was NOK 3.44 per share and the bottom price was NOK 2.34 per share.

The price of ELT on Oslo Stock Exchange the 7th of June, 2010, is NOK 2.60. Compared to the estimated share price of this paper, NOK 2.71 per share, the share of Eltek is underpriced at this date. The spread between these two prices is relatively small and it may seem that the listed share price is reflecting the real underlying value of the company.

My conclusion is that Eltek is slightly undervalued. However, the spread between the estimated – and the listed share price is not large enough to conclude by urging investors to buy the shares.

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LIST OF APPENDICES

A. List of abbreviations

Abbreviation	Explanation
APM	Arbitrage Pricing Model
Bt	Book value period t
CA	Current Assets
CAPEX	Capital Expenditures
CAPM	Capital Asset Pricing Model
CFt	Cash flow period t
CL	Current liabilities
CV	Continuing value
D	Debt
DCF	Discounted Cash Flow
DDM	Dividend Discount Method
DFCF	Discounted Free Cash Flow
Dt	Depreciation period t
dt	Dividend period t
E	Equity
E(Fk)	Expected return on a portfolio
EBIT	Earnings before interest and tax
EBITA	Earnings before interest, tax and amortization
EBITDA	Earnings before interest, tax, depreciation and amortization
ELT	Ticker for Eltek
EPS	Earnings per share
EURIBOR	Euro Interbank Offered Rate
EV	Enterprise Value
FCF	Free Cash Flow
Fin. Cap	Financial capital
Fin. Lev.	Financial leverage
g	Growth
GDP	Gross Domestic Product
GW	Goodwill
HE	High Efficiency
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
Inv. Cap	Invested capital
it	Internal rate of return period t
LIBOR	Londong Interbank Offered Rate
M/B	Market to book
NGAAP	Norwegian General Accepted Accounting Principles
NIBOR	Norwegian Interbank Offered Rate
NOPLAT	Net Operating Profit Less Adjusted Taxes
OEM	Original Equipment Manufacturer
OSEAX	Oslo Stock Exchange All Shares Index
P/B	Price to book
P/E	Price Earnings
P/S	Price to sales
PPE	Property, plant and equipment

B. Presentation of reported financial statements

Consolidated income statements

Amounts in NOK million	2009	2008	2007	2006	2005
Sales	5 777,9	5 958,4	4 820,8	3 121,1	2 085,7
Cost of sales	4 439,4	-4 594,6	-3 688,6	-2 347,7	-1 491,1
Gross profit	**1 338,5**	**1 363,8**	**1 132,2**	**773,4**	**594,6**
Selling and marketing costs	-509,3	-518,0	-467,1	-243,0	-155,5
Administrative costs	-379,9	-345,6	-301,0	-179,2	-143,9
R&D and engineering costs	-431,1	-273,6	-231,4	-136,6	-67,2
Other (losses)/gains - net	-28,7	-842,9	-87,4	-25,3	-0,7
Operating profit/loss	**-10,5**	**-616,3**	**45,3**	**189,3**	**227,3**
Share of result in associated companies	1,4	1,1	0,9	0,9	0,2
Financial income	54,8	37,3	71,7	12,6	15,5
Financial costs	-137,6	-180,2	-69,1	-45,6	-18,0
Net financial items	-82,8	-142,9	2,6	-33,0	-2,5
Profit/loss before income tax	**-92,0**	**-758,3**	**48,7**	**157,2**	**225,2**
Income tax expense	-104,4	-65,8	-152,1	-50,6	-53,3
Profit/loss for the year from continuing operations	**-196,4**	**-824,1**	**-103,5**	**106,6**	**171,9**
Discountinued operations	0,0	0,0	33,0	0,0	0,0
Profit/loss for the year	**-196,4**	**-824,1**	**-70,5**	**106,6**	**171,9**
Attributable to					
Equity holders of the company	-226,2	-797,7	-105,1	86,5	151,2
Minority interest	29,9	-26,4	34,6	20,1	20,7
	-196,4	**-824,1**	**-70,5**	**106,6**	**171,9**

