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# Företagsvärdering

## En fallstudie av Unibet

**Magisteruppsats inom Finansiering  
i ämnet företagsekonomi**

**Författare: Bertilsson Jonas  
Davidsson Marcus**

**Handledare: Wramsby Gunnar**

**Jönköping, 2005-05-27**



JÖNKÖPING INTERNATIONAL BUSINESS SCHOOL  
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# Corporate Valuation

## A case study of Unibet

**Master thesis in Finance,  
within the subject of Business Administration**

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**Jönköping, 2005-05-27**

## Magisteruppsats inom Företagsekonomi

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### Sammanfattning

**Problem:** Vadslagning och spel på internet har suddat ut vikten av nationella gränser, vilket har lett till ett mer diversifierat perspektiv av företaget. Detta har sannolikt även resulterat i att allt färre modeller för företagsvärdering kan anses vara lämpliga. I denna magisterexamen ville vi fördjupa och utveckla ämnet företagsvärdering med avseende på den Internetbaserade spelindustrin. En fördjupad studie av vadslagningsföretaget Unibet kan anses uppfylla detta ändamål.

**Syfte:** Syftet med uppsatsen är att identifiera faktorer i den strategiska, SWOT och finansiella analysen som ligger till grund för kassaflödesvärderingsmodellen och företagsvärdet

**Metod:** Vi har valt att göra en ”case study” för att samla in empiri till uppsatsen.

**Slutsatser:** En kassaflödesvärdering utifrån olika utfall utfördes. Med de gjorda antagandena i det realistiska utfallet nåddes ett värde på 85 miljoner GBP, vilket var betydligt mycket lägre än det publicerade värdet. Vi anser att det beror på att den ökande konkurrensen på spelmarknaden och de strikt kontrollerade marknaderna kommer att göra det svårt för Unibet att bibehålla den starka tillväxten i framtiden. Dessa antaganden har baserats på informationen från den strategiska analysen, SWOT analysen och utvecklingen av finansiella nyckeltal.

## Master Thesis in Business and Administration

Title: Corporate Valuation: A case study of Unibet  
Author: Jonas Bertilsson & Marcus Davidsson  
Tutor: Gunnar Wramsby  
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### Abstract

**Problem:** The online betting industry has erased the importance of national borders and opened up the world, which has led to a more diversified perspective of the company but also to a more limited range of appropriate corporate valuation models that could be applied. In this master thesis we wanted to broaden and develop the topic of corporate valuation with regard to the on-line gambling industry. In order to do that, a case study of the on-line betting firm Unibet and its core betting activities has been carried out.

**Purpose:** The study aims to identify factors in the strategic, SWOT and financial analysis that will be used in the cash flow valuation model in order to derive the company value

**Method:** A case study has been chosen to collect empirical data to our study.

**Conclusion:** A cash flow valuation in different scenarios was carried out. With the assumptions made in the “probable” scenario a value of approximately GBP 85 million was reached, which was significantly lower than the listed value. This is mainly due to the fact that we believe that the increased competition on the gambling market and the strict regulated markets will make it difficult for Unibet to maintain its strong growth in sales in the future. The assumptions have been based on the information gained from the strategic analysis, the SWOT analysis and the development in financial ratios.

## **Acknowledgements**

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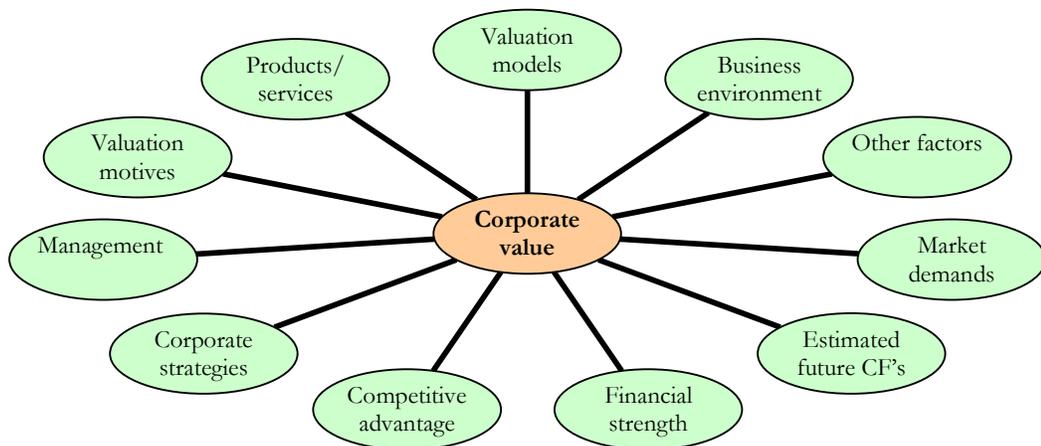
# 1 Introduction

*This chapter will start with an introduction of the thesis. Then a brief overview of Unibet will be given. Further we will describe the background for the thesis, the subject and present reasons why we have chosen the specific subject. This is followed by the problem statement and the purpose of our study. This chapter will end with a description of the thesis's perspective and limitations.*

## 1.1 Thesis Introduction

The increased use of Internet has led to a more diversified and international market. One example of an industry that quickly understood the flexibility of the Internet and the potential of an unlimited market is the bookmaker industry. This thesis will deal with corporate valuation through a case study of Unibet representing the online betting industry. Unibet was brought to our attention in 2004 when they were the first online betting firms to be listed on the Stockholm Stock Exchange. The thesis will deal with evaluating the company's competitive advantages, market position and financial position. Frykman & Tolleryd (2003) explain that the base for corporate valuation is not only to rely on analysing the profit, present and historical balance sheet. In order to gain insight of the company's core value several different topics need to be evaluated, for instance the future financial performance, the internal resources, market position and the company's knowledge resources.

The empirical study will be the base for our conclusions and contribution to academic theory. There exists a lack of a complete framework that incorporates all different aspects when it comes to corporate valuation. There are several models that analyze different aspects of the corporation. In order to get the whole picture of the company and the factors that influences the value investors have to apply multiple models and draw conclusions based upon them. Two of the most difficult tasks are to correctly identify the importance of each of the variables and to successfully make future predictions about the company and its future earnings.



**Figure 1:1 Example of factors affecting the corporate value based on the model by Scharfstein (1991)**

The base for this thesis is a fundamental value approach. Fundamental value means the value of an equity investment that is held over a long time period. The opposite is value that is created in the short term through speculative trading. The relationship between financial statements, financial forecasts and share prices are far from straightforward. Economic theory usually assumes that the investors are rational, wealth-maximizing individuals and that the stock market is efficient and reflects fundamental values. The problem is that there is no guarantee that stock market prices actually reflect fundamental values due to the fact that investors also are also driven by sentiments and expectations (Barker, 2001).

## 1.2 Unibet– A Brief Overview

The company was founded in 1997 by Anders Ström. The company is one of the largest on-line gambling operators in the Nordic market with over 275 000 customers worldwide. Unibet is focused on the Nordic region which accounts for 75% of the customer base. The rest 25% of the customers are diversified into more than 100 different countries. Unibet offers a comprehensive range of online gambling products such as sport betting, live betting and casino gambling through their website. 1998 the company was granted a licence for betting operations in UK. The same year Unibet established an office in London and started its betting operations taking bets over the telephone. In 1999 a Swedish and an English website was launched. In 2000 the company was granted a licence for betting operations in Malta. In 2001 the second version of Unibet’s website was launched that was translated into 12 languages. Moreover, in 2003 the company had a turnover of GBP 144 million (1.85 billion SEK) and a profit after tax of GBP 2.9 million (37.3 million SEK). In June 8, 2004 Unibet was noted on the Stockholm Stock Exchange. They were the first publicly traded online betting company on the Swedish market (Unibet, 2005).

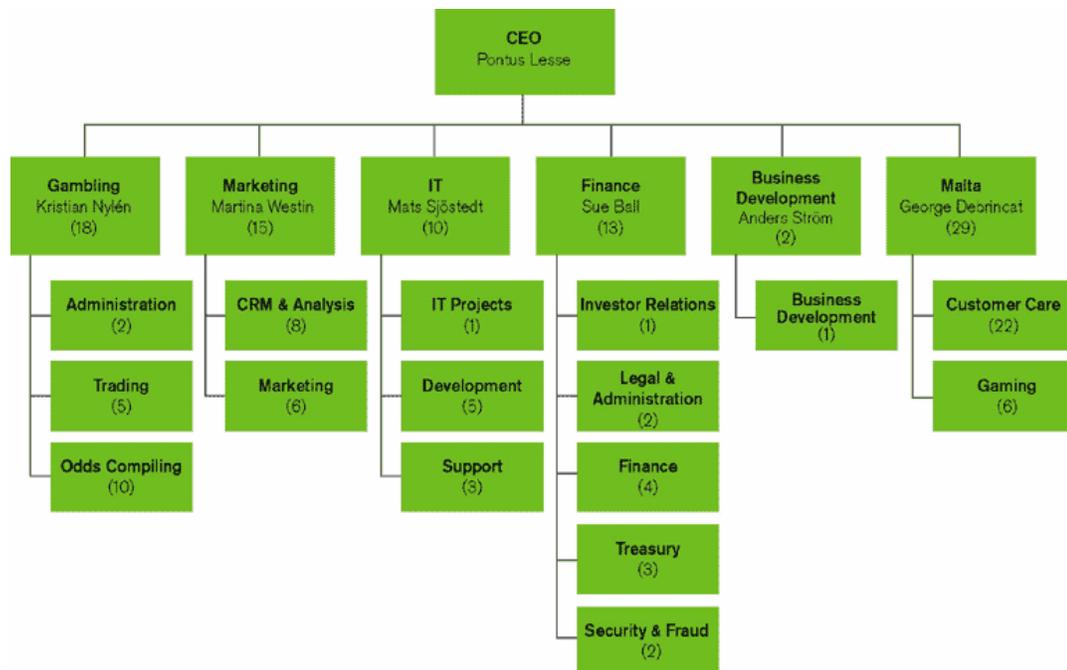


Figure 1:2 Organizational structure Unibet (Unibet, 2005)

The business concept of Unibet is to “provide reliable on-line gambling and to build value by delivering entertaining gambling products and excellent service”. The strategy is to maintain its position in the Nordic region as well as expanding its operation within and outside the rest of Europe. Unibet Group plc is divided into different business units: Unibet Ltd (UK), Firstclear Ltd (UK), Unibet Holding Ltd (Malta) and Unibet Software (Sweden). Unibet Holding Ltd also has one sub branch Unibet International Ltd (Malta) (Unibet, 2005).

Unibet’s sport betting offers a comprehensive range of odds on a variety of international and local sport events, 24 hours a day, seven days a week. The customer will find odds on around 500 different events and around 25 different sports. The most popular sports are football, ice hockey and tennis, which together compromise around 80 per cent of Unibet’s sport books. The live element is very important for Unibet. This means that the customer can place a bet on a particular game or event and then watch the game live on the television. The company chose and prioritises events that have a large exposure in the media. The most attractive are events broadcasted live on the terrestrial<sup>1</sup> channels. The firm’s casino consists of 17 different products. This includes online table games like Roulette, Black Jack, Caribbean Stud, Baccarat and Texas Hold’em but also online slot machines. Casino games are not subject to seasonality variation as sport betting is. The activity on online casino games is relative stable over the year (Unibet, 2005).

### 1.3 Background

The importance of understanding cultures and traditions increases when markets are getting more and more international. This is also true when it come to corporate goals. In different countries there exist different philosophies when it comes to corporate and investor relationships. It is hard to find one universal rule that is not influenced by cultural determined norms. One example of this is the tradition of shareholder and corporate wealth maximization (Eiteman, Stonehill & Moffet, 2004).

The Anglo-American<sup>2</sup> markets are characterized by the philosophy that the firms’ main focus is on maximizing the shareholders wealth; the shareholders wealth maximization (SWM) model. The shareholders wealth is measured by the sum of capital gains<sup>3</sup> and dividends. The firm should also try to minimize the risk faced by the shareholder for a given rate of return. This perspective is essential when it comes to attracting international capital from outside investors. During the 1990s economic expansion and bull market<sup>4</sup> a flaw in the SWM model was exposed. Instead of focusing on long-term value maximization several corporations focused on short-term value maximization. This development had been driven by the excessive use of stock options to motivate top managers (Eiteman et al 2004). According to Fama & Jensen (1983) shareholders can motivate managers to accept the prescriptions of the SWM model which is described in the study of Agency theory.

According to Eiteman et al (2004) continental European and Japanese markets on the other hand are characterized by the philosophy that the firms’ main objective is to maximize the corporate wealth, the corporate wealth maximization (CWM) model. In this

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<sup>1</sup> TV broadcasted by radio waves the opposite is satellite broadcasting.

<sup>2</sup> Anglo-America includes United States, United Kingdom, Canada, Australia and New Zealand.

<sup>3</sup> The profit you realize from selling the stock, the difference between the selling price and the purchase price

<sup>4</sup> The prices of stocks increases on average and the confident and expectations of the market is getting higher

model the shareholders have the same priority as other corporate interest groups like the management, suppliers, creditors and local community. The goal for the company is to earn as much as possible in the long run and to increase the corporate wealth for the benefits of all interest groups. The definition of corporate wealth is much broader than the definition of financial wealth. Corporate wealth also includes the market position of the firm and the knowledge and skills of the employees when it comes to production, technology, marketing and administration of the corporation. The CWM model avoids the shortcoming of the SWM model when it comes to short-term value maximization. However it has its own flaw. Managers are focused on pleasing a number of different corporate interest groups. The problem is that it does not exist a clear structure of the tradeoffs when it comes to pleasing on different interest groups and how it affect the long term value of the company.

This has influenced us to write a thesis that covers a more broad perspective on corporate valuation. One example of increased internationalization is the way online bookmakers erases the importance of national borders and opened up the world which leads to a more diversified view of the company but also to a more limited range of appropriate corporate valuation models that could be applied. The wider perspective and more diversified view of corporate valuation is supported by our choice of a non traditional firm, a bookmaker firm, which leads to more challenges when it comes to corporate valuation. Moreover, arguments for that valuation of betting and gambling companies can be a problem for investors have been discussed (SVD, 2004).

The business environment is characterized by complexity, which leads to that business valuation in practice can be considered to be products of subjective estimates. Most theories and models have to draw boundaries and make simplifying assumptions of reality in order to work properly. The correct or true value of the business is in the end the perceived fair value of the buyer (Blass, 2001).

## **1.4 Problem**

Mergers, acquisitions and corporate takeovers have increased. If the focus of management is not on value maximization the chance of replacement is large or that the company will be a target of a takeover. This leads to that the most important task for management is to maximize the corporate or shareholder wealth, in order to do that management has to understand how value is created and measured. This is when corporate valuation comes in to play (Frykman & Tolleryd, 2003).

