



School of Economics  
and Commercial Law  
GÖTEBORG UNIVERSITY

# Hedge Funds

A case study on Brummer & Partners Hedge Fund

Helios 2xL

A Multi Strategy Fund with Leverage

**Master of Science within Industrial and  
Financial Management**

Authors: Taylor Andrew 1981

Törnqvist Robert 1980

Tutor: Von Koch Christopher

Date: Gothenburg 2006-01-10

## **Master of Science within Industrial and Financial Economics**

**Titel:** Hedge Funds - A case study on Brummer & Partners hedge fund  
Helios 2xL - A multi strategy fund with leverage

**Authors:** Andrew Taylor and Robert Törnqvist

**Tutor:** Christopher Von Koch

**Date:** 2005-01-10

**Key words:** Hedge fund, multi strategy fund, leverage, offshore registration

---

### **Abstract**

The expression “hedge” can be seen as protection and Alfred Winslow Jones was the one who started the first hedge fund in 1966. He implemented an investment technique by using his knowledge in finding over- and undervalued stocks in a market that he believed to always be inefficient. This has evolved to a creation of a variety of strategies employed today by hedge fund managers.

The purpose of this study is to analyze how three variables, multi strategy, leverage and offshore registration affect a specific hedge fund’s performance in comparison to the Swedish hedge fund index (HFXS). The paper was conducted as a case study focusing on Brummer & Partners offshore registered multi strategy fund with leverage, Helios 2xL. The fund is comprised of seven underlying funds that are also Brummer & Partners hedge funds.

A pro forma statement from Helios 2xL was used when measuring the funds performance in comparison to the HFXS index, which includes 30 of the larger hedge funds in Sweden.

We came to the conclusion that when the three variables multi strategy, leverage and offshore registration were analyzed we clearly saw that they gave Helios 2xL a higher return than the comparison HFXS index. Helios 2xL is currently having an optimal diversification and implementing a dynamic use of leverage, which has shown to be extremely difficult for an investor to conduct on his own. Moreover, being exposed to an offshore environment makes Helios 2xL a competitive fund in the international arena.

## *Acknowledgments*

*To write an academic thesis is a process of learning, but it is also a path of obstacles and hard work. During the process of writing this thesis a large number of individuals have helped us on the way. We would like to thank first of all Filip Borgeström at Brummer & Partners AB for letting us interview him and also for answering all our questions.*

*Secondly, we want to offer our thanks to Carl Kuylenstierna at Harcourt Investment Consulting AB who was kind enough to answer all our questions even the simplest of ones.*

*Lastly, our gratitude goes to our tutor Christopher von Koch who has been supporting and pointing us in the right direction the entire process.*

*We hope you enjoy your reading,*

*Gothenburg, January 2006*

-----

*Andrew Taylor*

-----

*Robert Törnqvist*

# Contents

<b>1</b>	<b>Introduction .....</b>	<b>1</b>
1.1	Defining Hedge Funds.....	2
1.2	Defining Multi Strategy Funds.....	3
1.3	Problem Discussion.....	4
1.4	Purpose.....	6
<b>2</b>	<b>Methodology .....</b>	<b>7</b>
2.1	Scientific approach.....	7
2.1.1	Induction, Deduction and Abduction.....	7
2.2	Research method.....	8
2.2.1	Implementation .....	8
2.2.2	Case study design .....	9
2.3	Data Collection.....	9
2.3.1	Primary and secondary data collection.....	9
2.3.2	Data .....	9
2.3.3	Interviews .....	10
2.3.4	Performance Measurement.....	11
2.3.5	Choice of Period.....	12
2.3.6	Pro Forma .....	13
2.3.7	Index .....	13
2.3.8	The HFXS index .....	14
2.3.9	HFXS index equally weighted .....	15
2.3.10	HFXS index asset weighted .....	16
2.3.11	Choice of index.....	16
2.3.12	Index comparisons .....	17
2.3.13	Calculations .....	17
2.4	Reliability and validity.....	18
2.4.1	Reliability .....	18
2.4.2	Validity .....	19
<b>3</b>	<b>Theory .....</b>	<b>21</b>
3.1	Previous Hedge Fund Research.....	21
3.1.1	Risk.....	22
3.1.2	Portfolio theory .....	22
3.1.3	Efficient Market Hypothesis.....	23
3.1.4	CAPM .....	24
3.1.5	Standard deviation.....	24
3.1.6	Sharpe Ratio .....	24
3.1.7	Absolute returns .....	26
3.2	Multi strategy funds .....	27
3.2.1	Benefits .....	27
3.2.2	Risk Diversification.....	27
3.2.3	Affordability and Accessibility .....	28
3.3	Criticism .....	29
3.3.1	Fees.....	29
3.3.2	Over diversification.....	29
3.3.3	Lack of control .....	30
3.4	Leverage.....	30
3.4.1	The usage of leverage .....	31
3.4.2	Different amounts of leverage.....	33

3.5	Leverage on multi strategy funds.....	34
3.6	Legislation .....	35
3.6.1	United States of America .....	35
3.6.2	Sweden.....	36
3.6.3	Europe .....	36
3.6.4	Black Box.....	37
<b>4</b>	<b>Analysis and empirical evidence .....</b>	<b>39</b>
4.1	Analysis – Helios 2xL and its performance.....	39
4.1.1	Historical information and pro forma valuation .....	39
4.2	Performance measurements and valuations.....	40
4.3	Multi strategy fund.....	46
4.3.1	Diversification in all its forms .....	47
4.3.2	Fees and accessibility .....	49
4.4	Leverage.....	55
4.4.1	Defining leverage.....	55
4.4.2	Leverage - a strategy.....	56
4.4.3	Level of leverage and risk, the motive behind Helios 2xL.....	58
4.4.4	Multi strategy funds application of leverage.....	60
4.5	Legislation .....	62
4.5.1	Offshore registration .....	62
4.5.2	Black box.....	65
<b>5</b>	<b>Conclusion.....</b>	<b>66</b>
<b>6</b>	<b>Further research.....</b>	<b>69</b>

## Tables

Table 4.1:	Returns for the three objects.....	40
Table 4.2:	Standard deviation for the three objects.....	41
Table 4.3:	Sharpe ratio for the three objects.....	41
Table 4.4:	Average return for the three objects.....	44

## Appendix

References .....	70
Appendix 1 .....	76
Appendix 2.....	78
Appendix 3.....	89
Appendix 4.....	90
Appendix 5.....	91

# 1 Introduction

The expression “hedge” can be seen as protection or a safeguard of some kind, hence the creation and development of hedge funds into the financial markets. The origin of the so-called hedge fund came from a man called Alfred Winslow Jones (Jones, 1949).

The purpose of his fund was that it should consist of equities organized as a private partnership. More specifically, to create a fund that was more flexible and that could provide a lot of latitude. To achieve this Jones invented an investment technique that is still used in hedge funds today, mainly to profit from the inefficiencies that exists at any given time on markets, without incurring risks. His fund would take both long positions in stocks that he believed to be undervalued and short positions in stocks that were overvalued<sup>1</sup>.

In 1966, an article in Fortune magazine about a “hedge fund” featuring a certain A. W. Jones shocked the investment community (Loomis, 1966). Apparently, the fund had outperformed all the mutual funds of its time, even after accounting for a hefty 20 percent incentive fee. The first rush into hedge funds followed and the number of hedge funds increased from a handful to over a hundred within a few years.

The following years were relatively quiet for the hedge fund industry and it was still considered to be an exclusive investment tool mainly in United States of America. The high performance years from 1987 to 1993 helped boost the formation of additional hedge funds. From this time onward negative headlines about hedge funds started to figurate in newspapers. The 1992 drop of the British Pound out of the European Currency System was believed to have been caused largely by hedge funds like George Soros' Quantum Fund although, this has never been proved. In 1994 many hedge funds had problems coping with the strong increase of U.S. interest rates and the following bond market crash in the U.S. led to substantial losses and a few bankruptcies in the hedge fund industry. The hedge fund industry recovered in 1995 and 1996 and entered a more mature stage. It was also during this time that the hedge funds made their debut on the Swedish investment scene.

---

<sup>1</sup> Long/short equity: This strategy involves a combined purchase and sale of two securities. It begins with a purchase of stock A believed to be undervalued, hence the long position. This is followed by a sale of stock B that is believed to be overvalued, however since stock B is not owned this is considered a short sale. It becomes a necessity to borrow these shares from a third party in order to being able to deliver them to the buyer. The source of return is ideally that stock A on the long side should appreciate in value while stock B that was shorted should decrease in value. Now stock B can be bought back at a lower price and returned to the third party along with a premium, leaving the difference as a profit for the hedge fund. (Lhabitant, 2002)

Yet again in 1998 the hedge fund community was given a bad reputation. The near-collapse and 3.6 billion USD bailout of John Meriwether's, the famed Salomon Brothers bond trader, Long Term Capital Management (LTCM)<sup>2</sup> by fourteen Wall Street banks and brokerage houses on the advisory of the American Federal Reserve of New York in the late summer of 1998 cast a dark shadow over these investment vehicles. However, since 9/11 in 2001 the world's financial markets were in a downturn and investors started to invest more sparsely again and began looking for alternative investment vehicles such as hedge funds, and the result was that they rose in popularity.

Today hedge funds are estimated to constitute an USD 875 billion industry and growing at about 20 percent per year, with approximately 8350 active hedge funds worldwide (Hedge Fund Association). Then one can wonder, what exactly is a hedge fund?

## **1.1 Defining Hedge Funds**

There are various definitions of what a hedge fund is, but there has always been an underlying mystique of what it is they do exactly. The inventor himself, Alfred Winslow Jones, defined his work as an equity-oriented limited partnership that can be both long and short, can use leverage, and give the general partner a profit of 20 percent (Macrea, 1992). Another historical legend in the hedge fund community Michael Steinhardt who was a manager of the third largest hedge fund, defines it as a limited partnership where the general partner is usually paid on a performance basis (Schwager, 1990). Yet another hedge fund mogul George Soros, founder of well known Quantum Fund and also believed to have forced the Bank of England to devalue the Sterling in 1992, explains a hedge fund to be a mutual fund that uses various techniques of hedging and employs leverage to it (Soros, 1994). The Securities and Exchange Commission (SEC) in the United States of America defines the term hedge fund as varying types of investment vehicles who share similar characteristics. Even though it is not statutorily defined, a hedge fund consists of any type of pooled investment vehicles that are privately organized and managed by professionals and are not widely available to the public (Report of the president's working group, 1999). In contrast, the Swedish counterpart to SEC, Finansinspektionen (FI) does not have a definition of what a hedge fund is. All investment vehicles whether they are hedge funds or not are classified as a "special fond" if they are violating the undertakings for collective investment in transferable securities (UCITS)

---

<sup>2</sup> Discussed in Chapter 3, Theory Leverage

directive<sup>3</sup>. Thus, we get a number of different investment vehicles all under one categorization even though they differ in character.

The academic community explains hedge funds as a type of investment program where the managers or partners constantly seek absolute returns by exploiting various investments. Moreover this is achieved while protecting the principal from financial losses (Ineichen, 2003).

Our definition of a hedge fund is based on our newly acquired knowledge of the hedge fund market. Our definition will be used throughout this thesis and contain three criteria's;

- An absolute return target: The fund has a fixed target rate of return and does not compare its return to an index.
- Incentive fees: The performance of the fund generates what fees the investors pay
- Being registered at Finansinspektionen in Sweden

## **1.2 Defining Multi Strategy Funds**

A fund of funds is a hedge fund that invests in different underlying hedge funds and it is seen as a hedge fund strategy (Lhabitant, 2002). The name multi strategy fund is categorized as an overlying hedge fund containing a mix of investments in different hedge funds that are owned by the same actor who also owns the overlying fund itself, which is not the case in fund of funds. In our specific case study the research subject is a multi strategy fund that invests in other underlying funds that are managed by the same firm. Since our investigation involves a multi strategy fund, we have chosen to refer to fund of funds as multi strategy funds throughout the thesis. The theories presented in the theory chapter are based on fund of funds theories and these are applicable on multi strategy funds. A characteristic that these types of hedge

---

<sup>3</sup> UCITS is the European Community's Directive relating to co-ordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS). The Directive acts as a general framework for the regulation of UCITS within the Member States setting down common standards including investment restrictions, reporting arrangements, prospectuses and the regulation of management companies. In some areas, a degree of discretion is left to the individual Member States in the implementation of these standards when they are transposed into national legislation. It is primarily designed to harmonize fund supervision and investor protection requirements relating to UCITS among member states of the EU and to ensure that UCITS, established in one Member State may be marketed freely in other member states without the need to obtain a second authorization.



funds share is that the portfolio becomes more diversified through having a mixed portfolio, which implies that the risk will be lower<sup>4</sup>.

According to (Anderlind, Dotevall, Eidolf, Holm & Sommerlou, 2003) the multi strategy funds are seen to be one of the most common ways to invest in hedge funds on the international market. However it has not been a subject for the Swedish hedge fund market until recent years, and now this option is marketed to the investors. This type of hedge fund is seen as a type of investment for people that do not have good knowledge on the single hedge funds, hence the mix being a useful tool.