Consolidated balance sheet

Amounts in NOK million	2009	2008	2007	2006	2005
ASSETS					
NON-CURRENT ASSETS					
PPE	389,6	521,5	358,7	223,1	82,1
Intangible assets	484,7	719,4	1270,4	757,3	186,8
Deferred income tax asset	394,5	421,2	394,7	478,5	56,4
Investments in associates	4,4	3,0	2,0	2,0	0,9
Other investments	5,3	6,3	1,6	1,9	1,9
Other non-current assets	2,1	6,4	13,2	12,5	0,9
TOTAL NON-CURRENT ASSETS	1280,6	1677,8	2040,6	1475,3	329,1
CURRENT ASSETS					
Inventories	592,3	983,0	830,3	766,3	368,6
Trade and other receivables	1960,0	2888,3	2149,3	1794,3	604,4
Derivative financial instruments	11,5	0,0	16,4	0,0	0,0
Cash and cash equivalents	815,5	622,1	592,2	750,1	466,6
TOTAL CURRENT ASSETS	3379,3	4493,4	3588,2	3310,6	1439,6
TOTAL ASSETS	**4659,9**	**6171,2**	**5628,8**	**4785,9**	**1768,7**
EQUITY					
Share capital	329,2	299,2	49,2	49,2	32,3
Other reserves	823,1	1375,4	1908,4	2141,4	839,7
Capital and reserves attributable to equity holders of the Company	1152,3	1674,6	1957,6	2190,6	871,9
Minority interest	177,4	176,2	436,7	214,0	44,0
Total equity	**1329,7**	**1850,8**	**2394,3**	**2404,6**	**916,0**
LIABILITIES					
NON-CURRENT LIABILITIES					
Borrowings	540,4	849,3	787,9	464,6	227,7
Deferred income tax liabilities	3,1	7,7	0,0	10,5	0,0
Retirement benefit obligations	166,5	170,2	153,0	310,9	33,5
Provisions for other liabiliities and charg	84,5	208,7	35,5	43,0	0,0
TOTAL NON-CURRENT LIABILITIES	794,6	1235,8	976,5	829,0	261,2
CURRENT LIABILITIES					
Borrowings	871,2	797,6	438,0	104,3	52,8
Trade creditors and other payables	1408,9	1981,6	1611,4	1265,2	472,3
Current income tax payable	20,9	43,1	48,8	39,3	38,7
Derivative financial instruments	0,0	27,7	0,0	0,0	0,0
Provisions for other liabilities and charge	234,6	234,5	159,9	143,6	27,7
TOTAL CURRENT LIABILITIES	2535,6	3084,5	2258,1	1552,3	591,6
Total liabilities	**3330,2**	**4320,4**	**3234,5**	**2381,3**	**852,7**
TOTAL EQUITY AND LIABILITIES	**4659,9**	**6171,2**	**5628,8**	**4785,9**	**1768,7**

