Table of Contents

Figures

Acronyms

FCFE	Free Cash Flow to Equity
FCFF	Free Cash Flow to Firm
P/E ratio	Price to Earnings ratio
P/S ratio	Price to Sales ratio
ROE	Return on equity
ROA	Return on assets
ROC	Return on capital
Re	Cost of equity
Rd	Cost of debt
Rwacc	Weighted average cost of capital
CAPM	Capital asset pricing model
AIK	Allmänna idrottsklubb Solna
PSE	Parken Sports & Entertainment
Tc	Tax rate

1 Introduction

In this chapter one will be able to read about the discussions and explanations of the background to the choice of topic for this thesis. This will be followed by a problem discussion concerning the topic. Further on in this chapter the purpose and some interesting earlier research will be presented.

1.1 Background

Getting listed on the stock exchange was very popular among football clubs during the 90´s. The owners of the clubs found their way to the stock market to obtain venture capital, which could put the club in a better financial situation. The television deals, which included a few selected football teams, had no limits. The owners of the club could simultaneously, through new issues, create large private fortunes. (Lundqvist, 2005)

Football clubs in England has created incorporated companies since the end of the 1800s but the clubs was then conducted without profit seeking. The stocks of the club was assigned to people that had done voluntary work for the club. When the television agreements entered the football market these old shares became very valuable. (Lundqvist, 2005)

There seemed to be no restrictions on how much money that could be earned in the television market. Almost every club started to invest. The clubs invested in borrowed money with future television revenues as a security. When this television market collapsed in year 2000 the cash flow was strangled and left, for most of the clubs, was only liabilities. Usually one can distinguish between three different types of owners for a football club; the club can be an incorporated company that seeks for profit maximization to satisfy its owners. Another type is that the club has a venture capital that brings players for the club and in return they take part of the profits if the player is sold with a profit. There are also some owners that see an investment in a football club as a hobby which they can spend money on. They usually do not care if they make profits or losses. (Svensson & Rothmaier, 2006)

When looking at the international market for football clubs they are usually incorporated companies and therefore comparable with an ordinary profit maximizing firm. One of the most well known football clubs in the world is Manchester United from England. This club was listed for a long time but is now in trouble since an American called Malcolm Glazer bought the club for 790 Million Pounds. Glazer has no interest in football and many people claims that Glazer does not care what he invest in as long as the returns are high. (Svensson & Rothmaier, 2006)

Glazer also decided to delist the club in 2005, when he became the owner of over 90 percent of the shares in the club due to borrowed money and thereafter put his debts into the accounting of Manchester United. (Svensson & Rothmaier, 2006)

The total opposite to Malcolm Glazer is Chelsea Football club´s owner Roman Abramovich, which is a very wealthy man from Russia. He sees the football as a hobby and has already thrown out billions on players and salaries. He buys overprized players in combination with high salaries. When the players gets to sit on the bench and becomes dissatisfied he has to sell them off for a small amount and therefore he risks getting a loss for every player he sells. If Chelsea had been an incorporated company a bankruptcy would not have been very far away. Roman is still putting in a lot of money in Chelsea and this has lead to the result that the team has been very successful. (Vrooman, 2007)

1.2 Problem Discussion

In the business environment that football clubs function within today the importance of their financial value is getting more and more important since many football clubs nowadays are bought by big investors. Further on the discussion of corporate and ownership structure has grown significantly. Should the path from shareholder to director be long or short? Should the companies be centralized or decentralized?

To be able to measure something as abstract financially as satisfactory corporate structure one will have to find a justified comparison tool. In this case the focus will lie on the value of the specific companies; if they are over or under valued.

This is why the main focus in this report will lie on the actual values of these two firms. Everything will be looked upon from a strictly financial perspective.

In 2003 Torben Pedersen and Steen Thomsen did some research in this specific subject involving the biggest firms in Europe. Their results in short were that ownership structure in the form of owner identity really does matter in the sense of firm value. It is shown in the research that the effect of ownership concentration, meaning how many shares that are owned by the same organization or person, is larger when the largest owners are financial institutions or other co-operations. Although the effect is significantly lower when the government is involved in the ownership of the specific company. (Pedersen & Thomsen, 2003)

This specific research is what encouraged the idea of this master thesis. One of the major discussions in the sports world today actually is the discussion of club ownership. In recent years many rich investors have bought teams all over Europe. For Example; Roman Abramovich is the owner of Chelsea FC (Chelsea FC, 2011) and the Glazer family are the owners of Manchester United. (Manchester United FC, 2011) The big question

is why these people actually invest? Is there really a financial gain to be won or is it strictly from a football interest the investments are made? (Aktiespararna, 2011).

Roman Abramovich is looked upon as a savior while the Glazer family is notorious among the Manchester United fans. Discussions are always held in various football forums which teams are better off; the ones with few large owners or where the fans own large parts of the clubs. An example of a large club in Europe that is owned by very many few shareholders is Barcelona FC and their recent financial results have been very negative. (FC Barcelona, annual report, 2008/2009) Although one hardly ever is able to read about any facts where the value of the team is in the center of discussion, which is why this thesis will compare two Nordic football clubs ownership structures and their respective value.

1.3 Purpose

The main purpose of this thesis is to, with the use of relevant valuation theory and corporate structure theory, describe the value of Allmänna Idrottsklubb Solna and Parken Sport & Entertainment and to see what incentives there are to invest in these two firms.

1.4 Research Questions

To get a better structure when doing this empirical study it was most suitable to organize a few research questions that could be used as frames for the study. The first question that was found interesting to investigate was what the actual value for Parken Sport & Entertainment and Allmänna Idrottsklubb Solna was; further on the two firms true share prices should be calculated. After this it will be shown whether the firms are under- or overvalued when it comes to their share price.

The next part of this thesis is the investigation of the corporate structures of the firms; what corporate structures are used in the two firms? Does the corporate structure affect the incentives to invest?

Finally, the main question; are there any incentives to invest in Parken Sport & Entertainment, Allmänna Idrottsklubb Solna or even both?

1.5 Problems with the thesis

One major problem was that AIK had very many negative ratios and therefore many of the valuation ratios were rather hard to use. Another similar problem was that neither of the two firms paid out any dividends over the last 10 years (except for PSE in 2007) and therefore no dividend discount models could be used.

Further on some difficulties were found since PSE operates in many more markets and is a much larger organization, but this was also something positive since one then easily could see if this was good or bad. Further on; the fact that the two firms are operating in two different countries could also be seen as a problem but this also made it a bit more interesting.

When writing this thesis bias is one problem which is hard to get away from. The two firms can get very differing results depending on how their sporting year has gone and therefore their book value will differ from that.

1.6 Delimitations

To make this thesis manageable in the specific time frame and to stay within the relevant subject the authors decided a few delimitations. The first one is that no research will be made in the subject of the difference of business climate between Sweden and Denmark; hence it is taken for granted that the interest of football and sporting is rather equal. There will not be any research made on the different financial situations in the two countries.

Further on; the valuation is limited to the methods and models mentioned in the Choice of method. The dividend discount model cannot be used due to that the two clubs do not pay any dividends.

Another important delimitation is that the authors of this thesis take for granted that the reader of this report will have small but yet some knowledge in the subject of finance.

There will be no effort put into analyzing the different risk moments due to the two different countries.

A more specific limitation that had to be made since AIK had negative results in many of the years was that the P/S ratio had to be used instead of the P/E ratio when valuing. .

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List of research project topics and materials

1.7 Choice of firms

This choice was rather easy; there are very few listed Swedish football clubs and AIK is one of them; it is a well-known club both in Sweden and northern Europe. Also the authors of this thesis wanted to compare a Swedish club to a foreign one which did not differ too much but still had some differences. For example a club which owned their own stadium and thereby also shows that this together with other factors provides a better financial situation. This is why Parken Sport & Entertainment was the most suitable choice.

1.8 Structure of the thesis

Chapter 1 – Introduction: Describes the background to the chosen topic and the problem of the study, the problem is described and delimitated and the discussion leads to the purpose of the report.
Chapter 2 – Theoretical framework: In this chapter the relevant theories for the thesis' problem and purpose are presented
Chapter 3 – Methodology: This chapter illustrates our choice of method and course of actions during the collection of our empirical research. It explains our choice of respondents and discusses the trustworthiness of our study.
Chapter 4 – Empirical findings: This chapter presents the study's empirical results.
Chapter 5 – Analysis: In this chapter the authors present the thesis' analysis, where theory, previous studies and the empirical study connects and analyses.
Chapter 6 – Conclusion: This chapter presents the conclusions around the results that have been delivered in the analysis. The analysis will be referred to the thesis problem and purpose and the conclusion will clear what the analysis has contributed with.
Chapter 7 – Future Studies: In this last chapter the authors will give reflections about future interesting subject to do further research on.

1.9 Earlier Research

There have not been a great deal of research made specifically on football clubs therefore most of the reading has been on regular firm valuation theory and earlier studies of this sort. Mostly the financial studies on football clubs has been on spending power since this is of major importance for clubs today (Franck, 2010).

1.9.1 Firm valuation

Regular firm valuation has as mentioned been studied a lot; one early method when it comes to the specific value of the individual firms is the Modigliani & Miller method. According to Brennan & Schwartz (1986) the model does not involve that many risk measures as one could appreciate.

The most interesting research made in this subject, who also suits the contents of this thesis is actually the choices of valuation methods. The Swede Per Flöstrand (2006) wrote about the importance of choosing the correct valuation model. There is a jungle of different models and methods to choose from. According to Barker (1999) one can differ the methods between sophisticated and unsophisticated valuation models. A sophisticated model is a model that focuses on the net present value of the financial performance of several future periods and an unsophisticated method is when calculations are made on one period (Flöstrand, 2006).

Further on two students of Uppsala University wrote a very interesting thesis dealing with the valuation of a football clubs´ assets. It is discussed whether it is shown truthfully in the annual reports. According to Swedish law a normal firm is not allowed to include personnel into the balance sheet; but in the case of a football club it is allowed keep players as intangible assets, but it is no must. This might affect the value of the football club since many times their players are the most valuable part of the firm. (Hård & Larsson, 2010)

1.9.2 The football industry

The argument never gets old; football is turning into a financial war and purchasing power is more and more important to achieve great sporting results. According to Deloitte Report, only two of the 11 biggest leagues in Europe create moderate net income; Premier League in England and Bundesliga in Germany. (Deloitte, 2009) Although it is also shown that the numbers are even worse if one investigates the income after taxes and interest payments. (Walters & Hamil, 2008).

As we know there are many extremely wealthy people owning football clubs; Abramovich and Chelsea Al-Fahim and Manchester City and so on and surely many of them do

it purely because of interest in the sport but one can only assume that there are many investors searching for good returns on their invested money. One example of this is the ongoing discussion about the Glazer family and Manchester United on different football forums.

Further on as stated in an article from the International Journal of Sport Finance; spending power is getting more and more important for a football club. (Franck, 2010) This will definitely lead to a need of getting more investors and to make it easier to find investors the clubs need to start achieving better financial results in the forms of giving return on invested money. Although one must not forget the fact that there are other interests than profitability for some investors. One example is Roman Abramovich; he is spending extreme amounts of money every year on Chelsea Football Club and they are not profitable. (Franck, 2010) Therefore it is most likely other factors that attract investors but still; it is easier to attract investors to a club with good finance.

There is a rather big paradox in this issue; on the one hand most clubs in Europe has low profitability but on the other hand they have become more and more financed by debt. In 2009 the clubs in the Premier League had accumulated debts of £ 3, 1 billion. (Conn, 2009) This will also be shown in the two clubs examined in the following sectors of this thesis.

Obviously these large amounts of debt are caused by the correlation between spending loads of money on talented players and increasing the probability of achieving good sporting results. (Dietl, Franck & Roy, 2003) The question is; to what price?

1.10 Summary of expected Result

The authors of this thesis expect that Parken Sports & Entertainment will be a more sound investment due to larger success in sports in Europe. (Annual report, AIK Solna, 2010 & Annual report, PSE, 2010) This leads to larger income.

Our hypothesis is also based on that PSE has a more wide business concept compared to AIK, for example the fact that they own their own stadium. (Annual report, PSE, 2010)

1.11 Summary of the actual results

As expected Parken Sport & Entertainment turned out to be more attractive investment than Allmänna Idrottsklubb Solna. PSE show better results in all the profitability ratios, their firm value is more fair and their share price as well. Allmänna Idrottsklubb Solna is overvalued while Parken Sport & Entertainment is neither over- nor undervalued.

2 Background of the valuation process

In this chapter there will be a short description of different firm valuation approaches and the different pros and cons for different sorts of businesses. Thereafter one will be able to read more specifically about the different models that will be used in this thesis. Finally there will be a short description of corporate structure theory.

2.1 Financial valuation approaches and general theory

There are many different approaches to valuation theory, one can value many parts of a company such as; just the equity or one can value the entire firm. (Damodaran, 2008) In this thesis the two clubs will be valued entirely as two firms. The reason to this is that it will lead to the most accurate comparison due to the simple reason that the two clubs are built up in different ways and the purpose is to be able to draw a conclusion about the affects of the entire firm value, not single parts of the companies.

In the following part of the thesis one will be able to read more thoroughly about the 14 different profitability and valuation approaches that will be used in the valuation of the clubs. The profitability measures will be used to compare the two firms at more specific levels and so that one will get a wider view of the entire firms. The valuation methods will be used to get a specific value for the firms that later will be evaluated.

With the help from the following models one will be able to get an overview of the firms return on their different assets and also how good of an investment these two firms might be. By using these valuation methods and ratios one will also be able to get an understanding in how these firms are structured and organized.

When it comes to valuation of a firm, as written earlier, there are many different aspects that one can take into consideration, for example one can value separate assets and smaller parts of a firm or one can value the firm from a larger and wider perspective.

The following paragraphs will give more specific information about the different ratios and methods that will be used when valuing the two firms. ‘

One can consider Valuation as the foundation of finance. By changing firms investments, finance, and dividends problems we reflect on how to increase a firms value. Trying to find firms that trade for less than their true value is something that every investor search for. Studying if a market is efficient or not is also something that an investors search for. To get an understanding of how the estimation that determines a value for a firm is done seems to be a requirement for making solid and reliable decisions. (Damodaran, 2006)

There is a wide spectrum of valuation models used by analysts when doing research. The models that are used do often differ in assumptions when determining value but

share some common characteristics. One can say that there are four different approaches to valuation and the first and most known of these are the discounted cash flow valuation. According to Damodaran; this type of valuation relates the value of an asset to the present value of expected future cash flows on that asset. (Damodaran, 2006)

2.1.1 Discounted cash Flow Valuation

We invest in most assets because that we expect them to generate profits in the future. In this discounted cash flow valuation the value of an asset is not what one think is the value of that asset but it is the expected cash flow of an that asset. One could say that assets with high and future cash flows should be more valuable than assets with low cash flows.

A man called Irving Fisher developed the principles of modern valuation theories in his book the rate of interest. In this book he brought up four approaches when analyzing an investment. Fischer stated that when multiple investments occurs you should choose the investment that has the highest present value at the market interest rate, where the present value of the benefits exceeded the present value of the costs the most; with the rate of return on sacrifice that most exceeds the market interest rate or that, when compared to the next most costly investment, yields a rate of return over cost that exceeds the market interest rate. (Damodaran, 2006)

Fischer did not dig that deep in to the notion of the rate of return while some other economists did. Keynes stated that the marginal efficiency of capital could be figured as the discount rate that makes the value of the returns on an investment equal to its current price and was therefore comparable to Fisher´s rate of return on an investment. (Damodaran, 2006)

In the discounted cash flow valuation there are four different models. The first of these models states that we discount expected cash flows on asset at a risk adjusted discount rate to get to the value of an asset. Secondly we adjust the expected cash flows for risk because not to risking to get risk adjusted cash flows, which we in turn discount at the risk-free rate to estimate the value of assets that can be seen as risky. (Damodaran, 2006)

Thirdly we value an industry at first, without taking debt effects into consideration, and then reflect on the marginal effects on value of borrowing money. The last of these models states that one can value a business as a function of the excess returns that we expect from investment. There are common assumptions that bind these approaches together but there are some statements in practice that results in different values. (Damodaran, 2006)

The most common approach for adjusting risk in discounted cash flow is the risk adjusted discount rate approach the most common. This approach is according to Damodaran explained as; where we use higher discount rates to discount expected cash flows when valuing riskier assets and low discount rates when valuing safer assets.