### **1.3 Problem Discussion**

Hedge funds today are actively managed and employ a number of strategies to invest capital, in their search for absolute returns. Some of the more popular are: multi strategy, (a type of hedge fund that puts its money into other hedge funds), long/short equity (selling short on some stocks to protect long positions on others), macro or global strategies, (which makes investments based on trends in global economies), leverage (borrowing money to increase return), arbitrage (profit from price differences in related instruments) and emerging markets (invest in debt or equity in less developed countries) (Amenc, Bied & Martellini, 2003; Ineichen, 2003).

Hedge funds are now starting to be a much more accepted investment vehicle for Swedish investors, therefore greater knowledge about these hedge funds and their investment strategies is vital. Instead of analyzing all available strategies we have narrowed our study down to examining two of the above mentioned strategies, namely multi strategy and leverage.

Rather than investing in individual securities, a multi strategy fund manager invests in other hedge funds. This gives the fund a portfolio, that consists of a mixture of other hedge funds with different strategies creating diversification and lower risk. This has turned out to be an option for those investors who do not want to actively manage their investments and feel that risk is a significant factor. Nevertheless the investor usually has to pay higher incentive fees for that option (Lhabitant, 2002).

The second strategy that is examined is leverage which involves borrowing money, and can be used either to increase the effective size of the hedge funds portfolio or in the form of

---

<sup>4</sup> For further information about multi strategy fund see theory, Chapter 3

margin purchasing in e.g. future contracts or bonds (Schneeweis, Kazemi, Martin & Karavas & Kazemi, 2005). Leverage works as value enhancer when the underlying assets are positively inclined, however when the investment moves against the managers expectations, the loss is far greater for the fund.

These two strategies have been widely pictured in media. The fact that the multi strategy concept constitutes up to more than 12 percent of all new investments into the hedge fund industry in Sweden today, shows that it is a popular choice for an investor (Engzell-Larsson, 2005). Furthermore, leverage has also recently become a more used investment strategy for the two major hedge fund actors in Sweden, but high amounts of leverage were also one of the causes behind the recent LTCM crises.

Furthermore, hedge funds today are used by high net worth individuals, institutional investors and pension funds all over the world. Since many countries do not have a clear and a well-developed legislation on capital markets that allow hedge funds to exist in the country, many hedge funds have been forced to register offshore instead. And also the lower tax level and more liberal legislation in countries such as Bermuda and the British Virgin Islands have no doubt also motivated hedge funds to operate from these countries. By doing so they are under no obligation to report to any authority, and hedge funds as a group is something of a black box where you do not have any real insight into their operations (Fox, 2005).

In Sweden today there are roughly 50 hedge funds and the number is increasing. Although there is only one specific fund namely Brummer & Partners<sup>5</sup> Helios 2xL (two times leverage), that uses the two mentioned strategies above and at the same time being an offshore hedge fund. Helios 2xL utilizes 50 percent leverage thereof the name 2xL, implying a double exposure on the effective size of the funds portfolio. This is justified by our research subject, Helios 2xL, only invests into its funds that are owned by the same company as Helios 2xL, therefore it is a multi strategy fund and not a fund of funds.

This leads us to the following research questions concerning the thesis topic:

- How does a specific multi strategy hedge fund with leverage perform in comparison to other Swedish registered hedge funds regardless of their investment strategy?

---

<sup>5</sup> See Appendix 1: general information regarding Brummer & Partners history and all their hedge funds

- What are the specific characteristics when it comes to multi strategy, leverage and offshore registration for Helios 2xL?

## **1.4 Purpose**

The purpose of this study is to analyze how three variables, multi strategy, leverage and offshore registration affect a specific hedge fund's (Helios 2xL) performance in comparison to the Swedish hedge fund index (HFXS).

## **2 Methodology**

### **2.1 Scientific approach**

According to Aaker (1986) the choice of research method determines the way data will be gathered and it can be divided into three categories, descriptive, causal and exploratory. This study's purpose is to make a performance comparison by looking at a hedge fund with three variables, multi strategy, leverage and off shore registration in comparison with the Sweden hedge fund index.

This thesis has a descriptive approach and this means that we wanted to describe and reveal particular characteristics and patterns in the three variables, a multi strategy fund with leverage and abroad registration. According to many scholars such as Gill and Johansson (1997) and Merriam (2002), the best tool to use when the researcher wants to describe and address systematical phenomena and reveal different patterns or trends that would otherwise go unnoticed is a descriptive approach. Since this thesis is a case study also based on two interviews that focus on if there is a relationship between the specific hedge fund's performance when possessing the three variables mentioned and comparing with an index. This thesis also has a causal approach. Denzin and Lincoln (1994) describe a causal approach as finding the consequences a certain variable has on another variable, or why certain outcomes are acquired. This approach often requires more profound data in order to retrieve information on the subject. The last category is an explorative method and Lekvall (2001) says that it is often used in studies where there is an absence of any prior knowledge or very little knowledge on the researched topic. Since there is a lot of research and theories within our subject an explorative approach was not used in this study.

#### **2.1.1 Induction, Deduction and Abduction**

An abductive approach was used in this thesis, which can be seen as a complement to the inductive and deductive approach because both theoretical and empirical inputs are valid. The task of the abductive approach is to capture the logic that is revealed on the practical level. Then the researcher can best seize the opportunity while trying to understand the reality (Eriksson, 1992).

The theoretical findings have been in the form of already established theories such as the classical work of Nobel Prize Laureate Harry Markowitz (1952), the inventor of portfolio theory. As for the empirical findings, they are based on one interview with the target company in question as well as one telephone based interview with the company providing the index.

Using an abductive approach implies that it is based on empirical facts but does not reject theoretical ones. Abduction is a combination of two different approaches, inductive and deductive. The inductive approach means that the research is to describe the reality through empirical testing and from the conclusions, form a theory. Where the deductive approach does the opposite and uses available literature and theories in the field to draw conclusions (Denzin & Lincoln, 1994). Through using a combination of both the inductive- and deductive approach we get an abductive approach, where the study's empirical facts such as multi strategy, leverage and abroad registration are examined. Conclusively the results are compared to the theories to analyze if they are valid for the research area, a specific hedge fund with the three variables.

## **2.2 Research method**

### **2.2.1 Implementation**

Research can be conducted in different ways and according to Patel and Tebelius (1987) two main ways are either in the form of a survey or a case study.

The basic idea behind survey methodology is to measure variables by asking questions and then to examine relationships among the variables. Bell (2000) states that surveys answers questions like what, where, how and when, however it has difficulties in answering questions like why.

Case study methodology excels at bringing one to an understanding of a complex issue or object and can extend experience or add strength to what is already known through previous research. Case studies emphasize detailed contextual analysis of a limited number of events or conditions and their relationships. (Merriam, 2002) A case study is the most appropriate mean conducting our research since currently there is only one actor in the Swedish hedge fund market that offers a multi strategy fund with leverage. In addition, there has not been a previous case study focusing on a specific funds implemented certain strategies regarding the Swedish hedge fund market and thus, we detected a positive response from the hedge fund community. Moreover it is proposed that case studies are a mean to investigate empirical subjects by following a set of predetermined procedures (Yin, 1994). To be more specific, case study research is a strategy that is preferred when question like “when” and “how” motivate the research process where the goal is to observe a real-life context. Also, case studies are a useful tool when facilitating the means to put forward solutions through using theories and models (Gummesson, 1988).

We felt that a case study methodology would be the most appropriate for us since we wanted to see how a specific hedge fund with the three variables described above reacts in comparison to other hedge funds. A case study allowed us to focus on our research subject and gather multiple sources of empirical evidence. Thus, take advantage of existing theories as a source of knowledge and further as a means to guide the empirical data collection and analysis.

### **2.2.2 Case study design**

There are different types of case studies. Literature argues that different types of case studies can be used in order to collect empirical data, such as single- and multiple case study designs. Our research only required a single case study, because it allowed us to confirm, challenge or extend the theory as Yin (1994) eloquently describes it. Also this study aimed to look at the performance of one specific hedge fund with the three variables in comparison to the Swedish hedge fund index, it was important to explore existing theories on the subject or whether alternative explanations would become more relevant. Since the research object consisted of one entity the single case design was therefore legitimate.

## **2.3 Data Collection**

### **2.3.1 Primary and secondary data collection**

This study involves primary data consisting of indices, personal- and telephone interviews conducted with Brummer & Partners and Harcourt Investment Consulting (HIC) in corporation with Scandinavian Information Exchange (SIX). “If the researcher has collected the data for the purpose of the study it is seen as primary data. Secondary data is data that has been collected by others and is not for the purpose of the immediate study” (Andersen, 1998, p. 150). The secondary data was primarily gathered from books, articles, dissertations and prior studies concerning hedge funds, leverage, offshore registration and investment strategies. The general problem with using secondary data is that it is often produced for a purpose other than what the present study is focusing on.

### **2.3.2 Data**

Given the thesis purpose, the use of both a quantitative and qualitative method was applicable to our case study. Holme and Solvang (1986) and Anderson (1998) supports our research method mentioning that both the quantitative and qualitative method can be used as a combination between them when conducting research to make the investigation perform better. Since the case study is focusing on two actors being one of a kind for our thesis subject,

meaning one has the multi strategy and leverage concept with abroad registration, and the other being the only hedge fund index provider in Sweden. The qualitative empirical data has complemented the quantitative data collection by giving a wider understanding to the results that arise. According to Denzin and Lincoln (1994) this methodology is called triangulation and can involve a researcher to combine both quantitative and qualitative data. In our case we believe to have conducted a more reliable investigation since we combined the qualitative information gathered from our interviews concerning the three variables with our quantitative data regarding performance measures.

### **2.3.3 Interviews**

Our qualitative approach was conducted by performing two types of interviews, one prearranged interview with the target company Brummer & Partners and another telephone interview with Harcourt Investment Consulting (HIC) in corporation with Scandinavian Information Exchange (SIX), the company that provides the only index concerning the Swedish hedge fund market. The word qualitative implies that process and meaning are not rigorously examined, or measured (if measured at all), in terms of quantity, amount, intensity, or frequency (Denzin & Lincoln, 1994). The research data interprets information based on people and information sources that are being examined (Merriam, 1987).

The main interview was conducted with Filip Borgeström, working at Investor Relations at Brummer & Partners head office in Stockholm, Sweden, 25<sup>th</sup> November 2005. Mr. Borgeström's working tasks consists of providing potential investors with information on Brummer & Partners variety of hedge funds. The interview was documented through a recording device and lasted for approximately 2 hours.

We applied a semi-structured interview covering a specific list of questions categorized into four main topics<sup>6</sup> (general, multi strategy, leverage, and legislation), which were presented to the interviewee in advance. In addition to the outlined questions there were some corollary questions concerning topics two and three, which were asked and answered during the interview. A semi-structured interview involves a fairly open framework, which starts with more general questions or a specific topic and thus allow for a focused, conversational communication (Denzin & Lincoln, 1994). An advantage with personal interviews is that they

---

<sup>6</sup> See Appendix 2.

are very flexible, which enables the interviewers to ask follow-up questions and they also get the opportunity to explain any misunderstandings to the interviewees (Kvale, 1997).

The second interview was with Harcourt Investment Consulting's associate Carl Kuylenstierna. A telephone interview was conducted with Mr. Kuylenstierna in December 2<sup>nd</sup> 2005 mainly due to his hectic and busy schedule but also because of the timeframe of this study, which limited us to meet with him. Moreover due to the sort of questions we deemed it was adequate with a telephone interview. In accordance with Dahmström (2005) who state that a telephone interview should be held brief and the question not to complex since then the chances for the respondent to loose interest and abort the interview are slim, we asked fairly simple and short questions. The interview was structured in the sense that we had made five specific questions<sup>7</sup> for him to answer. The interview was performed on speakerphone giving us the ability to record Mr.Kuylenstierna answers, and it took approximately 15 minutes.

After the interview information was thoroughly analyzed and if any question arouse we contacted either interviewee again by email or telephone.

#### **2.3.4 Performance Measurement**

We have chosen to measure the performance of Helios 2xL by using computed pro forma statements and comparing it with an index within the industry, the HFXS index. The reason for this is that currently there exists only one index in the Swedish hedge fund market. We used three measurements, return, standard deviation and the Sharpe ratio. Firstly, return is a very common way of comparing investments since it centers on what the investments yield over a period. Secondly, standard deviation gives us how much the return varies thru the average outcome and thus becoming an indication of the risk level. Thirdly, the Sharp ratio is a figure for the excess return per unit of risk. There are however, a number of different measurements such as the Modified Sharpe that makes use of modified value at risk (MVaR) instead of normal standard deviation as the denominator<sup>8</sup>. These could have also been used but we have focused on the three previously mentioned measurements since they are most commonly used in the industry today. It is also consistent with what, Ackermann, McEnally & Ravenscraft (1999), Edwards and Caglayan (2001), Ineichen (2003) and Temple (2001) claim, that the Sharpe ratio being the most used tool to measure a hedge funds performance.