C. Regression analysis

	OSEAX		ELT	
Date	**Close**	**Return OSEAX**	**Close**	**Return ELT**
31.05.05	281,42		70,70	
30.06.05	314,17	0,1163604254	76,31	0,079310345
29.07.05	333,03	0,0600179203	91,18	0,194888179
31.08.05	357,74	0,0742012694	88,99	-0,024064171
30.09.05	373,01	0,0426903959	106,30	0,194520548
31.10.05	341,67	-0,0840212317	99,47	-0,064220183
30.11.05	353,41	0,0343825503	102,15	0,026960784
30.12.05	376,78	0,0661183216	108,98	0,066825776
31.01.06	410,29	0,0889208909	94,11	-0,136465324
28.02.06	416,25	0,0145381550	98,50	0,046632124
31.03.06	452,29	0,0865925271	105,32	0,069306931
28.04.06	469,57	0,0381994137	96,06	-0,087962963
31.05.06	438,83	-0,0654608460	78,99	-0,177664975
30.06.06	433,06	-0,0131512233	80,94	0,024691358
31.07.06	440,62	0,0174572954	68,51	-0,153614458
31.08.06	439,78	-0,0019054856	76,80	0,120996441
29.09.06	426,27	-0,0307156029	62,41	-0,187301587
31.10.06	461,62	0,0829223309	60,22	-0,03515625
30.11.06	473,56	0,0258622576	60,95	0,012145749
29.12.06	502,38	0,0608576169	60,22	-0,012
31.01.07	523,36	0,0417607437	68,75	0,141700405
28.02.07	498,78	-0,0469597736	68,27	-0,007092199
30.03.07	521,20	0,0449365036	60,95	-0,107142857
30.04.07	541,01	0,0380097829	56,81	-0,068
31.05.07	563,87	0,0422605581	54,12	-0,0472103
29.06.07	586,86	0,0407662174	47,30	-0,126126126
31.07.07	573,36	-0,0229999342	45,25	-0,043298969
31.08.07	548,42	-0,0434967180	45,84	0,012931034
28.09.07	575,15	0,0487306107	45,93	0,00212766
31.10.07	594,99	0,0345070583	38,13	-0,16985138
30.11.07	572,79	-0,0373133990	30,91	-0,189258312
28.12.07	569,98	-0,0049007361	28,28	-0,085173502
31.01.08	458,80	-0,1950672685	26,62	-0,05862069
29.02.08	495,55	0,0801126245	23,60	-0,113553114
31.03.08	477,40	-0,0366389422	22,14	-0,061983471
30.04.08	535,53	0,1217757255	28,57	0,290748899
30.05.08	574,66	0,0730695516	40,57	0,419795222
30.06.08	536,94	-0,0656511413	29,84	-0,264423077
31.07.08	494,33	-0,0793602755	30,04	0,006535948
29.08.08	493,81	-0,0010513307	22,53	-0,25
30.09.08	375,62	-0,2393424789	15,51	-0,311688312
31.10.08	294,80	-0,2151676147	8,87	-0,427672956
28.11.08	266,63	-0,0955322770	5,75	-0,351648352
30.12.08	270,20	0,0133733832	1,40	-0,756682705
30.01.09	274,22	0,0148630699	1,36	-0,028571429
27.02.09	259,06	-0,0552710474	0,95	-0,301470588
31.03.09	269,49	0,0402548139	1,00	0,052631579
30.04.09	298,24	0,1066792931	1,49	0,490000000
29.05.09	343,11	0,1504679669	2,31	0,55033557
30.06.09	333,08	-0,0292327287	2,92	0,264069264
31.07.09	347,61	0,0436141982	4,30	0,47260274
31.08.09	350,06	0,0070573547	3,68	-0,144186047
30.09.09	370,83	0,0593191724	3,59	-0,024456522
30.10.09	380,77	0,0268218978	3,17	-0,116991643
30.11.09	396,71	0,0418434667	2,90	-0,085173502
30.12.09	420,09	0,0589488257	3,22	0,110344828
29.01.10	408,92	-0,0265870207	3,20	-0,00621118
26.02.10	397,09	-0,0289394194	2,74	-0,14375
31.03.10	425,22	0,0708543572	2,88	0,051094891
30.04.10	434,10	0,0208720237	2,80	-0,027777778

SAMMENDRAG (UTDATA)

Regresjonsstatistikk	
Multippel R	0,525407686
R-kvadrat	0,276053237
Justert R-kvadrat	0,263352416
Standardfeil	0,185920891
Observasjoner	59

Variansanalyse

	fg	*SK*	*GK*	*F*	*Signifkans-F*
Regresjon	1	0,751307029	0,751307029	21,73507127	1,93049E-05
Residualer	57	1,970294927	0,034566578		
Totalt	58	2,721601956			

	Koeffisienter	*Standardfeil*	*t-Stat*	*P-verdi*	*Nederste 95%*	*Øverste 95%*	*Nedre 95,0%*	*Øverste 95,0%*
Skjæringspunkt	-0,040958911	0,024435485	-1,676206187	0,099175092	-0,089890126	0,007972303	-0,089890126	0,007972303
X-variabel 1	**1,507240858**	0,323297335	4,662088724	1,93049E-05	0,859849118	2,154632599	0,859849118	2,154632599