Increased internationalization through online commerce in the world leads to that corporations are exposed to larger diversity than before. Philosophies and traditions when it comes to corporate and investor relationships differ between countries. This makes the quest of finding the most optimal valuation techniques and estimating the “fair” value of the company even more complex.

Another reason of why the pursuit of finding a universal value of a company can be difficult is related to people’s motives. A seller wants a high value while a buyer wants a low value naturally. Corporate valuations models are also limited to constraints by the number of parameters the models take into consideration. The most “objective” value of a company can be found as a result of implementing numerous appropriate models. The nature of the business field, in this case betting operations, provides an extra challenge

A large portion of a company's assets can be considered to be intangible<sup>5</sup>. This statement is true in two different ways. First when it comes to the goodwill created on the balance sheet through an external acquisition of a company at a price above the market value of its assets. Secondly through a firm's knowledge assets which works as a foundation for the firm's competitive advantage. These intangible assets make the process of accurately assessing the corporate value complex and in some sense arbitrary. This leads to that corporate valuation is not an exact science. Intangible assets are impossible to accurately quantify but highly important to evaluate and identify.

The aim of the thesis is not to try to outsmart the market, which can be considered impossible if the markets are efficient, but rather identifying the factors and assumptions made in order to derive the corporate value. In our opinion there does not exist a complete framework for estimating the value of a more non traditional firm like an international bookmaker firm. Therefore this thesis will hopefully contribute to the development of, to some extent, a wider framework regarding the valuation of online betting companies.

In the first part of the thesis important models and literature in the field of corporate valuation will be reviewed. This is done in order to successfully implement them on the chosen company. Briefly the basic of bookmaking will also be discussed to insure that the reader understand the way that the firm generate its profits which is important for the value of the company. In the second part of the thesis will analyse our chosen company Unibet. To answer the questions below an extensive analysis has to be done of, for example, the online bookmaking business, corporate valuation models, the competitiveness of Unibet's odds, market position and financial strengths.

The questions that will be answered are:

- Why is Unibet successful and what is their competitive advantage?
- What are the characteristics of the online gaming industry?
- What are Unibet's strengths, weaknesses, opportunities and threats?
- What is Unibet's financial position?
- What is the value of Unibet and what assumptions are made to support this value?
- What value scenarios can be created by adjusting these assumptions?

According to Barker (2001) a good understanding of valuation methods requires two things: First is an analytical review of appropriate valuation models, identifying the relationship between them and exposing the assumptions that each of them makes. The second issue is an evaluation of the data that are available for the use in the valuation models. Therefore an important relationship between the choice of valuation models and the availability of the data exists. The author explains that financial performance is very hard to measure objectively. The amount of profit a company makes is opened to subjective measurements. In view of this subjectivity, the relationship between financial statements, forecasts of financial performance and share prices are far from straightforward.

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<sup>5</sup> Not having physical substance and can be hard to identify

## **1.5 Purpose**

The study aims to identify factors in the strategic, SWOT and financial analysis that will be used in the cash flow valuation model in order to derive the company value.

## **1.6 Limitations**

Limitations are necessary and important in order to hopefully keep a high quality throughout the entire thesis. The thesis strategic analysis is focused more on evaluating Unibet's betting business regarding odds and not so much on the newly opened online poker business or other casino games such as roulette and slot machines. They will be reviewed, summarized and analyzed but not with the same depth. This is done for two main reasons.

The first reason is that casino games, especially online poker, are rather new and that the financial analysis part of the thesis is only dealing with figures for the period 2001-2003. The second reason is that online casino games are rather hard to benchmark and evaluate in order to determine if the company is offering products that are competitive. In the potential future value scenarios they will of course be included and adjusted for due to the fact that they might play an important roll for the future value of the company.

The thesis is based on the view of an external investor trying to estimate the company value. Furthermore, our perspective is based on an independent and critical standpoint. The structure of the thesis supports the separation of our thoughts from the already published literature in order to facilitate for the reader. Fundamental analysis rather than technical analysis will be considered as the base for this thesis. The limitation is made due to the fact that technical analysis can not be considered to be apart of corporate valuation and it is some what controversial. It is questionable if it is possible to predict future stock price by using trends and pattern from the past.

## 2 Theory

*Some examples of questions that are related to corporate valuation that will be discussed in this theoretical section of our thesis are: What are the basics of bookmaking? What is fundamental analysis? How is a SWOT analysis done? What is financial analysis? How is a discounted cash flow valuation done?*

### 2.1 The fundamental of Bookmaking: Probability and Payout

The understanding of basic probability and quotes are essential for the understanding of how the bookmaking industry is making money. In the end this affects the corporate value. Wikipedia (2005) states that a bookmaker is an organisation or a person that gambles when it comes to different events and outcomes. The payout depends on the outcome and the odds of the bet. Manduchi (2004) describes a bookmaker as a person that is offering quotes on a football game as presented below to the left. Each quote represents the payout from investing 1 unit of money if the event on which the bet is conditional realized. It is assumed that the investor don't have information regarding probability for the outcome. How can the quote "Away team wins" be calculated to construct a risk less portfolio?

Outcome	Quotes	bet	payout	
Home team wins	1.66	*B1	=1.66	B1=1
Draw	3.50	*B2	=1.66	B2= 1.66/3.50=0.47
Away team wins	?	*B3	=1.66	B3=1.66-(1+0.47)=0.185
				$\sum (B1 + B2 + B3) = 1.66$

**Table 2:1 Constructing a riskless portfolio (Manduchi, 2004)**

The bookmaker should make sure that the  $\sum$  of each payout =  $\sum$  of the total bet, in order to make the portfolio riskless. This can be done by constructing a portfolio that pays for example 1.66 under each event. The quote "Away team wins" must then be equal or smaller than  $1.66 / 0.19 = 8.97$

Now assume the bookmaker is offering quotes on an ice hockey game as presented below to the left. In this case he has attached probability  $P_h$ ,  $P_d$  and  $P_a$  to each event. "One side" safe bets means that the customer cannot choose which side of the bet to take. "Two sides" safe bets means that the customer can choose which side of the bet to take. How can the bookmaker make sure that the customers:

- Cannot place "One side" safe bets; where "two side" bets are possible?
- Cannot place "One side" safe bets nor "two side" safe bets?

Outcome	Quotes	Constraint	Probability
Home team wins	1.66	$1 - P_h * 1.66 \geq 0$	$P_h \leq 0.60241$
Draw	3.50	$1 - P_d * 3.50 \geq 0$	$P_d \leq 0.28571$
Away team wins	4.33	$1 - P_a * 4.33 \geq 0$	$P_a \leq 0.23095$
			$\sum P_h + P_d + P_a = 1.1191 > 1$

**Table 2:2 Constructing a "One sided" riskless portfolio (Manduchi, 2004)**

1) The bookmaker should make sure that  $\sum Ph + Pd + Pa > 1$ , in order to make sure that no one can place any profitable “one side bets”, profitable “two side” bets are possible

2) The bookmaker should make sure that  $\sum Ph + Pd + Pa = 1$ , in order to determine that no one can place any profitable “one side bets” or “two side bets”

In the example above the customer can not place any “one side bets” however “two side” bets are possible due to the fact that  $\sum Ph + Pd + Pa = 1.1191 > 1$

The customer could then switch place with the Bookmaker and offer him the same quotes. The customer could then construct a portfolio that pays for example 1.66 under each event. The bookmaker will bet a total of 1.85 but he will only receive 1.66 back. The bookmaker will then not be able to place a profitable safe bet

Outcome	Quotes	Bet	payout	
Home team wins	1.66	*B1	=1.66	B1=1
Draw	3.50	*B2	=1.66	B2= 1.66/3.50=0.47
Away team wins	4.33	*B3	=1.66	B3=1.66/ 4.33=0.38
				$\sum (B1 + B2 + B3) = 1.85 > 1.66$

**Table 2:3 Constructing a “two sided” riskless portfolio (Manduchi, 2004)**

The customer could also bet on combinations of the different events. If the customer now wants to bet on an event let say “home team loses”. Then a portfolio can be constructed with a fixed payout regardless of the events “Draw” or “Away team wins”. The customer can bet Y SKR on “Draw” and 1-Y SKR on “Away team wins”. This would give:

$$Y*3.50 = (1-Y)*1.66 \quad Y=0.553 \quad 1-Y=0.447$$

The customer can bet on the event “Home team loses” by betting 0.553 SKR on “Draw” and 0.447 SKR on “Away team wins”. We will face an implied quote equal to  $0.553*3.5=0.447*4.33=1.9355$  if the home team loses.

Now assume that the customer who wants to place a bet is faced with two different quotes from two different bookmakers on the market. Which of the bookmakers will the customer choose?

Bookmaker 1	Quotes		Bookmaker 2	Quotes
Home team wins	2.75		Home team wins	2.75
Draw	3.25		Draw	3.20
Away team wins	2.20		Away team wins	2.25

**Table 2:4 Competition among bookmakers (Manduchi, 2004)**

The customer will choose the best quotes from either bookmaker. That means the quote from bookmaker 1 or 2 in the event of “Home team wins”, the quote from bookmaker 1 in the event of “Draw” and the quote from bookmaker 2 in the event of “Draw” Competition among bookmakers are good for the customers but bad for the bookmakers themselves, the customers will always chose the worst quote from the bookmakers viewpoint. The bookmaker can avoid this problem by increasing the margin for the implied probabilities to reduce the chance of customers playing profitable safe bets. A portfolio that pays for

example 2.75 under each event could be constructed. The customer will bet a total of 3.06 and only receive 2.75 back.  $\sum (B1 + B2 + B3) = 3.06 > 2.75$ . In this case, even if they can chose the best quotes on the market the customers will not be able to place a profitable safe bet.

Outcome	Quotes	Bet	payout	
Home team wins	2.75	*B1	=2.75	B1=1
Draw	3.25	*B2	=2.75	B2= 2.75 / 3.25=0.84
Away team wins	2.25	*B3	=2.75	B3=2.75 / 2.25=1.22
				$\sum (B1 + B2 + B3) = 3.06 > 2.75$

**Table 2:5 Constructing a riskless portfolio under competition (Manduchi, 2004)**

## 2.2 Valuation and Fundamental Analysis

Corporate valuation is important when it comes to buying and selling businesses. There also exist other situations when business valuation is crucial for example when it comes to mergers, business strategy evaluations, IPO's<sup>6</sup>, MBO's<sup>7</sup>, stock valuation and capital investments. Corporate valuation can be used by different actors for example managers, individual investors, bankers, analysts and stockholders. Managers have to be aware of the value that the company possesses in order to evaluate different strategies and the effect it has on the corporate value. Creditors use corporate valuation techniques to estimate the risk for a certain company that they are considering loaning money to (Nilsson, Isaksson, Martikainen, 2002).

Frykman & Tolleryd (2003) state that when it comes to business valuation the analysis should be differentiated between corporate and equity valuation. The equity value of an enterprise is equal to the value of the shareholders claims in the company. The equity valuation does not include the debt of the company. The corporate value on the other hand consists of the market value of both the company's debt and equity. Nilsson et al (2002) states that there exist two types of general models when it comes to business valuation: Fundamental and technical analysis. Fundamental analysis is concerned with the valuation of the company or it stocks based on the company's current financial situation and the expectations of future earnings. There are various ways of doing this as can be seen later. Technical analysis is trying to predict the future development of a stock based on the historical development. However, technical analysis will not be discussed any further in this thesis.

Nilsson et al (2002) explain that fundamental analysis can be done on all companies due to the fact that the basic information needed is available in the company's quarterly or annual rappers. They also state that fundamental analysis that will be the foundation for the prognoses and valuation can be divided into three subgroups: strategic analysis, accounting analysis and financial analysis.

<sup>6</sup> Initial public offering, a corporation's first offer to sell stock to the public

<sup>7</sup> Management-buy-out, the management purchased the corporation

Further they explain that the purpose of the strategic analysis is to identify factors that influence the profit of the company and to evaluate the risk that the company faces. The strategic analysis is based on a qualitative study and includes a strategic evaluation and an assessment of the company's business environment. The strategic analysis is the first step in the fundamental analysis.

The aim of the accounting analysis is to measure and report the link between the company's business activities and accounting procedure. The goal is to determine the quality of the reported numbers, its link to reality and if there is any room for a more flexible interpretation. Financial analysis is concerned with the interpretation of the financial numbers to be able to draw conclusions the company's historical, current and estimated future development. The main tools are financial ratio and cash-flow analysis (Nilsson et al, 2002). Financial ratios help the external viewer to assess the company's financial strength and weaknesses. Cash-flow analysis is used to evaluate the company's liquidity and financial flexibility.

These three steps of the fundamental analysis form the foundation for the business valuation. There exist numerous methods when it comes to corporate valuation. They can be divided into two main categories asset valuation and profit valuation. Asset valuation is concerned with the valuation of the company's debt and assets. Profit valuation is interested in determining the value based on current and future financial estimates (Nilsson et al, 2002).

## **2.3 Strategic Analysis**

The strategic analysis can be said to fulfil two purposes. First to identify and draw conclusions about which factors that is affecting the profit of the company both in a negative and positive sense. The second purpose is to identify and evaluate the risk factors that are connected to the business of the company. The strategic analysis can be divided into: Specific firm-, competitive-, industry- and environmental-analysis. The SWOT analysis is then used to summarize these findings. The strategic analysis is one of the most important steps in the fundamental analysis due to the fact that it lays the foundation for the corporate value and it is not based on assumptions. Strategic analysis is to most parts qualitative in nature describing the factors that affects the company's profit and risk. The information from the strategic analysis guides the researcher when it comes to focusing on the important aspects and choosing appropriate financial ratio measurements. The profitability of a firm is determined by the structure of the industry but also by the strategic decision taken by the firm (Nilsson et al, 2002).

By identifying the factors that affect the company's profit and risk a researcher can estimate if the company can maintain its current profitability. One factor can be changes in exchange rates that might have a large affect on the company's profit and risk. Future potential profits for a company are determined by the strategic decisions of the company: Which industry the company has chosen to focus on and where the company has decided to position itself within this industry. Profitability is later quantified and measured in the financial analysis. The focus of competitive companies is on profit maximization, achieving a profitability that exceeds the cost of capital for the company. A monopoly company on the other hand can always be profitable due to the lack of competitors. To estimate the company's future revenues the researcher has to assess the industry profitability through an industry analysis (Hult, 1998).

### 2.3.1 Specific Firm Analysis

According to Miller (1992) there is uncertainty related to a specific firm. The primary risk categories are presented below and includes operating-, liability-, R&D-, credit- and behavioral- uncertainties. Operating uncertainty includes three subcategories: labor-, firm-specific input- and production uncertainty. Labor uncertainty includes changes in employee productivity due, for example, to labor unrest or strikes. Providing employees with a safe working environment which reduces the personal risk to workers as well as the threat of injury related lawsuits directed at the firm. Uncertainty related to specialized labor or other inputs is often firm specific rather than having an effect on the industry in general.