2.1.2 Liquidation and Accounting Valuation

The second of these approaches is known as liquidation and accounting valuation. This approach focus to value the existing assets of a firm, that starts with accounting estimates of book value. (Damodaran, 2006)

The value of a firm's asset in the discount cash flow framework is the present value of the expected cash flow of that asset. When extending this plan to valuing a firm, it can be stated that the value of a business is equal to the sum of the values of the assets that are owned by the business. There are some difference comparing a valuation between a collection of assets and a business. The largest difference is that an industry or a firm is a running unit with assets that already are owned by the firm and assets it expects to invest in the future. (Damodaran, 2006)

A balance sheet for a firm gives a good framework where one can draw out the differences between valuing a business as a running concern and therefore valuing the business as a collection of assets. In running concern valuation judgments has to be made, not only on existing investments but also in future investments and the earnings that these investments will generate. In this type of asset-based valuation, the focus is on the assets in place of the firm and an estimation of the value for each of the assets has to be made separately. For companies with growth opportunities, asset- based valuations will yield lower values compared to a going concern valuation. (Damodaran, 2006)

2.1.3 Relative Valuation

Relative valuation is another approach of valuation and this type estimates the value of an asset by looking at the pricing of similar assets relative to a common variable. An example of this could be that a house buyer decides how much to pay for a house by looking at the prices that are paid for similar hoses in the same area. (Damodaran, 2006)

There are three steps in relative valuation. The first of these steps is to find comparable assets that have a market price, which can be seen to much easier to find for let us say a house compared to a stock. Second step in the relative valuation would be to dividing the market prices to one common variable to generate prices that are equivalent. This will be necessary when comparing assets that differ in size and divisions. Third step would be to adjust for differences across assets when comparing their values. For ex-

ample a newer house with new inventories should be priced higher than a house in the same size that needs to be renovated. (Damodaran, 2006)

There are a large difference between discounted cash flow and relative valuation. In relative valuation a judgment on how much asset is worth by looking at what the rest of the market pay for similar products is done. In the discounted cash flow valuation an attempt to estimate the value of assets based of its capacity of generating future cash flows. (Damodaran, 2006)

2.1.4 Claim Valuation

The last of these four approaches is called claim valuation. The characteristics of a claim valuation are that this approach often uses option pricing models to measure the value of an asset that share option characteristics. (Damodaran, 2006)

2.2 Financial valuation models and key ratios

2.2.1 Free Cash Flow to Firm

The Free cash flow to firm is a measurement that shows parts of the profitability of the firm after all expenses and reinvestments have been paid. It is a great way of measuring how healthy a firm is. This is specifically important when valuing a firm's shares since if the firm has a strong free cash flow then this means that, in this case, the specific club has more capital that could be turned in to dividends. (Damodaran, 2002)

FCFF=Net Operating Profit – Tax – Net Investments – Net Change In Working Capital. (McGraw. Hill. 2001)

2.2.2 Free Cash Flow to Equity

The FCFE model is, as it may seem very similar to the FCFF. It is an alternative way of determining the value of a company. It describes how much the company can pay out to equity investors after all expenses are paid.

FCFE = Net Income - Net Capital Expenditure - Change in Net Working Capital + New Debt - Debt Repayment (Damodaran, 2010)

The FCFE can be seen as a cash flow that either can be paid out as dividends or also used for the company to buy back shares. Therefore this is an extremely valuable measure when determining the value of a firm. (Damodaran, 2008)

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2.2.3 Modigliani & Miller theory

Franco Modigliani and Merton Miller developed the Modigliani & Miller Theorem of capital structure in 1958. This theorem states that with the lack of taxes, bankruptcy costs and asymmetric information a company´s value is unaffected by how it is financed, even if the companies capital consists of equities or debt, or a combination. A few principles underlie the theorem, which hold under the assumption of both taxation and no taxation. (Brennan & Schwartz, 2006)

There are two principles that are most important. The first of these principles are the assumption of a world with no taxes. Assume a very simple world in which there is no such thing as taxes, bankruptcy costs, or unequal access to information and all financial markets are assumed to be efficient. In this type of market Modigliani & Miller claimed that the cost of debt is lower than the cost of equity based upon the level of risk. In the beginning a company is often financed by stakeholders since the company does not have the ability to create profits. Therefore the company´s cost of capital is the same as its cost of equity. (Damodaran, 2002)

An example of this; a company´s stockholders want 15% per cent rate of return at the time the company is created. The overall cost of capital is therefore also 15% since equity is the only funding used to funding used for the company. As the company starts to grow it gets the opportunity to borrow money at an interest rate of 10%. When the company borrows more and more money, two forces begin to move against each other. The average cost of capital is pulled down as the company takes advantage of the cheaper source of financing.

Example:

Proportion	×	Cost		WACC
0.20	×	10%	=	2%
0.80	×	15%	=	12%
Cost of capital			=	14%

The average cost of capital is pulled up because higher debt levels will increase the risk of the stockholders and therefore the stockholders will increase their demand with a higher rate of return. Therefore one can say that the cost of equity goes up. (Ross, Westerfield, Jaffe & Jordan, 2008)

This research showed that in a world without taxes these two forces would offset each other. It doesn't matter how much debt a company uses, the cost of capital will be the same whether the company uses no debt or large levels of debt. (Modigliani & Miller, 2008)

The other principle of Modigliani & Millers theorem would be a world with taxes. Since interest tax is deductible and common stock dividends are not debt become even cheaper than before. If the tax rate is higher the more attractive debt financing becomes. Assume that a company is in the 40% tax bracket, with an interest rate of 10% becomes 6% in after tax cost.

Since debt is less now, using more and more of it will cause the cost of capital to decrease. Should a company then finance itself with as low cost of capital as possible? At some point lenders will cut you off and stop lending money and in that point you have reached the optimal capital structure. The Modigliani & Miller theorem compares two different companies, one unlevered company, which is totally financed by equity, and a levered company, which is financed partly by equity and partly by debt. This theorem states that if these two different types of companies are identical in every other way the value of these two companies are the same. (Miller, 1988)

2.2.4 Growth model

The model was introduced by Myron J. Gordon in 1959 and has been approved by the financial community. A company working within a sector that is not easily affected by external changes and has similar growth from year to year is seen as a company that has stable growth. In this model one assumes that the company has one specific growth rate of FCFF in perpetuity. This is why the formula for the Single Stage Growth Model (Gordon Growth Model) is formulated the way it is. (Stowe, Thomas, Robinson & Pinto, 2007)

To get a value of the firm one obviously has to take the cost of capital into consideration. In this model one chooses to use the WACC, which is the weighted average cost of capital. One can rather easily calculate the WACC in the following way:

In the diagram below there is an example of how a stable growth will look over time. There will be no changes and will continue growing as much every year.

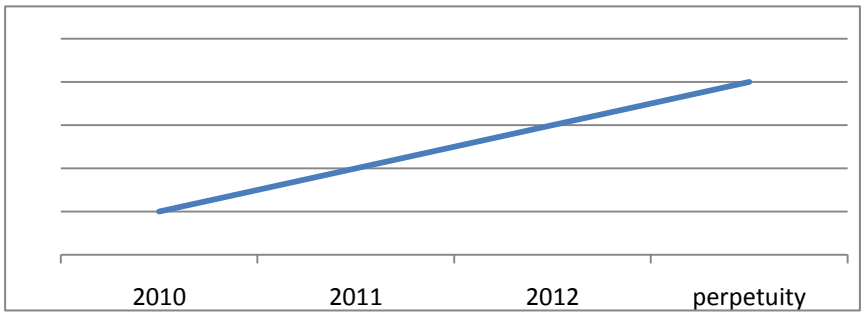

Fig 2.1 Ex. Stable Growth model (Bäckström & Andersson 2011)

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The major positive aspect of the Single Stage Growth Model is the simplicity. Since one only have to use one certain stage of growth. This allows us to do fewer calculations and therefore many people when evaluating stocks use this.

There are a few major disadvantages with the Gordon Growth Model; for example: If one is to be logical, the chance of that a firm can stay in the same growth in perpetuity is almost equal to zero. One will get more truthful results if dividing the company's growth periods into more than one. One cannot forget that the growth is affected by the surrounding market; and what company is not in some kind of competitive market. Even a monopoly will be affected if their goods become less attractive. (Qfinance, 2011)

2.2.5 Return on Equity (ROE)

This is a measure of how the stockholders did financially during the year. Since the goal is to benefit the shareholders, return on equity is in an accounting sense the bottom line measure of performance. This is expressed as a percentage of the firms net worth. This percentage describes how much every dollar in equity generated in profit. Return on equity is measured by dividing net income by total equity. (Damodaran, 2007)

$$(1)\ \text{Return On Equity} = \frac{\text{Net income}}{\text{Total Equity}}$$

Ex. $250 in net income divided by $2500 in total equity = 10%. Therefore every dollar in equity generates ten cents in profit. (Ross, Westerfield, Jaffe & Jordan, 2008)

2.2.6 Return on Assets (ROA)

Return on the company's assets is a financial ratio that measure profit for each dollar of an asset, it is measured by dividing the net income by the total assets of the firm. (Damodaran, 2007)

$$(2)\ \text{Return on Assets} = \frac{\text{Net Income}}{\text{Total Assets}}$$

It is a profitability ratio because it provides information about management's performance in using the assets of the firm to generate income. Comparing with other profitability ratios Return on assets differs in that way that it includes all of business assets, including those, which arise out of liabilities to creditors, and those, which arise out of contributions from investors. The presence of liabilities makes return on assets valuable as an internal measurement tool in evaluating the performance of different departments of a company. (Ross, Westerfield, Jaffe, & Jordan, 2008)

2.2.7 Return on Capital (ROC)

This is a measure of that describes how effectively a company uses its money invested in its operations. It is a ratio that indicates the efficiency and profitability of company´s capital investments. The return on capital indicates how well a company would do with more capital compared to return on equity which gives an idea of how much return the equity is generating. The return on capital should always be higher than the rate of borrowing otherwise an increase in earnings will reduce shareholders earnings. Return on capital is measured by dividing EBIT with the Book value of Debt plus the Book value of the firm equity. (Damodaran, 2007)(Essortment, 2011)

$$(3)\ \text{Return on Capital} = \frac{\text{EBIT}}{\text{Book Value of Debt+Book Value of Equity}}$$

2.2.8 Beta value

The beta is a certain parameter that measures the market risk, also called systematic risk and its volatility. (Hill, 2010) Volatility is a measure of how radically the stock's value fluctuates up and down. The market risk is built from several different parameters for example;

- Interest Rate Risk – The risk and chance of interest rates increasing or decreasing.
- Foreign Exchange Risk – The risk of exchange rates changing.
- Commodity Price Risk – The risk of changes in commodity pricing.

(US Securities and Exchange Commission, 1997)

Further on; the measurability of the beta is conducted in the following way $0 < 1 < \infty$. Meaning that if the beta value of a stock is below one the company's systematic risk and volatility is similar to the rest of the market. If the Beta were to be below 1 (<1) this would mean that the market is at a lower risk than their competitors and a beta above 1 (1<) implies that the company's market risk is higher than the rest of the market. (Damodaran, 2008)

To calculate the Beta value one will need two other parameters and below one can see the formula. (Damodaran, 2008)

$$(4)\ \text{Beta of an Asset i} = \frac{\text{Covariance of asset i with Market portfolio}}{\text{Variance of market portfolio}}$$

As one can see in the formula one must calculate the covariance of the specific asset and thereafter the variance of the entire portfolio.

2.2.9 Variance & Covariance

The variance is also described as a risk measure; namely it describes the volatility of a stock compare to a specific mean; the greater the volatility, obviously, the higher the risk. The variance basically describes the dispersion of a data set. (Damodaran, 2008

The variance of the entire portfolio is determined by first calculating the variance of the specific assets and thereafter determining how they move together, this is how one gets the covariance which also is a statistical measure. (Damodaran, 2008) These calculations explain the importance of diversifying once portfolio.

2.2.10 Price to Earnings ratio

The price to earnings ratio gives us an idea of the relationship between the current market price and the earnings per share. This specific measure helps investors to see what the future prospects of the company's stock appear. (Damodaran, 2002)

The formula of the P/E ratio according to Stephen H. Penman. (1996) is;

$$(5)\ \text{Price to Earnings ratio} = \frac{\text{Price per Share}}{\text{Annual Earnings per Share}}$$

When the P/E ratio is high for a stock this most often means that the investors have reason to believe that the stock will be more valuable in the future. This measure obviously is not enough to build a case whether to invest in a company or not.

The P/E value of a company should, to be the most truthful, be used when comparing company's in the same business sector since the values that are involved in the formula are very different for different businesses. Another important factor to take into consideration when working with the P/E ratio is that since the denominator; earnings per share, is a book value which means that it is very often manipulated to make a company look more or less profitable. Given this the P/E might give a false impression of the value of a company's stock and therefore one should only use it together with other measures. (Penman, 1996)

2.2.11 Price to Sales Ratio

The price to sales ratio is used when a firm shows negative results over a period of time. It describes the value of every SEK in net revenue. Meaning that if the P/S ratio is 2, every SEK in net revenue is worth 2 SEK. A firm with low P/S ratio will have to make much larger increases in the net revenue than a firm with high P/S ratio to become a better investment. Easily put; the higher the P/S ratio the worse the investment. (Aktiespararna, 2011)

2.2.12 Weighted Average Cost of Capital

Obviously the Weighted average cost of capital is the least an investor want in return when investing in a company. One can say that the WACC is determined by the investors and thereby one can also state that if the investors demand a high WACC (high return on their investment) the company will also be in higher risk, as known; high return leads to higher risk taking, and vice versa. (Stewart III, 1991).

The formula for calculating the Weighted average cost of capital according to André Farber, Roland Gillet, and Ariane Szafarz. (2006) is;

$$(6)\ \text{Wacc} = (\text{Cost of Equity})\left(\frac{\text{Equity}}{\text{Equity+Debt}}\right) + (\text{After tax Cost of Debt})\left(\frac{\text{Debt}}{\text{Equity+Debt}}\right)$$

2.2.13 Cost of Equity

As explained in the lining this is the cost of equity for a company, this measure is also a measurement of the investors' minimum return requirements on their investment in the firm.

One way of calculating the cost of equity, the way that will be used in this thesis, is the capital asset pricing model (CAPM model). Rm is the risk premium for the market and is often set to 5,5. (Damodaran 2008)

The formula for calculating the Cost of Equity according to André Farber, Roland Gillet, and Ariane Szafarz. (2006) is;

$$(7)\ E(R_i) = R_f + \beta_i\big(E(R_M) - R_f\big)$$

2.2.14 Interest Coverage Ratio

The interest coverage ratio is a measure of how well the company can cover their interest payments. Obviously this is seen as a vital ratio since it tells us how safe of an investment a company is. Their cash flow should be strong enough to cover their interest

payments. It also tells us how heavy the company is in debt compared to their assets. (Damodaran 2001)

As known we have seen very low interest rates in the latest years due to the financial situation that has been. (riksbanken.se. 2011)) This implies that now when the interest rates are starting to normalize (increase) many companies interest coverage ratio will be lower.

Basically it tells us how many times a firm is able to pay their interest rates with their EBIT (Earnings Before Interest and Tax).

2.2.15 Capital Asset Pricing Model

When pricing an asset there is, according to H.M. Markowitz, always a part of the total risk of the investment that is impossible to avoid by diversifying. Therefore the CAPM helps to calculate a certain risk premium. The CAPM is popular just because it takes un-diversifiable risk into the equation. Un-diversifiable risk is so called market risk or systematic risk and is most often showed by the Greek letter beta (β). (Fama, Eugene, French, Kenneth. 2004)

To calculate CAPM one needs three different variables; risk free rate (government bonds), the market risk (β) and the expected market rate.

The formula for calculating the Capital Asset Pricing Model according to Damodaran (2001) is;

$$(8)\ E(R_i) = R_f + \beta_i\big(E(R_M) - R_f\big)$$

The securities market line, SML, is the core of the CAPM. It basically explains the linear relationship between the expected return on the market portfolio and the risk free rate.

There are a few weaknesses of the capital asset pricing model are; one, which is rather famous, is brought up by the scientist, Nassim Nicholas Taleb. He claims that the CAPM is based on the fact that the return is normally divided by random variables, although scientists have found that most derivatives are not normally divided. This leads to rather high volatility and therefore this model can lead to misleading results. (Macinlay, 2000)

The assumptions of the CAPM are that there are no transaction costs, no private information; the traded portfolio involves all traded investments in proportion to their specific market value. (Damodaran, 2008)

2.3 Corporate Structure - a part of the Valuation Process

The corporate structure of a company is designed in different departments, divisions and positions that interact together to manage activities in a company. One could say that the corporate structure is necessary for a company to ensure that all-important tasks are performed in line with the guidelines of the company. The corporate structure of a company is important to analyze since it helps the company with the layout of the company. For example the economy department handles all the questions that include economic concerns and sales department handle the marketing of goods and services that are produced to the customers.

Further on a corporate structure creates a line of communication for the employers to use. It can create ideas and questions from anyone in the organization. This communication line helps the corporate structure to ensure an effective interaction and also to minimize that time is wasted because information moves through the company in a disorganized way.

The corporate structure is of very big importance when it comes to the incentives to invest in a firm or not. If a firm uses a corporate structure which does not suit them this will most likely have a negative impact on the development of the firm (Snow & Miles, 1978). This is why the corporate structure of these two firms will be discussed.

Finally the corporate structure creates a working group chain. Companies does often require that responsible persons are placed in different departments in the structure to ensure that everything is done right and in accordance to the companies rules. (Irwe & Ringstedt, 2009)

2.3.1 Corporate Structure for firms in the Sporting Sector

In the company law distinguishes between two different types of system, dualistic and monistic system. The dualistic system has a two-tiered board and consists of a management board and a supervisory board. Among these organs is a strict functional distribution. In the monistic system the board is the only corporate law system. Sweden has formally a monistic system but in practice Sweden is somewhere between these two systems because there are no other controlling organ beyond the board with the mission to oversee the management of the company. According to Swedish law public listed companies has to select a CEO, which leads to a two tired managerial. (Russel, 2010)

When establishing a football club the members of that club will have to select the most suitable form of structure for the organization so it can be recognized can be accountable for membership. In this section of this thesis two legal structures will be explained, unincorporated association and a limited company. (Russel, 2010)

2.3.2 Unincorporated association

This is the most common structure that is used among sport clubs. The members of the club decide and agree to establish a club with its rules and running progressions. This type of club structure can be seen as the easiest way to operate and run a club. It is an association since the club does not have a separate legal identity. For the legal purpose of an unincorporated association the club is regarded as an association of members.

This type of structure is most suitable for:

- Small local clubs
- Clubs without equipment, buildings and financial assets
- Clubs that provides service only for their own members

A large consequence of this structure would be that if something goes wrong then, all the members would be responsible. So let say that the association goes bankrupt then all the members of the club would be liable for the debts of the club. (Russel, 2010)

One positive thing with this type of structure is this association is simple to set up and run. Most of the unincorporated associations are able to insure themselves against common risks. (Russel, 2010)

2.3.3 Limited Companies

When deciding to turn a sport club to into a Limited Company the club turns into a legal company object in its own right. One use to differ between two types of Limited companies. (Russel, 2010)

At first a company can have issued share capital, where the ownership and control is among the shareholders. This type of limited companies can be seen as inappropriate for sport clubs. (Russel, 2010)

Companies limited by a guarantee where the members of the club are guaranteed to get a small sum if the club has trouble to meet its commitments. This type is commonly used when a sport clubs wish to be incorporating as a company.