---

<sup>7</sup> See Appendix 3

<sup>8</sup> See Chapter 3



Moreover, Gaber, Gregoriou and Kelting (2004) also state that managers still use the regular Sharpe even though they are aware of the modified Sharpe and various other measures being better. Therefore we find it to be an adequate measurement tool for our performance study.

### **2.3.5 Choice of Period**

Since Helios 2xL was first created in January 1<sup>st</sup> 2005, we felt that basing the performance comparison on such a short history was not adequate especially since during the autumn of 2005 the Swedish stock market has outperformed many of its worldwide counterparts. As a result this would have given us a skewed data estimate for our study. Therefore we decided to use historical figures when measuring the performance for Helios 2xL that was supplied by the target company Brummer & Partners before the interview. Hence a “pro forma” statement was used. A “pro forma” statement is described by Merriam-Webster’s dictionary as provided in advance to prescribe form or describe an item. In our case it is used to describe the past of a specific fund. In the market it is a commonly used mean for calculating historical figures (F. Borgeström, personal communication 2005-11-25)

The pro forma is based on historical information of Helios<sup>9</sup>, which is the original version of the fund and it started in April 1<sup>st</sup> 2002 therefore the period for the performance measure is between April 1<sup>st</sup> 2002 and November 30<sup>th</sup> 2005.

In the beginning of this period the markets worldwide were in a downspin. During 2002 and 2003 Sweden had a sharp decrease in the stock market and many private investors saw their savings diminish. In a climate like this hedge funds that promise an absolute return regardless of a bullish or bearish market were a tempting investment for many investors, and the hedge fund industry grew both internationally and in Sweden. In 2004 and 2005 the Swedish stock market recovered and increase by more than 30 percent. The time period April 1<sup>st</sup> 2002 and November 30<sup>th</sup> 2005 spans over both a recession and an economic upswing in Sweden. We feel that this time period gives us an adequate picture of the development of the hedge fund industry. If a longer period would have been chosen e.g. 10 years, the Swedish hedge fund industry would almost have been non existent and not given us a great deal of data to compare with.

---

<sup>9</sup> See Appendix 4: Helios vs. Helios 2xL development

### 2.3.6 Pro Forma

The pro forma is based on historical information of Helios, which is the exact same fund as Helios 2xL except that it does not make usage of the strategy leverage. Due to Helios 2xL being the same fund, the pro forma is constructed based on the outcome of Helios through the years thus adding the leverage exposure to the calculation formula. To simplify, Helios 2xL's pro forma for a given month would be achieved by doing the following.

Formula:  $Helios\ performance * 2 - Cost\ of\ financing = Helios\ 2xL's\ performance$

Source: Brummer & Partners, 2005

Cost of financing:  $STIBOR\ 90\ days + spread(140\ basis\ points\ on\ a\ year\ basis)$

Source: Brummer & Partners, 2005

Since Helios started in April 1<sup>st</sup> 2002, it was possible through simulations to use performance figures from the specific period between April 1<sup>st</sup> 2002 and October 31<sup>st</sup> 2005. The motive behind choosing historical information from April 1<sup>st</sup> 2002 is because we felt that figures from Helios 2xL's upcoming in January 1<sup>st</sup> 2005 were not sufficient for the thesis's purpose and would have given us an inadequate picture of the performance.

### 2.3.7 Index

In our research we also found it relevant to estimate the number of active hedge funds in the Swedish market, so that a relation to the amount of funds included in the index, representing the Swedish hedge fund market could be established. When we contacted FI they provided us with a list comprised of about 300 entities called "special fonder" which among many kinds of investment vehicles includes hedge funds. The reason for this as mentioned above is that FI does not have a definition of what a hedge fund is. Therefore, we examined three different major databases; Avanza, Privata Affärer and Morningstar<sup>10</sup>. Most of these contain a large number of hedge fund but with different amount of information and so we had to cross check all the hedge fund listed and choose the ones that complied with our definition of a hedge fund<sup>11</sup>. We came up with 51 different hedge funds. Although we do not use these figures actively in the thesis we counted them to satisfy both the readers and our own curiosity, to provide us with a clearer picture of the Swedish hedge fund industry.

---

<sup>10</sup> <http://www.avanza.se>, <http://www.morningstar.se>, <http://www.privataafferer.se>

<sup>11</sup> Absolute returns, incentive fees and registered at FI in Sweden, for further details see Chapter 1

With any index there are certain pitfalls a researcher must look out for. Survivorship bias occurs when the index solely represents funds that have remained in the database over time. These databases are not representative of failed funds that were never included. In the mutual fund literature, survivorship bias overestimates returns in the range of 0.5 to 1.4 percent a year (Brown and Goetzman 1995; Carhart 1997). In HFXS case, the index has accounted for all hedge funds past or presently active, so we see no occurrence of survivor bias.

Selection bias arises from the different inclusion criteria among the varied database vendors and the voluntary reporting of returns. A fund manager who accomplished high returns and is searching for new investors might be more inclined to submit its returns to a database than fund managers with inferior returns. We acknowledge that this might be the case for HFXS where we have a total of 51 funds in Sweden but the index is only based on 30 due to HFXS criteria's. Most hedge funds that are not in the index do not fulfill the capital or life length criteria. HFXS states however, that when newer hedge funds fulfill the criteria they are automatically included in the upcoming months when calculating the index.

### **2.3.8 The HFXS index**

Hedge Fund Index Sweden (HFXS) is a collaboration between SIX and HIC. It is a specific newly launched hedge fund index based on only the Swedish hedge fund industry and currently it is the only hedge fund index in Sweden, therefore it was deemed appropriate to use as a measurement tool in order to fulfill the thesis's purpose. Even though the index was launched in 2005 the figures further back in time are based on actual returns from hedge funds existing during that time.

The index consists of 30 Swedish hedge funds registered at Finansinspektionen (FI) in Sweden, and the case study focuses on Helios 2xL, which is an offshore fund. SIX and HIC's rule work has constructed certain criteria's for the included hedge funds:

1. The fund must be registered as a "special fond" at FI.
2. The fund must be defined as a hedge fund by Harcourt.
3. The fund must have managed capital exceeding SEK 50 million.
4. The fund must have reported returns with at least 6 months history.

In point two HIC's definition of a hedge fund is as follows:

“First and foremost the fund’s management has to be aimed at providing an absolute return, e.g. not a relative one compared to an index. The fund must also be able to show that they can and want to actively take positions on all kinds of markets. Now e.g. most hedge funds have almost only long positions but if the market would change they should have more short” (C. Kuylenstierna, personal communication, 2005-12-02)

If we compared the statement above to our own definition of hedge funds<sup>12</sup> we find that we have the same criteria. However, point two is somewhat similar to our definition in the sense concerning absolute returns although we do not demand the fund to show their active management. Neither do we take the amount of capital nor the life length of the hedge funds in to account. We do however stress the usage of incentive fees, which is not mentioned in HIC’s criteria’s.

According to Lhabitant (2003) a predefined set of criteria’s is used as a method to filter the mass of hedge funds to retain only some of them in the final index. Moreover he also mentions that examples of such criteria’s can be in the form of minimum size of assets, a minimum track record, a performance that is audited and a minimum redemption portfolio.

### 2.3.9 HFXS index equally weighted

The HFXS has two ways of measuring index performance. The first measure is equally weighted (HFXSew), which means that the percentage of the weight is equal to a divided number of funds. More simplified is that when constructing the index one starts with the percentage in returns from the respective funds, in that way all the funds have equal influence on the index. The purpose of this index version is to present a neutral picture of the development in Swedish hedge funds. In technical terms, using the index population’s monthly average return, multiplied with the previous month’s index value then calculating the equally weighted index. Index HFXSew as follows:

$$\left(\sum(R_t) / A\right) * Index_{t-1}$$

- Index HFXSew = Index value at end of period t
- Rt = Return per fund (considering possible dividends) during period t
- A = Number of funds in the index population
- Index<sub>t-1</sub> = Index value at the end of period t-1

---

<sup>12</sup> See Chapter 1.1: Defining hedge funds

(Source: HFXS “regelverk”)

### 2.3.10 HFXS index asset weighted

The other measurement is asset weighted (HFXSaw), including each fund’s individual weight in proportion to its total value in the index. This means that the size of each fund respectively is taken into consideration when calculating the index, through using the weight of each fund’s return with its size. Therefore a fund that has a large proportion of the total hedge fund industry will be in favour in the asset weighted index. The use of this index is to reflect how the total capital invested in Swedish hedge funds has evolved.

When computing this index’s value the index population’s monthly average return is adjusted with respective index fund’s weight, and then multiplied with the previous month’s index value. Index HFXSaw as follows:

$$\left(\sum(R_t * W_f)\right) / A * Index_{t-1}$$

Index HFXSaw = Index value at end of period t

Rt = Return per fund (considering possible dividends) during period t

Wf = Respective fund’s weight based on its size vis-à-vis fund population

Index<sub>t-1</sub> = Index value at end of period t-1

(Source: HFXS “regelverk”)

### 2.3.11 Choice of index

In the research conducted for this thesis we used the HFXS equally weighted index (HFXSew) as a comparison index. The HFXS index<sup>13</sup> consists of 30 hedge funds and the total amount of capital amounts to around SEK 60 billion (C. Kuylenstierna, personal communication 2005-12-02). As a safety precaution for our research we found it better to use the HFXS index when doing the comparisons with Helios 2xL. The reason for this is that as mentioned above the purpose is to compare how a fund containing our previously defined three variables performs in comparison to other hedge fund registered in Sweden regardless of their strategy. Now, if the index has certain funds influencing the performance of the particular index due to their effective size in capital they would have also overshadowed the remaining funds in the index with their choices of strategies. This is not what we wanted to achieve therefore the equally weighted index was used. Another observation that made us

---

<sup>13</sup> Throughout the thesis we refer to the equally weighted HFXS index as the HFXS index

choose the equally weighted index was that a percentage in difference between the two index versions could result in several of millions SEK in capital differences, which would have brought us inaccurate figures for our study.

### **2.3.12 Index comparisons**

By comparing the performance of Helios 2xL with the HFXS index a part of the thesis purpose was fulfilled. However we felt that in order to facilitate the reader to get a more comprehensive overview of the overall performance of Helios 2xL in addition to the focus put on HFXS, a comparison with the market in general would be beneficiary.

We decided to include the OMXS\_PI index as a reflection of the overall Swedish market. The reason for using the OMXS\_PI is that we wanted to capture the overall picture of the development on the Swedish stock exchange. This would not have been achievable if we would have chosen an index comprised of the 30 largest companies listed on the A-listan. So therefore we chose the OMXS\_PI since it includes over 200 companies listed on both the A- and O-listan. The index provided us with the daily average buy price for the time period in question, April 1<sup>st</sup> 2002 to October 31<sup>st</sup> 2005. We then estimated the monthly figures to come up with a comparable index to our main research object.

Furthermore this report does not compare the single hedge funds performance with well-known benchmark hedge fund indices i.e. Hedge Fund Research Funds of Funds index since it is unfair and irrelevant for this study. Those indices can share a large difference in development between different industries and are very wide in their measurements. Moreover, they compare vast numbers of internationally active hedge fund and since most hedge funds are situated in the United States of America these indices can have a measurement that makes the 30 funds included in the HFXS index to be insignificant, then not having any relevance. This study only focuses on the Swedish hedge fund population and we believe that the HFXS index is the correct tool for a comparison in a study of this nature.

### **2.3.13 Calculations**

The specifics of the comparisons between Helios 2xL's pro forma performance and the equally weighted HFXS index, is broken down into calculations on return, standard deviation and Sharpe ratio. To get an idea of the change over time we chose to calculate the return for both our research subject, HFXS and the market for every month starting from April 1<sup>st</sup> 2002 to November 30<sup>th</sup> 2005, adding up to 44 months. The return aspect is seen as effective if it is positive, and is then put into an index perspective to give an easy overview. The average

return per month and year was also determined. From there the calculations continued to the standard deviation, which was measured for each year, and the period as a whole. Now we only needed to calculate the risk free rate in order to be able to approximate the Sharpe ratio. We determined to use the 90-day SSVX90<sup>14</sup> since this is the practice in the industry (C. Kuylenstierna, personal communication 2005-12-02). Calculating the Sharpe was done accordingly to well-established theories that are accounted for in the theory chapter. When estimating the Sharpe for one specific year we used the standard deviation and the risk free rate for that specific year. The Nobel Prize Laureate himself William Sharpe claims in his publications, that the higher the Sharpe ratio is, the better the manager is in generating return while reducing the risk (Sharpe, 1966).

### **2.3.14 Presentation**

Due to great width of empirical findings and interview material the analysis chapter is combined with the empirical findings. This was also done in order to facilitate for the reader, reducing time spent going back and forth when reading.