The author further describes that input supply uncertainty is related to the shortage of raw materials and changes in quality of input. Input supply uncertainty is likely to be greater when a single supplier or organized group provides critical inputs to the firm. Williamson (1975) states that negotiation between a firm and a specialized supplier is a bargaining process. The firm should strive to internalize the supplier function to reduce the possibility of opportunistic behavior by suppliers. Product uncertainty includes variations in output due to machine failure. Other random factors such as accidents that disturb the production process are also included in this category. Liability uncertainty is associated with harmful effects due to production or consumption of a company's products. A product liability is related to unanticipated negative effects associated with the use of a product that can result in legal actions against the company.

R&D uncertainty is related to the uncertainty surrounding the time frame for completing the project, the nature of its output, how it will be valued by the market and technological uncertainty. Technological uncertainty is related to innovation and not knowing when actual or potential rivals will introduce innovations. Innovations affecting a company's products or production process pose a threat because they can offset the current pattern of competition and coordination. Credit uncertainty can be linked to the debt default of clients. This can be a direct cause of variation in the firm's income streams. Behavioral uncertainty is related to the uncertainty that is associated with the agency relationship within the firm. Fama & Jensen (1983) showed that managers often have incentives to increase their personal wealth at the expenses of the firm's owners.

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Operating uncertainties	Liability uncertainties
Labor uncertainties	Product liability
Labor unrest	Emission of pollutants
Employee safety	R&D uncertainty
Input supply uncertainties	Technological uncertainty
Raw materials shortages	Credit uncertainty
Quality changes	Behavioral uncertainty
Spare parts restrictions	
Product uncertainties	
Machine failure	
Other random production factors	

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Figure 1:3 Firm Uncertainties (Miller, 1992)

### 2.3.2 Knowledge Assets and Competitive Analysis

Eiteman et al (2004) explain that analysts and investors look far beyond the fundamental performances in order to determine the corporate value. Most investors are not as interested in past performances as demonstrated by numbers. The investor is interested in the prospects for the future and the estimated return on the investment. Investors are looking for managers that will carry out what they are promising. They want clearly defined strategies, transparency, measurable results, measurable values and openness. Therefore management should put effort in communicating the company's vision for the future. Investors are also looking for if the company has a competitive advantage in the form of knowledge assets. Knowledge assets are the company's intangible assets. There are at least ten categories of knowledge assets:

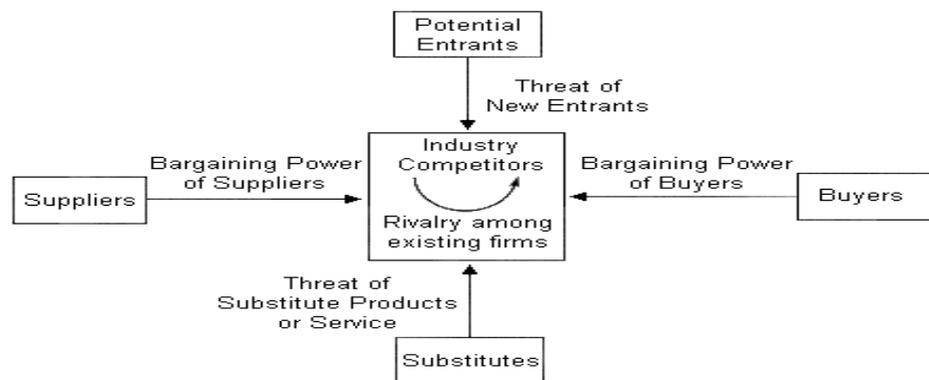
- Innovation
- Quality
- Customer care
- Management skills
- Alliances
- Technology
- Brand value
- Employee relations
- Environmental and community awareness
- R&D

Nilsson et al, 2002 explain that competitive analysis is used to evaluate the company's comparative advantage, its competitors and the strategies chosen by the company. A company can create a competitive advantage using for example three different strategies: Cost minimization, differentiation and focusing. The cost minimization strategy is focused on maintaining low cost. Today almost all companies are required to be aware and manage their costs in order to insure the survival and prosperity of the firm. The differentiation strategy is used to ensure the costumers a product or a service that is not offered by other companies. The strategy usually means an opportunity for the company to implement a higher price which reduces the need of low cost production. The focused strategy means that the company is concerned with its sales on a specific customer segment or a specific market. This strategy is popular in industries that are characterized by a high degree of competition.

According to Barney (1995) a sustained competitive advantage cannot be created simply by evaluating environmental opportunities and threats. Creating sustained competitive advantages depends on the unique resources and capabilities that a firm possesses to compete in its environment. To discover these resources and capabilities, managers must look inside the firm for valuable, rare and costly-to-imitate resources and the exploit these resources through the organization. A firm's resources include all financial, physical, human and organizational assets used by the firm. Some questions to answers are: Do our products have value? How easy can our products be imitated? Is the company organized to exploit its resources and capabilities? The value of a firm's resources and capabilities are not constants they are dynamic. They might have added value in the past but changes in for example customer tastes, industry structures or technology can render them and make them less valuable in the future.

### 2.3.3 Industry Analysis

According to Porter (1979) the industry analysis is used to determine the industry's structure and factors that affect the profitability. The profitability of an industry is determined by five factors; the five force model is illustrated below: The degree of competition between existing companies, the threat of new competitors, the threat of new substitute products, the bargaining power of the customer and the bargaining power of the suppliers. The profitability of an industry can also be affected by market demand. Miller (1992) explains that the industry market demand is related to the current and estimated future demand for an industry's products/services. An unexpected change in demand for an industry's output can have devastating effects. Such a change can be caused by for example a change in consumer tastes, the availability of substitute products and scarcity of complementary products such as for example replacements parts for automobiles. The market demand for a company's products/ services is one the most important factors for doing business.



**Figure 1:4 The five forces model (Porter, 1979)**

The total profit within an industry is theoretically speaking a function of the highest price the customer is willing to pay for the company's products or services. Furthermore, the price of the company's product and service is determined by the amount of competition in the industry. Highly competitive industries will probably result in low prices which in turn will decrease the profitability. The degree of competition between companies can be determined by five factors. The first factor is the growth rate of the industry, for example if the industry is growing the companies do not have to take market shares from each other. The second factor is the degree of concentration, if there are many small players a price war is likely to burst out. Instead, if there are a few large companies the price can to some extent be coordinated and be more stable (Porter, 1979).

Moreover, a third factor is the degree of differentiated products; if the companies have similar products the only way to compete is by lowering the price. A fourth factor is the degree of economics of scale in the industry, if a company has economics of scale the cost per produced unit decreases and the company will be more likely to compete by lowering its prices. The final factor can be overcapacity; if the supply is bigger than the demand then it is likely that companies will lower their prices in order to sell more products. Mergers and acquisitions are done in order increase the market shares and lower the risk of over production.

Furthermore, it can be stated that the threat of new competitors is determined by two forces. The first force is the first mover advantage; companies that are first on a market can create competitive advantages which lead to a reduction of the number of new competitors. Examples of competitive advantages can be industry standards, contracts with exclusive suppliers and distribution channels. Moreover, Porter (1979) also states that the second factor is legal obstacles, for example patents and laws that limit the number of market participants and licenses. Legal obstacles are considered to be less stable due to the fact that laws and regulations can change, and patents have a time limit. The threat of new substitute products includes products that are fulfilling the same function and need. When the price of substitute products is low then the probability of a price war will increase and the profitability will be reduced. The last two factors that influence an industry's profitability are customer bargaining power and supplier bargaining power.

Customer bargaining power is related to the customer's ability to lower prices, negotiate for higher quality of the products or negotiate for more services for the same price. Two factors are determining the power of the customers related to the industry: The price sensitivity and the bargaining power of the customer. Price sensitivity is also determined by the quote between the cost of the products and the total cost of the customer purchases.

If a customer makes a large purchase with a high cost he/she is more likely to have a high price sensitivity compared to if the cost of buying the product is low. Price sensitivity will on the other hand be low if the quality of the finished product is to a large extent related to the quality of the input commodity. Customer bargaining power is determined by the number of buyers in relation to the number of sellers, the volume of the purchase, number of substitution products and the cost associated with the switch between these products (Porter, 1979).

The supplier's bargaining power is what is left after the customer's bargaining power. The suppliers can use its bargaining power on the company with threats of increased prices, decreased product quality and decreased supply of components. Powerful suppliers can in this way reduce the profitability of an industry. Suppliers usually have high bargaining power if the product is an important component for the buyer (Porter, 1979).

### **2.3.4 Environmental Macro Analysis**

Parrish (2005) explains that all businesses and organizations operate in an international and changing environment. Today business activities are subject to forces in the external business environment that are beyond their control. It is important to understand and identify these uncontrollable factors that surround the corporation. There are several frameworks and checklists for evaluating these factors for example PEST<sup>8</sup>, DEPICTS<sup>9</sup> and ICEDRIPS<sup>10</sup>.

The most complete view is obtained if these frameworks are considered together. The number of macroeconomic variables is in reality virtually unlimited. The Pareto<sup>11</sup> principle states that eighty percent of the result flows from twenty percent of their causes. Even

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<sup>8</sup> Political, Economic, Sociological and Technological factors

<sup>9</sup> Demographics, Economics, Politics, Infrastructure, Competition, Technology and Social

<sup>10</sup> Innovation, Competition; Economics, Demographics, Regulation, Infrastructure, Partners and Social trend

<sup>11</sup> Vilfredo Pareto, 1848-1923, an Italian economist who discovered the Pareto principle that eighty percent of the wealth in Italy was owned by twenty percent of the population (Parrish, 2005)

though the percentages may not always be exact, there is often a trend that the result is caused by a small amount of variables. The firm must prioritize, monitor and evaluate those factors that are relevant and affect its industry. At least ten different categories of environmental factors can influence a corporation and its ability to do business:

- Political uncertainty
- Economics factors
- Sociological and cultural factors
- Technology factors
- Demographics
- Infrastructure
- Competition
- Regulation
- Partners
- National uncertainty

Bunn & Mustafaoglu (1978) explain that the first category of factors is related to the political uncertainty associated with changes in the political regime. What is the country's political direction? How stable is the political environment? What are the current tax rates? The second category is economics factors such as inflation, interest rates, stability of exchange rates, public spending, economic growth rate, labour costs, unemployment rate, skill level of the work force and the nations current position in the business cycle.

The third category is sociological and cultural factors such as: religion, attitudes toward foreign companies, spoken languages, entrepreneurial spirits and social trends for instance the acceptance of new technology, the uses of leisure time and changing beliefs. The fourth category is technology factors, for example recent technology development, technology know how in the country, technology's impact on products, cost and value chain structures and technological diffusion (Parrish, 2005).

The fifth category is demographics: statistics regarding age, gender, geography, social classes and changes in these. The sixth category is infrastructure, such as telecommunication networks, transportation, public services and social structures. The seventh category is competition: What are the national competitors for the firm? Does it exist any substitute products? The eighth category is regulation. Current laws, regulations, agreements and conventions are all belonging to the eighth category. The ninth category is partners: Is there any opportunity to enter any strategic alliances with other companies or organizations? What countries are they trading with? The final category is national uncertainty, for example wars, revolutions, riots, terrorism, hurricanes and earthquakes (Parrish, 2005).

### 2.3.5 SWOT Analysis

According to Dyson (2003) SWOT analysis stands for **strength**, **weaknesses**, **opportunities** and **threats**. The aim of the SWOT analysis is to identify the strengths and weaknesses of an organization and the opportunities and threats in the environment. After having identified these forces, strategies are developed to build on the strengths, eliminate the weaknesses and exploit opportunities and counter threats.

	Positive	Negative
Internal	Strengths	Weaknesses
External	Opportunities	Threats

**Table 2:6 Strengths, Weaknesses, Opportunities and Threats (Dyson, 2003)**

A firm's strengths are its resources and capabilities that can be used as a basis for developing a competitive advantage. Examples of such strengths are: Patents, strong brand names, good reputation among customers etc. The absence of certain strengths may be viewed as weaknesses, for example the lack of patent protection, a weak brand and a high cost structure. Examples of opportunities could be: an unfulfilled customer need, new technology, loosening of regulation, removal of trade barriers. Changes in the external environment could also present threats to the firm such as in form of shifts in consumer tastes away from the firm's products, new regulation and increased trade barriers (Strategic management, 2005).

## 2.4 Financial Analysis

### 2.4.1 Financial Ratio Analysis

According to Donohue (2005) financial ratios are useful indicators of a firm's performance and financial situation. Most ratios can be calculated from the information provided by the financial statements. When financial ratios are used there are a few things to keep in mind. First, a reference point is needed for the ratio to be useful. This reference point can be historical values, forecasts or ratios of a similar firm. Second, ratios used alone do not provide meaningful results. They should be used together to more accurately describe the firms situation. Third, ratios are subject to the limitation of accounting methods. Different accounting choices may result in different ratio values.

And finally, year-end values may not be representative. Account balances may change due to seasonal factors and may distort the value of the ratio. Therefore an average value should be used when it is possible. Financial ratios can be divided into different categories: Liquidity ratios, solvency ratios, profitability ratios, asset turnover ratios, market value ratios and growth ratios.

Liquidity ratios provide information about the firm's ability to meet its short-term financial obligations. If a firm has sufficient cash flows to pay bills it can avoid experiencing financial

distress. Some useful measurements of liquidity are current ratio<sup>12</sup> and quick ratio<sup>13</sup> (Ross, Westerfield & Jaffe, 2002).

Current ratio = current assets/ current liabilities

Quick ratio = current assets- inventory/ current liabilities

Solidity ratios provide information about the firm's ability to meet long-term financial obligations. The company's leverage plays an important role here. How much of the company is financed with debt. A high degree of debt leads to a high probability of financial distress. However debt provides a significant tax advantage because interest payments are tax deductible. Some useful measurements of leverage are debt-to-asset ratio<sup>14</sup>, debt-to equity ratio<sup>15</sup> and equity-to-asset ratio<sup>16</sup>(Brealy & Myers, 2003).

Debt-to-asset ratio = total debt/ total assets

Debt-to-equity ratio = total debt/ total equity

Equity-to-asset ratio = total equity/ total assets

A profitability ratio is the classification of ratios that measures the success of the firm to generate profits. Some examples are gross profit margin ratio, returns on assets ratio and return on equity ratio. The gross profit margin considers the firms cost of goods sold but does not include other costs. Return on assets is measuring how efficient a firm's assets are being used to generate profits. By using DuPont system of financial control you can link different financial ratios together to calculate return on assets. Return on equity measures the profit earned for each dollar invested in the firm's stock (Donohue, 2005).

Gross profit margin ratio= EBIT<sup>17</sup>/ Total operating revenues

Return on assets (ROA) ratio = Net income / Total Assets

Return on equity (ROE) ratio= Net income/ Shareholder Equity

Asset turnover ratios indicate how efficiently the firm utilizes its assets. Examples of assets turnover ratios are: total assets turnover, receivable turnover and inventory turnover.