A limited company differs from an incorporated association in the way that it is the club that is responsible for the clubs duties and debts. The members of the club will not be held responsible for the club and they can only be held responsible to the nominal value of their guarantee. (Russel, 2010)

2.3.4 Centralized (Vertical)

This type of corporate structure is occurring when one single individual make decisions and creates directions for a company. In a centralized corporate structure all major decisions are made at the top of the hierarchy of the company. This type of corporate structure is focusing on so called top down management, where the executives at the top discuss with the middle managers, which in their turn tell the first level managers who then tell the staff what to do and how to do it. Since this structure tends to be bureaucratic the employees tend to have little freedom. (Wahlberg & Zimmer, 2008)

An example of this is Ford motor company, when Henry Ford was running the company the company was very centralized and Henry Ford made every decision in the organization. (Ford, 2011)

This type of corporate structure is mostly common in small companies when the owner is responsible for the company's operations. Centralized companies can be very efficient in business decisions. The owners develop the companies mission and vision and therefore set the objectives for managers to follow to achieve these goals. In some cases actions is going slowly when problematic situations happen below the management level and therefore this type of corporate structure is not always the best choice for a company. When this happens the employees can sometimes feel isolated from management and also they can feel very powerless when everything has to be decided from the top management of a company. (Irwe & Ringstedt, 2009)

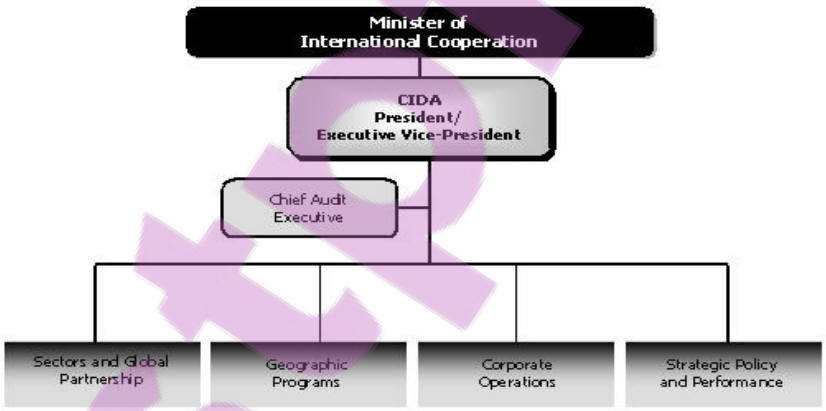

Fig.2.2 Example of centralized corporate structure. (B. J, Oda. 2009)

2.3.5 Flat Corporate Structure (Horizontal)

This is exactly as it sounds; a flat hierarchy means that there are not many steps from the bottom to the top. It means that there have to be more responsibility on each employee to make decisions since there are fewer managers in the hierarchy. (Handelsbanken, 2011) This way of corporate structure demands a lot of trust in the company's cul-

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ture. Each manager most often gets more responsibilities and the head office has a harder time to control the working methods of the different departments. (Organizational design, 2007) Therefore the company culture must be strong so that it guides the managers in the right direction, in other words, it is more important that every employee really believes in the way that the specific company wants to work.

Many scientists also believe that a decentralized flat hierarchical corporate structure helps to increase creativity. This is the effect of letting people get more responsibilities and thereby they feel trusted to work more freely. (Faulkner, 2002)

This corporate model is most suited for smaller companies or maybe certain departments in larger companies; but we can see that even larger companies use this corporate structure as well. One example is Svenska Handelsbanken AB; they are famous for their flat structure and that their branches operate almost completely by themselves with very little affects from their head office. (Handelsbanken, 2011)

The main goal of the flat corporate structure is to decrease the number of levels between managers and the staff. It also involves important subjects such as how much say do the managers have when it comes to the entire company. In a football club this might be extremely important since there are so many wills. Some people focus on the sporting part and some peoples only concern is the financial results. The importance of company culture plays a huge part in whether a flat corporate structure might really work or not.

Fig. 2.3 Decentralized flat org.

Fig. 2.4 Ex. Decentralized org.

Pros

- Decision-making should be quicker since every employee is more empowered and is allowed to make decisions alone.
- More creativity – better results
- It also keeps down the salary costs of keeping expensive managers.
  (Meehan, 2011)

Cons

- Harder to keep company control
- More difficult to become a specialist since you have to know little about everything.
  (Meehan, 2011)

2.3.6 Mintzberg Structural Configurations Theory

Henry Mintzberg's organizational structure is defined as the sum of the ways in which a firm divides its labor into separate responsibilities and then achieves direction among them. Mintzberg's model is divided into five ideal configurations that not exists in the real world, but gives the managers a framework to create an organizational structure of a firm. Each configuration consists of six components and these are operating core, strategic apex, middle line, techno structure, support staff and ideology. (Mintzberg, 2009)

The operating core can be explained by the basic work of producing the organization´s products. Strategic apex can be explained as the home of the top management it serves the needs of the people who control the organization. The people operating in the middle line are the managers who stand in a direct relationship between the operating core and the strategic apex. (Mintzberg, 1993). Techno structure of a firm are the analysts who designs, plans and changes the operating core in a firm while the support staff are the specialists that provides support to the organization outside of the operating workflow and last but not least the ideology that represents the traditions and beliefs of the firm. (Mintzberg, 1989)

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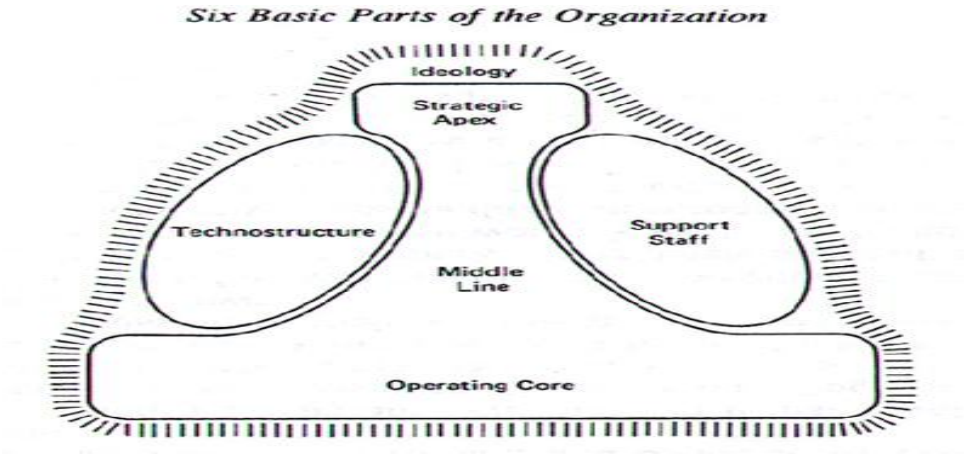

Fig. 2.5 Mintzberg Structural Configuration Theory (Mintzberg, 2009)

Mintzberg's five organizational structures start with the simple structure, which relies on direct supervision from the strategic apex, the CEO. This simple structure is commonly used among entrepreneurial firms.

After the simple structure the machine bureaucracy comes and this structure is common in large organizations and relies on standardization of work processed by the techno structure. (Mintzberg, 1990)

The third structure is called professional bureaucracy and relies on the professional's standardization of skills and knowledge in the operating core and this structure is used among professional services firms such as schools systems and accounting firms. The fourth structure is called divisionalized form and relies on standardization of outputs and the middle managers run the different divisions in the firm. Commonly used in relatively large cooperation's. The last of these five structures is called adhocracy, which can be seen as a highly organic structure with little formalization. The adhocracy relies on mutual adjustment as the key coordination between these project teams. (Mintzberg, 1993)

Each of these structures represents a force that influences organizations in different structural directions. The structure a firm chooses depends on the power of each of the six components in Mintzberg´s model. (Mintzberg, 2009)

3 Method

In this chapter the procedure of this thesis will be explained, from the beginning to the end. The method is a tool to reach the specific objectives for this thesis. Without a well-reasoned method the research might lose its reliability. Explanations about which research strategy, which approach that will be used and end up with an explanation of the procedure of the thesis.

3.1 Approach

When choosing subject for a thesis the writers will be faced with different choices of research approaches, these approaches can be either deductive or inductive. The choice of which to use from these approaches depends on relations between the theory and empiricism.

In the deductive research the theoretical aspects are treated before the actual execution of the research. This lead to that the researchers' empiricism will be used to try or prove different theories. When using a deductive approach the researchers choose a theory when the process of collecting data starts. The authors have expectations about the subject and have a broad knowledge from already existing theories and can therefore start to collect empiric material. (Wallén, 1993)

When doing an inductive research the investigation is done before the gathering of a theory. At first data is collected and with these results a researcher creates his theory. These two approaches is the basis of research process and it is important to add that an inductive approach does not exclude the use of a deductive approach within the same study. (May, 1997)

It is hard to say that this thesis will fully adhere to a deductive or an inductive approach. The thesis is mostly directed in a deductive way because the focus has been on already existing valuation methods and already existing corporate structure methods. The intention has never been to develop these methods but they are accepted the way they are. The goal is to explain and get an understanding of the valuation methods and use them to calculate and compare the value of two firms.

3.2 Choice of Method

By studying literature and other valuation projects one could see that there were a few different models that were used more frequently than others. Also one can find that some models suit specific companies better than others. But also that the choice of valuation model very often is based on personal preference from the author. (Palepu et all. 2000) In the theoretical part of this thesis one can read about the different models and

the different key ratios that was found most user-friendly and most valid when valuing a firm. The following ratios and models will be described. They will be used to value the company's stock but also the entire company value. The main focus for a sports club is most often to make good sporting results and not financial but still there are shareholders and they want return on their capital and therefore these models could all be used. (Demirakos, Norman, Strong & Walker, 2004)

- Modigliani and Miller
- Free Cash Flow to Firm
- Free Cash Flow to Equity
- Single Stage Growth Model (Gordon Growth Model)
- Capital Asset Pricing Model
- Key ratios: ROC, ROE, ROA, Interest Coverage Ratio, Rwacc, Re, P/E ratio, variance and covariance, Beta value.

The growth model that will be used is the one-stage growth model; this is because it gives a real picture of how a football club is developing; the growth seems to be stable. Another reason for this is that neither of the two clubs has paid out dividends more than once over the last 10 years. (Annual report PSE. Annual Report AIK) This will cause a very inaccurate value. Further on it has been decided that the Modigliani Miller method and all the key ratios mentioned above will be used, this is in order to get an all-embracing value. (Pricer & Johnson, 1997*)* and (Pablo, 2002)

3.3 Collection of Data

Material for this thesis has been gathered from so called primary sources and secondary sources.

Primary sources are the material that will be gathered to reach the purpose of this thesis. It is the new data that has been collected by researchers with help from different valuation methods for a specific research.

The primary data that will be collected for this thesis will be collected in the empirical research. The primary data of this thesis will be explained and analyzed from the results of our valuation of the two firms; Parken Sport & Entertainment and AIK Solna.

Secondary data is information that has been gathered and analyzed by someone else and for another conclusion than the researchers. Already existing information can help answering the chosen problem discussion but the researcher has to decide if the material is relevant or not. Using existing data will help to save time and money. Secondary data that will be used in this thesis is literature and articles from different papers. Also readings of a lot of earlier master thesis have been made to see how they have treated the subject and which references they have used.

The main focus has been on studying literature about valuation theory, valuation methods that will be discussed and used and also information on different types of corporate structure.

Relevant literature has been found through personal contacts, catalogues and databases in the University library in Jönköping and from the city library in Stockholm and with help from other researcher recommendations. To find scientific articles and reports we have also used Google scholar where we have found a lot of interesting material.

3.3.1 Research Strategy

Qualitative and quantitative are the two different research strategies that classify different methods or approaches when doing a research. These research strategies can either be used together or one by one. The differences between these research strategies are that quantitative methods are methods for collections of numerical data and they are also used as mathematical and statistical calculations as processing methods. Qualitative methods are in a corresponding way gathering of data as represents a quality in a context. (Allwood, 2004)

In a quantitative strategy statistical measuring methods has a major part in the analysis while the qualitative strategy focus more upon to try if the information gives a general result. One could say that qualitative research methods can be used to generate descriptions and hypotheses and quantitative research methods can be used to test the hypotheses. (Carter & Thomas, 2005)

The focus of this thesis will as mentioned earlier be on valuing two sporting firms with help from valuation theory, comparing the results and thereafter one will be able to draw a conclusion about which firm is most likely to be invested in. To get a comprehension of the valuation and the result the quantitative research strategy will be used in this thesis. The characteristics of a quantitative research strategy are that it focuses on the quantification of the gathered data and the analyzed data. (Eliasson, 2006)

It is also characterized by its structure and that it is systematic. Quantitative research should therefore be used if the results should be quantified and also generalized. The authors of this thesis argue that this thesis purpose is more suited for a quantitative research design because we will focus more on numbers from our valuation than on words from books and articles. (Bryman & Bell, 2005).

3.3.2 Reliability and Validity

The reliability of the research project decides how trustable the result is; in other words whether the result would be the same if one did the same research again or if there are many values that are random. (Bryman, 2001)

There is a lot of research already made on this specific subject so the reliability of the models is not worrying. One can also find the same facts in more than one book or article and this also makes it more reliable.

Also there are a lot of discussion forums on the web about the choices of valuation models that gives a good picture of which ones are most frequently used. Even though one cannot use these as sources obviously they help in giving a good wide picture of which models are the most suitable. Another important part of the reliability of the literature is that the research and the models are rather old. They have been tested and improved over time therefore one does not have to worry about short comings because of too little background.

The validity of this thesis is ensured by the fact that all numbers are taken from the two firms' financial reports and no assumptions are made that might risk the outcome of their value.

4 Empirical results – Valuation

In this section there will be presentations of Parken Sport & Entertainment's and AIK Solna´s value. Further on descriptions and explanations of the corporate structure of these two firms. Thereafter one will be able to read about whether the stocks of the two firms are over- or undervalued. Sequentially financial ratios, historical data, analyses and future development will provide a basis for the comparison between the two firms. This will give a chance to locate their financial position and therefore get a comprehensive view of the differences between them. The sources of this valuation will be financial reports from the two firms during the years 2001-2010.

4.1 Parken Sport & Entertainment

4.1.1 Parken Sport & Entertainment in short

Parken Sport & Entertainment is a Danish firm consisting out of five major divisions. FC Copenhagen, Lalandia, Fitness DK, Parken ventures and Kontorsejendomme. The biggest and most famous part is the football club; FC Copenahgen. This football club was established in 1992 after a merger between Copenhagen ball club and B1903. The football team is the most successful football team of Scandinavia for the moment and have resently been playing in the UEFA champion's league, which is the most prestigious football competition in the world. Only a few teams has the possibility to reach this competition but there is a long way to reach it with a lot of qualifying games. (FCK, 2011) FC Copenhagen plays their games at a stadium called Parken.

The Financial statements that Parken Sport & Entertainment shows are impressing and a lot of world famous football clubs are jealous of FC Copenhagen's financial situation since they are a big part in Parken Sport & entertainment that are doing well. The reason for the good economy of the club is said to be because of the purchase of the stadium; Parken.