## **2.4 Reliability and validity**

### **2.4.1 Reliability**

Reliability and validity are central issues when discussing the credibility of a study. Reliability has to do with the accuracy and precision of a measurement and it is an indication of the consistency of the study. High reliability implies that another study performed under identical or similar conditions to the first study, would give the same results (Neuman, 2000). To achieve this it is crucial to choose accurate research objects when measuring. When conducting interviews matters like who to select and are the questions for the research subject relevant etcetera appears. It is also up to the researcher to not distort the answers and theories that are being implemented, since this would preclude the thesis's reproduction ability (Svenning, 2000). In this respect, our thesis has a question structure that focuses on the three different categories in the interview with Brummer & Partners; multi strategy, leverage and legislation, therefore we see them as relevant for the case study. Moreover the answers that were given are not distorted and it is clearly shown what theories are included regarding the subject, hence the reliability is high. Our second interview with Harcourt Investment

---

<sup>14</sup> SSVX90 describes the change in value of the underlying asset of the Swedish 90 day treasury bills

Consulting was conducted over the telephone and when considering the short amount of time the interview took and the rather simple nature of the questions we deem that the interview has adequate reliability. Although, we do not know if Mr. Kuylenstierna was stressed at time of our telephone call and answered our question quickly. Perhaps a slightly higher reliability could have been achieved if we would have sent the questions before hand or had a personal meeting with Mr. Kuylenstierna.

However, what should be mentioned is that the pro forma statement for Helios 2xL was provided to us by Brummer & Partners, as well as the HFXS index given to us by Harcourt Investment Consulting. This means that even if the historical performance of the data is public information there is still a possibility that it could have been biased. Therefore the reliability can have been affected in this sense even though this type of information is available to the public.

#### **2.4.2 Validity**

Validity concerns what is measured and if you measure what you intend to measure. Furthermore it also describes the fit between reality and what is actually measured in the study. Validity is often separated into internal and external validity (Lundhal and Skärvad, 1992; Arbonor and Bjerke, 1977). Internal validity is when the measurement tool actually measures what is assigned to measure. Whereas external validity is the extent to which the results of an investigation (i.e. interviews) can be applied to circumstances in the specific research setting where a particular study was carried out.

By ensuring the internal validity we have applied well-established theoretical propositions to the empirical research data collection. Meaning that the theoretical factors surrounding the three variables, multi strategy, leverage and legislation have been used to determine their impact on the specific case study. In addition, in the analysis of the research findings we protected the internal validity by comparing these theoretical propositions against the empirical findings and making inferences to explain the impact of them. As mentioned above external validity is to what extent the results of the interviews in this case can be applied to things in the research area. To apply this to our thesis, we can say that if the interviewee would not have answered correctly on the specific questions asked during the interviews this investigation would have had bad external validity. This was however not the case.

Furthermore, the location of the interview with Mr. Borgeström resulted in a calm environment without any interruptions, which enabled us to get the interviewee's full



attention. However in our second interview we did not provide Mr.Kuylenstierna with the questions in advance and it is possible that this could have affected the quality of the answers since he did not have time to prepare.

The choice of risk adjusted return, standard deviation and Sharpe ratio are the most accepted and used measure techniques in the hedge fund industry even though there are some academics such as Gregoriou and Gueyie (2003), Kat (2003) who have a different view. Nevertheless, in consideration to the well-known and reliable theories from authors as Ackermann et al. (1999), Edwards and Caglayan (2001), Ineichen (2003) and Temple (2001) we find the study's validity to be high in this respect.

A Bull's-Eye = A Perfect Measure

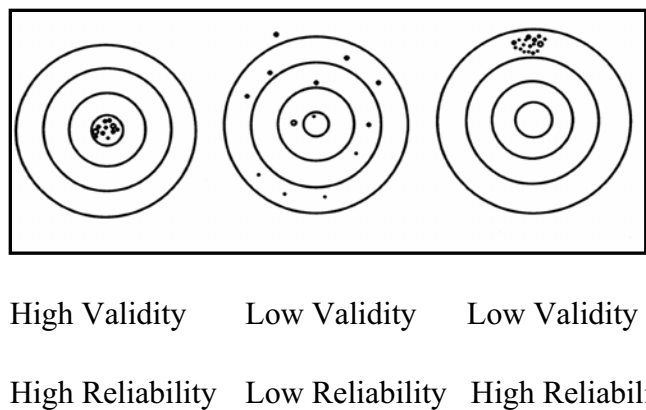


Figure 2.1: Illustration of relationship between reliability and validity (Neuman, 2000)

In a study it is more important to have an accurate validity than a good reliability. It does not matter if a study has 100 percent reliability if it does not measure what we want it to measure (Neuman, 2000). We feel that our research measures what it was set out to do and fulfills its purpose. However, we are somewhat critical to the reliability of the study since most of the data was provided by Brummer & Partners. We have tried to be critical when analyzing the given data so that the study would be as objective as possible. Although, it is fairly difficult to be critical to information given by the host company since it is complicated to gather the information elsewhere, this is one of the downside of conducting a case study.

## **3 Theory**

### **3.1 Previous Hedge Fund Research**

Hedge funds have moved out of an alternative realm into the mainstream as an acceptable investment vehicle. Also the LTCM crisis in the late 1990s gives researchers a clear incentive to conduct research concerning hedge funds. Although surprisingly not that much research has been carried out maybe due to the fact that the hedge fund industry has very limited regulatory oversight, implying that they are not obliged to make public reports of their asset holdings or performance.

According to (Do, Faff and Wickramanayake, 2005) hedge fund research can be classified into three main categories: hedge fund strategies, returns on hedge funds and hedge fund performance. Their research resulted in a perfect timing model with perfect forecasting ability providing returns three times higher than those of average market indices, this also led them to acknowledge that hedge funds also have complex management strategies and high performance incentives, all affecting hedge funds returns. As a result, hedge fund returns do not approximate a normal distribution (Do et al., 2005).

Brown and Goetzman (2003) find in their paper that there are at least eight different styles of strategies for hedge funds. They are different combinations of the following: U.S equity hedge, event driven, global macro, pure emerging market, non U.S equity hedge, pure property, pure leveraged currency, others and non directional/relative values. Likewise Lhabitant (2002) and Ineichen (2003) among others have analyzed and accounted for the different strategies employed by hedge funds. They mention many strategies used among the hedge fund managers such as long/short equity, arbitrage, relative value strategies, directional strategies (global macro, emerging), event driven strategies (mergers and acquisitions).

Hedge funds have very strong performance incentives ranging from management fees of 1 to 2 percent (Brown, Goetzmann and Ibbotson, 1999; Ineichen, 2003) and incentive fees between 5 to 25 percent which use an absolute benchmark e.g. Libor plus premium, in contrast to mutual funds which use relative benchmarks (Liang, 1999). Studies conduct by Liang (1999), Ackermann et al.(1999), Ineichen (2002) and also Edwards and Caglayan (2001) all have found that there is a strong positive correlation between incentive fees and hedge fund performance. Furthermore Liang (1999) and Ackerman et al. (1999) also found that hedge funds usually outperform mutual funds and market indexes.

Based on non-normality characteristics of hedge fund returns the conventional methods of measuring performance such as the Sharpe ratio are no longer appropriate as argued by Amin and Kat (2003). Further, Gregoriou and Gueyie (2003) proposed a modified Sharpe ratio that takes into account both mean, standard deviation but also skewness and excess kurtosis and claimed it to be a superior hedge fund measurement tool.

The theory part will be divided into three parts; relevant theories, strategies and legislation. In the first part we will account for portfolio theory, efficient markets, asymmetric information, CAPM, standard deviation, Sharpe ratio, and absolute returns to give us a better understanding of how to measure performance of an investment.

In the second portion the paper will be limited to only two hedge fund strategies, namely the multi strategy concept and leverage both being the focal point in the study.

The last part will deal with the ongoing debate of the Swedish hedge fund legislation. Where there is a struggle between authorities and hedge funds' views on relevant information that needs to be accessible to investors

### **3.1.1 Risk**

When it comes to hedge funds estimating and controlling risk it becomes a significant factor (Ineichen, 2003). The total risk of any individual asset can be divided into two parts, them being systematic and unsystematic risk. The systematic risk measures how any asset covaries with the economy, as for the unsystematic risk that varies independent of the economy. This implies that an investor can diversify away the risk that varies independent of the economy but not the risk of the economy as a whole (Clarke, de Silva and Wander, 2002).

Ineichen (2003) defines it as systematic- and nonsystematic risk, and he believes that the former can be hedged away to a cost and the latter to be avoided through diversification.

### **3.1.2 Portfolio theory**

Nobel Prize Laureate Harry Markowitz divided the process or selection of a portfolio into two stages. Where the first stage begins with observation and experience that then leaves beliefs about the available securities future performances. To then embark the second stage, it starts off with relevant beliefs about the future performances to then eventually end up with the choice of a portfolio. "The rule states that the investor does (or should) diversify his funds among all those securities which give maximum expected return (Markowitz, 1952 p. 79)". This rule assumes that there is a portfolio, which generates both maximum expected return

along with a minimum variance, it being the risk. However it is seen to exist a rate at which the investor can gain an expected return by taking on a certain amount of variance, and also having the option to reduce the variance by giving up a certain amount of expected return. Although this is outlined as a clear description of an investor's ability to avoid variance, diversification of a portfolio cannot eliminate all variance. The systematic risk then being the market risk always exists (Markowitz, 1952).

### **3.1.3 Efficient Market Hypothesis**

One of the cornerstones of modern portfolio theory is the theory of efficient capital markets (EMH) which was introduced by Fama's article Random Walks in Stock Market Prices (1965). According to Fama, an efficient market is when the price on the market fully reflects all the available information. Moreover, EMH states that there are three different forms of market efficiency.

Weak form: The market is weakly efficient if it fully incorporates the information in asset prices.

Semistrong form: The market is semistrong efficient if the asset prices fully mirror all publicly available information, including for instance information on accounting statements but also historical price information.

Strong form: The market is strong form when prices reflect all relevant information both public and private.

Several of the different investment strategies that hedge funds employ are founded upon the fact that markets are not fully efficient at all times and thus hedge funds try to predict when markets are inefficient and stocks over- and undervalued (Jones, 1949).

#### **3.1.3.1 Asymmetrical information**

Another related topic concerning investments is if there is any presence of any asymmetric information involved in a deal. The idea of asymmetric information was developed by Akerlof (1970) and considers the situation when one part knows more than the other in a transaction. If this is the case then the person who possesses the knowledge can use it to his or her advantage and thus be in a better bargaining position. If we would know how the stock market would act tomorrow we would buy the shares that would increase the most today.

### 3.1.4 CAPM

Along with the EMH the capital asset pricing model (CAPM), which was published by yet another Nobel Prize Laureate William Sharpe in 1964 is a fundamental theory that hedge funds use to value stocks. The idea behind the CAPM is to calculate the cost of equity, stating that the cost of equity capital is the risk-free rate of return plus a risk adjustment that is seen to be the return on the market of a product, multiplied by the beta risk measure of the individual firm (Sharpe, 1964). Due to the rise of large financial institutions worldwide the world is moving towards a globally integrated capital market. Meaning that in an integrated capital market, investments are made all over and the systematic risk is then measured relative to a world market index (Copeland et al., 2005).

### 3.1.5 Standard deviation

Standard deviation is a measure that describes how much the return varies thru the average outcome. It gives an indication on the risk level where a high standard deviation means large variations, therefore high risk. The study's specific data is based on monthly returns, meaning that the standard deviation is computed on a chosen period. To extract the standard deviation one first has to calculate the variance, then the taking the square root of the variance we get the standard deviation. (Elton, Gruber, Brown & Goetzmann, 2003)

$$\text{Varians} = \sigma_i^2 = \sum_{i=1}^n \left( R_{it} - \bar{R}_i \right)^2 / n$$

Where:

$\sigma_i^2$  = the investments variance

$R_{it}$  = the investments return at time t

$\bar{R}_i$  = the investments average return for entire period T

$n$  = number of observation

$$\text{Standard deviation} = \sigma = \sqrt{\sigma_i^2}$$

Where:

$\sigma$  = standard deviation

### 3.1.6 Sharpe Ratio

A widely used measure of performance is the Sharpe ratio, which was introduced by Nobel Prize Laureate in Economics William Sharpe in his work "Mutual Fund

Performance“ (Sharpe, 1966). He describes the performance measure as a relationship between the risk and the risk adjusted return. The ratio is calculated as the average return during the measured period and the return standard deviation of the hedge fund or hedge funds in question. Meaning that it measures the average excess return per unit of risk under the measured period. The Sharpe ratio is used to measure the funds ability to provide returns in excess of the risk-free rate of return. In other words if we look at the T-bill return for the risk free return, the Sharpe ratio measures a funds ability to beat the T-bill return. Calculated like the following:

$$\text{Sharpe ratio} = \frac{r_p - r_f}{\sigma_i}$$

Where:

$r_p$  = average expected return on hedge fund during measured period

$r_f$  = average risk free rate, three month T-bill, for an investment during measured period