Total assets turnover measures how effectively a firm is using all its assets. Receivable turnover is an indicator of how quickly the firm collects its account receivables. The ratio is often reported in number of days before they are collected (Donohue, 2005). An inventory turnover is the cost of goods sold in a time period divided by the average inventory level. Because inventory is always stated in terms of historical cost, inventory turnover has to be calculated as cost of goods sold instead of sales (Ross et al 2002).

Total assets turnover = Total revenue/ Total assets

Receivable turnover = Total operating revenue / account receivables

Inventory turnover = Cost of goods sold/ average inventory

Dividend policy ratios indicate the current dividends policy of the firm. They can also be used as prospects for future growth. However a high dividend yield does not necessarily

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<sup>12</sup> In Swedish balanslikviditet

<sup>13</sup> In Swedish kassalikviditet

<sup>14</sup> In Swedish skuldandel

<sup>15</sup> In Swedish skuldsättningsgrad

<sup>16</sup> In Swedish soliditet

<sup>17</sup> Earnings before interest and taxes

translates into a high future return. The three most used dividend ratios are dividend yield, payout ratio and retention ratio. Dividend yields are related to the markets perceptions of the future growth for the firm. A firm with high growth prospects will generally have a lower dividend yield (Brealy & Myers, 2003).

$$\begin{aligned} \text{Dividend Yield} &= \text{Dividend per share} / \text{Share price} \\ \text{Payout ratio} &= \text{Dividend per share} / \text{Earnings per share.} \\ \text{Retention ratio} &= \text{Retained earnings} / \text{net income} \\ \text{Retained earnings} &= \text{Net income} - \text{dividends} \end{aligned}$$

Market value ratios are used to access the value of a firm. The market value of a common stock of a firm is the market price multiplied by the number of shares outstanding. The market price gives guesses about the true value of the assets of a firm. In an efficient stock market, market prices reflect all relevant facts about the firm revealing the true value of the firm. Three used market value ratios is Price-to-earnings (P/E) ratio and market-to-book (M/B) ratio and Tobin's Q. The Tobin's Q differs from m/b ratios due to the fact that it uses the market value of debt and equity and the replacement cost of all assets. Firms with a high Tobin's Q tend to be those firms with attractive investment opportunities or with significant competitive advantage (Ross et al, 2002).

$$\begin{aligned} \text{P/E ratio} &= \text{market price per share} / \text{earnings per share} \\ \text{M/B ratio} &= \text{market price per share} / \text{book value per share} \\ \text{Tobin's Q} &= \text{market value assets} / \text{assets replacement value} \end{aligned}$$

Growth ratios are very helpful for financial analysts to determine corporate growth. The sustainable growth rate is the maximum rate a firm can maintain by using internal equity only without increasing its financial leverage. Sustainable growth ratio can be calculated as:

$$\text{Sustainable growth rate} = \text{return on equity} * \text{Retention ratio}$$

## 2.4.2 Cost of capital

Eun & Resnick (2003) state that a firm with both debt and equity in its capital structures has a financing cost that is equal to the weighted average cost of capital (WACC). The cost of capital is the expected return to both the equity and the debt holders in the company. WACC is used to measure a firms cost of capital which is the minimum rate of return an investment project must generate in order to increase the company value. If a firm has no debt and only equity then the WACC would be equal to the cost of equity. If a firm has only debt and no equity the firm's WACC would be equal to the cost of debt. The WACC model looks as follows:

$$\text{WACC} = (E / (E + D)) * re + (D / (E + D)) * rd * (1 - t)$$

E / (E + D)    Equity-to-asset ratio  
D / (E + D)    Debt-to-asset ratio  
re            Cost of equity  
rd            Cost of debt  
t             Tax

McClure (2005) explains that in order to use the WACC model the cost of equity and the cost of debt need to be estimated. The cost of debt is the current market rate that the company is paying on its debt. Interest rates are tax deductible so the net cost of debt is the interest paid less the tax savings resulting from the tax deductible interest payment.

$$rd \text{ (after corporate tax)} = rd*(1-t)$$

Stulz (2003) states that the capital asset pricing model, CAPM, can be used to estimate the company's cost of equity. The CAPM describes the relationship between risk and expected return. The model was developed by Lintner, Mossin and Sharpe in the 1960's and has been influenced by Harry Markowitz's work in portfolio theory. Eun & Resnick (2003) explain that the main difficulty in computing the financial cost of a firm is related to the estimated cost of equity (re). The cost of equity is the expected return on the firm's stock that the investors require. CAPM states the expected return on a firm's stock is equal to the risk free rate of return plus a risk premium. The CAPM model looks as follows:

$$E(re) = rf + B*(E(rm) - rf)$$

E (re) The expected cost of equity

rf The risk-free interest rate<sup>18</sup>

B The historical volatility of the asset compared to the market portfolio

E (rm) The expected return of all assets in the market portfolio

Scheifer & Wishny (1997) state that asset pricing models like CAPM and APT<sup>19</sup> provide us with benchmarks to tell us if the returns of an investment is more or less than sufficient given the investment's risk exposure. However the power of these benchmarks is rather weak. The long term expected returns of stocks are more complex than the asset pricing models predicts. The market portfolio in the CAPM is stated to include every single capital asset in the economic system and therefore the model can not in reality be accurately tested.

## 2.5 Cash-flow Valuation

Cash flow models have been more popular since the 1980's in order to calculate the company's value with estimated future cash flows. There are several ways to implement the method and there is no standard. Cash flow (CF) is generated by the firm during an operational year. It is a revenue measure which only registers actual inflows and outflows (Hult, 1998). Discounted cash flow (DCF) is the dominating method in USA. According to the DCF model investments add value if they generate a return on investment above the return that can be earned on investments of similar risk. For internet firms the DCF is regarded as the most accurate method (Copeland, 2000).

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<sup>18</sup> 90 days US Treasury Bills (T-bills) must be considered close to risk free

<sup>19</sup> Arbitrage Pricing Model

## 2.5.1 Shareholder Value Analysis (SVA)

The SVA<sup>20</sup> model requires a detailed historical analysis, preferable 3-10 years back in time, of income and balance sheet statements that affect the company's cash flow (Hult, 1998). This is done in order to understand absolute and relative trends concerning the company. It is important to study how different items in the income statement and balance sheet fluctuate over time and try to understand reasons behind larger changes.

The need for SVA is based on the belief that reported income is not the best measure of a firm's economic value, since firm specific risk and macroeconomic risk is overlooked. The disadvantage with SVA is that it is hard to gain detailed information about actual cash flows without access to a firm's internal accounting information.

Cash flow by using SVA is calculated as:

### Cash flow from operations:

Sales  
- Costs from operations  
- Depreciation expense  
= EBIT  
+/- Taxes  
= NOPLAT  
+ Depreciation expense  
= Gross Cash flow

### Cash flow investing activities:

+/- Working Capital  
+/- Net investments in assets  
= Gross Investment

EBIT is earnings before interest and taxes.

Working capital: operating current assets – non interest bearing current liabilities.

SVA can be divided into four steps (Hult, 1998):

1. Future operating income is estimated. Thereafter future cash flows that are available for shareholders are calculated, e.g. the free cash flow. These cash flows are discounted to present value. The weighted average capital cost is used as the discount rate.
2. By the end of the forecasted time period the firm has a residual value. The residual value is calculated by the value after taxes (NOPLAT), which should be divided by the chosen discount rate (Copeland, 2000). The residual value is discounted during the valuation period by using present value.
3. The market value is added by eventual financial assets.
4. From this value (3) the market value of the firm's liabilities are deducted.

This method is more appropriate for medium sized operating firms rather than firms with heavy assets. In SVA only paid taxes are considered whereas in DCF taxes are adjusted. Moreover, in SVA and with the calculation of cash flows from investments, goodwill is

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<sup>20</sup> The SVA model is considered to be an alternative view of the traditional DCF model.

treated in the same way as other assets, which is not considered by the traditional DCF model (Hult, 1998).

The DCF model requires complete information about the company in order to make a valuation. The model also takes into consideration effects of different risks. When using DCF the firm's value in the long run is considered; while for instance the p/e-model usually has a shorter valuation period. DCF has been criticized for making favourable free cash flow calculations in order to increase the stock value (Levin, 1998).

Gärtner & Olbert (1995) explains that Free cash flow (FCF) can be calculated as:

Cash flow from operations  
- Cash flow to investments  
+ Goodwill  
= Free cash flow

All future cash flows are divided into a forecasted time period and a period thereafter to eternity. Thus, the residual value is built on the principle of going concern (Hult, 1998). The present value of cash flows of the latter period is the residual value. The value should reflect a normal year of the forecasted period. Moreover, the size of the residual value is determined by the assumptions of growth during the period. It is important that growth is calculated as an average of the period (Brealy & Myers, 2003). The residual value can be calculated as:

Residual value = Income after taxes / Discount rate.

## 3 Methodology

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*In this chapter the empirical process of the thesis will be presented and discussed. We will discuss why we have chosen a case study of Unibet as a method and relate it to current methodology literature. We will also discuss the research quality of our thesis and how data, information and literature have been collected.*

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### 3.1 Empirical Process of the Thesis

Based on the Guidelines Regarding Master Thesis (2005), an independent study and use of scientific theory and methods to create and communicate knowledge about corporate valuation that is relevant for the academic discipline of finance will be conducted. Furthermore, we will develop our ability to grasp as well as critically, yet constructively, examine academically produced knowledge that is related and significant to our chosen subject, corporate valuation. A company that is appropriate for our need has been selected.

The department of trade and industry (2005) explains that a small company has not more than fifty employees, medium sizes company no more than 250 and a large company has more than 250 employees. The focus on a medium size company with about 95 employees has been chosen for two reasons: To reduce the risk of having too little information to work, with but also reduce the risk of encounter advanced accounting techniques. This is due to the fact that the aim of the thesis is on corporate valuation and not on correctly assessing a translation of a corporation's financial position that for example involves transfer pricing and other accounting methods which aim is not to facilitate the process of estimating the "correct" value.

A fundamental analysis of Unibet is done which in this case for example involves a comparative study of Unibet's odds and a DCF simulation with different scenarios regarding Unibet's future. Appropriate valuation models is selected and based on the company's strategies, business environment and financial position. The models is applied in order to estimate a value for the company. The above studies will work as a foundation for the estimated unified analysis of the company that will be presented in the conclusions.

### 3.2 Methodology Literature and Chosen Method

Saunders, Lewis & Thornhill (2003) explain that there are two types of data, primary and secondary data. Primary data is collected and created for a specific purpose, while the secondary data has been collected for other purposes. Annual report and statistics are considered to be secondary data. Primary data is collected through interviews and surveys. Within business and management, secondary data is used mostly in case studies and survey-type research. Secondary data can include both quantitative and qualitative data that can be used in descriptive and explanatory research.

Also the literature sources can be divided into subgroups: primary, secondary and tertiary. Primary literature is reports, thesis, emails and publications. A Primary literature source is the first occurrence of a piece of work. Secondary literature is aimed for a wider audience. Secondary literature is books, newspapers, journals and Internet. Tertiary literature is encyclopaedias, dictionaries and catalogues. Tertiary literature or search tools are design to help to locate primary and secondary literature (Saunders et al, 2003).

Research can also be classified according to its purpose. The classification most often used is exploratory, descriptive and explanatory. Exploratory studies are used to find out what is happening and to seek new insight. Descriptive research is related to investigating and portraying persons, events or situations. Explanatory research is for example dealing with determining causal relationships between variables (Robson, 2002).

Data can also be classified as either quantitative or qualitative. Quantitative data is of a numerical nature. It can be simple frequency data or more complex data in form of test scores or prices. The meaning of the data is derived from numbers. The analyse process consists of using diagram and statistics. Qualitative data on this other hand relates to the concept of exploring a subject in its richness and fullness. The meaning is derived from words and interpretations. The analysis is conducted by using conceptualisation<sup>21</sup>. Defining clear boundaries between quantitative and qualitative data can be problematic (Saunders, Lewis & Thornhill, 2003).

Robson (2002) defines case study as “a strategy of doing research which involves an empirical investigation of a particularly contemporary phenomenon within its real life context using multiple sources of evidence”. According to Morris & Wood (1991) this strategy is appropriate for if the researcher wishes to gain a rich understanding of the context of research and the processes being enacted. Saunders et al (2003) explain that the case study strategy generates answers to the question “why” as well as questions like “what” and “how”. However questions like “what” and “how” is usually considered to be more connected to survey strategies. The data collection methods for a cases study are many some examples are questionnaires, interviews, observations and documentary analysis. A well constructed case study is a worthwhile way of exploring and challenge existing theory.

This thesis is based on a case study of Unibet. The primarily focus is on secondary data, for example annual reports and other financial documents. However, primary and tertiary literature sources are also used in order to find information about the topic. The aim is to conduct a thesis that is of a descriptive nature. Corporate valuation will be described from existing literature in a first step and later show how valuation can be applied to a real company. The empirical study will be in between a quantitative and qualitative study due to the fact that financial numbers are used to analyze the company’s financial position, but on the same hand we will, for instance also consider the company’s intangible assets, which require a more qualitative approach.

### **3.3 Quality of Research**

In this thesis appropriate models have been chosen and applied on a real company. Conclusions have been drawn that are not general for all companies. However, the belief is that the some of the conclusions are not only true for the selected company. Therefore the conclusions will be in between generalization and specialization. The process and reasoning for obtaining the “correct” value must on the other hand be considered to be opened for generalization.

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<sup>21</sup> According to Hyperdictionary conceptualisation is related to explaining or formulating an idea mentally

Eriksson & Wiedersheim (2003) explain that the researcher always has to consider the validity, reliability and objectiveness when he/she is doing academic research. Validity is concerned with what is measured and what was initially intended to be measured. Reliability is concerned with the trustworthiness of the measurement, which means that the same result should arise when repeating the investigation on the same way several times. Objectivity is related to the researcher's standpoint and independence in relation to the object.

A case study makes no claim to be representative. One benefit with the case study approach is that it gives rich and detailed information that can be useful for generating typologies which can be used in future research. Another benefit of the case study method is that because the researcher concentrates on one specific situation, it is more likely that he/she will be able to identify things that may be hidden in a larger-scale survey (School-Net, 2005).

One major drawback of case study research is that it is not possible to generalize on the basis of the findings. It is impossible to know to what extent the findings correspond to other similar situations. Case study research, like all other research, has to be collected systematically and need to be methodically planned. All research methods ultimately involve analysis and interpretation and are open for research bias (Robson, 2002).