In 1998 Parken Sport & Entertainment was created when the club bought the stadium. It is well known that football clubs that own their own stadium generates more money. The stadium is not only a football stadium; concerts and other sport events are held at this stadium and this also generates great profits. So the firm that includes both FC Copenhagen and the stadium Parken are called Parken Sport & Entertainment. (PSE, Annual report, 2010)

Parken Sport & Entertainment has an increasing turnover over the last five years except a dip in 2010. In 2006 the turnover was 649 760 KSEK compared to the following year when the turnover increased a lot and reached up to 1 868 539 KSEK. The turnover had

its top in 2009 when it reached 2 066 287 KSEK and in 2010 the turnover decreased and was calculated to 1 621 512 KSEK. (PSE, Annual report, 2010)

Profit after financial items was in 2006 valued to 69 222 KSEK for Parken Sport & Entertainment and in 2007 the profit after financial items was 194 286 KSEK and did thereafter decrease for two years and 2009 the result was negative with a result of 296 208 KSEK and this would also be explained by the financial crisis that was occurring in the world which affected a lot of companies around the world. In 2010 Parken Sport & Entertainment did actually turn this negative result to positive and had a positive profit after financial items of 75 806 KSEK. (Parken, 2011)

The net profit for Parken Sport & Entertainment was in 2006 49 534 KSEK and the following year the net profit increased to 156 662 KSEK. In 2009 net profit turned negative with a value of 286 816 KSEK and as earlier said this is because of the worldwide financial crisis, but this result turned to positive in 2010 when the net profit was calculated to 50 461 KSEK. (PSE, Annual report, 2010)

The equity of Parken Sport & Entertainment has always been good and in 2006 this was valued to 540 642 KSEK and increased to 797 469 KSEK in 2007. In the negative year 2009 the equity was valued to 382 146 KSEK and it increased a lot in to 2010 when it was valued to 982 843 KSEK. This large increase in equity can be explained due to the fact that it includes the net proceeds from a rights issue. (Parken, 2011)

The share of Parken Sport & Entertainment between the years 2006-2010 has been shifting a lot. In the beginning of 2006 the share was valued at 382 SEK and in the beginning of 2007 the stock had increased a lot and was valued at 708 SEK. In the financial crisis the share decreased from 636 SEK in the beginning of 2008 to 240 SEK in the beginning of 2009. In the end of 2010 the share was valued at 145 SEK. Parken Sport & Entertainment look forward to 2011 when Parken Sport & Entertainment at the moment are doing really well in the UEFA champions league and are also in the lead of the Danish first division. (Avanza, 2011)

Fig. 4.1 Value of Parken Sport & Entertainment share between 2006-2010

The Danish currency (DKK) is compared to the Swedish currency (SEK) valued to 1.2054. Average of 2010 DKK/SEK = 1.2054 (Di, 2010)

4.1.2 Return on Assets

As known; ROA is calculated by dividing the company's earnings before interest and taxes by the total assets. (Damodaran, 2007) Parken Sport & Entertainment has had a ROA, which has been rather stable over the last ten years. As one can see in the graph below it peaked during 2007-2008. The ROA has increased steadily since the start of the modernization and development of the area around Parken. Their fitness center members increased by 30% and they had very many visitors and events at Parken which gave the club a big turnover. In 2007 PSE also succeeded in going through from the group stage in UEFA Champions league which meant big earnings for the club. (PSE, Annual report, 2007)

Although the there was a big drop in 2009; this is obviously explained by their negative EBIT. Their EBIT was negative due to large impairments of their goodwill, tangible assets and also due to large project expenditures. Another large factor to the negative EBIT is that Parken developed and renovated the stadium and the other facilities. (PSE, Annual Report, 2009)

As one can see the ROA has once again started to recover from the big drop in 2009. Parken received big earnings due to great sports performance from FC Copenhagen who advanced from the group stage in the UEFA Champions league once again and won the Danske Tippelige. Parken Entertainment also issued new shares, which gave the firm larger assets. (PSE, Annual report, 2010)

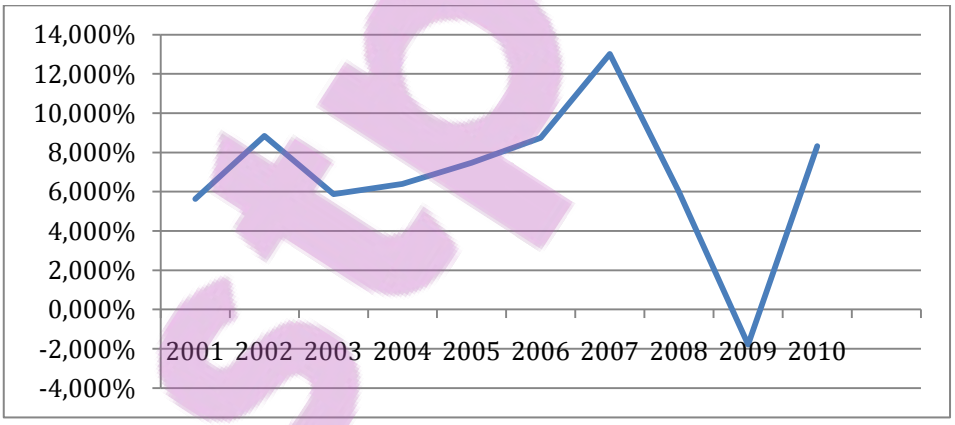

Fig. 4.2 Return on Assets Parken Sport Entertainment. (Bäckström & Andersson, 2011)

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4.1.3 Return on Equity

For investors this is one of the absolutely most interesting key ratios since it shows the return on their invested capital; namely their shares in the firm.

The return of equity gives the investor a good picture of how well the firm uses its capital. Since one uses the net income instead of the EBIT one can get a picture of how good the return is after all the cost of the debts. The calculation is as familiar; net income divided by the firm's Equity.

The development of the ROE is similar to the ROA, but the numbers are different which is explained by the difference in variables. One uses the net income instead of the EBIT and the equity and total assets.

One can see that the graph below is rather similar to how the ROA graph is drawn. The peaks are during the same years and the biggest drop is during the same year and the factors for this are the same as mentioned earlier. The ROE is most certainly affected by the amount of equity and if a company has a lower amount of equity the result does not have to be as high to reach good numbers and vice versa. (Easton, Taylor & Shroff, 2002)

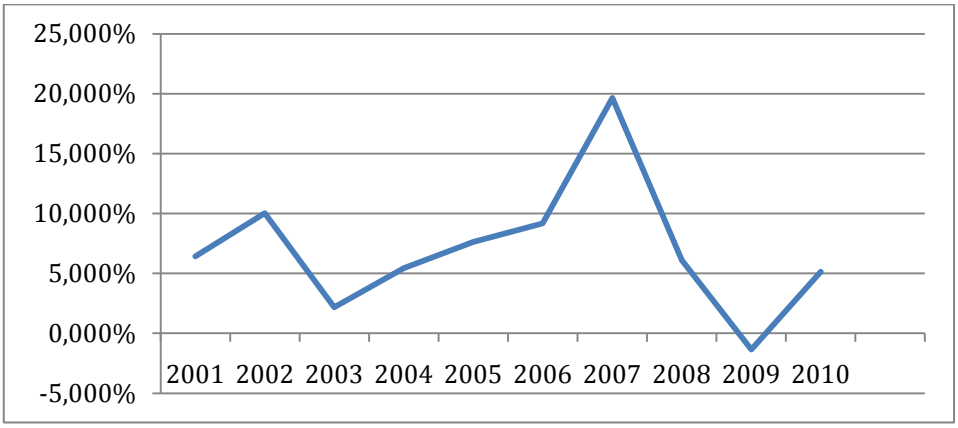

Fig. 4.3 Return on Equity for Parken Sport & Entertainment (Bäckström & Andersson, 2011)

4.1.4 Return on Capital (ROC)

This measure gives the investor a good overview and a large picture of how a firm is doing financially. It takes all the biggest factors into account; debt, equity and also net income. One divides the net income by the total assets. (Damodaran, 2007) The reason why this gives the investor a good overview is that it shows how good the return is on the investment when one is including the costs of capital as well.

As one can find in the graph below Parken Sport & Entertainment's return on capital has been rising steadily from 2001 until 2007, in 2007 PSE's debt increased rather heavily which made the cost of capital more expensive and therefore the ROC also decreased. This is also the years when our financial crisis took place.

Further on; after 2009 we can see that Parken Sport & Entertainment once again gained larger return on their capital; meaning that the company started to get healthier and recovered rather fast. This is obviously because of outstanding sport results but also that they managed to write down their debts rather heavily. (PSE, Annual report, 2009.)

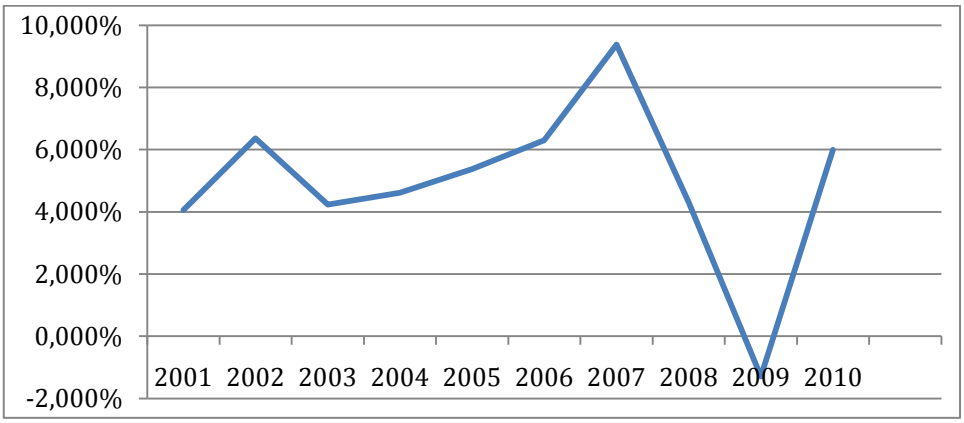

Fig. 4.4 Return On Capital Parken Sport & Entertainment. (Bäckström & Andersson, 2011)

4.1.5 Price to Earnings ratio

As mentioned earlier in this thesis the P/E ratio describes how much an investor is willing to pay for one unit of earning. A high P/E tells us that it is expensive to "buy" earnings. One might say that a company with a low P/E but with other good numbers is a company, which most likely will be a cheap investment. This fact explains itself since one divides the stock price by the earnings per share. (Gibson, 2009)

Parken Sport & Entertainment's P/E has varied a lot over the last 10 years. But it has only been beneath zero once, in 2009. As known by now, 2009 was a rough year for the club and this is also shown in the graph below. In 2006 the P/E peaked extremely; this is much due to that the stock price was extremely high and most likely many investors found the club over valued and therefore the price went down in the following year and thereafter the P/E entered more normal values. In 2010 PSE has a P/E value of about 46, which is rather high when, compared to normal companies, but as known one should only compare to companies in the same business.

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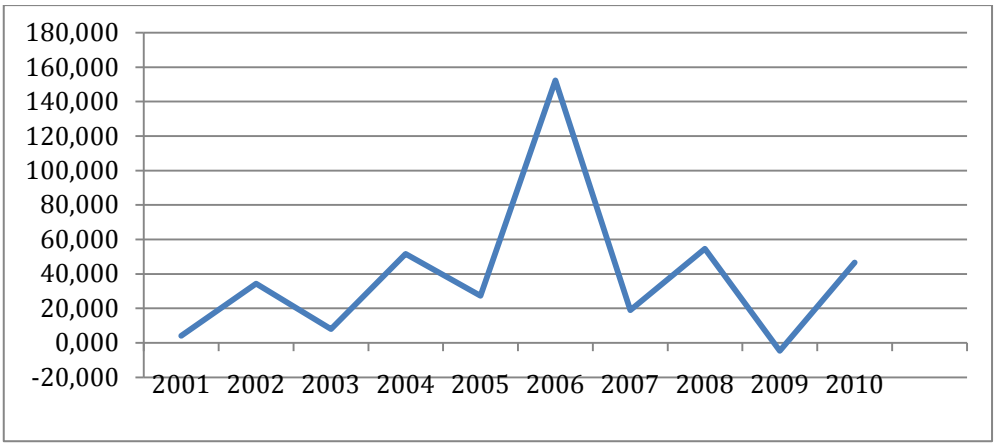

Fig. 4.5 Price to Earnings ratio Parken Sport & Entertainment. (Bäckström & Andersson, 2011)

4.1.6 Interest coverage ratio

The interest coverage ratio is a very important measure for Parken Sport & Entertainment since it describes parts of the clubs solidity. Investors really treasury good values in the interest coverage ratio since it describes the company's ability to pay their financiers. (Damodaran, 2008)

For Parken Sport & Entertainment the interest costs have varied vividly over the last ten years and the explanation is simple; the amount of loans has changed very much. (PSE, Annual report 2001-2010) In 2001 the club had a very small part of its assets financed by loans which means that their interest payment were rather small as well. This of course gave them a good result in the interest coverage ratio; with their result they could pay their interest cost about 58 times before running out of money. This measure obviously is rather unnecessary when valuing affirm with such low debt ratio; but as seen in the annual reports of Parken Sport & Entertainment the degree of lent money grew extremely in 2002 and kept growing together with the entire firm until 2009. (PSE, annual report, 2002-2010)

As the debt ratio grew the interest coverage ratio for Parken Sport & Entertainment got weaker. Although in the years 2005-2007 it was a bit stronger as we can see in the diagram on the next page. This is obviously explained by a stronger result in form of these financial years. (PSE, Annual report, 2005-2007)

Further on one can once again see that 2009 was a rough financial year for the club. This is the only year in over 10 years that the club has had an interest coverage ratio below 0. This means that they do not have an EBIT large enough to cover their interest expenses and in the long run this obviously will lead to either bankruptcy or if the company is able; find cash from selling property or such.

One can also see from the financial report that this result is strictly caused by the book keeping. They have used very much money to write down their assets, which leads to a very bad result. Already in 2010 one can see a large improvement when the interest coverage ratio went from -0, 22 to 1, 88 times.

As seen in the appendix the company's assets has increased over the last ten years; from about 335 000 KSEK in 2001 to about 2 700 000 KSEK in 2010.

2010 was the first year in the last 10 years that the club decreased their debt ratio noticeably. This clearly helped the clubs interest coverage ratio as well.

Another aspect one must not forget when calculating the interest coverage ratio is to take the interest rates into account. Since PSE is centered in Denmark one has to compare the results to the Danish historical interest rates for each period. The financial crisis in 2007-2008 created large changes in the interest rates as we know. The interest rates decreased a lot in 2009 and stayed at a lower level in 2010; this obviously helped PSE's financial results a lot since their interest costs decreased. (Di, 2011)

The diagram below shows the big differences from when Parken Sport & Entertainment had a very low debt ratio and when they in 2002 started to grow and increased their loans.

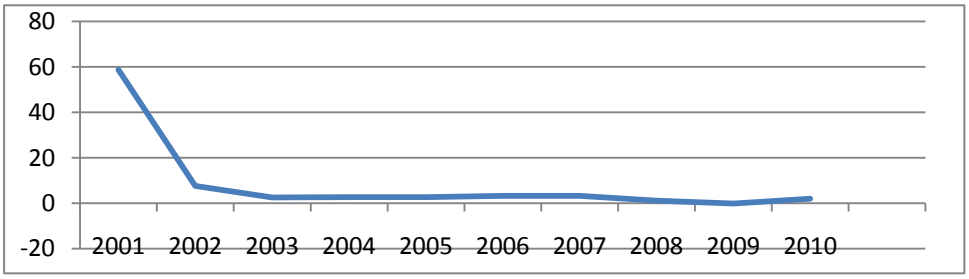

Fig. 4.6 Interest coverage ratio Parken Sport & Entertainment. (Bäckström & Andersson, 2011)

This diagram below is most likely more essential to the valuation since it shows how volatile the interest coverage ratio has been over the last years when Parken Sport & Entertainment has had a rather stable debt ratio.

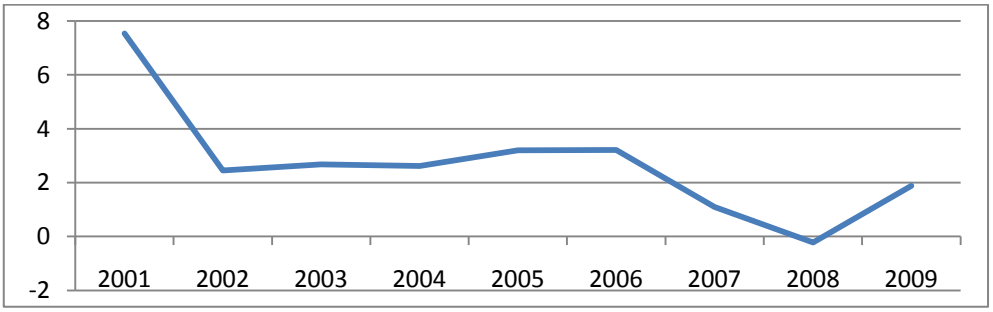

Fig. 4.7 Interest coverage ratio Parken Sport & Entertainment over 8 years. (Bäckström & Andersson, 2011)

4.1.7 Beta Value

As described in the theory; the beta value describes the systematic risk factor of Parken sport and Entertainment compared to their market. Parken Sport & Entertainment has a beta of 0,794 (<1) in 2010; meaning that this stock has a lower systematic risk than its competitors. (Bloomberg, 2011)

The systematic risk depends on many factors that cannot be affected or adjusted; this means that Parken Sport & Entertainment is not exposed to risks such as increased interest rates, governmental changes and such as much as many of the other companies in the market. This is obviously interesting for investors

4.1.8 Cost of Equity (Re)

Since there is no set figure that explains the demands of return from the investors there will be a theoretical calculation to get the cost of equity. To calculate this one will use the Capital Asset Pricing Model, which is explained more thoroughly in the theory.

The governmental bonds in Sweden in 2011 are about 3, 30% (Riksgalden, 2011), these are used as the risk-free rates in the calculations. The Beta is as known 0,792 and the risk-premium varies over time but we will use 5,5%. (Damodaran, 2002)

When calculating with the CAPM the Cost of equity for Parken Sport & Entertainment is 7, 66%. With this result one can now calculate the Rwacc; the average cost of capital.

4.1.9 Weighted Average Cost of Capital

The cost of debt for Parken Sport & Entertainment is 4,64%, this is calculated by dividing the interest cost by the total amount of debt, 86.516/1.863.667=4,64%. (PSE, Annual report, 2010)

When calculating the Weighted average cost of capital for Parken Sport & Entertainment; (Debt/Total Assets)*Rd+(Equity/Total Assets)*Re → (1 596 957 / 2 682 703) * 4,64% + (819 036 / 2 682 703) * 7,66%, one gets the result of 5,1%.

This value tells the investor that the average cost of the total capital is 5,1%.

4.1.10 Risks

A sport club definitely is a subject for further risks; some things affect them more than a company in another more "business sector".

- Parken Sport & Entertainment claims that their major risks are that players get injured; this might lead to bad sporting results and thereby lower revenue. (Annual report 2000-2010)
- Credit Risk, this is obviously as in most firms a big risk in the annual report; however Parken Sport & Entertainment has worked a lot with devaluation of the debts which leads to lower risks. They are trying to eliminate most risks connected to lending. (PSE, Annual report, 2009).

4.1.11 Growth Rate

Since Parken Sport & Entertainment only have paid out dividends once over the last ten years the calculations of the growth rate of the club will be calculated with the retained return = normal return. The growth rate of Parken Sport & Entertainment is calculated to be 7,65%.

4.1.12 Free Cash Flow to Equity

During 2010 Parken Sport & Entertainment had a debt ratio of 0,695; this means that their 69,5% of their total assets are financed by short and long term loans. This means that their equity also is rather low. As we can see the FCFE has varied a lot over the last 10 years. But in 2010 the free cash flow to equity was 62882,33 TSEK. (Calculation: Net income – (Capital Expenditures – Depreciation) * (1-Debt ratio) - Change in WC * (1- Debt ratio).