$\sigma_i$  = the investments standard deviation during measured period

In contrast to the standard Sharpe ratio, scholars such as Kat (2003) and Gregoriou and Gueyie (2003) argue that the regular Sharpe ratio can be misleading when evaluating multi strategy hedge funds due to two factors. First, survivorship bias and autocorrelation will cause investors to overestimate the mean and underestimate the standard deviation. Second, the Sharpe ratio does not take account of the negative skewness and excess kurtosis observed in hedge fund returns (Kat, 2003). Therefore Gregoriou & Gueyie proposed a modified Sharpe ratio that makes use of a modified value at risk (MVaR) instead of normal standard deviation as the denominator (see formula below). No assumptions regarding the underlying distribution are allowed to be made when computing the MVaR. Therefore the MVaR is derived analytically (Favre & Galeano, 2002) meaning that, the MVaR is derived with the parameters characterizing the distribution of returns. Favre and Galeano (2002) then use the Cornish-Fisher expansion<sup>15</sup> to compute MVaR analytically. Thus the standard deviation becomes adjusted with skewness and kurtosis of the distribution. Gregoriou and Gueyie (2003) found

---

<sup>15</sup> For further reading see: Cornish, E., Fisher, R. (1937). Moments and Cumulants in the Specification of Distribution, *Review of International Statistical Institute*, p. 307-320.

the traditional Sharpe ratio to be higher than the modified when comparing multi strategy funds.

$$\text{Modified Sharpe ratio} = \frac{r_p - r_f}{MVar}$$

$$\text{With MVaR: } W \left[ \mu - \left\{ z_\pi + \frac{1}{6} (z_\pi^2 - 1) S + \frac{1}{24} (z_\pi^3 - 3z_\pi) K - \frac{1}{36} (2z_\pi^3 - 5z_\pi) S^2 \right\} \sigma_i \right]$$

Where:

- $r_p$  = average expected return on hedge fund during measured period
- $r_f$  = average risk free rate, three month T-bill, for an investment during measured period
- $\sigma_i$  = the investments standard deviation measured period
- $Z_\pi$  = is the critical value for probability  $(1-\alpha)$  -1,96 for a 95% probability
- S = skewness
- K = excess kurtosis

### 3.1.7 Absolute returns

The so-called absolute return managers are those within the hedge fund industry, and market observers believed its starting date to be in 1949. In comparison a long/short manager and a long-only manager, the former representing a hedge fund manager and the latter a mutual fund manager have performance differences. Because when markets have only a slightly positive or negative return, it has shown in the past that the long/short managers have outperformed the long-only managers (Ineichen, 2003). This is because the hedge fund managers long/short strategies are hedged in a market that is bearish, that is a market that is deteriorating. However, this automatically means that in a bullish market, that is a strong rising market, the long-only managers perform better since their strategies are favored in that direction, seen as relative return. Hence the expression for long-only managers; a car without brakes, when the market is bearish they tend to lose more than a long/short manager. This means that the absolute return managers return profile is fairly nonlinear, meaning that they are more likely to be asymmetrical to the market compared to a long-only manager whose performance is more likely to be symmetrical. This then being the result of a return that is always positive (Ineichen, 2003).

According to Ellis (1993) hedge funds are seen to have a way to balance their investments opportunities and risk of financial loss then creating an absolute return model. This can be compared to a long-only manager of e.g. a mutual fund, where they define their return objective in relative terms. They aim to win the losers game, which is to beat the market.

## **3.2 Multi strategy funds**

Multi strategy funds, also known as fund of hedge funds, are defined by Lhabitant (2002) and Anderlind et al. (2003) as funds that invest in other funds instead of individual securities. Thus the investor gains exposure to many different strategies and managers, thereby causing diversification in their portfolio while keeping an eye on risk.

Recently the concept of multi strategy funds has been talked a lot about in media and according to Goldman Sachs (2003) Multi strategy funds account for 20-25 percent of the assets in the global hedge fund business. Moreover, today it is the most common way for private investors to invest in hedge funds in Sweden (Bolander, 2003; Palutko-Macéus, 2004; Engzell-Larsson, 2005). Although multi strategy funds may seem to be a new and innovative strategy to invest in, Lhabitant (2002) writes that it is not really a new concept. He further gives an example of Rothschild Capital Management's Leveraged Capital Holdings which started out as a multi strategy fund in 1969.

Of course there are many benefits with using multi strategy funds but also there is a lot of criticism to this particular investment strategy by both scholars and media.

### **3.2.1 Benefits**

In theory, well-managed multi strategy funds can yield a number of benefits for the investor. Below we will describe the most common ones.

### **3.2.2 Risk Diversification**

Diversification is the key argument for using multi strategy funds as already mentioned above. Instead of putting all their eggs in one basket they spread out their investments. By doing so the investor gives up the chance of earning the maximal return when one specific asset goes up but on the other hand if the same asset would decrease in value our investor will not lose as much.

Risk diversion within multi strategy funds can, according to Lhabitant (2002) be done in two ways. The first method, which is also most commonly used, is to simply mix several hedge funds that cover a wide array of strategies, managers, risk factors and markets. The author



further explains that the funds are often chosen based on low historical correlations and that this approach gives the largest risk reduction, since the underlying assets tend to hold few common stocks. The second method is the specialist approach, where the multi strategy fund invests in underlying hedge funds that have somewhat similar strategies and have all performed well. Lhabitant (2002) writes that this aims at avoiding the risk of poor manager selection while still remaining exposed to an investment style. However his conclusion is that funds that used the first method generally performed better.

### **3.2.3 Affordability and Accessibility**

One of the hedge funds trademarks is that the minimum investment requirement is very high thus, limiting investors in their investment decisions. Multi strategy funds pool the resources of several investors together. As a result the multi strategy fund gathers vast capital when investing in the underlying funds and thus can negotiate entrance fees and get more advantageous fees for the its customers (Anderlind et al. 2003). The multi strategy fund also lowers the minimum investment requirement which usually is very high, making hedge fund diversification affordable even for the smallest investor (Lhabitant, 2002 ).

Another trademark of the hedge fund community is that the funds are very restrictive in how to invest in them. If the management feels that they have reached their capacity constraint and do not want to harm their existing investors by sharing the profits with newcomers they can close the hedge fund for new investment (Temple, 2001).

Lhabitant (2002) argues that even though in theory multi strategy funds are said to constitute value proposition by their ability to have long-standing relationships with the underlying fund managers in order to guarantee access to their funds, the reality is somewhat different. Hedge funds do not treat their clients equal (Gaber et al. 2004; Lhabitant, 2002).

“[s]ome funds are effectively closed to any new investors (hard close), whereas others may officially be closed but unofficially accept long-term investors with high commitment (soft close). However, there are so many funds of funds and the size of the requested commitment is so large that they cannot all have access to the “best of breed” of hedge funds.” (Lhabitant, 2002. p 200)

Furthermore Anderlind et al. (2003) suggests that multi strategy funds can quite frequently negotiate a new investment entrance with closed funds when the funds make follow up investments. This makes it possible for investors to through multi strategy funds invest in hedge funds that would otherwise be out of reach.

### **3.3 Criticism**

#### **3.3.1 Fees**

Many scholars such as Weinberg (2003), Johnson (2005), Lhabitant (2002) and Ineichen(2003) claim that the major drawback with multi strategy funds is the cost structure for the investors. An investor has to pay “double layers” of fees. First there are the underlying hedge funds’ fees and second, the multi strategy fund also charges the investor for its services thereof the expression double layer of fees.

According to Ineichen’s (2003) research the most common fee structure among multi strategy funds is a flat fee of one percent on the total invested capital in the fund which is always paid regardless of how the hedge fund develops. Moreover, there is also an incentive fee of 10 percent on the excess return the fund generates, although he also concludes that the incentive fee span varies a lot among different funds.

In addition to the previous mentioned fees some multi strategy funds contain certain kickbacks or retrocession, which are seldom announced. Kickbacks can be in the form of a fee that the broker firm pays back to the multi strategy fund as a token of gratitude for choosing them. Retrocession is a fee sharing agreement, where a portion of the fees charged by the underlying funds are returned to the multi strategy fund or its managers (Lhabitant, 2002; Ineichen, 2003)

Fee structure gives cause for investors to wonder whether the multi strategy fund concept adds value or is it just a clever scheme to extract more money from the investors.

#### **3.3.2 Over diversification**

How many underlying funds should a multi strategy fund contain? Including too many underlying funds in a multi strategy fund tends to enhance the exposure to the market risk since most investment strategies share this source of risk. Accordingly the correlation with traditional asset classes, such as bonds, stocks etc. it increases. This makes the multi strategy fund more likely to follow the market index (Amenc et al. 2004)

On the other hand Amenc et al. (2004) also state that when the number of funds are too few, investors are overexposed to the volatility of single hedge funds. Therefore funds with high standard deviation or other flaws in their organization or investment process must be eliminated to mitigate this risk. There is a clear balance between having too many alternatively too few underlying funds and the optimal quantity has to be found.

Alexander and Dimitriu's (2004) study shows that the most of the diversification benefits are obtained with approximately 30 funds. Whereas, Amenc et al. found in their survey that most funds hold 15-20 underlying funds. They also state that twice as many multi strategy funds are willing to invest in more than 20 underlying funds in contrast to less than 15 underlying funds. Finally Lhabitat (2002, p. 205) concludes our passage on over diversification with the statement that, "Although there is no consensus on the exact threshold value, common sense argues that portfolios of 15 to 25 hedge funds should be sufficient".

### **3.3.3 Lack of control**

Another drawback with the multi strategy fund concept is the lack of control both from an investor's perspective and from manager's point of view. The investor does not have much control over a multi strategy fund, Lhabitant (2002) gives us the following example, an investor who does not approve the presence of a certain type of strategy that the multi strategy fund utilizes is incapable to change the allocation within the fund, short of leaving the fund altogether. Also the managers themselves are in the same boat as to their ability to influence the underlying manager's decisions is also limited to ending the investment

There are also a number of multi strategy funds that are managed by a large hedge fund company, or an agent for a specific fund company. These companies will then include their own hedge funds as underlying assets in the multi strategy fund, giving rise to a less qualified selection of funds for the underlying assets since they have certain incentives to choose certain funds. Over time this can lead to an uneven diversification of the underlying assets where the one who has generated the highest return has the highest allotment. (Anderlind et al. 2003)

Lhabitant (2002) has a somewhat different opinion and states that multi strategy funds that allocate the capital equally among its underlying funds and keep the allocation ratio over time do not really benefit the investor in any way. The investor could always have done this allocation by himself and thus saved the extra fee that the multi strategy funds charge.

## **3.4 Leverage**

"High leverage is the exception rather than the rule" Ineichen (2003, p.46).

Leverage can be seen in different ways, Brigham and Gapenski (1993) defines leverage as the use of debt or preferred stocks. Other views are made in accounting or balance sheet terms where leverage is defined as a ratio of total assets to equity capital. Alternatively the

definition of leverage can be defined in terms of risk, where it then is a measure of economic risk relative to capital (Ineichen, 2003).

To clarify these definitions one could think of equity being the hedge funds liquidity, meaning that the credit institution that provides the leverage holds a part of the hedge funds equity as collateral (Schneeweis et al, 2005). According to Ineichen (2003) this implies that when the hedge fund uses leverage combined with any structured or illiquid position in the market, they become extremely vulnerable if a liquidity shock occurs in the market. The credit institutions will then need a significant amount of the hedge funds equity, which they held as a security for the leverage.

The usage of leverage can be seen as a strategy that hedge funds use in their operations. Leveraging involves borrowing money, and can be used either to increase the size of the hedge funds effective portfolio or in the form of margin purchasing in e.g. future contracts or bonds (which is demonstrated in two different examples below). These are two different strategies that can be extremely lucrative when leverage becomes a part of the strategy. (Schneeweis et al., 2005)

Leverage can then enhance returns when markets are blooming and exacerbate losses when they turn sour (IDD, 2004). The more highly levered the investment is, the more relevant it becomes to ensure that payment flows from that investment are predictable otherwise large losses are possible. That means that leverage then becomes a significant factor in the risk and return aspects of the hedge funds operations (Schneeweis et al., 2005).

### **3.4.1 The usage of leverage**

To in further detail explain how to increase the effective size of a hedge funds portfolio, leverage becomes a factor, or debt as it is called in financial terms Brigham and Gapenski (1993). Therefore an example of a hedge fund taking on additional debt will be provided.

Consider a fund without any debt in their operations and with total equity of 200 000 with the following cash flows (1). As appose to a fund with issued debt of 100 000 that replaces half the amount of total equity, creating a new debt equity ratio. The interest paid on the debt is 10 percent and the cash flows remain the same (2).

1.		2.	
<i>EBIT</i>	40000	<i>EBIT</i>	40000
<i>TAX(40%)</i>	-16000	<i>Interest(10%)</i>	-10000
<i>EAT</i>	24000	<i>EBT</i>	30000
		<i>TAX(40%)</i>	-12000
		<i>EAT</i>	18000
<i>Return on Equity</i> : 24 000/200000=12%		$\Rightarrow$ 18000/100000=18%	

Even though the return became higher, the implications with issuing debt are that the risk will automatically increase. In financial terms the financial risk will increase which immediately affects the common stockholders as they have a stake in the business (Brigham & Gapenski, 1993). The similarity with a hedge fund leveraging up is that technically the systematic risk will increase, therefore having a portfolio of hedge funds is preferred as opposed to a handful of hedge funds (Ineichen, 2004). In other words leverage allows hedge funds to magnify their positions but to a consequence of the risk increasing seemingly (Report of the presidents working group, 1999)

The other way in which leverage can be used as a value enhancement tool is in margin purchasing. This is a somewhat more complicated approach, however sometimes very beneficial if successful (Lenzner, 1998).