### **3.4 Literature Search**

The purpose of the literature studies has been to gather information about the stated problem area. Several different search methods have been used in order to find relevant literature related to the subject. To get a quick overview of the theoretical area and achieve sufficient insights, other studies have been used as a starting point. From these previous publications information has been extracted and collected related to other books and academic articles written in this field. Databases such as ABI, Science direct and JSTOR and search engines online such as Google and yahoo to search for specific journals, articles and books have been used. This search gave us more academic articles, report and books that were specific for our purpose and problem. In the search process we have for example used the search words as: corporate valuation, strategic analysis, Unibet, odds, competitive advantage, markets analysis, fundamental valuation, equity valuation and discounted cash flow valuation. They have also been combined in order to find other interesting materials.

## 4 Empirical Findings and Analysis

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*The empirical study includes a cases study of Unibet. This means a fundamental analysis inform of a strategic analysis. The strategic analysis is summarized in a SWOT analysis of the firm. We will then do a financial analysis and construct a CF model to work as a base for the value prognosis. In connection with the empirical findings the analysis will be carried out. This is done in order to create flow and consistency.*

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### 4.1 Strategic Analysis

#### 4.1.1 Specific Firm Analysis

An online gambling company as Unibet is exposed to different risks, which can be divided into different categories. Examples of these risk categories are: market risk, operating risk, customer specific risk, technical risk, fraud risk and legal risk. Market risk can be related to the risk of Unibet losing money as a consequence of unfavourable outcomes of an event or game where Unibet is active. Unibet has therefore established guidelines when it comes to risk management (Unibet, 2005). These guidelines limit the risk that Unibet accepts on different events by diversifying the risk over different sports and events. The company has an independent risk management group that evaluates risks constantly.

The second risk category is operating risk which is related to the risk of Unibet losing money as a consequence of errors made by individuals. Unibet has developed a number of internal control structures to monitor, discover and prevent mistakes from being made. One area where extra monitoring is done is the setting of the odds. The third risk category is customer specific risk which is related to the chance of Unibet losing money due to a customer that is exceptionally successful. Unibet has developed different types of customer limits. These limits can be divided into three categories:

- Event limits
- Customer limits
- Combination of bets limits

Event limits is related to the limits set by Unibet on how much each individual customer may win on different odds. These limits vary depending on the event and may also change over time. This limit indicates the maximum bet that may be placed on a single game by a customer. The last category of limits is the combination of bets limits. These limits give Unibet even more control and the possibility to set a limit for combinations of bets (Unibet, 2005).

The fourth risk category is technical risk. This category is highly important for Unibet due to the fact that they have a high degree of dependence on information systems and technology. Disruptions for example by viruses or hackers have a direct effect on the ability to conduct business through their main website. The customers of Unibet depend on Unibet's "guarantee" that they can securely transfer confidential credit card information via the Internet. This is done through encryption and authentication systems (Unibet, 2005).

The fifth risk category is fraud risk. All new customers at Unibet have to register by opening an account by specifying detailed personal information and making a deposit. The deposit can be made through a credit card, cash deposit or by a bank transfer. As soon as the

customers have made the deposit they can start to gamble. Unibet has strict internal routines to detect and manage suspicious transactions and also a special group of employees who constantly work on security and fraud issues (Unibet, 2005).

The sixth risk category is legal risk. The increased use of the internet has led to that the growth of the online gambling has exploded. However, in many countries regulation related to gambling has not yet been adopted and modified to include online gambling. The traditional gambling industry is however strictly regulated. In general national authorities have decided to prohibit gambling, limit it by introducing monopoly or permit it under licences to be able to tax and control the activities. Unibet is operating under a remote gaming license issued in Malta and a bookmaker permit issued in United Kingdom.

#### **4.1.2 Knowledge Assets and Competitive Analysis**

In the study of Unibet several factors that distinguish Unibet from its competitors have been identified. The first factor is related to the firm's knowledge assets. Unibet's reputation and brand are strong which creates goodwill for its products and services. The company is also working actively when it comes to evaluating strategic alliances and assessing the quality of their competitors. Unibet has a strong management team with experience and knowledge about the bookmaking industry. The online bookmaking industry must be considered to be knowledge intensive industry due to the specialized knowledge in statistics and probability required. Unibet has also a good relationship with its employees and can be said to focus on customer satisfaction.

The second factor concerns the firm's products and innovations. Unibet is constantly working to develop new innovative products and the firm allocates large resources for research and development. The third factor is related to the scale of Unibet's current and potential market shares. This huge online diversified bookmaking market allows Unibet to spread its fixed costs over a large customer base.

A critical aspect of the Bookmaking industry is security, quality and credibility. It is essential for the customer to feel secure when it comes to giving the company access to sensitive credit card information, the profit payout procedure and making sure that the betting and gambling is done honestly. If a service provider can not guarantee that the gambling will be fair, that the profit will be paid out accurate and fast and that sensitive information is handle with discretion then the customer will most likely not do business with that company. Credibility is also related to the brand and the associations a brand creates as earlier discussed.

An important issue for an online betting company in order to attract customers is to provide competitive odds. In Unibet's annual report it can be read "We have concentrated our business to be able to offer more competitive betting odds. We can generally offer higher betting odds than our competitors on the main markets." In order to evaluate the above statement we have compared the odds offered by Unibet in relation to other bookmakers to find out if Unibet's odds really are competitive.

The odds a punter<sup>22</sup> faces if he/she chooses to gamble with Unibet or some other book-making firms is presented, compared and analyzed below. The odds for three “allsvenskan” soccer games in 2005-04-25 between: Helsingborg vs. Elfsborg, Kalmar vs. Häcken, and Djurgården vs. Örgryte, are compared. We are not making any claims of being completely statistically secure in terms of the size of sample. However, the benchmark provides important information necessary to give a hint if Unibet’s odds really are competitive.

To understand the figures below an understanding of some basic concepts are required. The first three columns below are the odds given by respectively bookmaker on the outcomes win, draw and lose of the home team. The implied probability for each odds with an assumed profit factor of 100% is: implied probability=1/odds. If the three outcomes and its implied probabilities were added together the sum would be greater than 100% (Profit factor= sum of the implied probabilities). This is due to the fact that bookmakers don’t sell odds to their customers with a 100% return, they keep a couple of percent to them self as profit. Therefore an adjustment for these lost percentages has to be done.

In the fourth column we have calculated the real probability: real probability= 1/ (odds\* profit factor). The sum of the real probability is 100 %. The fifth column is the betting constrained imposed by the bookmaker. The sixth column Key % is the inverse of the profit factor (Key %= 1/ profit factor). Key % is calculated in order to rank the bookmaking firms according to how much they pay back to their customers. (Transfer cost has to be adjusted for separately) (The commas represent an American decimal point)

Helsingborg vs Elfsborg						
Match Odds	1	X	2	Real probability	Limits/€	Key %
Parbet	1,76	3,50	5,15	54 27 19		95,41
Nordicbet	1,80	3,50	4,25	52 27 22	Bookie Limit	92,89
Unibet	1,80	3,40	4,40	52 27 21	Bookie Limit	92,86
Betsson	1,77	3,45	4,50	52 27 21		92,85
Expekt	1,70	3,40	5,00	54 27 18	Bookie Limit	92,39
Gamebookers	1,70	3,45	4,50	53 26 20	Bookie Limit	90,88
Eurobet	1,70	3,40	4,50	53 27 20	Bookie Limit	90,53
Ladbrokes	1,67	3,50	4,50	54 26 20	Bookie Limit	90,36
WilliamHill	1,75	3,20	4,20	51 28 21	Bookie Limit	89,12
Interwetten	1,70	3,20	4,20	52 27 21	Bookie Limit	87,81
Betfair	1,73	1,05	2,50	30 49 21		51,80
Highest	1,80	3,50	5,15			95,41
Avg All bookies	1,73	3,19	4,34	52 28 20		87,90
Avg Traditional bookies	1,63	2,80	3,80	50 29 21		81,05

**Table 2:7 Unibet’s odds benchmarked 1 (Data extracted from OddsOnNet, 2005)**

<sup>22</sup> A person who places a bet at a bookmaker

Kalmar vs Häcken							
Match Odds	1	X	2	Real probability	Limits/€	Key %	
Parbet	2,04	3,35	3,80	47 28 25		95,07	
Unibet	2,05	3,30	3,50	45 28 27	Bookie Limit	92,89	
Gamebookers	2,00	3,20	3,50	46 28 26	Bookie Limit	91,06	
Eurobet	2,00	3,30	3,30	45 27 27	Bookie Limit	90,41	
Ladbrokes	2,00	3,20	3,40	45 28 27	Bookie Limit	90,37	
WilliamHill	2,00	3,10	3,30	44 29 27	Bookie Limit	88,84	
Interwetten	1,90	3,10	3,50	46 28 25	Bookie Limit	88,14	
Betfair	2,08	1,05	3,80	28 56 16		58,95	
Highest	2,08	3,35	3,80			95,07	
Avg All bookies	2,01	2,95	3,51	44 30 26		86,97	
Avg Traditional bookies	1,70	2,80	2,90	45 28 26		83,20	

**Table 2:8 Unibet's odds benchmarked 2 (Data extracted from OddsOnNet, 2005)**

Djurgården vs Örgryte							
Match Odds	1	X	2	Real probability	Limits/€	Key %	
Parbet	1,69	3,60	5,45	56 26 17		94,97	
Betsson	1,75	3,55	5,00	54 27 19		94,96	
Unibet	1,65	3,75	5,00	56 25 19	Bookie Limit	93,22	
Gamebookers	1,65	3,55	4,75	55 26 19	Bookie Limit	91,05	
Eurobet	1,65	3,50	4,75	55 26 19	Bookie Limit	90,72	
Ladbrokes	1,67	3,50	4,50	54 26 20	Bookie Limit	90,36	
WilliamHill	1,60	3,40	4,80	55 26 18	Bookie Limit	88,70	
Interwetten	1,65	3,30	4,40	53 27 20	Bookie Limit	88,00	
Betfair	1,68	1,05	1,05	24 38 38		40,00	
Highest	1,75	3,75	5,45			94,97	
Avg All bookies	1,67	3,24	4,41	53 27 20		85,77	
Avg Traditional bookies	1,60	2,80	3,90	50 29 21		82,40	

**Table 2:9 Unibet's odds benchmarked 3 (Data extracted from OddsOnNet, 2005)**

In the games presented in the tables above it is illustrated how Unibet pays back 92.86%, 92.89 and 93.22% to their customers. According to OddsOnNet (2005) the percentage on international markets usually varies between 90-97%, depending on the bookmaker, match and the type of the bet. Compared to the other online bookmakers, Unibet's odds are ranked third, second and third highest in the different soccer games, which must be considered to be competitive. Unibet offers the highest odds on the outcome that Helsingborg will be the winner. The firm also offers the highest odds on the outcome draw in the game between Djurgården vs. Örgryte. If Unibet's odds are compared to the average of the online bookmakers Unibet's odds can be regarded as competitive. A majority of the online bookmakers have betting constraints and imposes a bookie limit, which also Unibet has implemented. Finally the online bookmaking firms offer much higher odds than traditional bookmakers. In order to draw any general conclusions a more in depth study is required. However, we can conclude that on the three soccer matches looked upon so far Unibet is offering competitive odds on all three of them.

### **4.1.3 Industry Analysis**

#### **4.1.3.1 Market and Product Overview**

The global gambling market can be divided into on-line and off-line gambling. Online gambling takes place over the Internet which can be accessed using for example a computer, TV, Mobil phone or through a palm pilot. Off-line gambling relates to the betting in casinos, restaurants and sport betting facilities. Unibet offers a comprehensive range of online gambling products such as sport betting, live betting and casino gambling. Every day the customers can find odds on around 500 different events on a variety of international and local sport events. The most popular sports are football, ice hockey and tennis which answer to about 80 per cent of the sport books. Live betting means that the customer can bet on a particular event or game and then watch it live on the television. The online casino games consist of 17 different products like Roulette, Black Jack, Caribbean Stud and slot machines (Unibet, 2005).

Casino games are not subject to seasonal variations that are connected to sports betting. The activities on casino games are relative smooth over the year which stabilizes the volatility of the company's gross margin. To decrease the effect of gambling addiction and reduce the risk of personal tragedy Unibet has constructed personal safety measures for the customer. For example the customer can set a personal limit on the on-line casino account or limit his personal access for a certain time period. Further the online gambling has faced a rapid growth the recent years. On-line gambling is today considered one of the most important Internet businesses. The global online market size in 2004 in terms of gross winnings was estimated to be around GBP 3.2 Billion. In 2005 the market size is estimated to grow to GBP 3.9 Billion. This suggests a growth rate of 22 percent between 2004 and 2005 (Unibet, 2005).

Unibet was from the beginning mainly focusing on betting on the sports market. As a result of a massive customer demand for poker services Unibet chose to also implement this kind of service. This movement can be seen as a result of the power of customer bargaining. However these products are fairly new and are exposed to a fierce competition which leads to have a high risk. Unibet does not need to focus much attention on keeping suppliers at a comfortable distance. Unibet is operating on the Internet and not particularly affected by suppliers and their bargaining power. About 300 licensed providers currently offer their products on approximately 1,800 betting web sites (River City Group, 2003). The main competitors to Unibet are larger international on-line companies active on the same market as Unibet. For instance, Ladbrokes who is one of the world's largest gambling companies. Their main markets are the UK and the Far East (Unibet, 2005). They offer products in sports betting and on-line poker. Moreover, Expekt operates in the Nordic market with similar product offerings as Unibet. Today, the competition can be regarded as fierce and intensive.

The major competitors for Unibet are the national gaming monopolies for example in Sweden Norway and Italy. The companies that operate in these markets are not efficient and competitive. Therefore Unibet's strategy to gain market shares is to offer better and more competitive odds and products. Some examples of national monopoly companies are Svenska Spel, Dansk Tipsjeneste, FinToto, Norsk tipping and Monopoli di Stato. Other competitors consist of private on-line licensed betting companies that operate on the same markets as Unibet. Today there is about 250 and 300 licensed providers on the internet that are offering their services on approximately 1800 different betting websites.

#### **4.1.3.2 The Swedish Gaming Monopoly**

In Sweden today there is a gambling monopoly. The only companies that are allowed to conduct bookmaking activities are the governmental companies AB Svenska Spel and AB Trav och Galopp (ATG). In 2003 the Swedish gambling market turnover was 36 billion SKR or 4000 SKR per person in Sweden. Spelberoendes riksförbund (2005) explain that the Swedish government in 2004 invested 15 million SKR to help people with gambling problems. This can be compared to the 720 millions SKR that the same government invested in promotion and marketing of their gambling activities or the 5 billion SKR profit the government realised. Today approximately 150 000 people in Sweden is suffering from some sort of gambling addiction (Lotteriinspektionen, 2005).

Unibet has been fighting against the Swedish monopoly for quite some time now. The Swedish law prohibits private gambling companies to run commercial for their business in Swedish TV. So far Unibet commercials have been distributed through the Swedish channels Tv3 and channel 5 that are broadcasted from abroad to avoid these regulations.