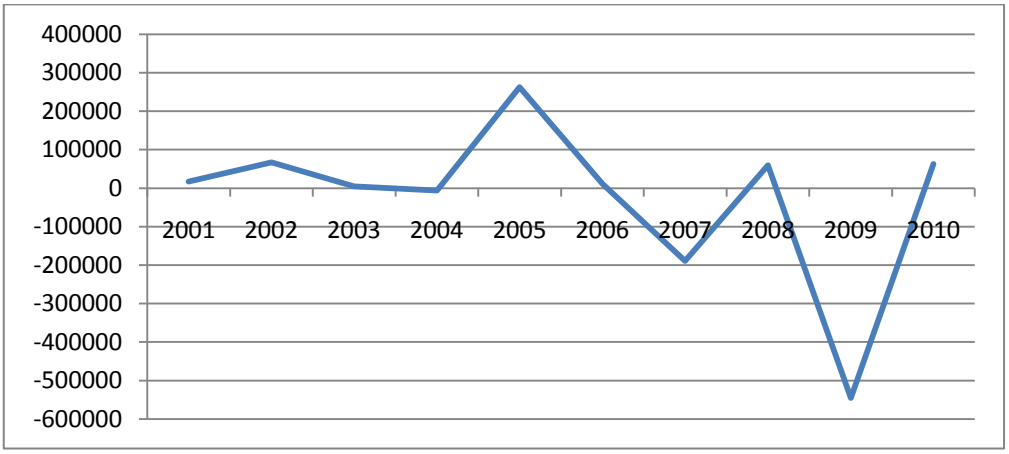

Fig. 4.8 Free Cash Flow to Equity of Parken Sport & Entertainment. (Bäckström & Andersson, 2011)

What is more interesting from an investor's perspective is the future development of the free cash flow to equity. Below one can find the calculated values of the FCFE in the future 10 years if the company's FCFE grows by the cost of equity each year.

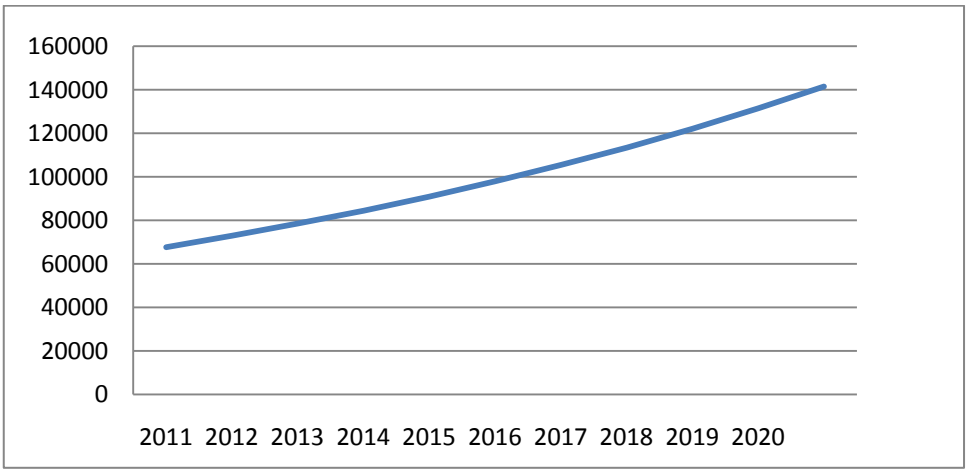

Fig. 4.9 Future Free Cash Flow of PSE. (Bäckström & Andersson, 2011)

The present value of the discounted future cash flow to equity is 691478,02 TSEK.

4.1.13 Free Cash Flow to Firm

To get the correct value of this, one first had to do some historical calculations; they lead to a FCFF, in 2010, of 199655 TSEK. When calculating and valuing a company the need of historical data is always important so that one can do future predictions. Below one can follow the development of the cash flow of the firm from 2001 until 2010. The calculation is as known from theory the following: EBIT * (1 - Tc) - (Capital Expenditures - Depreciation) - Change in WC.

The graph shows that Parken Sport & Entertainment have had a FCFF below zero many of the last five years with a few peaks.

To give the investor the fact that is interesting for a future investment the next part will be about the Free Cash Flow of the firm.

The graph below will show the expected FCFF over the coming ten years.

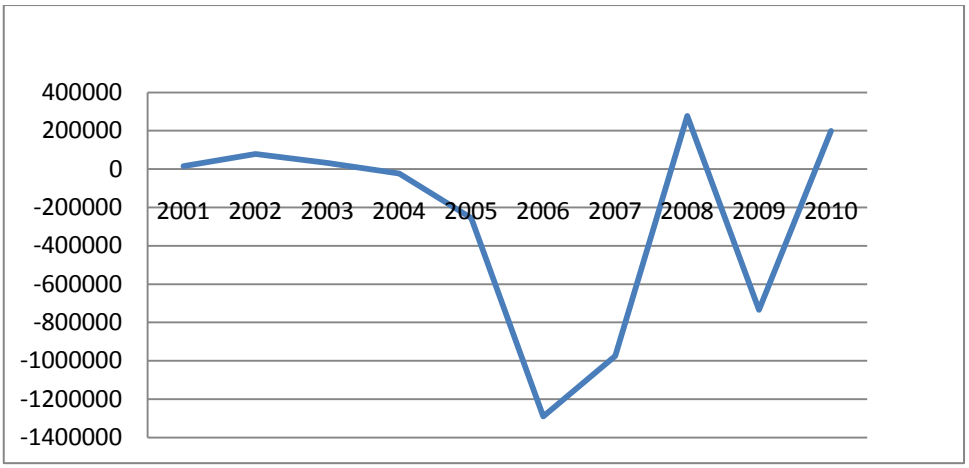

Fig.4.10 Free Cash Flow to Firm of PSE. (Bäckström & Andersson, 2011)

This simply is the development of the FCFF with the growth rate that was calculated in an earlier paragraph.

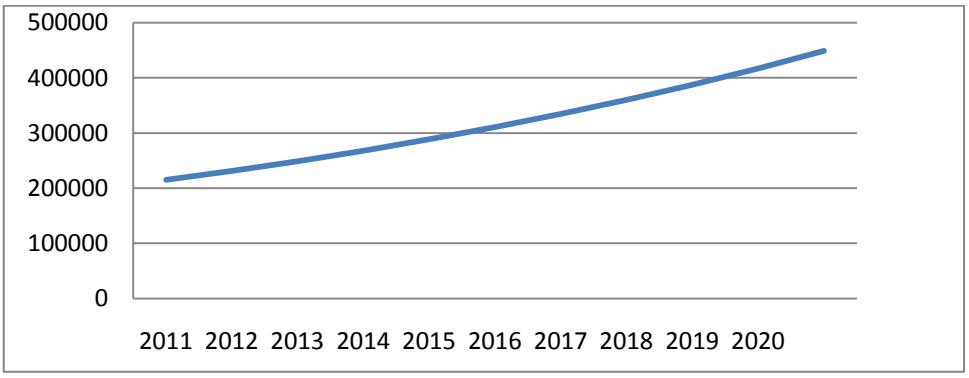

Fig. 4.11 Future Free Cash Flow to Firm of Parken Sport & Entertainment. (Bäckström & Andersson, 2011)

4.1.14 Final Value

Finally the time has come to present the calculated value of this firm. This calculation is not built on all the parameters above; these will all be taken into account when analyzing the value of the two different clubs. The value that will be presented here is calculated in the following way. Modigliani Miller (EBIT2010 * (1-Tc)) / Rwacc

The value of this firm is according to the model above; 3 799 756 000 SEK.

Further on to get the true calculated value of the stock one simply divides the company value by the amount of stocks since the company is entirely built on shares. (Annual report, 2010)

Therefore the value per share simply is 3 799 756 000 SEK / 8 701 529 = 436 SEK/3= 145 SEK. This because of an emission in 2010.

When calculating the value of PSE with the help from the Gordon growth model explained in the theory one gets a rather similar value; 4 213 861 000 SEK meaning that this is rather accurate. The difference between the numbers is because of different measures; in this calculations one use the FCFF as the main calculation ratio.

4.1.15 Corporate Structure

As mentioned in the theory there is different kinds of corporate structure; this part of the thesis will describe the corporate structure of Parken Sport & Entertainment.

Parken Sport & Entertainment has a relatively flat structure with big focus on good communication with their owners. They mostly use their website Parken.dk as a communication tool. (Annual report 2010)

Companies use different incitements to create good working effectiveness; Parken Sport & Entertainment use a bonus system to motivate their employees. (Annual report 2010)

The main responsibility for the strategic planning of the firm lies on the board, which is set up by six to ten members. The board is selected once every year. (Annual report 2010) The board holds meetings when the director finds that there is need for one but it has to be at least once every three months.

One of the main goals for the board is to create good values to the shareholders. (Annual report 2010)

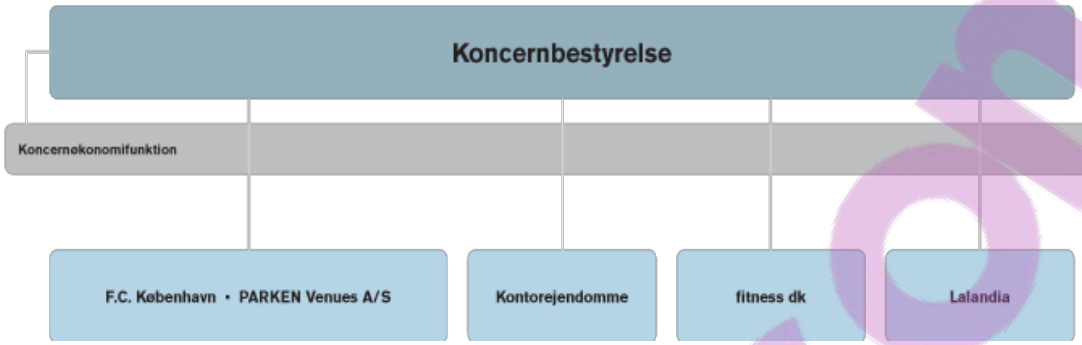

Fig. 4.12 Corporate structure of PSE (Parken.dk, 2011)

This is basically Parken Sport & Entertainment's corporate structure; it is a flat structure with their board at the top and below there is an economic center that takes care of the entire company group. The next step down is the four parts of the group named Parken Sport & Entertainment. (Parken, 2011)

The ownership structure is set up in the following way;

31.12.2009	
Name of shareholder	Ownership %
Den Professionelle Forening LD	29.9%
KPS Invest A/S	15.6%
Erik Skjærbæk	15.6%
Others	38.9%

Fig. 4.13 Ownership structure of PSE (PSE Annual report, 2009)

As one can see there are a few big shareholders in the club. There are claims that both represent that this is positive and negative. PSE is an institutionally owned club; and according to theory this ownership structure is positive when it comes to good results (McConnell & Servaes, 1990) (Thomsen, 2008) since they have to focus on the shareholders' value.

As one can figure out there is also literature argue that there are negative features of too large owners. (Thomsen, 2008)

Former research claims that Parken Sport & Entertainment have weak corporate governance, especially after merging with Fitness DK. (Nielsen, 2010)

A club that is owned privately gives the owners very much power; but it is also extremely important that it is a good owner since if the owner has bad incentives the club will suffer and it will not be hard for the owner to get his will through. (Franck, 2010)

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The difference when the shareholders own a club is that more people can affect the decision process. Even if it is the board that makes the decisions for the club the shareholders have the chance to elect the directors and so on and therefore it should be a bigger chance of getting more peoples will through in a club owned by shareholders.

Parken Sport & Entertainment is as shown above a firm financed by shareholders; but then again there are only three major shareholders. This leads to that it acts quite much like a privately owned firm. According to the board of PSE this is a well functioning ownership structure. (PSE, Annual report, 2010).

4.2 Allmänna Idrottsklubb Solna

4.2.1 Allmänna Idrottsklubb in Short

AIK is a Swedish football club that operates in Stockholm. Their vision is to be Scandinavia's most successful football club both sporting and economically. The club was founded in 1896 in Stockholm and has been playing in the top division of Swedish football for 80 years. AIK are playing their games on Sweden's national stadium called Råsunda and are located in Solna. In 2006 AIK became listed on the Nordic Growth Market. (Avanza, 2010)

In the end of 2007 AIK had 3681 shareholders and AIK football club owned 52,8 percent of the votes. In 2010 the amount of shareholders was 3818 and AIK football club owned 52,78 percent of the votes. (AIK Annual report, 2010) AIK has since the listing on the Nordic Growth Market an increasing turnover. In 2006 the turnover was 94 120 KSEK and this turnover increased a lot in 2007 when it reached 125 551 KSEK. Since 2007 the turnover has decreased and in 2010 the turnover was 106 468 KSEK. (AIK Annual reports, 2001-2010)

The profit after financial items was in 2006 calculated to 13 504 KSEK and did actually increase to 14 290 KSEK in 2007 but in 2008 the result after financial items decreased to a negative result of 14 552 KSEK and was in 2010 also a negative result of 9108 KSEK. (Affärsdata, 2011), (AIK Annual reports, 2001-2010)

This lead to a change in the net profit, in 2006 AIK had a net profit of 15 408 KSEK and in 2008 this net profit had a real dip and was calculated to a negative result of 15 040 KSEK. In 2010 the net profit was a negative result of 9108 KSEK.

The equity of AIK football AB was in 2006 18 247 KSEK and was decreasing in 2007 to 32 920 KSEK. After 2007 the equity has steadily decreased and was in 2010 down to an amount of 2830 KSEK.

The large decrease in profit 2008 can be explained by the financial crises that occurred all around the world. People had to cut down on their spending and did not buy tickets for football games. In 2009 AIK had a great year; they won both allsvenskan, which is the top league of Swedish football, and also the Swedish cup and therefore the net profit was increasing more than expected given the economic crisis that occurred in Sweden at that time. (Affärsdata, 2011)

The share of AIK has been shifting a lot over the years. In the beginning of 2006 the share was valued at 6.10 SEK and increased to 11.00 SEK in one year. In 2009 the share was valued at 4.90 SEK and this because of the financial crises that was in 2008. In the beginning of 2010 the share was valued at 5,30 SEK and in 2011 the share had a real dip and was valued at 1.90 SEK and AIK has decided to issue new shares. This was

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decided at an extraordinary general meeting in the end of 2010 and this will be implemented in early 2011. (AIK, Annual reports, 2006-2010), (aikfotboll, 2011)

*Fig. 4.14 Value of AIK share between 2006-2010 (*Avanza, 2011)

2010 is now left behind and AIK is focusing on 2011. Annela Yderberg who is the CEO of AIK says that in 2011 AIK will do everything different compared to what they did in 2010. This will require hard work and AIK will put a lot of effort into this and their main focus will be on cost reductions, efficiencies and improved operations. (AIK, Annual report, 2010)

4.2.2 Return on Assets

Even though the return on assets might not be as precise as the return on capital it is used in financial calculations and predictions very often. The return on assets and return on capital graphs are very similar and follows the same pattern over this five-year period. The return on assets depicts the firms operating efficiency in generating profits from its total assets from its total assets, before the financial post is considered. Return on assets is calculated by dividing net income with total assets. (Damodaran, 2008)

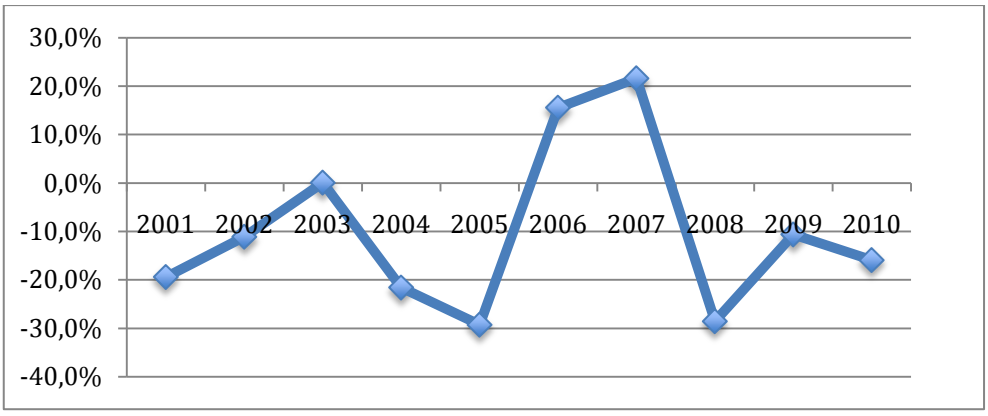

Fig. 4.15 Return On Assets Allmänna Idrottsklubb Solna. (Bäckström & Andersson, 2011)

From 2001 until 2003 AIK had an increase in return on assets but then from 2003 until 2005 a real dip occurred. In 2005 the return on assets did increase until 2007, when the financial crisis started. This lead to a large decrease in return on assets just as the case of the return on capital and has since then been shifting a lot. (AIK, Annual reports, 2001-2010)

4.2.3 Return on Equity

As we explained earlier return on equity measures the profitability of the club or the firm and the amount of profit is generated from the equity invested in the company. One could say that the return on equity is the investor's viewpoint. (Ferrari, 1968) The higher return on equity the better it is and as we described earlier return on equity is calculated by dividing the net income with the book value of equity. The net income in the model should be corrected with the estimation of the preferred stock dividends and the book value of equity should be estimated without the preferred stock. This can be made by selecting the net income after preferred dividends and the book value of common equity. (Damodaran, 2008)