A hypothetical example on bonds is provided. Consider a hedge fund that goes long (buys) in large amounts of a 25-year Treasury bond and goes short (sells) an equal amount in a 25-year Treasury bond. Now obviously there is going to be a difference in the value of the two Treasuries, this is the spread. This spread will naturally be extremely small, even as small as five basis points (0, 05 percent). This means that the 24-year, \$ 1000 bond yields 50 cent more per year than the 25-year bond. Profits not seen to be advantages because of the bonds value being so similar. The key here is that the strategy's aim is that the yields will converge, meaning that they would come together and eventually meet. This explains why the lower-yielding bond is sold short and the higher-yielding bond bought. This is called a non-directional bet (Lenzner, 1998). In hopes of the yields converging, the profit would begin if the bond market went down. Therefore, the profit on its shorts is much higher than its losses on its longs. Also if the bond market would go up, the longs would be more profitable than the shorts. On a \$ 1 000,000 trade this would bring a profit of \$ 5000 since the spread was five basis points, hence the name margin purchasing. Here comes the critical part, without leverage this strategy gives scarce returns, but introducing leverage it becomes more

interesting. This notion is also supported by Schneeweis et al. (2005) saying that those strategies with lower volatility generally have higher leverage.

According to Ineichen (2002) this is where hedge funds lever the capital they invest by buying different securities, e.g. bonds on margin and then engaging in collateralized borrowing to enhance the returns.

### **3.4.2 Different amounts of leverage**

Nevertheless, leverage will increase the risk, but the matter of the fact is that the profits can increase tremendously if all is successful and when unsuccessful, cause turmoil. A particular case in hedge fund history was the rise and fall of a hedge fund called Long-Term Capital Management. By its first years the hedge fund performed extremely well and it was due to them applying leverage to their operations. Around 1997 LTCM had been performing perfect and had equity up to the amount of \$ 4.8 billion after very profitable years. It came to a point where LTCM had so much credibility at the credit institutions consisting of banks and insurance companies that provided the leverage, that LTCM were levered 240-1 (Lenzner, 1998). A normal bank is levered 20-1, which means that their balance sheet consists of 5 percent equity capital and 95 percent in debt of total assets (Schneeweis et al., 2005). The hedge fund LTCM had a ratio consisting of equity capital of 0.4167 percent, which means that they had debt that was 99.583 percent of total assets. To get an idea of the amount of leverage LTCM then had by knowing that their equity holdings were at one point \$ 4,8 billion, we find it to have been an astronomical amount almost. One could then imagine the large returns that LTCM retrieved when markets were bullish, by using leverage on the margins. However this notion also has a downside, in August 1998 the Russian economy collapsed which caused devaluations in the Rubel (Edwards, 1999). LTCM was hurt badly in their current positions in the market and banks made margin calls, which means that they collect the collateral they have received from the hedge fund.

This was soon to be a problem for the banks. The implications of LTCM having securities positions all over the world markets with the extreme amounts of leverage could then threaten the entire banking system. A simplification would describe this as, if LTCM were to go bankrupt, their positions would be lost and so would the capital that the banks had borrowed to them. Then creating a trillion dollar hole (deficit) in the international banking system. One wonders why the banks did not sell the collateral effective immediately, since LTCM could not pay up. That is where it became a problem, trying to sell collateral with an estimated

worth of \$ 1 trillion to receive quick cash was not easy. Modern markets have depth, but not that much depth obviously (Lenzner, 1998; Edwards, 1999).

As LTCM's equity was down to \$ 1,5 billion and declining the Federal Reserve stepped in to bail them out. It was arranged by the chairman of the Federal Reserve Alan Greenspan, who organized that several of the involved banks would provide capital along with the FED to securely take over LTCM. It turned out to be successful along with Alan Greenspan implementing new restrictions on hedge funds and their different amounts of leverage in the future. (Lenzner, 1998)

A hedge fund having access to leverage can make them take drastic measures as LTCM did. Since hedge funds are only limited in their use of leverage by the willingness of their creditors to provide such an amount of leverage (Report of the presidents working group, 1999). According to Naik & Uppal (1994) there is a limit on the perfect amount of leverage, it is optimal to start out with a equity position that is initially larger, so that in the future when the hedge fund needs to borrow they have collateral (equity) for it.

As a precaution, the presidents working group on financial markets in the United States of America designed different measures to constrain excessive leverage. Ensuring that this would never happen again in the future, the working group consisting of Department of the Treasury, Federal Reserve System, Securities and Exchange Commission and Commodity Futures Trading Commission made up the following. When it came to hedge funds, more frequent and meaningful information should be made public. Financial institutions should publicly disclose information about their financial exposures to leveraged institutions, then including hedge funds. (Report of the Presidents working group, 1999)

### **3.5 Leverage on multi strategy funds**

One common critic on multi strategy funds is that since the market is unregulated no one really knows the amount of leverage that exists among all the hedge funds. This implies that if a multi strategy fund is highly levered, it is hard to say how much the underlying hedge funds are levered because them being independent institutions (IDD, 2004).

According to Williamson (2004) leverage is a huge risk factor in today's multi strategy fund industry. The main culprits providing the different hedge funds with leverage are several non-American banks. She believes the leverage reaching levels as high as 5-1 or 4-1, which

implies that those hedge funds collectively have up to \$ 100 billion to invest when leverage is implemented.

Various multi strategy fund managers find it interesting that there is a drop in leverage at the hedge fund level and that the amount of leverage used by multi strategy funds is up meaningfully. Even to a certain extent it is believed that managers of multi strategy funds are being somewhat hassled by their high net worth investors, who wants justification in returns for the high fees being charged. The only way to retrieve that in a rather flat market is by adding leverage (Williamson, 2004).

In addition to this some managers believe that multi strategy funds have a positive effect on the market, that they are adding the volatility back to the industry by leveraging. Substance for this theory is that a leveraged multi strategy funds creates a kind of a multiplier effect on the underlying hedge funds leverage. An underlying hedge fund might be levered 3-1, and if a multi strategy fund that is levered 4-1 invests in that particular hedge fund, the total leverage will be 12-1. This implies that the investor is entering a fund not aware of the magnitude of the total risk exposure (IDD, 2004).

## **3.6 Legislation**

### **3.6.1 United States of America**

In the American hedge fund industry it has been known that they are not obligated to pass out any information regarding their investments. It is not until year 2006 that SEC (Securities and Exchange Commission) the equivalent to FI in Sweden has been given the right to revise the bookkeeping as a matter of routine (Lindmark, 2005).

Gaber et al. (2004. p.329) summarizes the American hedge fund market's regulation as;

“Hedge funds possess a great deal of flexibility and, as a result, can use derivative instruments such as short selling, futures and options, while mutual funds cannot. Hedge funds are not regulated like mutual funds or other pooled investment funds by the Investment Company Act of 1940. As illiquid private investment pools, hedge funds limit ownership to a maximum of 499 investors, or do not issue securities to persons other than ‘qualified purchasers’ (principally, high net worth individuals and institutional and professional investors). They have a maximum of 499 investors to avoid the provision of the Securities Exchange Act of 1934. Because hedge funds are usually jurisdictionally bifurcated with the fund being incorporated offshore while the management of the fund is located within the USA and does not offer securities to the public in the USA, they fall outside the regulation of the Securities Act of 1933.”



Gaber et al. (Ibid) further states that approximately 52 percent of the hedge funds in America are offshore investment vehicles, these offshore funds are then subject to the anti-fraud provisions of the federal securities laws for sales of interests made in the USA. Disclosure requirements, if any, vary from offshore jurisdiction to jurisdiction as well as any requirement for audited financial statements. Currently in the United States there is an ongoing debate on whether to have stronger regulations concerning hedge funds. This translates into forcing hedge fund managers to make public reports of their asset holdings or performance (Gaber et al. 2004).

### **3.6.2 Sweden**

When turning our attention to Sweden we found as previously mentioned in Chapter 1 there is no clear definition nor yet a clear law regulating hedge funds in Sweden. However during year 2005 there has been a lot of issues regarding hedge fund regulation in Sweden. Specifically when it came to their liberty in taking large drastic positions that has a direct affect on the risk level, without informing the investors. According to Lindmark (2005) the key ratios that are presented to the investors each month are normally based on the last day of every month, meaning that the risks in different positions during the month are not revealed leaving the investors in the dark. These various positions can have caused a fall in return of for example 10 percent at one time and a gain in 10 percent at another time, giving a result of 0 percent in return at the end of the month. However when it comes to public information regarding Swedish registered hedge funds, it has been fairly more availability if compared to the American industry. Although Swedish hedge fund managers do not have to inform their investors of the various positions in the portfolio, but up until recently they were obligated to present quarterly holdings to FI (Lindmark, 2005).

As of January 1<sup>st</sup> 2006 hedge funds registered in Sweden do not have to publish information regarding its holdings. The reason for this new regulation is that FI has plans to change the fund reports reforms, where there will be more focus on the level of risk and key ratios of the funds, instead of looking at the funds holdings quarterly (FI: Promemoria, 2005-12-06).

### **3.6.3 Europe**

The development of the Internet has given asset managers a new efficient platform for selling, marketing and providing information on hedge funds for a global audience (Lhabitant, 2002). With the internationalization of countries there is also the concern of the legislation in each country. The European Parliament has been trying to harmonizes the hedge fund market in

Europe through a resolution on hedge funds based on an earlier report by its Committee on Economic and Monetary Affairs. The resolution recommends that regulation should concentrate on provision of information to investors, rather than apply over-prescriptive rules and regulations. Coffey, Somnier and Wessing (2004) argue that the regulation constitutes a reasonable first step in outlining what a pan-European onshore regime might look like. However they also state that it seems to be a bit weak and further more finish off with the statement that the reality is that LTCM's failure has already resulted in the development of increased internal controls and risk assessment techniques within the industry, which adequately address the issues in the regulation.

### **3.6.4 Black Box**

Hedge funds remain, as a group, something of a black box where investors have none or very little knowledge about the fund's actions, money goes in and even more money comes out (Lhabitant, 2002; Gaber et al. 2004; Fox 2005). This also applies to multi strategy funds but on a larger scale since they invest in several hedge funds as underlying assets. According to Fox (2005) the reason for this secrecy is that hedge fund managers, reasoning that they did not want to tip off the market to their moves, traditionally have not told their investors what they are doing.

Fox (Ibid) also criticizes the hedge funds for falsifying results, hiding for years, the fact that they have squandered their investors' money, investing 65 percent of the hedge fund's assets in the stock of one troubled company without telling anybody about it and that they make bad bets that threaten to knock out the global financial system. Gaber et al. (2004, p.334) who did research on multi strategy hedge funds, take a somewhat less direct approach but state that,

“There is an abundance of reliable fund of funds managers, but it must be expected that they would want to market their funds using the best approach. Many fund of funds employ uncertain statistics and use misleading benchmarks to make their performance look better. Many fund of funds that were examined were switching to bond indices from the Morgan Stanley Capital International World Index<sup>16</sup> in difficult times as a comparative benchmark.”

The authors further suggest that investors should select funds that adhere to some governing ethic. Similarly Fox (2005) draws the conclusion that more regulation and disclosure is justified but he also enlightens us with the fact that we already have a heavy regulated

---

<sup>16</sup> Morgan Stanley Capital International World (MSCI) Index, reflects the development of the stock market in the 22 most important developed countries in local currency. Source; Bloomberg/EcoWin

transparent money management business (the mutual funds) and that its weakness has fueled the hedge fund boom. The truth about these heavily regulated funds is that they ingest billions of dollars from investors in fees every year in return for performance that trails the stock market.

## **4 Analysis and empirical evidence**

The analysis is constructed in different parts, first a brief introduction to Helios 2xL and its history is provided in section 4.1. This is followed by section 4.2 where one of the main focuses is on the overall performance of Helios 2xL in comparison to the HFXS index consisting of Swedish registered hedge funds with various strategies.

Also in the analysis chapter the specific characteristics regarding multi strategy, leverage and legislation in general and when implementing them on Helios 2xL will be considered in more depth. In section 4.3 various aspects within multi strategy funds are dealt with, such as diversification, fees and lack of control etcetera. Moving on to part 4.4, focuses on defining leverage, characteristics when seen as a strategy and the implications that can arise when being used are treated. In the last part of the analysis 4.5, legislation regarding the offshore hedge fund industry in Sweden and Europe are discussed. Also the fact that hedge funds are seen as black boxes where investors have no insight into the funds is also dealt with in this part of the paper.