Sweden's former finance minister Bosse Ringholm opinions about Unibet are clear. He argues that Unibet is breaking the Swedish law, high quotes would lead to increased gambling addiction, Unibet should never had been listen on the Stockholm stock exchange and that the Swedish government "cares" about the gambling addicts while private gaming companies do not. The Swedish government's relationship to the online gambling industry is bitter sweat characterized by confusion and greed. The government wants to have secure revenues by imposing a tax on online poker businesses, but they will still not legitimate its existence. The final decision on the gambling monopoly lies in the hands of the EU.

#### **4.1.4 Environmental Macro Analysis**

Unibet has licenses for their betting activities in Malta and in the UK. During 2004 Unibet had 109 employees, of which 40 were based in Malta (Unibet, 2004). The Maltese betting operations are highly regulated and are carried out through an International Trading Company (ICT). Normally the corporate tax rate is 35% (Mangion, 2005). However, this is effectively reduced to 4.17% for Unibet, as non-resident shareholders are entitled to a rebate of the tax paid on distribution of dividends. This is one of the reasons why Malta has become a gambling paradise for many online bookmaking firms worldwide Furthermore, Malta can offer a sound legal and financial system and ICT<sup>23</sup> infrastructure.

In 2004 Malta became a full member of the European Union. This means free movement of goods and services within the European Union. Malta is a politically stable and independent republic state where a democratic government is elected every five years. The gaming operations in Malta are regulated by the Maltesian lottery and gaming authority. The general trend has been on a streamlined legislation in order to adapt and attract the gambling industry but also to secure the protections of the players which supports Malta's reputation as a serious and credible European jurisdiction. (Gaming, 2005)

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<sup>23</sup> Information and communication technology

### **4.2.3 SWOT Analysis**

The analysis is divided into internal and external factors, where strengths and weaknesses can be found on the internal side and opportunities and threats on the external side.

#### **Threats**

The competition between the companies is increasing which can make it harder for Unibet to be competitive. Unibet is mainly targeting the Nordic market. In this region a strong monopoly situation has been developed over the years and has educated people on how to make bets, and thus created a gambling culture. As competition in a monopoly market is limited, state owned and controlled gambling institutions are often slow to respond to changes in the business environment. Significant changes in their product offerings may also need to be approved by the government, further restricting their ability to react to market changes. The Swedish state has the greatest influence on the gambling market of all states in the Nordic region. ATG and Svenska Spel have been estimated to have a combined market share of 40 per cent of the Swedish on-line market. The total turnover on the Swedish on-line market is approximately 170 million GBP. This can be compared to the total Swedish gambling market, which was GBP 2,8 billion in 2002 (Unibet, 2004).

The main competitors to Unibet are larger international on-line companies active on the same market as Unibet. For instance, Ladbrokes is one of the world's largest gambling companies. They also offer products in sports betting and on-line poker. Moreover, Expekt operates in the Nordic market with similar product offerings as Unibet. The competition is expected to continue to grow in the future.

#### **Opportunities**

Unibet was founded for about eight years ago and is one of the largest on-line gambling operators in the Nordic market with over 275, 000 registered customers. On a relatively short period of time the company has expanded significantly. One of the largest competitors on the Nordic market is the state controlled monopolies. In recent years large pressure to de-regulate has taken place. If de-regulation in some form would take place Unibet will be able to gain a larger share of the market. Of course changes in law and regulation are uncertain and there is never any guarantee about the future. However, Unibet has speeded up the process by entering an agreement with the European Betting Association (EBA). EBA works to accomplish a uniform regulation for all betting companies, state or privately run, in Europe. In Sweden Unibet has filed a legal action against the Swedish State to end its gambling monopoly.

As gambling monopolies generally operate above average gross margins compared to companies in competitive markets, there is an opportunity for on-line actors to gain market shares in a monopoly market by offering competitive odds and products.

#### **Strengths**

On-line gambling is regarded as one of the most important Internet businesses (Unibet, 2004). Possible drivers for growth for on-line gambling are a combination of a strong gambling culture, technological change and providing entertainment value. The accessibility of new gambling distribution methods, such as the Internet and mobile phones, results in new groups of customers. New technology can open up the possibility of developing new services. Cross border service at low cost is opening up markets which were previously protected by state regulated monopolies. The growth in sports on television and general interest in sports is increasing the demand for betting.

The company will remain in the sports segment, but has also expanded the product line with games of chance to attract new customer segments. New products such as casino games, adds value to the existing customer base. Furthermore, these products do not suffer from the same seasonality as sports events and will contribute to a more steady level of gross winnings. The main reason for focusing on the Nordic markets is the strong gambling culture together with high internet penetration. Unibet will try to expand on the European market especially in countries like Germany and Italy (Unibet, 2004).

Unibet can be said to have a fairly strong brand name amongst on-line gamblers, especially in the Nordic region. The Group's reputation as an established company in the on-line gambling industry is valuable as customers often take comfort from the fact that they are dealing with a well established operator. Unibet's business concept is to provide reliable on-line gambling and to build value delivering entertaining gambling products and service. In order to provide reliable on-line services the company needs to have a solid IT-infrastructure. Unibet has a backup site in the UK that will take over if disruptions in the production line occur.

Unibet has steadily been increasing the number of employees during the period. This can be seen as a signal that the company is successful in finding customers and new markets.

### **Weaknesses**

Unibet is mainly focusing on the Nordic market, which is relatively small and is characterized by a high degree of state regulations, which can limit further expansion on this market. Also, the competition for on-line gambling is increasing. The industry keeps expanding and several firms offering similar products as Unibet are making their entrance on the market. Companies on-line are growing and therefore tougher competition. If state monopoly remain it can be difficult to increase market share on the Nordic markets.

Unibet can be seen to use a focused strategy. Unibet operates on a limited market, mainly the Nordic market. This strategy can be due to the fierce competition in the on-line gambling industry. Furthermore, Unibet seems to focus their business to differentiate products offerings and the goal is to offer higher quotes than competing firms.

The tough competition and the need to offer relatively high quotes affect the profitability of the firm. Also changes in market demand influences profitability in a firm.

The firm seems to focus much attention on reaching financial targets. The management team has put up strict financial targets that the company is supposed to reach. The financial goals are tightly linked to the budget targets. An evident risk with a too strong emphasis to reach stated budget targets is the risk of inflexibility to respond to changes in market demand.

## 4.2 Financial Analysis

### 4.2.1 Financial Ratio Analysis

The financial ratios are summarized in table 2.10 below and analyzed in the following sections.

	2001	2002	2003
<b>Profitability</b>			
ROA (EBIT/A) %	-41	18	36
ROE (Net Income / E) %	-1606	49	60
Profit Margin (EBIT/S) %	-3	1	3
<b>Growth</b>			
A %		173	161
L %		117	130
E %		2222	222
Sales (GBP, thousand)	52655	102134	143542
Sales %		194	141
<b>Liquidity</b>			
Current ratio %	96	125	190
Cash availability %	0	0	0
<b>Turnover ratios</b>			
Turnover of assets, X	14	16	14
Turn. of cap. empl., X	-16	20	17
<b>Solvency and leverage</b>			
L/E %	3714	196	115
D/E %	2602	190	97

**Table 2:10 Unibet's financial ratios (Bertilsson & Davidsson, 2005)**

Profitability measured by ROE has gone from a negative value in 2001 to a positive value during 2002 and 2003. Unibet can be regarded as fairly profitable. Possible explanations for this can be that Unibet has made the essential investments in IT infrastructure and marketing and can now capitalize on them. Moreover, over time Unibet has built up a good reputation and the customer base has constantly been increasing.

Moreover, ROA has been volatile over the time period with a negative value the first year (see figure 1.5). A volatile ROA can be a signal for a significant operating risk. Unibet has invested fairly much in maintaining a significant IT infrastructure (fixed assets). Large investments in fix assets can give rise to a less flexible ability to meet up to changing market demands and therefore give rise to operating risks. But Unibet can be seen as a fairly flexible company since they have spread their risks and are not dependent from where they operate. Their IT department is located in Sweden, whereas the headquarters is situated in

Malta. Since Unibet is mainly operating via the Internet their operations are fairly flexible and the operating risks may be seen as fairly acceptable.

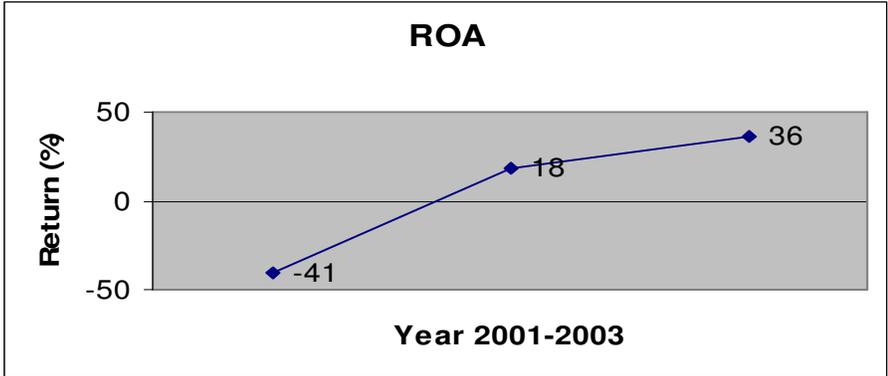


Figure 1:5 Development in ROA during 2001-2003 (Unibet, 2004)

In 2001 Unibet had a negative profit margin, which can be expected since they were relatively new on the market and it takes a lot investments in the beginning. Moreover, it takes some time and effort in order to attract customer and build up a brand name. During 2002-2003 the profit margin has been positive and steadily increased. Unibet is thus generating cash, but a profit margin of 2,6% in year 2003 can not be regarded as high.

During 2001 and 2003 assets (A) have increased by approximately 278%. The liabilities have increased by 150%. Sales have rapidly increased during the three year period (see figure 1.6) due to high demand. The development of sales also depends on macroeconomic and political factors of countries, such as changes in exchange rates, development and maintenance of infrastructure. Unibet operates on several different international markets and has increased their sales on their main markets. A rapid sales development can indicate a fairly high operating risk. The number of employees has expanded constantly during the years. This can be seen as a consequence of the strong growth in sales

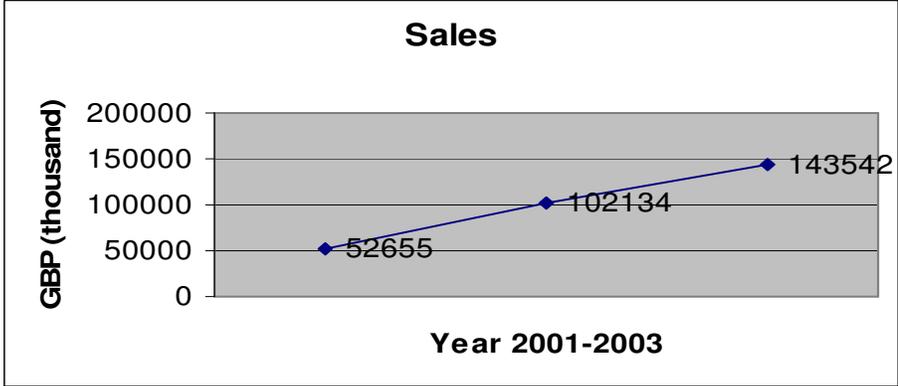
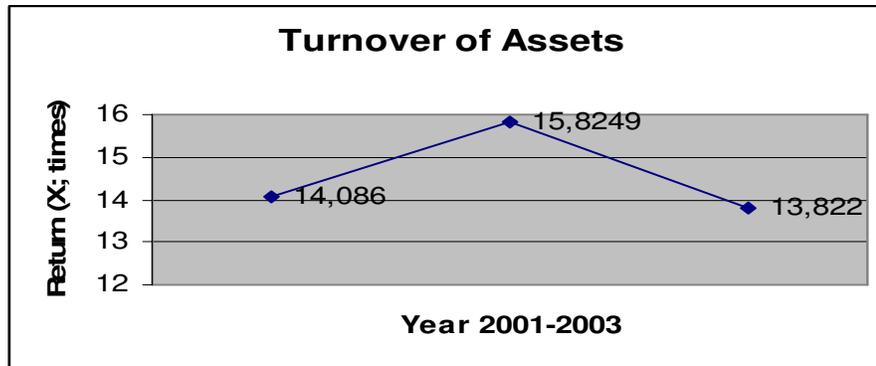


Figure 1:6 Development in sales during 2001-2003 (Unibet, 2004)

The turnover of assets has been fairly stable and high during the observed period, which indicates a low operating risk (see figure 1.7). Sales and assets have had a similar development throughout the years. One reason for this may be that Unibet has flexible assets and can respond to sudden changes in demand.



**Figure 1:7 Turnover of Assets during 2001-2003 (Unibet, 2004)**

The current ratio has slightly increased over the period. This has its ground in that the short term liabilities can easily be covered by the current assets which imply stability for Unibet for the short term financial position. On the other hand it must be noted that receivables are included that may be more or less secure. It can also be observed that it seems like Unibet has deliberately been switching its short term loans towards non current loans which increases the ratio even more. This trend is especially obvious in year 2001 and 2002. The current liabilities are relatively more expensive compared to the non-current liabilities. This has lead to that the financial expenses decreased during the period.

In 2001 Unibet's liabilities to equity ratio (L/E) was significantly high. This was due to the relatively large loan that Unibet took up. The company was willing to take on a large financial risk in order to expand its business activities. The ratio has decreased significantly and has been stabilized during 2002-2003. A possible reason for this can be that the company does not want to take on more liabilities than is financed by equity. The development of L/E corresponds well to the development of the solvency ratio (E/A) ratio which is stable during the years 2002 and 2003.

## 4.2.2 Cost of Capital

<b>Companies:</b>	<b>Beta:</b>
Ladbrokes	1.2644
William Hill	0.3251
London Clubs	0.7011
<b>Unibet</b>	<b>1.2227</b>
<hr/>	
Average	0,878

**Table 2:11 Comparisons of industry betas (LSE, 2005)**

Unibet's beta value is similar to the average beta value in the gambling industry. Therefore it is reasonable to assume a beta of 1.2 when making the calculations in the cash flow valuation model.

rd (aft tax) %	3,6
Beta	1,20
rf %	3,3
E (rm) %	10,6
E (re)	0,12
$r_{WACC}$	0,08

**Table 2:12 Discount rate**

The numbers for the risk free rate and market premium was extracted from Dagens Industri (22-04-05). Using a beta value of 1,2 a cost of equity of 0,12 was reached. The debt and equity to total assets ratios were assumed to be the same as in 2003 (Unibet, 2004). Moreover, a cost of debt after taxes of 3,6% (rgk.se) was assumed. A  $r_{WACC}$  of approximately 8% was then established (table 2.12). When conducting the cash flow valuation a discount rate of 8% has been used.