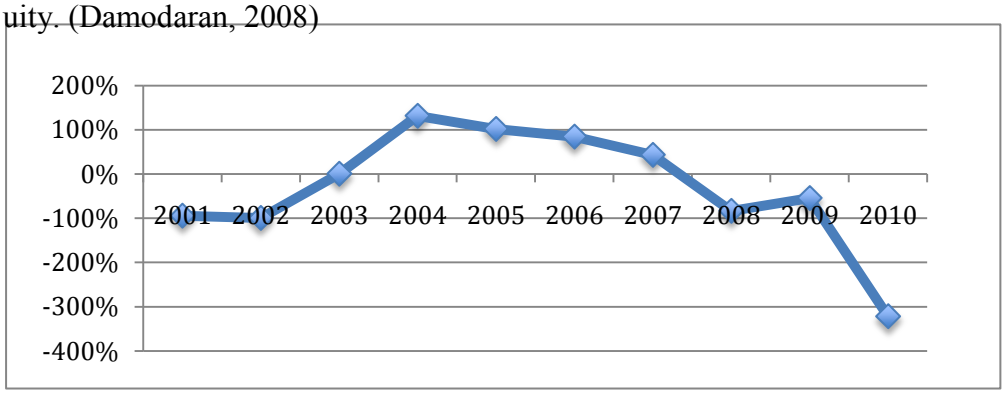

Fig. 4.16 Return On Equity Allmänna Idrottsklubb Solna. (Bäckström & Andersson, 2011)

This graph shows the return on equity for AIK from 2001-2010. The return on equity was positive under the period of 2002 until 2004 but after 2004 the return on equity has had a negative trend except the period 2008-2009 when the return on equity actually increased a bit. In 2010 the return on equity had a real dip and was as low as -321,8 percent and that means that for every SEK invested the firm generated an annual loss of 3,218 SEK. (AIK, Annual reports, 2001-2010)

4.2.4 Return on Capital

Return on capital is a measure of the operated income to the capital invested in the company. As said earlier; return on capital is calculated by dividing earnings before interest with book value of debt and equity. It is a more precise and relative measure compared to the return on assets, which we will examine further on. (Damodaran, 2008)

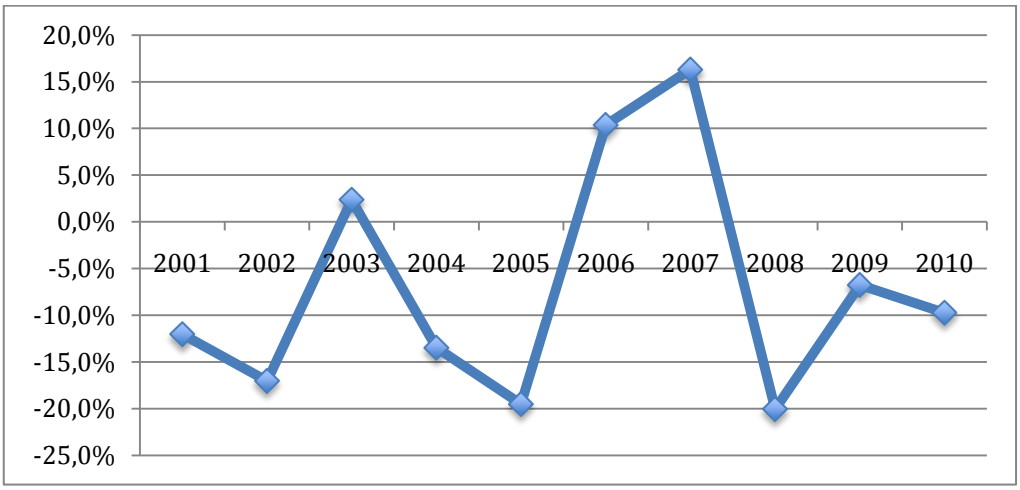

Fig. 4.17 Return on Capital Allmänna Idrottsklubb Solna. (Bäckström & Andersson, 2011)

The return on capital for AIK has varied a lot over the years but between 2005 and 2007 the return on capital had a positive trend. Between 2007 and 2008 the return on capital decreased a lot. Between 2007 and 2008 the return on capital decreased from a positive result of 16,292 percent to a negative result of – 20,052 percent. (AIK, Annual reports, 2005-2010)

The same observable fact that we found in ROE, where there is a decline from 2007 to 2008, also depicts in the return on capital graph. The increase in return on capital in 2009 is partly originating from an increase in profit margin and partly from the fact that AIK had sporting success in 2009. Another explanation could be that they used their capital much more effectively throughout that year. The decrease in return on capital from 2007 to 2008 can be explained by the financial crisis. (AIK, Annual reports, 207-2010)

4.2.5 Price to Earnings ratio / Price to Sales ratio

The Price to earnings ratio is calculated by dividing the end share price of the stock with earnings per share (EPS). The end share price for AIK in 2010 was 2,2 and the earnings per share was -0,92 and this gives AIK a price to earnings ratio of -2,39 in the financial year of 2010. To have a negative Price to earnings ratio is not that common, earnings per share with values below zero are usually reported as not applicable for quarters when a company reported a loss. When an investor invest in a company with a negative price to earnings ratio he or she should be aware of that they are investing their money in a company that has generated a loss for each of its stock. (Damodaran, 2008)

A low price to earnings ratio on stocks has been discussed to perform better than the index market or stocks with high price to earnings ratios as long as it´s not negative. A stock with a low price earnings ratio is undervalued and is more likely to generate return compared to a stock with a high price-earnings ratio. (Gibson, 2009)

As one can see below on the graph, the P/E ratio of AIK had its ups and downs between the years 2005-2010. From a positive result of 5,5 in 2007 to a steady decrease which lead to a negative Price to earnings ratio of 8 in 2009. This large decrease in Price to earnings ratio can also be explained by the financial crisis that occurred in 2008.

When a company has a negative P/E ratio it is better to calculate with the P/S ratio since this will give a positive result which will tell us more about the investment.
It turned out that AIK have low P/S ratio. As you can see in the graph below AIK´s Price to sales ratio has been very low; it has been pending between 0,7 and 0,15. (Aktiespararna, 2011)

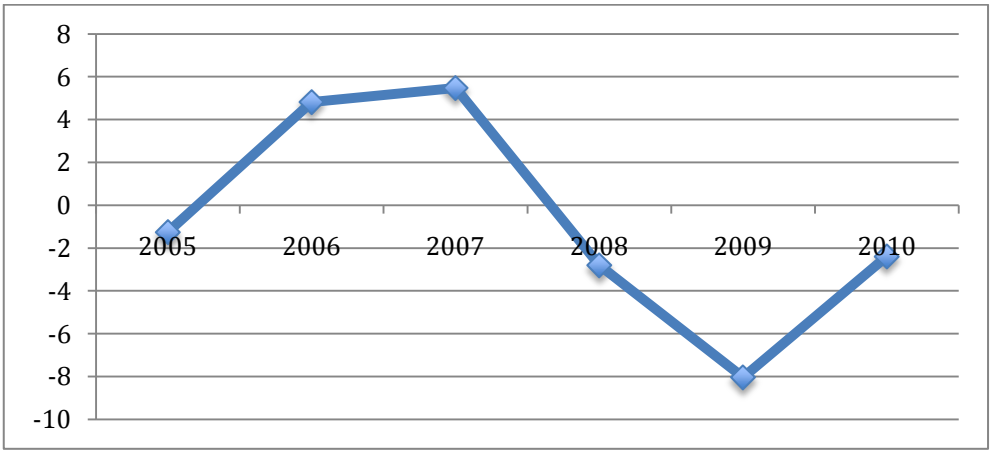

Fig. 4.18 Price to Earnings ratio Allmänna Idrottsklubb Solna. (Bäckström & Andersson, 2011)

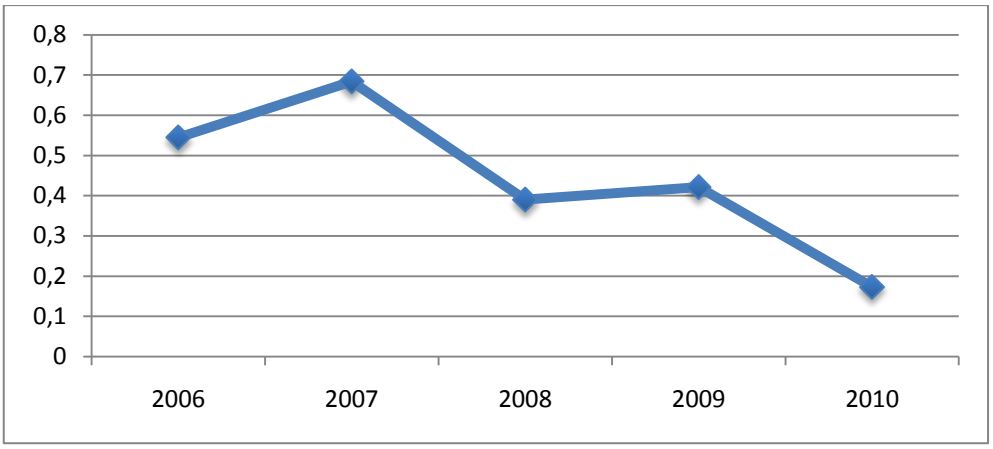

Fig. 4.19 Price to Sales Allmänna Idrottsklubb Solna. (Bäckström & Andersson, 2011)

4.2.6 Interest Coverage Ratio

The interest coverage ratio is a useful tool to see whether an investment is profitable or not. Obviously one cannot solely judge an investment upon this but at least this interest coverage ratio will tell us how many times the company can pay their interest costs per year with their EBIT. (Kila & Mansor, 2008), (Damodaran 2008)

In 2010 AIK had a negative interest coverage ratio of 3,97 and the interest coverage ratio has been negative from 2008. A negative result means that AIK do not have an EBIT that is large enough to cover their interest expenses and this will in the long run lead to bankruptcy of the club.

In AIK´s golden years between 2006 and 2007 the Interest Coverage ratio was around twelve and this means that they could pay their interest costs twelve times before they were out of money.

The reason for this large decrease in interest coverage ratio is that the EBIT for the financial years after 2009 was very small and decreased with more than 60 percent compared to 2008. The interest expenses did not change that much in 2009 so the main reason for this large decrease is the EBIT of AIK. (AIK, Annual reports, 2001-2010)

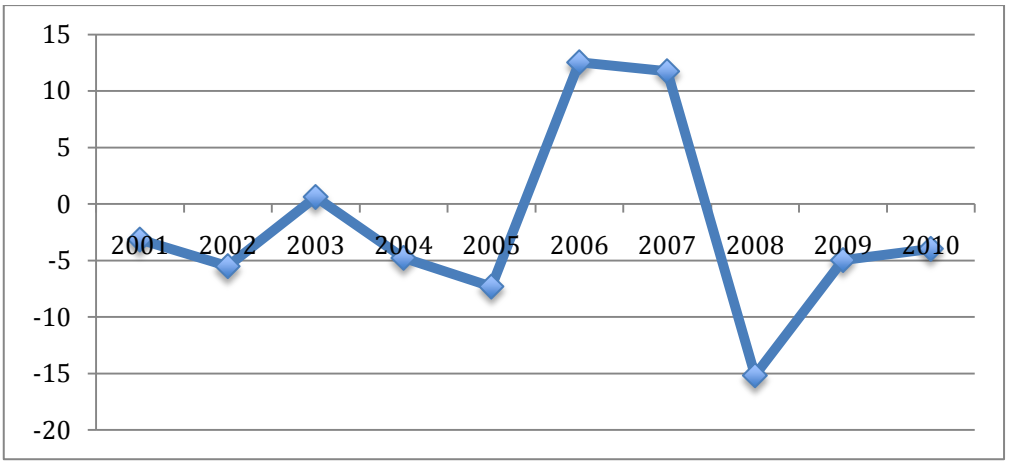

Fig. 4.20 Interest coverage ratio Allmänna Idrottsklubb Solna. (Bäckström & Andersson, 2011)

4.2.7 Beta Value

The beta value measures the market risk and the volatility of AIK compared to their specific market. In 2010 AIK had a beta value of 0,11 (Avanza, 2011). This low beta value lowers the systematic risk compared to its competitors. Investing in a stock with a low beta value and no payout of dividends can be very risky because it is hard to tell what will happen with the stock, it may go up and it may go down. (Pettengill, Stridhar & Mathur, 1995)

4.2.8 Cost of Equity

When calculating the cost of equity for AIK we will as in the case of Parken Sport & Entertainment use the Capital Asset Pricing Model (CAPM). As described earlier the governmental bonds in Sweden are about 3,30% (Riksgälden, 2010) and are used as the risk free rate in these calculations. Beta value of AIK is 0,11 and the risk premium we will use is 5,5%. (Damodaran, 2002)

When calculating the cost of equity with the Capital Asset Pricing Model we will get a result of 3,9%, (3,3+(0,11*5,5)).

4.2.9 Weighted Average Cost of Capital

The cost of debt for AIK is calculated by dividing the interest costs for 2010 by the total amount of debt. This gives us following, 1434/54309=2,64%. (Annual report, 2010)

When calculating the Weighted average cost of capital for AIK we use the following calculation; (Debt/Total Assets)*Rd+(Equity/Total Assets)*Re, and this gives us: (54309 / 57139) * 2,64% + (2830 / 57139) * 3,9% = 2,7%. (Annual report, 2010)

This value tells the investor that the average cost of the total capital is 2,7%.

4.2.10 Growth Rate

AIK have never paid out dividends to their investors and therefore the growth rate will be just as Parken Sport & Entertainment calculated with the retained return. Calculation: FCFE – (Share Price * Number of Shares*Cost of Equity) / - (Share Price * Number of Shares) and this gives AIK a growth rate of 4,358%. (AIK, Annual report, 2010)

4.2.11 Free Cash Flow to Equity

The Debt ratio for AIK in 2010 was 0,95 which means that 95% of AIK´s assets are financed by loans, both short and long term. When the debt ratio is that high one can say that the equity in AIK is very low. In 2004 and 2005 AIK had a debt ratio of 1,16 and 1,28 and that means that in those years AIK had more debt than assets in the firm. (AIK, Annual report). As you can see in the diagram AIK´s Free cash flow to equity has varied a lot but most of the years it has been a negative number. In 2003, 2006 and 2007 the FCFE were positive but otherwise it has been negative results every year and this explains why AIK never pay any dividends to their investors. In 2010 AIK had a negative FCFE of 8379,344 SEK and this is calculated by using the following formula: Net income – (Capital Expenditures – Depreciation) * (1-Debt ratio) - Change in WC * (1-Debt ratio). (Damodaran, 2007)

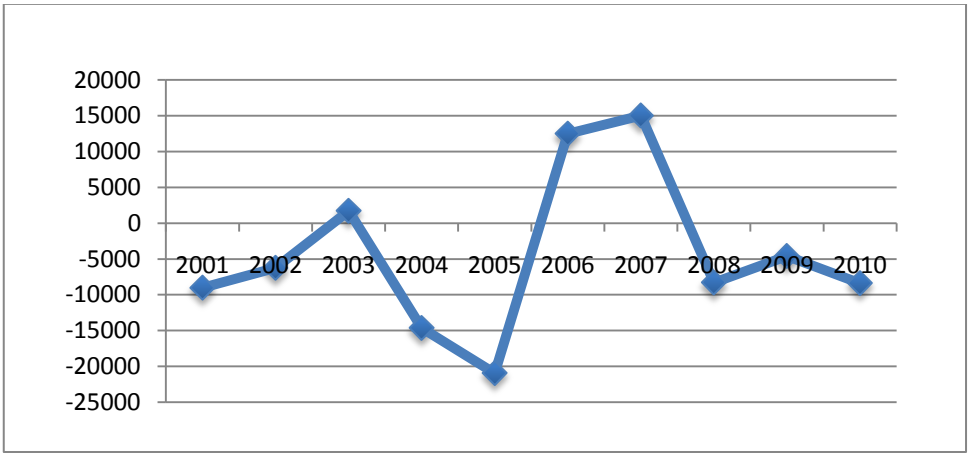

Fig 4.21 Free Cash Flow to Equity Allmänna Idrottsklubb Solna. (Bäckström & Andersson, 2011)

4.2.12 Free Cash Flow to Firm

As said earlier historical data is always very important when valuing a company so that one can do future predictions. Below one can follow the progress of the Free Cash Flow for the Firm from 2001 to 2010. This is calculated from the following formula: EBIT * (1 - Tc) - (Capital Expenditures - Depreciation) - Change in WC. (Damodaran, 2007)

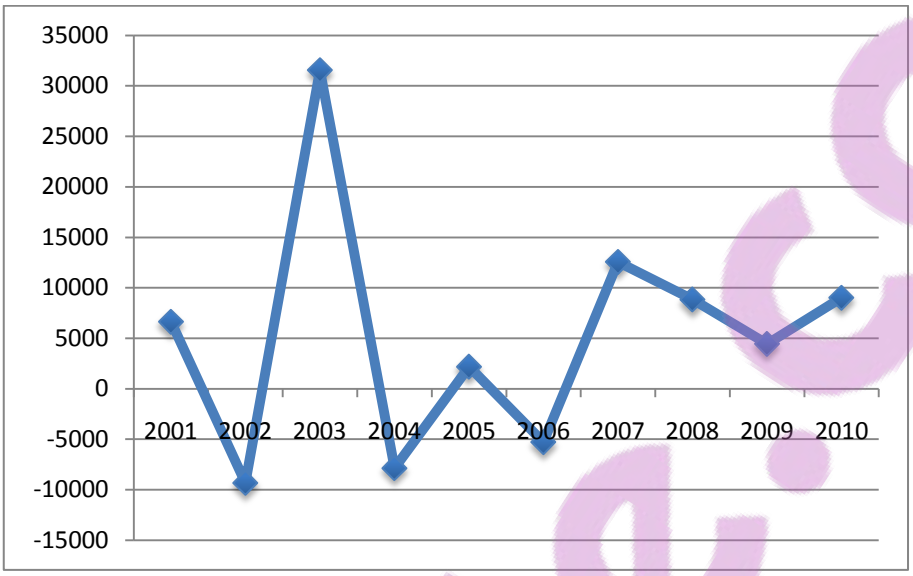

Fig. 4.22 Free Cash Flow to Firm Allmänna Idrottsklubb Solna. (Bäckström & Andersson, 2011)

4.2.13 Final Value

Now when having calculated many different variables and it is time to create a value of AIK Solna. The formula that we will use when doing this valuation is the Modigliani and Miller formula that states the following, EBIT for 2010 * (1-Tc) / Rwacc. The rest of the calculations that we have done and explained will be explained and compared in the following analysis. (Ross, Westerfield, Jaffe & Jordan, 2008)

The value of AIK = -77260000 * (1-0263) / 2,7 = -2 108 91185 SEK

When calculating the value we can also calculate the value for each share in the firm by dividing the value of AIK with the number of shares in AIK.