### **4.1 Analysis – Helios 2xL and its performance**

This section of the analysis chapter has a purpose to focus on Helios 2xL and its performance, estimated from a simulated pro forma statement based on historical figures from Helios. Through out the chapter, three measures that all serve a meaningful rationale in the hedge fund industry will be analyzed and compared to the specific HFXS index that we have chosen to use in the thesis. The focus will be put on the expected return, standard deviation and the Sharpe ratio. Helios 2xL has performed extremely well, but to base our calculations and performance measures on such a short historical reference was inadequate. Therefore the pro forma statement has been a successful tool to draw conclusions on the three factors the performance research is based on.

#### **4.1.1 Historical information and pro forma valuation**

When conducting the performance valuation we wanted to retrieve helpful and valid information before going ahead with the calculations. Knowing that Helios 2xL's existence was finite, gave us a merely narrowed base to see patterns of the multi strategy funds' behavior. At first this was seen as a hurdle, but when evaluating the situation, the pro forma simulation provided showed to be a legitimate tool within the industry.

Since this is a common procedure utilized by hedge fund managers the knowledge of its origin and upcoming is relevant. The following was illuminated during the interview with Mr. Borgeström:

*“Since Helios 2xL is a levered version of Helios, we have omitted from Helios and looked at its monthly returns, and also we know that the exposure is the double. Meaning that if there would not be any additional financial costs the return would be the double. What we do is to compensate for certain calculation costs and different fees, it is very easy everything is done in Excel and it is all standardized. What we really do is look at the interest rate position, which we then have to deduct on the return. And yes, this is fairly ordinary. A pro forma is a little bit special, one maybe uses it often when a started fund has another currency class on the specific fund. Then it is used to extrapolate back in time on the basis of how the other mirror has performed. The reason for us choosing to base our pro forma from the period of 2002 is because Helios started then. We have calculated the outcome even further back in time, but it does not provide much. Now we have three years and then one usually starts to talk about those statistical measures without it becoming a too large uncertainty. It is hard to calculate a standard deviation for six to seven years’ correlations and it easily arises miscounts then.”*

After presenting the technicality and functions of the pro forma’s origin above, we will move on to our own calculations where a performance valuation of Helios 2xL takes place.

## **4.2 Performance measurements and valuations**

In the performance analysis we have focused on the different measures return, standard deviation and Sharpe by looking at yearly time spans to later concentrate on the whole period for Helios 2xL and HFXS index. Only return and standard deviation has been dealt with when analyzing the OMXS\_PI index.

In year 2002 the entire world economy was still recovering from the shocking incident of the terror attacks known as 9/11. Due to this occurrence in September of 2001 all markets faced turmoil, and the one that we have used as a benchmark (OMXS\_PI) for our investigation suffered enormously. As explained earlier our research objects upcoming and performance is measured from April 1<sup>st</sup> 2002, thus the return, standard deviation and Sharpe all have a yearly estimation starting from that date.

During this specific period and through out the remains of 2002 there was a tremendous fall in the return. As we can see in table 4.1 below the index had a downfall of -74.3 percent compared to Helios 2xL’s increment of 11.9 percent. The reason for this can be explained by the main efficiency that hedge funds represent and are known for, namely performing well

during bearish markets. As Ineichen (2003) explains it, when markets have only a slightly positive or negative return, it has shown in the past that the long/short managers have outperformed the long-only managers due to the hedge fund managers being hedged in a market that is deteriorating. Another perspective was provided by Mr. Kuylenstierna as well; *“now e.g. most of the hedge funds have mainly long positions since the stock exchange is going well, if it turns they have to have more short positions”* (C. Kuylenstierna, personal communication 2005-12-02<sup>17</sup>).

Return (%)			
	Helios 2xL	HFXS	OMXS_PI
2002 from Apr	11,9%	8,2%	-74,3%
2003	12,9%	9,3%	31,0%
2004	9,4%	9,5%	36,9%
2005 until Nov	19,0%	12,3%	56,8%
Whole period	53,2%	39,3%	50,4%

Table 4.1: Returns for the three objects

The OMXS\_PI index can then indirectly represent the long-only managers to a certain extent since those type of managers that the index represents do not hedge their positions, proving that hedge funds are able to deliver the absolute return policy. Even by glancing at the HFXS index, which also represents hedge funds we can see that it had a positive return as appose to the OMXS\_PI index. When considering other measurements as standard deviation representing the risk, we see that it was 12,1 percent for the OMXS\_PI index, which is much higher than 1,6 percent for Helios 2xL and 0,7 percent for the HFXS index (table 4.2). One explanation is that the OMXS\_PI index constitute of all the shares on A-listan and O-listan that count for a large amount of companies that all add up to a high level of risk. To then declare what makes the risk for Helios 2xL and HFXS index so low is part of the aspect of them both presenting figures that are over a variety of selected funds. The key to the low standard deviation of the two is the diversification that they represent. By doing so the chance of earning the maximal return when one specific asset increases goes away, but on the other hand if the same asset would decrease in value not as much will be lost.

---

<sup>17</sup> See Appendix 3

<b>Standard Deviation (%)</b>			
	<b>Helios 2xL</b>	<b>HFXS</b>	<b>OMXS_PI</b>
2002 from Apr	1,6%	0,7%	12,1%
2003	1,6%	0,8%	5,8%
2004	2,4%	0,9%	6,5%
2005 until Nov	3,1%	1,2%	4,6%
Whole period	2,2%	0,9%	8,7%

Table 4.2: Standard deviation for the three objects

The Sharpe ratio, which is a measure to incorporate risk into the return and measures the average excess return per unit of risk, where we only calculated for Helios 2xL and the HFXS index, since the Sharpe is mainly used as a tool for the hedge fund industry. A Sharpe of 0,59 for Helios 2xL and 0,75 for the HFXS index, the slightly lower Sharpe in Helios 2xL can be explained by the standard deviation being higher in for the fund (table 4.3). The higher the Sharpe the better the performance of the hedge fund, it being a very sensitive measure to changes in standard deviation.

<b>Sharpe</b>		
	<b>Helios 2xL</b>	<b>HFXS</b>
2002 from Apr	0,59	0,75
2003	0,49	1,60
2004	0,41	0,64
2005 until Nov	1,02	0,82
Whole period	1,50	2,50

Table 4.3: Sharpe ratio for the two objects

To get a more wide interpretation of the different measures we now consider both years 2003 and 2004. There is a large difference in terms of return, where it is evident that the OMXS\_PI index has climbed and performed a lot better than both hedge fund performance representatives. Without repeating oneself, rather more verifying that when the overall market is bullish a multi strategy fund will perform well as any other diversified hedge fund. However, not as well as e.g. a regular fund or stock that could be more advantageous in an upside situation as such<sup>18</sup>. This can be seen when focusing on the returns for the OMXS\_PI index for both years 2003 and 2004 were, 31 and 36,9 percent respectively, it is obvious that the index outperformed both Helios 2xL and the HFXS index (table 4.1).

---

<sup>18</sup> See Chapter 3, Theory, absolute returns

Seemingly, concentrating on year 2003 and some of the poor months, it can be seen that during the year the performance of the three (Helios 2xL, HFXS, OMXS\_PI) all had three negative months each, some of them different from each other. Even though the returns for all of them were negative, the returns for Helios 2xL only came to a maximal decrease of -1,56 percent and the HFXS index -0,12 percent. Point being that they turn out to be more consistent and mediocre when deteriorating compared to the OMXS\_PI index with a decrease of -9,18 percent, a much larger drop<sup>19</sup>, hence the diversification fulfilling its purpose for Helios 2xL. The next year 2004, the same behavior can be withdrawn, which further supports the reasoning's provided earlier. Being more specific in this example we focused on the same month for year 2004 for all three objects, namely May. All three objects illustrate a negative return for the month being. Starting with Helios 2xL's decrease of -1,01 percent, where the HFXS index resulted in a decrease of only -0,42 percent, both of their meager performances are practically unnoticeable. Turning to the OMXS\_PI index the decrease is strikingly large with a whole -11,79 percent, keeping in mind that this is for only one month<sup>20</sup>.

As for the standard deviation it follows an accompanied pattern that consistently shows to be highly dependent of the return variable. Returning back to both years 2003 and 2004 a standard deviation ranging from 1,6 to 2,4 percent, the former being year 2003 and the latter year 2004 for Helios 2xL. The exact same measures for the HFXS index were 0,8 up to 0,9 percent and for the benchmark index OMXS\_PI 5,8 which increased to 6,5 percent (table 4.2). Conclusively we can say that, the higher the return is, the higher the risk will be for the specific portfolio, which is legitimate accordingly to what theories tell us.

The Sharpe ratio will help us to see if one has outperformed the other in terms of it being a success ratio, only the best figures of the years 2003 and 2004 will be dealt with. As it seems the Sharpe for the HFXS index year 2003 stood out with a ratio of 1,6 compared Helios 2xL's best over those two years with 0,49. Then one can wonder why the following presents itself, even though Helios 2xL demonstrated a higher return of 12,9 percent compared to 9,3 percent of the HFXS index that same year, 2003. What it all comes down to is the level of standard deviation that they are exposed to, it being noticeably lower for the HFXS index, as much as twice as little for the entire year in comparison to Helios 2xL (table 4.2).

---

<sup>19</sup> See Appendix 5, Detailed information on a month to month basis

<sup>20</sup> Ibid



As for all three measures of performance, they all have shown to be extremely influenced of the return outcomes for Helios 2xL, HFXS, OMXS\_PI in question. According to Mr. Borgeström, Brummer & Partners are enormously satisfied with the performance of Helios 2xL counting from its initial starting date. Mr. Borgeström on the performance of the multi strategy fund; *“it started January 1<sup>st</sup> 2005 so it has not been active so long yet, but already it has generated a return of about 15 percent”* (F. Borgeström, personal communication 2005-11-25<sup>21</sup>). When the interview took place, the performance for November had not yet been accounted for. In our own performance calculations we also included the entire month of November, giving us an average return of 19 percent, which is significantly higher than what Mr. Borgeström stated.

When commenting on the yearly returns for the entire period the pro forma is based on, Mr. Borgeström mentioned the following; *“an average return of 16,7 percent, a standard deviation of 8 to 10 percent and a Sharpe of close to 1,6, which is really good.”* (F. Borgeström, personal communication 2005-11-25<sup>22</sup>). Implying that regarding the level of return Helios 2xL had generated, the level of risk for the fund was acceptable and sufficient. Strangely, we found the standard deviation to be approximately 2,2 percent for the whole period. The main reason for this is that we have chosen to be consistent with our calculations regarding the risk measures, basing the creation of the standard deviation on what theories tells us. Meaning that we always omitted from an estimation of the chosen period in question. Comprehensively, risks involvement in the hedge fund industry; *“what we must always bear in mind in the hedge fund world is that performance is always measured in accordance with the risk.”* (F. Borgeström, personal communication 2005-11-25<sup>23</sup>).

Comparing the Sharpe of the entire period for Helios 2xL we found Brummer & Partners ratio to be agreeable and comparable to our findings. A slight difference, between 1,5 to 1,7 according to Mr. Borgeström where we retrieved 1,5, even so it is seen as well performed fund. Mr. Borgeström commenting the level of Sharpe; *“there are probably funds with a annual return high as 16 percent but if we look at the risk adjusted return, we look at a Sharpe ratio, Helios 2xL has a ratio of 1.5 to 1.7 which is good, really good. Anything over 1 is good.”* (F.

---

<sup>21</sup> See Appendix 2

<sup>22</sup> Ibid

<sup>23</sup> Ibid

Borgeström, personal communication 2005-11-25<sup>24</sup>). The reason for our Sharpe being slightly lower could be described as a possible round off occurring when conducting the calculations or our input values might differ from Brummer & Partners’.

The overall performance is better for Helios 2xL with a total return for the whole period of 53,2 percent compared to the HFXS index with 39,3 percent (table 4.1). Important to know here is that it is the difference in standard deviation between Helios 2xL and the HFXS index that turned out to be the most significant factor for the difference in the Sharpe (table 4.3). Meaning that even though the return for Helios 2xL was 14 percentage unit higher than the HFXS return, it is still not the cause for the large difference in the Sharpe, them being 1,5 and 2,5 respectively. The small discrepancy of 2,2 percent for Helios 2xL and 0,9 percent for the HFXS index could be the reason behind a fluctuating Sharpe ratio.

To get a more detailed description of how the returns have been for the three objects, we calculated the average return per month (table 4.4).

Average Return / month (%)	Helios 2xL	HFXS	OMXS_PI
2002 from Apr	1,32%	0,91%	-8,26%
2003	1,08%	1,55%	2,59%
2004	0,78%	0,79%	3,08%
2005 until Nov	3,32%	1,12%	5,16%
Whole period	1,21%	0,89%	5,16%

Table 4.4: Average return for the three objects

We feel that even though the returns per month are not astonishingly high, they are very reliable and consistent. The hedge fund representatives, Helios 2xL and the HFXS index have proven to not be volatile in their proceedings over the measured period. Then making Helios 2xL a multi strategy fund that is a much more safer choice, and reliable for an investor that is insecure of how investments act in terms of the return and risk exposures. As we can see Helios 2xL and the HFXS index show an average monthly return that is seemingly low, however not never negative like the OMXS\_PI index was in year 2002. The Swedish stock market turned out to have an extremely successful year in 2005, resulting in Helios 2xL’s average monthly return being a little bit higher for that specific year when compared to the

---

<sup>24</sup> See Appendix 2

HFXS index. Otherwise the overall performance of Helios 2xL and the HFXS index are very similar.