### 4.3 Cash flow Valuation Model

The valuation of Unibet, according to the SVA model, was carried out in Excel. First historical data was used to gain valuable information to be able to do the forecasting. With historical facts as a basis the average increase in the actual items, included in the calculation of free cash flow, can be estimated.<sup>24</sup> Several different scenarios have been conducted in order to forecast the future value of the company. In the first (optimistic) scenario a future cash flow based on the average increase (%) from historical data for the years 2001-2003

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Incr. (%)	
Sales	52655	102134	143542	338903	800149	1889152	4460288	10530741	24863079	58701730	136	
Cost from operations	50073	93131	131554	304363	704175	1629179	3769269	8720581	20175937	46679048	131	
Depreciation expense	4119	7814	8214	16404	32760	65425	130660	260939	521118	1040718	100	
EBIT	-1537	1189	3774	18135	63214	194548	560359	1549220	4166024	10981965	173	
Taxes	-55	-56	-982	-5078	-17700	-54473	-156901	-433782	-1166487	-3074950		
NOPLAT	-1592	1133	2792	13057	45514	140074	403459	1115439	2999537	7907014		
Depreciation expense	4119	7814	8214	16404	32760	65425	130660	260939	521118	1040718	100	
Gross cash flow	2527	8947	11006	29461	78274	205500	534119	1376378	3520656	8947733		
Change in working capital	1221	536	1627	2711	4517	7527	12543	20900	34826	58031	67	
Net investments in A	37	43	113	243	524	1127	2427	5224	11246	24208	153	
Gross investments	1258	579	1740	2954	5041	8655	14970	26124	46072	82239		
Free cash flow	1269	8368	9266	26507	73233	196845	519149	1350254	3474584	8865493		
PV free cash flow	-860	567	1293	5600	18075	51506	137364	351639	875551	2137056		
Discount rate	8%											
Sum PV FCF			3577790									
Residual Value			4271984									
Market Value L (BS)			-541									
Adj. Financial inv.			0									
Value (GBP, million)			7849									

**Table 2:13 CF's Optimistic scenario (Bertilsson & Davidsson, 2005)**

The strong development in gross cash flow compared to gross investment has led to an increased free cash flow. The heavy increase in gross cash flow is mainly due to increased development in sales. In order to gain the corporate value, the sum of the present value of the free cash flow was added by the residual value and subtracted by the market value of the company's debt. For the calculation of the market value of interest bearing debt a growth of 2% has been assumed, thereafter the nominal value has been discounted. The calculations gave a value of GBP 7849 million (2.3). However, this value can not be considered to be reasonable. An increase in sales with approximately 136 % during the years 2001-2003 can not be seen as a realistic development in the future. Our belief is that Unibet will continue to grow but not to the same extent as before. A valuation of this kind is dependent of the input values and estimated developments in the actual items. In this op-

<sup>24</sup> The historical facts were collected from Unibet's annual reports during the years 2001-2004.

timistic scenario every item in the cash flow statement has followed the historical average growth. Since Unibet has been growing substantially during the actual time period the values are unreasonable large. Moreover, the working capital has increased (average) during the years with approximately 66%.

The market value of interest bearing debt has been assumed to be the same throughout the different scenarios. In the calculations of the shareholder value (SVA) adjustments for probable changes in eventual financial assets have been disregarded due to the fact that information about this has been difficult to collect and evaluate. The cash flow statement is assumed to be fairly reasonable up to gross cash flow. In order to get a realistic value the development in sales need to be adjusted. In the first scenario a yearly increase in sales by 136% was assumed, which can be seen as optimistic scenario (table 2.13). In the long run this development will probable not hold. Therefore most items need to be adjusted downwards. We have used different scenarios about future changes in sales, which are labelled optimistic, probable and pessimistic.

With the support from the strategic analysis, financial ratios analysis and the SWOT analysis, a more probable sales growth would be 15% per year. The increase in working capital has been adjusted and is assumed to grow by 15% during the forecasted time period. In the probable scenario a value of GBP 85 million was gained (see table 2.14). This value can be regarded as more realistic, where a growth in sales and cost of sales of 15% has been assumed. Depreciation expenses have historically had a weaker growth than sales; therefore depreciation expenses have been estimated to grow by 14% each year. Net investments and depreciation expenses have been assumed to grow at the same pace.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Incr. (%)
Sales	52655	102134	143542	165073	189834	218309	251056	288714	332021	381825	15
Cost from operations	50073	93131	131554	151287	173980	200077	230089	264602	304292	349936	15
Depreciation expense	4119	7814	8214	9364	10675	12169	13873	15815	18030	20554	14
EBIT	-1537	1189	3774	4422	5179	6063	7094	8297	9699	11335	
Taxes	-55	-56	-982	-1238	-1450	-1698	-1986	-2323	-2716	-3174	
NOPLAT	-1592	1133	2792	3184	3729	4365	5108	5974	6984	8161	
Depreciation expense	4119	7814	8214	9364	10675	12169	13873	15815	18030	20554	14
Gross cash flow	2527	8947	11006	12548	14404	16535	18981	21789	25013	28715	
Change in working capital	1221	536	1627	1871	2152	2474	2846	3272	3763	4328	15
Net investments in A	37	43	113	129	147	167	191	218	248	283	14
Gross investments	1258	579	1740	2000	2299	2642	3036	3490	4011	4611	
Free cash flow	1269	8368	9266	10548	12105	13893	15944	18299	21002	24104	
NPV free cash flow	1175	7174	7356	7753	8239	8755	9303	9886	10506	11165	
Sum PV FCF		81312									
Residual Value		4409									
Market Value L (BS)		-541									
Adj. Financial inv.		0									
Value (GBP, million)		85									

**Table 2:14 CF's probable scenario (Bertilsson & Davidsson, 2005)**

In the pessimistic scenario the sales growth is assumed to be 5% per year. In this scenario depreciation expenses have increased by 4%. An increase in working capital by 2% per year has been assumed. In this scenario a value of GBP 64 million (see table 2.15) was reached.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Incr. (%)
Sales	52655	102134	143542	150719	158255	166168	174476	183200	192360	201978	5
Cost from operations	50073	93131	131554	138132	145038	152290	159905	167900	176295	185110	5
Depreciation expense	4119	7814	8214	8543	8884	9240	9609	9994	10393	10809	4
EBIT	-1537	1189	3774	4045	4333	4638	4962	5306	5672	6059	
Taxes	-55	-56	-982	-1133	-1213	-1299	-1389	-1486	-1588	-1697	
NOPLAT	-1592	1133	2792	2912	3119	3339	3573	3821	4084	4363	
Depreciation expense	4119	7814	8214	8543	8884	9240	9609	9994	10393	10809	4
Gross cash flow	2527	8947	11006	11455	12004	12579	13182	13814	14477	15172	
Change in working capital	1221	536	1627	1660	1693	1727	1761	1796	1832	1869	
Net investments in A	37	43	113	118	122	127	132	137	143	149	
Gross investments	1258	579	1740	1777	1815	1854	1893	1934	1975	2018	
Free cash flow	1269	8368	9266	9678	10189	10725	11289	11880	12502	13154	
NPV FCF	1175	7174	7356	7113	6934	6759	6587	6419	6254	6093	
Sum PV FCF	61864										
Residual Value	2357										
Market Value L (BS)	-541										
Adj. Financial inv.	0										
Value (GBP, million)	64										

**Table 2:15 CF's pessimistic scenario (Bertilsson & Davidsson, 2005)**

The value from the probable scenario, GBP 86 million, can be compared with the listed value of today, GBP 367 million<sup>25</sup>, and there is a significant difference. The value from the probable scenario is substantially lower. This is mainly due to the fact that we believe that the increased competition on the gambling market will lead to decreases in sales for Unibet in the future. The assumptions, as mentioned, are based on the SWOT analysis, strategic analysis and financial ratios. Moreover, it would be interesting to change some of the assumptions in the cash flow model in order to get a value more close to the listed value. If sales were to vary, assuming a yearly sales growth of 60% in the probable scenario, a value of GBP 373 million can be reached (see table 2.16). This is fairly close to the listed value of GBP 367 million.

<sup>25</sup> Avanza 22-04-05.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Incr. (%)
Sales	52655	102134	143542	229667	367468	587948	940717	1505147	2408235	3853176	65
Cost from operations	50073	93131	131554	210486	336778	538845	862152	1379444	2207110	3531376	60
Depreciation expense	4119	7814	8214	12814	19990	31184	48647	75889	118387	184683	56
EBIT	-1537	1189	3774	6367	10700	17919	29918	49814	82739	137117	
Taxes	-55	-56	-982	-1783	-2996	-5017	-8377	-13948	-23167	-38393	
NOPLAT	-1592	1133	2792	4584	7704	12902	21541	35866	59572	98725	
Depreciation expense	4119	7814	8214	12814	14608	16653	18984	21642	118387	184683	56
Gross cash flow	2527	8947	11006	17398	22312	29555	40525	57508	177958	283408	
Change in working capital	1221	536	1627	2603	2994	3443	3959	4553	5236	6021	60
Net investments in A	37	43	113	176	201	229	261	298	339	387	56
Gross investments	1258	579	1740	2779	3195	3672	4220	4851	5575	6408	
Free cash flow	1269	8368	9266	14619	19117	25883	36305	52658	172383	276999	
NPV FCF	1175	7174	7356	10745	13011	16311	21184	28449	86234	128304	
Sum PV FCF		319943									
Residual Value		53339									
Market Value L ( BS)		-541									
Adj. Financial inv.		0									
Value (GBP, million)		373									

**Table 2:16 CF's adjusted probable scenario (Bertilsson & Davidsson, 2005)**

Furthermore, with a different beta value and discount rate, a different corporate value would have been reached. For instance, if the discount rate was assumed to be 10% (see appendix 3.5), then a sales increase of approximately 65% would have been required in order to reach the listed value (see appendix 3.4).

## 5 Conclusions

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*In this chapter we will present the conclusions drawn from the analysis, with a following discussion on the accuracy and depth of these findings. This chapter will also include suggestions for future studies.*

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### 5.1 Discussion of the results

- *Why is Unibet successful and what is their competitive advantage?*

Innovative thinking when it comes to their products and webpage creates value for the company. Moreover, Unibet's focus on security and quality gives the company and its brand name positive publicity. The company also works actively trying to reduce and control gambling addictions. One important factor for online betting companies to create competitive advantages is to offer competitive odds. The benchmark study of Unibet's odds, based on three different soccer games, give no indications of that Unibet's odds would not be highly competitive. We therefore conclude that they are competitive in their market segment.

- *What are the characteristics of the online gaming industry?*

The online gambling industry is characterized by harsh competition. Currently there are least 1800 different betting websites on the Internet. The markets are also characterized by large national monopolies that work hard on trying to control, regulate and tax the online gambling business. Online gambling companies therefore seek refugee to tax paradises such as Malta. The supply of gambling products and services is constantly changes, which makes the market dynamic and innovative. Online odds on thousands of different events, online roulette, slot machines and online poker rooms, are all examples of different products.

- *What are Unibet's strengths, weaknesses, opportunities and threats?*

Our belief is that Unibet will continue to be successful in the future. The company has in a fairly short period of time built up a strong brand name among on-line gamblers. However, it will be difficult for the company to maintain its strong development in sales especially in the Nordic region if the state monopoly is maintained and no deregulations take place. Furthermore, the competition on Unibet's main markets has increased significantly, which will shrink the profit margin.

- *What is Unibet's financial position?*

Unibet has during a relatively short period of time increased their growth in sales, profitability (ROE) and at the same time maintained a fairly high turnover of assets ratio. Moreover, Unibet has decreased its financial risk (L/E) significantly since 2001. This can be an indication of a change in strategy; Unibet wants to finance their growth relatively more by equity than with liabilities.

- *What is the value of Unibet and what assumptions are made to support this value?*

The cash flow model was carried out in different scenarios. With the assumptions made in the probable scenario a value of GBP 85 million was reached. In the probable scenario a growth in sales of 15% was assumed and the cash flows were discounted at a rate of 8%. This value was compared with the listed value (GBP 367 million) and there was a significant difference. Our value was substantially lower. This is mainly due to the fact that we believe that the increased competition on the gambling market will lead to

decreases in sales for Unibet in the future. The assumptions have been based on the information from the strategic analysis, the SWOT analysis and the development in financial ratios.

- *What value scenarios can be created by adjusting these assumptions?*

If sales were to vary, assuming a sales growth of 60% in the probable scenario, a value of GBP 373 million was reached. This is fairly close to the listed value of GBP 367 million. Furthermore, if we assume a different beta value we would have gained a different discount rate and therefore also a changed corporate value. For instance, if a discount rate of 10% was assumed, then a sales increase of approximately 65% needs to be assumed in order to reach the actual reported value. The important lesson is that the corporate value is dependent on which assumptions that are made. Furthermore, since there are no formal rules on how to carry out the valuation the assumptions are to some extent characterized by subjectivity.

## **5.2 Suggestions for future studies**

Future studies in corporate valuation could be done for example by choosing another firm in another interesting industry. Studies could also be done on the online bookmaking industry by focusing on an in-depth valuation of another company or a more broaden focus on the market and compare odds offered by different bookmaking firms in order to statistically determine which firm has the best odds and are the most competitive. Comparative studies could also be done on other sources of revenue for the bookmaking firms such as online poker and online slot machines. This could be challenging due to the differences when it comes to calculating probability distributions. Future studies could also choose a different methodological approach other than a case study.

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# Appendix

## Appendix 3:1 More basic bookmaking definitions

### Basic information about sports betting extracted from OddsonNet (2005)

#### Probability estimation

The probability estimation is used to describe the probability of something happening. For example for a football match ManU-Charlton the probability estimates for the home team winning, for a tie, or for the away team winning could be 50%- 28%- 22%. (Total 100%)

#### Odds

The odds are the reverse number of the probability estimation. In our example the odds would be  $1/0,50=2,00$  (home team winning),  $1/0,28=3,57$  (a tie) and  $1/0,22= 4,55$  (away team winning).

#### Deduction and return percentage

Bookmakers don't sell odds to their customers with a 100% return. Instead, they try to win a part of the trade for the match for themselves. For example, the return percentage of the Finnish bookmaker Veikkaus is 88% in Pitkäveto and the deduction 12%.

In the international markets the percentages usually vary between 90%-97%, depending on the bookmaker, match and the type of the bet. The bet exchanges the may offer a return percentage of even 100%, but this does not take the possible commissions into account.

#### Value bet and Value margin

Betting the value bets is the foundation for profitable betting. A player should always bet on the value bets, since in the long run, a player can win only by betting on the value bets.

Let's assume that the following probabilities for ManU-Charlton: 50%- 28%-22% are calculated. Value margins for these probabilities are  $2,00 - 3,57 - 4,55$  (100/probability estimation). If odds that are higher than value margin is available for some of the results, the a value bet is present. For example, if you can get better odds than 2,00 for ManU victory, it is then a value bet and all odds under 2,00 are underprices.