Value/Share = -2 108 91185 / 8399998 = -25

So each share in AIK has a negative value of -25.

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4.2.14 Corporate Structure

AIK has in the same way as Parken Sport & Entertainment a relatively flat corporate structure with focus on the shareholders. The main objectives for AIK concerning the capital structure are to secure AIK´s ability to proceed with their activities so they can generate return for their investors. (AIK, Annual report, 2010)

The CEO is responsible for the ongoing management in AIK and together with board the CEO has the responsibility for the strategic planning of AIK. The board is selected every year and consists of seven members at the moment and the CEO´s name is Annela Yderberg and has been the CEO since November 2008. The focus for the board will be to improve the fundings of AIK.

The board of AIK has the responsibility to look after the firm so it is organized so the financial reporting can be controlled and monitored in a safely way and that reports and financial statements for the market are designed in accordance with law. (AIK, Corporate governance report, 2010)

The corporate structure of AIK is flat with the CEO and the board at the top and below them the sporting director and the head coach for the team are and they provide information up the CEO and the board.

List of ten largest stockholders of AIK	Numbers of stocks	% votes	%holdings
AIK Football	844200	52,76	10,05
Fabege AB	1554865	9,72	18,51
Bystedt & Son AB	1510480	9,44	17,98
Verturus Förvaltning AB	329850	2,06	3,93
Swedbank Luxembourg SA	200000	1,25	2,38
Clearstream Banking SA	175705	1,1	2,09
Lars Nylén	157186	0,98	1,87
Försäkringsaktiebolaget Avanza Pension	153138	0,96	1,82
764101 Friends Provident	101100	0,63	1,2
Banque Carnegie Luxembourg SA	95446	0,6	1,14

(AIK, Annual report, 2010). (Bäckström & Andersson, 2011)

The list above shows the ten largest shareholders in AIK. One can see that there are a few large shareholders in AIK as well. AIK football, Fabege and Bystedt & Son represents a large part of AIK shares and together with Verturus Förvaltning AB these four major stockholders represents more than 50% of AIK´s total number of stocks. This can be both positive and negative and AIK is also an institutional owned club and is as said earlier positive when the firm is providing good results. (Nilsson & Thor, 2008). There can also be problems with too large shareholders because problems can appear between majority and minority investors because that the majority shareholders

can extract private benefits because of their controlling interests. (Thomsen, 2008) In AIK´s case the largest shareholders are fans of football and AIK as a football club and therefore the shareholders of AIK will keep on putting in fundings in the firm even that it is not the most beneficial investment.

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5 Analysis

In this section there will be comparisons and analysis with the values that have been calculated from Parken Sport and Entertainment and AIK Solna. Analysis will be made on the calculated results from profitability ratios, financial ratios and the financial leverage ratios for AIK Solna and Parken Sport and Entertainment. A comparison between the firms' corporate and owner structure will also be made and in the following analysis there will be some conclusions about the results of the clubs and decide if the clubs are over or undervalued.

5.1 Beta Value

The Beta value describes the risk factor for a firm compared to other operators in the same market. A beta value of 1 is given as a market index and the beta value can be either more than 1 or less than 1. If the beta value for a firm has a value of more than 1 then this firm has a market risk that is larger than the rest of the market. If the beta value is less than 1 then the market risk is at a lower risk compared to their competitors in the same market. (Damodaran, 2008)

Parken Sport and Entertainment has a beta of 0,79 (Bloomberg, 2010) and therefore one could say that their stock has a low risk compared to their competitors. AIK Solna on the other hand has a very low beta of 0,11 (Avanza, 2010) and has therefore a very low risk but will probably not generate that much in return.
(Pettengill, Stridhar & Mathur, 1995)

5.2 Price to Earnings Ratio

The Price to Earnings Ratio shows the relationship between the current market price and the earnings per share. It is calculated by dividing the end share price of the stock with the earnings per each share.
A high Price to Earnings Ratio would say that investors are expecting higher growth in earnings. Usually it is more useful to compare Price to Earnings ratio of one firm with firms in the same industry. (Gibbson, 2009)

Investors that are using Price to Earnings Ratios as a basis for their investment decisions should not compare the Price to Earnings Ratio of a football club with a firm in the technology industry as every different industry has their own growth prospects.

The Price to Earnings Ratio gives an idea of how much investors are willing to pay for the company's earnings. The higher the Price to Earnings ratio is the more the market is willing to pay for company's earnings. (Damodaran, 2008)
A company with high Price to Earnings Ratios is more likely to be considered as risky investments since a high Price to Earnings Ratio indicates high expectations.

Parken Sport and Entertainment have had a very varied Price to Earnings Ratio over the years. In 2006 the P/E ratio was valued to 152 and this is a very large amount when it comes to P/E ratios. In this year the value of the stock was valued at 949 and the earnings per share was 6,23 and that gives us this large P/E ratio. (PSE, Annual reports, 2001-2010) In that same year AIK had a P/E ratio 4,8 and that is a more realistic ratio that states that for investors are willing to pay 4,8 SEK for each SEK that AIK earns. Investors in Parken Sport and Entertainment were in 2006 willing to pay 152 SEK for each SEK that Parken generated. (AIK, Annual reports, 2001-2010)

152 is a very large P/E ratio and many investors found the club overvalued and in 2007 this ratio decreased from 152 to a value of 19. Since the middle of 2007 Parken Sport and Entertainment have had a tough development on the Danish stock market and this is because of the large liquidity and debt problems that the club had to struggle with. (PSE, Annual report, 2007)

AIK´s P/E and P/S ratio on the other hand had a small increase from 2006 to 2007 but then from 2007 until 2009 AIK had a large decrease in their P/E ratio. From 2008 AIK have actually had a negative P/E ratio and a negative P/E ratio is not very attractive for an investor. In 2010 AIK had a negative P/E ratio of 2,4 and AIK has to put a lot of effort to turn this negative ratio to a positive result to generate more investors in the firm.

Parken Sport and Entertainment had in 2010 a P/E ratio of 46 and this is pretty high compared to firms in the same business. Investors buying shares in Parken Sport and Entertainment can be seen as risky investors with high expectations.

5.3 Interest Coverage Ratio

The interest coverage ratio is a measure of how well a company is doing. This ratio indicates how many times a company can cover their interest payments. A firm's cash flow should be strong enough to cover their interest payments.
A rule of thumb use to be that that when a company has an interest coverage ratio less than 1.5 its ability to meet interest expenses may be questionable. An interest coverage ratio of less than 1 indicates that the company is not generating enough revenues to fulfill the interest expenses. (Damodaran, 2002)

In 2001 Parken Sport and Entertainment had a very small part of its assets financed by loans and therefore they paid almost no interest this lead to a large interest coverage ratio of 56. Already in 2002 this high interest coverage ratio did decrease radically from 56 to 7,5 and this can be explained by the large increase of lending money in to the firm. The interest coverage ratio of Parken Sport and Entertainment did decrease every year until 2006 when there was a small increase in the interest coverage ratio. In 2009 Parken did actually have a negative Interest coverage ratio of 0,2 but in 2010 they changed this negative ratio to a positive value of 1,8. (PSE, Annual reports, 2001-2010)

AIK had in 2001 a negative interest coverage ratio of 3,1 and this ratio was negative until 2006 when AIK faced their first positive interest coverage ratio with a value of 12. Then in 2008 AIK suffered a large decrease and the interest coverage ratio was negative again with a value of 15. A negative interest coverage ratio of 15 is no good at all and if this large negative amount will continue bankruptcy will soon be a close fact for AIK. (Tanthanongsakkun & Treepongkaruna, 2008)
In 2010 AIK had a negative interest coverage ratio of 4 and this is also something that AIK has to do something about because otherwise they will probably have difficulties finding investors and that could lead to bankruptcy.

5.4 Free Cash Flow to Equity

The Free Cash Flow to Equity describes how much a firm can pay out to the equity investors after accounting all expenses, reinvestments and debt repayments. This Free Cash Flow to Equity is commonly used to provide the health of a company. If a company has a positive Free Cash Flow to Equity this means that the firm can pay out dividends or repurchased stocks to their equity holders without harming the company's ongoing operations and future growth. A negative Free Cash Flow to equity on the other hand indicates that the company must issue new equity to raise cash into the company. (Damodaran, 2002)

When looking at AIK´s Free Cash Flow to Equity one can see that because of negative net incomes it has been negative for the last three years.
In 2010 the Free Cash Flow to Equity was valued to a negative result of 8379 TSEK and another contributing factor to this large negative result in Free Cash Flow to Equity is the debt ratio that AIK has, with a debt ratio of 0,95 this means that 95% of the firm is financed by debt. (AIK, Annual report, 2010)

In 2005 AIK had large negative amount of Free Cash Flow to Equity with a value of almost 21000 SEK and a large negative net income and a huge debt ratio of 1,28 led to

this bad results. This could be debt s without securities. In the following two years AIK had positive results in the Free Cash Flow to Equity but even when they had these positive results they did not pay out any dividends. This was a good idea since the result in 2008 was back to negative and AIK has since 2008 had a negative result in Free Cash Flow to Equity. (AIK, Annual reports, 2001-2010)

Parken Sport and Entertainment had between 2001-2005 a positive result in Free Cash Flow to Equity. Then in 2005 this ratio did decrease a lot and even to a negative result in 2007. Since 2007 the Free Cash Flow to Equity of Parken Sport and Entertainment have been varying a lot with a real dip in 2009 when the result was negative with an amount of almost 55000 SEK because of a really negative net income result together with a debt ratio of 0,89. This was turned into a positive result in 2010 so in the end of 2010 Parken Sport and Entertainment had a Free Cash Flow to Equity result of 69000 SEK and a debt ratio of 0,69. (PSE, Annual reports, 2001-2010)

5.5 Free Cash Flow to Firm

Free Cash Flow to Firm is a measurement of firm´s profitability after all expenses and reinvestments but before any debt payments. It is used as a measure of financial health. The difference from Free Cash Flow to Equity is that Free Cash Flow to Equity begins with the net income, which is after interest expenses and taxes compared to the Free Cash Flow of Firm which starts with after tax operating income, which is before interest expenses. (Damodaran, 2008)

The Free Cash Flow to Firm measures the cash flows generated by the assets before any financing costs are considered and is a measure of operating cash flow. A positive result in Free Cash Flow to Firm would indicate that the firm has cash left after expenses. A negative result indicates that the firm does not have generated enough revenue to cover their costs. (Damodaran, 2002)

AIK have had a positive Free Cash Flow to Firm the last four years, which one could think is really odd since the Free Cash Flow to Equity is negative these years. A company can actually have a negative Free Cash Flow to Equity due to high interest expenses and a positive Free Cash Flow to Firm because it is not decreased by large debt payments.
Since AIK had a debt ratio of 0,95 in 2010 this explains why AIK´s Free Cash Flow to Equity was negative while the Free Cash Flow to Firm was positive. (AIK Annual report, 2010)

The Value of AIK´s Free Cash Flow to Firm in 2010 was about 9000 SEK and since 2007 this has been a positive result. In 2003 the value was over 31000 SEK and the following year this result decreased a lot to a negative result of 7800 SEK and this could be explained by large loss in EBIT between 2003 and 2004.

The Free Cash Flow to Firm for Parken Sport and Entertainment has been varied a lot the last ten years. Positive results from 2001 until 2003 and then from 2004 Parken Sport and Entertainment had large decreases in Free Cash Flow to Firm for a couple of years and had a negative result of 1290000 SEK in 2006. This negative trend did change and in 2008 the result was positive again. In 2010 Parken Sport and Entertainment had a positive Free Cash Flow to Firm with a value of almost 200000 SEK. (AIK, Annual reports, 2001-2010)

5.6 Return on Equity

AS known the return on equity basically describes the return for the investor. Therefore this is one of the most fundamental and important key ratios when analyzing a future investment.

Parken Sport & Entertainment's ROE was about 5% in 2010, this compared to AIK's ROE which is negative obviously is really good. With a return on equity of 5% is rather low though since the risk free rate is about 3 %. (Riksgälden, 2010)

The ROE is rather low for both clubs but obviously PSE is stronger than AIK when it comes to the return on the equity.

One can also see that the history of the ROE is stronger for PSE than AIK. It also seems that PSE has a more positive trend than AIK if one looks at the two last years.

5.7 Return on Assets

The returns on the total assets for both clubs are rather similar to their ROE. AIK has had a negative return on assets most of the last ten years with a few exceptions. AIK seems to have much more volatility than PSE in their ROA; meaning that their future prospects is much more insecure.

Parken Sport & Entertainment has as a contrary to AIK only had a negative ROA once over the last ten years and this has its obvious reasons as mentioned in the empirical part of this thesis.

This is a clear signal that PSE has been much more efficient over the last ten years than AIK. PSE seems to be more stable than AIK even if their ROA has fluctuated rather freely as well.

5.8 Return on Capital

The return on capital for these two clubs is very similar to the return on their assets; which of course has its obvious reason. Not surprisingly AIK's return on capital has been negative over the last ten years. They have had a positive trend around 2007 but then their negative cycle started once again. In 2010 their ROC is still negative, the total opposite of this is Parken Sport & Entertainment's return on capital which has had a positive trend over the last ten years with one exception in 2009.

The return of capital for PSE has been positive since 2001 (Except, 2009), the ROC has varied from 4 % - 8 % with a huge drop in 2009 which is due to many reasons as mentioned earlier, for example their big extra down writes while AIK has fluctuated between – 20 % to +15 %. This gives a good picture of the difference of stability in the two clubs financially.

5.9 Weighted Average Cost of Capital

This measure describes the average cost of capital for the two clubs. When calculating the key ratios for PSE and AIK it became clear that they had rather different costs.

AIK had an average cost of capital at 2,7 % while Parken Sport & Entertainment had an average cost of their capital on 5,1 %. This means that PSE has to pay about twice as much for their capital compared to AIK. Obviously this means that Parken Sport & Entertainment have to create a higher return on their capital to be able to get investors interested in their financial prospects than AIK. AS we can see on the return ratios above this is also the case.

5.10 Cost of Equity

This ratio obviously is interesting for the valuation process of the company since this gives an idea of how much the cost for getting equity. In the other words the cost of equity is as mentioned in the theory the same thing as the expectations of return from the owners.

A high Re is obviously a good thing for the investors but it must not go too far since that might lead to way too high costs for the company to bear.

Parken Sport & Entertainment's cost of equity is 7,66%. This is comparable to their ROE, which was a bit lower which obviously not is the way it should be, but still they are a lot better than AIK. AIK's cost of equity is 3,9% and their ROE was negative which obviously is very bad. For the firm itself a low Re is good since they can save a lot of money but to be able to attract investors the firm needs a higher Re therefore from an investors point of view PSE is better than AIK once again.

5.11 Growth Rate

The two clubs obviously have had quiet different development of their financial ratios over the last 10 years in favor for PSE. Their growth rate is one of the most important measures since it gives a picture for the investor in how it is possible for the company to grow.

PSE's growth rate is about 7,5% and AIK's growth rate is 4,4%. Even if AIK has had negative EBIT over the last years they still have a growth, which is respectable for a stable growth.

Further on this is another fact that shows that an investor should be more interested in PSE than AIK since the growth rate also gives a picture of the future for the club.

5.12 Corporate Structure

These two firms are very similar when it comes to this aspect. Their structure is flat, even though most of the decisions are made by the board, which shows that their corporate structures also are rather centralized. According to earlier written literature in this subject this seems to be the most common way of structure in this industry. This is not surprisingly since the clubs most often are owned by big investors and they want to have a big say. This is also the case of these two clubs; both AIK and PSE have a few large owners.

What one can question is how the two firms can be so similar even though the sizes of them differ extremely. PSE is divided into more big parts but is still un from the top even though they are rather flat.

According to Snow & Miles (1978) there is no right or wrong way of structuring a firm in the sporting sector. They are all individual therefore they have to be structured accordingly. There are people who argue that a company adapts their corporate structure to their business environment, which if thought about is not very surprisingly.

This is a major reason to why both Allmänna Idrottsklubb Solna and Parken Sport & Entertainment have relatively similar corporate structures. The two firms, even though they are different, are working in the same sector. (Snow & Miles, 1978)

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6 Conclusion

In this part of the thesis one will be able to read about the conclusions that could be drawn after valuing the two clubs; Allmänna idrottsklubb Solna and Parken Sport & Entertainment. It will trace back to the main purpose of this thesis which was to:

> *The main purpose of this thesis is to, with the use of relevant valuation theory, describe whether Allmänna Idrottsklubb Solna and Parken Sport & Entertainment are over- or undervalued. Further on; the purpose also is to analyze whether their corporate structure is suitable for a football club according to relevant corporate structure theory.*

In the beginning of this thesis one could read about the expected result from this empirical study. The authors believed that Parken Sport & Entertainment would be a better financial investment than AIK Solna due to the factors mentioned in that paragraph.

What one can conclude after this valuation is that what is mentioned above is also a fact. Not surprisingly Parken Sport & Entertainment was superior to AIK Solna in every financial ratio measured in this empirical study. Just to clarify; AIK's net income has been negative in more than 70% of the years that is included in this study and PSE only had 10%. This figure alone can give a lot of information about what is to come.

This obviously is a big problem since; the worse a club is doing financially the harder they will have to achieve good sporting results due to lack of good and also expensive players. (Franck, 2010)

Further on; another very striking fact is the big difference in debt ratio between the two clubs. In 2010 AIK had a debt ratio of 95% compared Parken Sport & Entertainment who had 69%. What could be said about PSE is that their debt ratio has increased extremely; about 590%, over the last ten years, this is obviously because PSE has made very big investments in smaller firms and properties. Although one can also see that these investments have been very good for PSE; their stadium is a very big contribution to why their financial ratios are that positive. This is a very big factor to why the club FCK has been able to climb in European football. They get a good income from their private arena, good income equals the ability to buy good players and then they succeed in the European cups and thereafter they get an even better financial situation. (Franck. 2010)

What about the value of the two clubs then? One can absolutely draw the conclusion that Parken Sport & Entertainment is more valuable than AIK Solna over all, although it is a much larger club, which is one big factor in the equation. Further on what made this clearer as well was that AIK Solna generated very much negative EBIT and therefore their key ratios were very bad and gave a bad impression.

Another fact is that it was rather difficult to compare these firms on some valuation ratios since AIK generated very much negative EBIT and thereby one had to use some different measures for the club, for example P/S ratio instead of P/E ratio.

But even these measures gave us the same result; AIK Solna is not a tempting investment for someone who is looking for financial gains since they showed; bad return ratios, high p/s ratio, high debt ratio and so on. When it comes to AIK's actual value it was no surprise to see that it was extremely bad. The club is very overvalued; their stock price in 2010-12-30 was set at 2,2 SEK and their actual value is actually negative; hence no good investment.

When it comes to Parken Sport & Entertainment the ratios actually were not that bad; they generated profit in almost every year, the firm has relatively good return ratios and an acceptable debt ratio. Although their P/E ratio is extremely high. PSE also had a higher beta value than AIK, which means that they have more systematic risks in their market but still their beta value is below 1. Parken Sport & Entertainment's actual value was more exciting. Using both the Gordon Growth Model and Modigliani Miller Theorem their value pended between 4,2 billion SEK receptively 3,7 billion SEK. This showed that their actual share price was 145 SEK (with average exchange rate from 2010). This compared to their set share price, which is about 146 SEK shows that this share has a correct market value. Therefore this means that Parken Sport & Entertainment at least is not a bad investment to make. But it is not as good as if it would have been undervalued.

As showed in the analysis of the two firms one can see that both AIK and Parken Sport & Entertainment have very similar corporate structure. The question one should ask is whether PSE would be better off with more decentralization. Still as mentioned in their annual reports they believe that their corporate structure is functioning well. Many big firms are run this way because the board wants to keep their control. (Boman, 2010) What one can say is that these two firms have developed a corporate structure which suits their business climate. As written in the analysis one will be more tempted to invest in a firm with a suiting corporate structure than one without it.

This empirical study shows that there actually are other incentives to invest in Parken Sport & Entertainment than just by sports enthusiasm. There are good chances to get a fairly good return on the invested money. That together with their stable corporate structure makes PSE an interesting investment. Still, the volatility in their economy over the last years makes it a rather insecure investment and therefore it is not an obvious opportunity.

AIK Solna on the other hand is the total opposite, there are no incentives to invest in that firm except if you are a big fan of the club. Nothing points at a more stable economy, and the return measures are mostly negative. Also the firm and its shares were extremely overvalued. Also as one could read in Aftonbladet, one of Sweden's biggest

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List of research project topics and materials

newspapers; AIK Solna seems to have had a loss of roughly 6 million SEK for the first quarter of 2011. (Bolagsverket, 2011) This strengthens the conclusion of this report telling investors not to invest if they are interested in a financial return.

To conclude this study there are a few things that should be mentioned; firstly; even though Parken Sport & Entertainment is a reasonable investment due to their fairly good ratios there are still better options for a serious investor. For being a football club they are okay, and if you were a fan of FC Copenhagen it could be supported financially to invest. AIK Solna is as mentioned several times the total opposite; there are no financial incentives to invest in the club; they should almost be bankrupt.

7 Future Studies

After finishing this study there are many thoughts that are woken; what we believe would be very interesting to see is the following.

- How do clubs value their squads?
- A similar study but for larger clubs and with help from that see if there is a pattern in if bigger clubs are better off financially than smaller clubs.
- What are the major problems for Swedish clubs to buy their own stadiums? What would the costs and benefits be?
- If one was to look at the clubs as totally regular firms and companies how many of the Swedish clubs would be bankrupt? Are the criteria different and is the football industry more tolerable for bad financial situations than the normal industries.

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List of research project topics and materials

9 Appendix

9.1 Calculations Parken Sport & Entertainment

	TKR						
DKK->SEK snitt 2010: 1,2054	1,2054						
Calculations for FCFE & FCFF 2010							
	Net income	Capital Expenditures	Depreciation		Change in WC	Debt ratio	
FCFE	50688,2754	149107,98	143930		-11017	0,694697	
FCFE 10	**52470,9457**						
	EBIT	Capital Expenditures	Depreciation		Change in WC	Tc	
FCFF	269187	149107,98	143930		-11017	28,00%	
FCFF 10	**199653,66**						
Total Current Assets 10	Short Term Liabilities 10	Total Current Assets 09	Short Term Liabilities 09				
272898	321492	474631	1608462				
Working Capital 10	Working Capital 09	Change in Working Capital 08-09					
189843	200860	-11017					
Cost of Equity							
7,66%							

Future Growth In FCFE	FCFE		Discounted FCFE			
Growth rate:	7,65%					
FCFE 21	141535,274		62844,396			
FCFE 20	131472,264		62847,844			
FCFE 19	122124,723		62851,292			
FCFE 18	113441,783		62854,741			
FCFE 17	105376,191		62858,189			
FCFE 16	97884,054		62861,638			
FCFE 15	90924,600		62865,087			
FCFE 14	84459,956		62868,536			
FCFE 13	78454,941		62871,985			
FCFE 12	72876,877		62875,435			
FCFE 11	67695,407		62878,885			
		Sum of PV FCFE:	691478,029			
	Net income	Capital Expenditures	Depreciation	Change in WC	Debt ratio	FCFE
FCFE 10	61099,3152	149107,98	143930,787	-11017,356	0,694697	62882,3345
FCFE 09	-467732,5674	611861,04	358526,9436	452395,0578	0,890000	-545362,77
FCFE 08	40532,7804	147985,7526	78305,1948	-181298,187	0,828000	59731,013
FCFE 07	157357,7376	1415062,454	36058,3356	-135790,7208	0,721000	-189498,800
FCFE 06	49757,7066	138831,945	29341,8468	-1157,184	0,641000	10866,190
FCFE 05	416991,2054	353917,494	25691,8956	2163,693	0,533000	262699,406
FCFE 04	31169,2332	154610,631	44494,9302	-22839,9192	0,570000	-6359,353
FCFE 03	11885,244	59663,6838	43225,644	-1708,0518	0,507000	4623,360
FCFE 02	58461,9	-1235,535	41258,4312	28507,71	0,412000	66685,819
FCFE 01	19306,8918	-644,889	30235,0482	33084,6138	0,140000	17410,870

Growth Rate:	**7,65%**					
FCFF 21	449195,0					
FCFF 20	417273,6					
FCFF 19	387620,6					
FCFF 18	360074,9					
FCFF 17	334486,7					
FCFF 16	310716,8					
FCFF 15	288636,2					
FCFF 14	268124,6					
FCFF 13	249070,7					
FCFF 12	231370,8					
FCFF 11	214928,8					
	EBIT	**Capital Expenditures**	**Depreciation**	**Change in WC**	**Tc**	**FCFF**
FCFF 10	269187,5172	149107,98	143930,787	-11017,356	28,00%	199655,175
FCFF 09	-39808,335	611861,04	358526,9436	452395,0578	28,00%	-734391,16
FCFF 08	231131,8338	147985,7526	78305,1948	-181298,187	28,00%	278032,55
FCFF 07	374004,2796	1415062,454	36058,3356	-135790,7208	28,00%	-973930,32
FCFF 06	132460,2006	138831,945	29341,8468	-1157,184	28,00%	-1289192,1
FCFF 05	105435,1326	353917,494	25691,8956	2163,693	28,00%	-254476
FCFF 04	88369,0794	154610,631	44494,9302	-22839,9192	28,00%	-23650,044
FCFF 03	65728,0512	59663,6838	43225,644	-1708,0518	28,00%	32594,2089
FCFF 02	89698,6356	-1235,535	41258,4312	28507,71	28,00%	78569,2738
FCFF 01	24396,0906	-644,889	30235,0482	33084,6138	28,00%	15360,5086
Value of Firm 2010 M&M	**EBIT 2010**	**Tc 2010**	**Weighted Averager Cost of Capital**	**value per share after emission 3:1**		

PSE

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Net Income	19303,6884	58461,9	11885,24	31169,23	50263,97	49757,71	157357,7	40532,78	-467732,567	50688,28
BV of Equity	300742	582468,3	549142,9	573825,8	659975,8	543074,9	801058,2	664435,8	34490,1102	987266
ROE	6,419%	10,037%	2,164%	5,432%	7,616%	9,162%	19,644%	6,100%	-1,356%	5,134%
EBIT	24396,0906	89698,64	65728,05	88369,08	105435,1	132460,2	374004,3	231131,8	-39808,335	269187,5
BV of debt + BV of Equity	432830,21	1014056	1117273	1379727	1412150	1513559	2871724	3854146	2223427,8	3233730
Tc	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%
ROC	4,058%	6,369%	4,236%	4,611%	5,376%	6,301%	9,377%	4,318%	-1,289%	5,994%
EBIT	24396,0906	89698,64	65728,05	88369,08	105435,1	132460,2	374004,3	231131,8	-39808,335	269187,5
Total Assets	432830,21	1014056	1117273	1379727	1412150	1513559	2871724	3854146	2223427,8	3233730
ROA	5,636%	8,846%	5,883%	6,405%	7,466%	8,752%	13,024%	5,997%	-1,790%	8,324%

Yea	Total Assets	Book value of Equity	Interest expenses	EBIT*(1-0,28)	ROA	ROE	Interest Coverage Ratio
2001	335 484,00 kr	300 742,00 kr	248,00 kr	14572,08	4%	5%	58,7583871
2002	832 780,00 kr	483 296,00 kr	7 107,00 kr	53 578,08 kr	6%	11%	7,538775855
2003	926 890,00 kr	455 569,00 kr	16 044,00 kr	39 260,16 kr	4%	9%	2,447030666
2004	1 144 622,00 kr	476 046,00 kr	19 736,00 kr	52 783,92 kr	5%	11%	2,674499392
2005	1 171 520,00 kr	547 516,00 kr	24 029,00 kr	62 977,68 kr	5%	12%	2,620903075
2006	1 255 649,00 kr	450 535,00 kr	24 753,00 kr	79 120,08 kr	6%	18%	3,196383469
2007	2 382 383,00 kr	664 558,00 kr	69 619,00 kr	223 397,28 kr	9%	34%	3,208855054
2008	3 197 400,00 kr	551 216,00 kr	125 206,00 kr	138 057,84 kr	4%	25%	1,10264556
2009	2 912 190,00 kr	318 455,00 kr	108 251,00 kr	- 23 778,00 kr	-1%	-7%	-0,219656169
2010	2 682 703,00 kr	819 036,00 kr	85 516,00 kr	160 788,96 kr	6%	20%	1,880220777

9.2 Calculations AIK

FCFE	Net income	Capital Expenditures	Depreciation	Change in WC		Debt ratio
	-9108	733	5009	-10436		0,950472
FCFE 10	-8379,3390					
	EBIT	Capital Expenditures	Depreciation	Change in WC	Tc	
FCFF	-7726	733	5009	-10436	26,30%	
FCFF 10	9017,938					
Total Current Assets 10	Short Term Liabilities 10	Total Current Assets 09	Short Term Liabilities 09			
35956	53139	39581	46328			
Working Capital 10	Working Capital 09	Change in Working Capital 09-10				
-17183	-6747	-10436				
Cost of Equity						
3,905						

Growth rate:	**3,905%**					
	Future FCFE					
FCFE 21	-12770,589		0,000			
FCFE 20	-12290,640		-0,002			
FCFE 19	-11828,728		-0,007			
FCFE 18	-11384,176		-0,034			
FCFE 17	-10956,331		-0,160			
FCFE 16	-10544,566		-0,757			
FCFE 15	-10148,276		-3,574			
FCFE 14	-9766,879		-16,873			
FCFE 13	-9399,816		-79,653			
FCFE 12	-9046,549		-376,015			
FCFE 11	-8706,557		-1775,037			
		Sum of PV FCFE:	-2252,113			
	Net income	**Capital Expenditures**	**Depreciation**	**Change in WC**	**Debt ratio**	**FCFE**
FCFE 10	-9108	733	5009	-10436	0,9505	-8379,344
FCFE 09	-6288	1027	7678	-1910	0,804355894	-4613,0908
FCFE 08	-15040	1238	7570	-13330	0,657305503	-8301,9408
FCFE 07	14215	839	8511	6082	0,500121477	15009,807
FCFE 06	15408	459	6320	21661	0,815913722	12499,437
FCFE 05	-16972	739	8741	-5764	1,287671233	-20932,082
FCFE 04	-14413	1374	5327	2582	1,164081682	-14637,956
FCFE 03	39	2014	6873	-11504	0,897468415	1716,724
FCFE 02	-6336	2155	10511	7719	0,888830514	-6265,185
FCFE 01	-11954	2242	10629	-5845	0,794605641	-9030,827

Growth Rate:	3,905%					
	Future FCFF					
FCFF 21	13743,84216					
FCFF 20	13227,31549					
FCFF 19	12730,20113					
FCFF 18	12251,76953					
FCFF 17	11791,31854					
FCFF 16	11348,17241					
FCFF 15	10921,68078					
FCFF 14	10511,21772					
FCFF 13	10116,18086					
FCFF 12	9735,990434					
FCFF 11	9370,088479					

	EBIT	Capital Expenditures	Depreciation	Change in WC	Tc	FCFF
FCFF 10	-7726	733	5009	-10436	26,30%	9017,938
FCFF 09	-5569	1027	7678	-1910	26,30%	4456,647
FCFF 08	-14677	1238	7570	-13330	26,30%	8845,051
FCFF 07	14902	839	8511	6082	26,30%	12572,774
FCFF 06	14279	459	6320	21661	26,30%	-5276,377
FCFF 05	-15717	739	8741	-5764	26,30%	2182,571
FCFF 04	-12522	1374	5327	2582	26,30%	-7857,714
FCFF 03	20616	2014	6873	-11504	26,30%	31556,992
FCFF 02	-13505	2155	10511	7719	26,30%	-9316,185
FCFF 01	-10303	2242	10629	-5845	26,30%	6638,689

Value of Firm 2010	EBIT 2010	Tc 2010	Weighted Averager Cost of Capital
-210891	-7726	26,30%	2,7%

Value of Firm Single stage growth mod	FCFF	Growth Rate	Weighted Average Cost of Capital
347040,314	9017,938	3,905%	2,7%

AIK (SEK)

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Net Income	-11954	-6336	39	-14413	-16972	15408	14215	-15040	-6288	-9108
BV of Equity	12664	6348	6387	-10960	-16674	18247	32920	18060	11597	2830
ROE	-94%	-100%	0,611%	132%	102%	84,441%	43,180%	-83,278%	-54,221%	########
EBIT	-10303	-13505	2046	-12522	-15717	14279	14902	-14677	-5569	-7726
BV of debt + BV of Equity	61657	57102	62293	66796	57962	99122	65856	52700	59276	57139
Tc	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%
ROC	-12,0%	-17,0%	2,4%	-13,5%	-19,5%	10,372%	16,292%	-20,052%	-6,764%	-9,735%
Net income	-11954	-6336	39	-14413	-16972	15408	14215	-15050	-6288	-9108
Total Assets	61657	57102	62293	66796	57962	99122	65856	52700	59276	57139
ROA	-19,4%	-11,1%	0,06%	-21,6%	-29,3%	15,544%	21,585%	-28,558%	-10,608%	-15,940%

Yea	Total Assets	Book value of Equit	Interest expense	EBIT*(1-0,263)	RO/	RO	Interest Coverage Ratio
2001	61 657,00 kr	12 664,00 kr	2 410,00 kr	-7593,311	-12%	-60%	-3,150751452
2002	57 102,00 kr	6 348,00 kr	1 803,00 kr	- 9 953,19 kr	-17%	-157%	-5,520346644
2003	62 293,00 kr	6 387,00 kr	2 410,00 kr	1 507,90 kr	2%	24%	0,625685477
2004	66 796,00 kr	- 10 960,00 kr	1 930,00 kr	- 9 228,71 kr	-14%	84%	-4,781717098
2005	57 962,00 kr	- 16 674,00 kr	1 584,00 kr	- 11 583,43 kr	-20%	69%	-7,312770833
2006	99 122,00 kr	18 247,00 kr	840,00 kr	10 523,62 kr	11%	58%	12,52812262
2007	65 856,00 kr	32 920,00 kr	935,00 kr	10 982,77 kr	17%	33%	11,74628235
2008	52 700,00 kr	18 060,00 kr	713,00 kr	- 10 816,95 kr	-21%	-60%	-15,17103647
2009	59 276,00 kr	11 597,00 kr	826,00 kr	- 4 104,35 kr	-7%	-35%	-4,968950363
2010	57 139,00 kr	2 830,00 kr	1 434,00 kr	- 5 694,06 kr	-10%	-201%	-3,970754533
(SEK thousand)							
tax:	26%						

List of research project topics and materials