#### Value

The value of a match can be calculated in the following way: Odds you can get/ marginal odds. If, for example, you could bet that ManU wins and the odds for that are 2,25, the value would be:  $2,25/2,00*100=112,50\%$ . In the long run you could expect to profit from this kind of games 12,50% each time.

#### Account

A player should always establish himself a separate account from which he will make his bets. The amount to be put on the account depends on the player. It should however contain enough cash to last through occasional losing streams. It should be remembered that a bet is lost until the result has been confirmed.

### Placing your bet

Setting the right kind of stakes and bets is essential in order to make profits. You should not put down the same stake to every match, because the odds and the probabilities affect each stake individually. By using the Kelly formula the optimal stake for each bet can be found, and the account growth will be maximized. When using a higher Kelly divider the growth of the account will slow down, but the risks will be lower. The best match will always be played from the starting account, the next best from the amount left on the account etc.

Using the Kelly formula the optimal stake can be calculated in the following way:

$$S=(P*K-1)/(K-1)$$

S= optimal stake from the account

P= The player's probability estimation

K= The odds given by the bookmaker

Example: If in the example above you would get a 2,20 odds on ManU winning, the optimal stake would be:

$$S=(0,5*2,20-1)/(2,20-1)$$

$$S=0,083=8,3\% \text{ of the account}$$

Often it is however wise to use the Kelly divider, with which you can set your own risk taking and diminish the swaying of the account. The account will grow by using the Kelly divider, although the growth will be slower. Usually the Kelly divider is between 4 and 10. We'll use 4 in the example.

$$S=(0,50*2,20-1)/(2,20-1)/4$$

$$S=0,083/4$$

$$S=0,021=2,1\% \text{ of the account}$$

### Circulation Ratio

The validity of the probability estimations and the circulation ratio of the account will resolve how much a player will win in the long run. If a player will bet only on the underdogs with high odds and values he will surely end up winning, but relatively slowly. A player who is willing to bet on the more even matches, he will no doubt get a better result, since the amount of matches played and the circulation ratio of the account will be higher.

### Match odds (1x2- betting)

In the traditional 1x2- betting you bet on the right result, which is on home team's victory (1), tie (x), or the away team to win (2). The best game alternatives are usually found among the underdogs or the more unknown series, which the bookmaker is lacking information or knowledge of. The traditional bookmakers usually have a return percentage of 90%-95% in the 1x2- betting, but in the bet exchanges the percentage can be up to 100%. The bet exchanges do however take a commission on the bet, so the true return percentage is slightly lower.

On the game list the odds are usually given in the following way:

Birmingham – Charlton            2,70 – 3,30 – 2,80

If Birmingham wins the match, those who have bet on it will get back their stake multiplied by the odds, 2,70. If the stake is 100 credits, the profit will be  $100 * 2,70 = 270$  credits. The net profit will be  $270 - 100 = 170$  credits. Those who bet their money on a tie- result or away team's victory (x or 2) will lose their bets. This applies to all the games.

### Totals – Under / Over

In Totals- bets the bookmaker will set a marginal amount for goals in a match and the player will bet on if there will be more or less goals in the match than the marginal amount of goals set for the match. In soccer the marginal amount is often 2,5 and in ice-hockey 4,5 or 5,5 goals.

If the marginal amount of goals for a football match is that 2,5, then under- result means that there should be scored a maximum of two goals in the match. Under- results would then be 0-0, 1-0, 0-1, 1-1, 2-0, 0-2. All other results will be Over- results, because in that case there have been scored more than 2,5 goals in the match.

The marginal amount of goals in a football match can also be an even amount of goals, for example 2,3 or 4 goals. If the match ends in the same result as the marginal amount of goals, for example if the marginal amount is 3, and the match ends 1-2, 2-1, 3-0 or 0-3, then the stakes will be returned. In case of other results, either the bookmaker or the player will win.

In other sports than soccer (European football) the principals are the same. It is important to make sure whether the goals scored on over-time are included to the bet or not. The rules may differ depending on the bookmaker.

## Appendix 3:2 Valued Bets Unibet

According to oddsonnet (2005) a player should always bet on value bets.

In the longrun a player can only win by betting on value bets.

If the odds that you receive > value margin ==> Value bet (marked in red below)

Example:

Estimated probability 1 - X - 2: 50% - 28% - 22%

Value Margin (100 / probability): 2,00 - 3,57 - 4,55

If odds greater than 2 - 3.57 -4.55 ==> Value bets

If odds less than 2 - 3.57 -4.55 ==> Nonvalued bets

The estimated probability is represented by the average probability of all bookmakers

The value quote can be calculated as either:

Unibet odds/ (100/average probability) or Unibet odds \*average probability/100

Everything above 1 ==> valued bet (Value quote - 1 = % value )

Everything below 1 ==> Nonvalued bet (1- Value quote= % under valued )

The list below are Unibets odds on soccer games 2005-04-17 in the following countries: Sweden, Denmark, Argentina, Spain, Poland, England, Netherlands, Italy and Greece

	Unibets odds				Key %	Average probability			Value quote
	1	X	2			1	X	2	
HFK Sønderjyl vs Dalum	1.15	6.75	13.00		91.35	74	16	10	0.85 1.08 1.30
Örebro vs Boden	1.15	6.25	14.00		90.83	75	16	9	0.86 1.00 <b>1.26</b>
Colon vs Olimpo	1.40	3.80	6.60		88.58	57	25	18	0.80 0.95 <b>1.19</b>
Cadiz vs Salamanca	1.46	3.30	7.40		89.04	57	27	16	0.83 0.89 <b>1.18</b>
Horsens vs Næstved	1.25	5.25	9.75		91.49	70	18	12	0.88 0.95 <b>1.17</b>
Wisla Krakow vs Pogon	1.18	5.75	12.50		90.80	75	17	9	0.88 0.98 <b>1.13</b>
Mallorca vs Valencia	4.40	3.40	1.80		92.86	25	28	47	<b>1.10</b> 0.95 0.85
Legia vs Odra W	1.25	4.75	11.00		90.79	70	20	10	0.88 0.95 <b>1.10</b>

Göteborg Assyriska	vs	1.22	5.75	12.00	92.86	71	19	9	0.87	1.09	1.08
Häcken Sundsvall	vs	1.80	3.40	4.40	92.86	48	28	24	0.86	0.95	1.06
Newcastle Manchester United	vs	6.60	3.50	1.53	91.67	16	26	58	1.06	0.91	0.89
Køge vs Brønshøj		1.30	5.00	8.10	91.52	69	18	13	0.90	0.90	1.05
Willem II vs PSV		7.00	3.70	1.45	90.68	15	25	60	1.05	0.93	0.87
Gefle Helsingborg	vs	5.00	3.45	1.70	92.76	21	27	52	1.05	0.93	0.88
Herfølge Midtjylland	vs	3.85	3.45	1.90	92.94	27	28	45	1.04	0.97	0.85
Alaves vs Malaga- B		1.50	3.20	6.90	88.96	57	27	15	0.86	0.86	1.03
Silkeborg Randers	vs	1.67	3.65	4.90	92.86	52	26	21	0.87	0.95	1.03
Celta vs Cordoba		1.40	3.55	7.90	89.08	63	24	13	0.88	0.85	1.03
Frem vs Skjold		1.45	4.40	5.70	91.54	61	21	18	0.88	0.92	1.03
Olstykke Nykøbing	vs	1.95	3.75	3.20	91.58	43	25	32	0.84	0.94	1.02
Inter vs Cagliari		1.42	3.80	9.25	92.98	66	23	11	0.94	0.87	1.02
AIK vs Degerfors		1.25	5.35	9.20	91.27	70	19	11	0.88	1.02	1.01
PAOK vs OFI		1.35	3.85	7.25	87.84	63	23	14	0.85	0.89	1.02
AEK vs Xanthi		1.38	3.75	6.75	87.76	61	25	15	0.84	0.94	1.01

### Appendix 3:3 Safe Bets

Safe bets means that it is possible to gain profit independent of the outcome of the game  
 Example: Odds for the match are Home 2, 80 Draw 3, 50 Away 3, 20

The return percentage is:

$$100/(1/2,80+1/3,50+1/3,20)=100/(0,3571+0,2857+0,3125)=104,71$$

This means that you can get a sure profit of 4, 71% of the total stake.

This does not take into account the possible transfer costs of the bookmaker. Also always remember to check the available real time odds from the bookmakers. (OddsOnNet, 2005)

Starting time 2005-04-24 14:00		1	X	2	1	X	2
<b><u>Esbjerg vs Herfølge</u></b>	102.92 %	1.45	4.95	12.50	<a href="#">William Hill</a>	<a href="#">Parbet</a>	<a href="#">Parbet</a>
<a href="#">Soccer/Denmark/SAS ligaen</a>	stakes	70.98 %	20.79 %	8.23 %	709.76 €	207.91 €	82.33 €
Starting time 2005-04-23 16:00		1	X	2	1	X	2
<b><u>Leeds vs Ipswich</u></b>	101.83 %	3.95	3.40	2.30	<a href="#">Betfair</a>	<a href="#">William Hill</a>	<a href="#">Nordicbet</a>
<a href="#">Soccer/England/Championship</a>	stakes	25.78 %	29.95 %	44.27 %	257.79 €	299.49 €	442.72 €
Starting time 2005-04-24 13:00		1	X	2	1	X	2
<b><u>Randers vs AaB Aalborg</u></b>	101.74 %	3.60	3.60	2.34	<a href="#">Parbet</a>	<a href="#">Parbet</a>	<a href="#">Redbet</a>
<a href="#">Soccer/Denmark/SAS ligaen</a>	stakes	28.26 %	28.26 %	43.48 %	282.61 €	282.61 €	434.78 €
Starting time 2005-04-23 11:45		1	X	2	1	X	2
<b><u>Chelsea vs Fulham</u></b>	101.72 %	1.38	5.51	13.00	<a href="#">Betdaq</a>	<a href="#">Betbutler</a>	<a href="#">Betdaq</a>
<a href="#">Soccer/England/Premier League</a>	stakes	73.71 %	18.46 %	7.82 %	737.13 €	184.62 €	78.25 €
Starting time 2005-04-24 15:00		1	X	2	1	X	2
<b><u>Bologna vs Fiorentina</u></b>	101.69 %	2.60	2.95	3.85	<a href="#">Betfair</a>	<a href="#">Betmate</a>	<a href="#">Unibet</a>
<a href="#">Soccer/Italy/Serie A</a>	stakes	39.11 %	34.47 %	26.41 %	391.13 €	344.73 €	264.14 €
Starting time 2005-04-24 18:00		1	X	2	1	X	2

<b><u>Lyn vs Start</u></b>	101.40 %	2.22	3.50	4.00	<a href="#">BetOnBet</a>	<a href="#">Parbet</a>	<a href="#">Parbet</a>
<a href="#">Soccer/Norway/Tippeligaen</a>	stakes	45.68 %	28.97 %	25.35 %	456.77 €	289.72 €	253.51 €
Starting time 2005-04-24 11:00		1	X	2	1	X	2
<b><u>Portsmouth vs Southampton</u></b>	101.07 %	2.52	3.35	3.40	<a href="#">Betfair</a>	<a href="#">Betdaq</a>	<a href="#">Expekt</a>
<a href="#">Soccer/England/Premier League</a>	stakes	40.11 %	30.17 %	29.73 %	401.06 €	301.69 €	297.25 €
Starting time 2005-04-24 18:00		1	X	2	1	X	2
<b><u>Mandalskamer vs Kongsvinger</u></b>	100.86 %	2.45	4.00	3.00	<a href="#">Parbet</a>	<a href="#">BetOnBet</a>	<a href="#">Ladbrokes</a>
<a href="#">Soccer/Norway/1st Division</a>	stakes	41.17 %	25.21 %	33.62 %	411.66 €	252.14 €	336.19 €
Starting time 2005-04-24 15:00		1	X	2	1	X	2
<b><u>Livorno vs Lecce</u></b>	100.77 %	2.30	2.90	4.70	<a href="#">Betfair</a>	<a href="#">Nordichet</a>	<a href="#">Expekt</a>
<a href="#">Soccer/Italy/Serie A</a>	stakes	43.81 %	34.75 %	21.44 %	438.12 €	347.48 €	214.40 €
Starting time 2005-04-23 16:00		1	X	2	1	X	2
<b><u>Bournemouth vs Peterborough</u></b>	100.44 %	1.55	4.50	7.80	<a href="#">Betfair</a>	<a href="#">William Hill</a>	<a href="#">Betfair</a>
<a href="#">Soccer/England/League 1</a>	stakes	64.80 %	22.32 %	12.88 %	648.02 €	223.21 €	128.77 €
Starting time 2005-04-23 17:15		1	X	2	1	X	2
<b><u>Monaco vs Toulouse</u></b>	100.43 %	1.65	3.85	7.70	<a href="#">Nordichet</a>	<a href="#">Parbet</a>	<a href="#">Redbet</a>
<a href="#">Soccer/France/Ligue 1</a>	stakes	60.87 %	26.09 %	13.04 %	608.70 €	260.87 €	130.43 €
Starting time 2005-04-24 18:00		1	X	2	1	X	2
<b><u>Viking vs Lillestrom</u></b>	100.41 %	2.10	3.45	4.35	<a href="#">Ladbrokes</a>	<a href="#">Parbet</a>	<a href="#">Parbet</a>
<a href="#">Soccer/Norway/Tippeligaen</a>	stakes	47.81 %	29.10 %	23.08 %	478.14 €	291.04 €	230.82 €

## Appendix 3:4 Probable scenario - adjusted discount rate

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Aver. Incr. (%)
Sales	52655	102134	143542	236127	389609	642855	1060710	1750172	2887783	4764843	1
Cost from operations	50073	93131	131554	217064	358156	590957	975079	1608880	2654653	4380177	65
Depreciation expense	4119	7814	8214	13142	21028	33645	53831	86130	137808	220493	60
EBIT	-1537	1189	3774	5920	10425	18253	31800	55161	95323	164173	
Taxes	-55	-56	-982	-1658	-2919	-5111	-8904	-15445	-26690	-45968	
NOPLAT	-1592	1133	2792	4262	7506	13142	22896	39716	68632	118204	
Depreciation expense	4119	7814	8214	13142	21028	33645	53831	86130	137808	220493	60
Gross cash flow	2527	8947	11006	17405	28534	46787	76727	125846	206440	338697	
Change in working capital	1221	536	1627	2685	4430	7309	12059	19898	32832	54172	65
Net investments in A	37	43	113	181	289	463	741	1185	1896	3033	60
Gross investments	1258	579	1740	2865	4719	7772	12800	21083	34727	57205	
Free cash flow	1269	8368	9266	14540	23815	39015	63927	104763	171713	281492	
NPV free cash flow	1154	6916	6962	9931	14787	22023	32805	48873	72823	108527	

### Discount rate: 10%

Sum PV FCF	324800
Residual Value	55148
Market Value L (BS)	-467
	379481
Value (GBP Million)	379