### 4.3 Multi strategy fund

The historical performance of Helios 2xL and up till November 2005 has shown to be prosperous. Therefore it is relevant to treat the characteristics of Helios 2xL being a multi strategy fund. First historical information is dealt with then considerable efforts have been taken into account to see the various aspects of diversification in the multi strategy fund. Mr. Borgeström presented the following:

*“It started January 1<sup>st</sup> 2005 so it has not been active so long yet, but already it has generated a return of about 15 percent. It had a very heavy month in November but before that the return has been around 20 percent. And since this fund is built upon the regular Helios and Helios 2xL being the levered version, history from 2002 is retrievable. Simulations even further back can be done since the underlying funds in Helios have existed longer than that. If one chooses to do that it will show an average return of 16,7 percent, a standard deviation of 8 -10 percent and a Sharpe of close to 1,6 which is really good. Then as always, a pro forma is not a guarantee tool of the future events, but if one looks at how Helios has performed it shows that it has been extremely stable. What is fun is that under the years it has been different underlying funds that have been the driving force for Helios. During 2002 it was Zenit and Nektar that were performing very well and in 2003 it was Lynx and Manticore. In 2004 Latitude was the star with a return of 50-60 percent. This year it has been a little more mixed between them, Avenir has put its neck out and Latitude has performed pretty well. This demonstrates how the diversification strategy works, that funds can have bad years, however seeing the product as a whole, it has an extremely good return process.”*

The figures Mr. Borgeström describes are impressive in comparison to the hedge fund index that had a yearly return of around 12 percent during 2005. Also, if compared to other hedge fund's on the market Helios 2xL shows higher figures. However just as Mr. Borgeström states, historical figures are no guarantee for future ones, no matter how impressive they are.

Further Mr. Borgeström tells us that during the years different underlying hedge funds have been the best performers within Helios 2xL's pro forma. So we concur with Mr. Borgeström that based on this information above, the diversification for Helios 2xL seems to work since depending on the business climate the underlying fund with the most optimal strategy has been the best performer.

#### 4.3.1 Diversification in all its forms

This is where the interesting part comes in, what is risk diversification and what is seen as the optimal diversification and is there such a thing as over diversification in a multi strategy fund? The reason for us stating these aspects as questions is because we feel that it is the best way to be sure that a thorough review takes place.

According to Lhabitant (2002) risk diversification can be conducted by two different approaches. The first approach consists of a mixed hedge fund selection, where a variety of strategies, managers, risk factors and markets are dealt with. As for the second somewhat determined approach that aims for a selection of funds that use similar strategies and that have performed well. Applying these two methods on Helios 2xL it is obvious that the first approach is applicable to Brummer & Partners's choice when deciding the funds level of risk diversification. Choosing to create a multi strategy fund with their own types of underlying hedge funds automatically brought completely different strategies and management techniques performed on different markets resulting in divergent risk levels respectively. Thus it is believed that these types of multi strategy funds that capture this wide array of characteristics in funds usually results in the largest risk reduction to the multi strategy fund and generally makes it perform better (Lhabitant, 2002). We also find the first approach to be more of a useful and successful manner when constructing a fund of this nature. This is because, if the second approach is implemented, only the risks that comes with poor manager selection is avoided, still leaving the multi strategy fund with a higher exposure to similar strategies giving a small diversification. However the downside of multi strategy funds is that since it consists of a mixed selection of hedge funds the maximal return possibility then diminishes if one specific asset were to rise in value. Although, would the asset fall in value not as much will be lost.

Due to this discussion we felt it was legitimate to ask Mr.Borgeström what the investor's reason to invest in their multi strategy fund then would be, as appose to simply just investing in the seven underlying funds individually.

Receiving the following information:

*“The overall benefit is that with a multi strategy fund you receive a diversification which you would not get if you choose only one or two funds. In other words you get a well-balanced and diversified portfolio of hedge funds. And with hedge funds this is very difficult to achieve by your self. It is a complex product and hedge funds might perhaps be difficult for many people to understand what it is they do. It requires quite a lot from an investor to fully understand which environments and*

*which expectations that are best for a fund such as Lynx e.g.. Secondly, with hedge fund you are presented with quite high minimum investment level. We have a minimum new investment level of SEK 850 000, which is rather low compared internationally. If glancing at the European or American hedge fund market where USD 1 million is not totally unthinkable, SEK 850 000 is pretty low. So if an institution or a private person would want to create his own portfolio with us, he would have to invest at least SEK 4 million in order to get his own diversified portfolio, similar to Helios. Not everybody can do that. Then Helios is a good choice for the private investor since he or she gets access to this type of product, to a lower price. Although perhaps not everybody can invest in this type of hedge fund, but it surely becomes easier for many, instead of having an investment cost of SEK 4 million.”*

Anderlind et al. (2003) also mention that the minimum investment requirements in hedge funds usually are high then limiting investors in their decisions. However both Anderlind et al. (2003) and Lhabitant (2002) remark that multi strategy funds have a way of creating more advantageous entrance fees that are lower for the investors, due to the enormous amount of capital that they gather. As Mr. Borgeström mentions that if an investor would want to create its own multi strategy fund with the diversification that presently exist in Helios 2xL, this would require an investment of at least SEK 4 million. In contrast to only investing regularly in the fund, which requires a minimum investment of SEK 850 000. There of the investor is better of by investing in a multi strategy fund than trying to achieve this on its own.

Interestingly becomes the reasoning around the optimal diversification in multi strategy funds and the level of underlying funds that is seen to be enough. The number of underlying funds varies between different authors. Amenc et al. (2004) believes that including too many funds in the multi strategy fund will increase the exposure to the risk on the market and that most funds include 15 to 20 underlying funds. As for Alexander and Dimitriu's (2004) study, discovered that as many as 30 funds were the optimal number to attain. Focusing on the research object Helios 2xL, Brummer & Partners's view on the optimal diversification of underlying funds is based on the fact that the volatility decreases only up to a certain number of funds included.

Mr. Borgeström answer to the specific area:

*“The optimal number of funds in Helios 2xL is somewhere between 10 to 12 funds. If we look at what happens when one increases the number of funds in the portfolio we see that the diversification and the allocation of risk is increased resulting in a decrease in the volatility. Meanwhile we should not over diversify because then in*

*the end we would not receive any return. Somewhere in-between there is an optimal level and we believe it is 10 to 12 funds in our case.”*

As Lhabitat (2002, p. 205) so eloquently puts it, “Although there is no consensus on the exact threshold value, common sense argues that portfolios of 15 to 25 hedge funds should be sufficient”. Focusing on Helios 2xL’s case, Mr.Borgeström says that by over diversifying the portfolio of hedge funds will not generate any return in the end, implying that there is an optimal level in the number of funds. Some theories tell us that having too few funds will create an overexposure to the volatility of the single hedge funds, and that there is a clear balance between having too many alternatively too few underlying funds (Amenc et al. 2004). Conclusively we can establish that there is no clear optimal level of the number of hedge funds among the various theories. However, Helios 2xL has yielded a higher return than the HFXS index and maybe the current number of underlying funds is optimal, meaning that presently we do not believe there is any need for further diversification. Although, there is a possibility that the number of underlying funds will have to change in the future, mainly due to a different market environment.

#### **4.3.2 Fees and accessibility**

Regarding fee structures in multi strategy funds has received a lot of criticism. Scholars such as Weinberg (2003), Johnson (2005) and Ineichen (2003) all state that a major disadvantage that comes with these type of funds is the fee structure, all affecting the investor in the end. Upcoming fees in the nature of double layers, ranging from a fee of the underlying funds combined with another fee of the multi strategy fund itself.

Helios 2xL has a different structure separating itself from the scholars critique according to Mr.Borgeström:

*“Helios 2xL does not charge any fees, the only fees are the ones for each underlying fund. There are fund of funds that take as much as half of the performance fees or some other kind of fixed fee. We do not approve of that structure since in the end it is always the investor who pays. This is an additional reason why we invest in our own funds, in order to offer this to the investors while still making money on it. We also have no kick backs.”*

The critique around the well-known double layer fees of multi strategy funds cannot be applied to Helios 2xL, therefore we wonder if this is a way for Brummer & Partners AB to entice potential investors to their fund? Their fee structure is non-existent on Helios 2xL,

which leaves the investor to only pay the underlying funds fees in proportion to the divided amount invested in each fund. This eliminates the critique that multi strategy funds are just a clever scheme to extract more money from the investors. Nonetheless, it has still been a key to the gateway in gathering more capital from investors, by offering this new product Brummer & Partners have benefited from it now managing an amount of capital of SEK 1,7 billion for Helios 2xL.

Putting focus on the individual investor that has an established and current stake within Helios 2xL, we wanted to know how open Brummer & Partners were to investors with different personal capital holdings. Referring to the hard- or soft closure of the funds, where the former means no ability to invest any longer and the latter officially means it is closed but is unofficially open to investors with high commitment (Lhabitant, 2002). We wanted to see if it was advantageous or not for the investors regardless of capital amounts, and if Brummer & Partners is consistent in their reasoning if they were to adapt a hard- or soft closure in Helios 2xL.

Mr. Borgeström gave us the following context:

*“This is a special case, since Helios 2xL is not a Swedish fund, and Swedish funds are not allowed to close. What one does instead is to postpone the investment so that the fund gets a temporary closure. In Sweden we have to treat all investors as equals and we can not have a fund opened for some and closed for some. In the case of Helios 2xL, the fund is registered in Bermuda so we could close or open the fund for a specific individual or put a limit on how much would be allowed to invest in the fund or just close the fund completely if we want to. So far this has not been a topic since we still have capacity in our funds except for Latitude, which is one of the underlying funds and is closed. Moreover, in our credit agreements we have rather large margins allowing us to grow greatly before they have to be revised. Currently we have no “closure” but it might be relevant in the future if we do not find new funds that can accommodate new investment, due to our funds starting to reach their maximum capacity. We do not want to grow on volume, we do not make money on managing billions of trillions of capital. What we make money on is that our funds perform well with huge returns. Most of our income comes from performance fees and if we feel that the possibilities might be limited by the size, then we will not earn anything. Therefore it is not in our interest to take in more capital than we are certain that we can manage. This is similar to what investors usually want. They are not interested in whether the fund increases in size or not. The only thing that is important is that the fund yields a good return. In this aspect this is where our two worlds as investor and manager touch.”*

*“An additional benefit with hedge funds or multi strategy funds is that they are closed, which gives rise to certain limits. An usual index fund traded on the Stockholm stock exchange, where all the companies are so large that they actually only grow on sheer volume, since they in theory can take in unlimited amounts of*

*capital. But a hedge fund uses more exotic products and then there are capacity limits. The fund cannot grow indefinitely and is commonly closed. However, investors who have already invested in the fund are usually allowed to continue. In this way the investors still have access to closed funds. In our case Latitude (Bermuda) is closed and Latitude (Sweden) is attached with a higher investment fee to defer new investment. Helios invests in all funds, including Latitude granting the investors access to otherwise closed funds, which is an advantage.”*

Even though this sounds fair and vindicated, we find it hard to believe that they will turn down certain investors. However this does not implicate Bermuda registered funds, so Helios 2xL can be excluded to a certain extent in this reasoning. Regardless of Helios 2xL, this involves three of the underlying funds, which are not offshore registered funds and therefore it becomes interesting and relevant. Hypothetically, if the management of several of the underlying funds is faced with two investors both willing to invest in the fund, one investor prepared to invest SEK 850 000 and the other SEK 10 000 000. If some of the funds were to be officially closed but unofficially open, we do not think that those investors will be treated equally, meaning that there is a possibility that the second investor would be preferred and accepted into the fund. According to Mr.Borgeström soft or hard closure are not applied in Sweden, but we see the taken action of increasing the minimum investment level in Latitude as a kind of soft closure, even though this is nor permitted by law. We believe that the increase of the minimum investment level is a way to sidestep the rules.

Another remark made by Mr.Borgeström that we reflect over is that hedge funds do not want to grow in volume. We might ask ourselves why, but then we must understand how a hedge fund works. To illustrate the reasoning around an optimal volume in capital we have provided a fairly simple example. We have a manger that has come to the conclusion that he can buy up to 100 shares of stock A at the price SEK 10. If he buys more than 100 shares he believes that he will start off a buying frenzy on the market causing a price increase. In three months time span he believes that the stock will rise to SEK 15. This will give him a profit of SEK 5 per share times his incentive fee (20 percent). Now an investor wants to invest SEK 300 into our manger’s fund. If our manager invests all SEK 300 in stock A, the first 100 shares would be bought for the price SEK 10 but the other 200 shares would send a signal to the market that would result in an increased share price. The implication of the price rise would jeopardize the manager’s strategy thus, not being able to yield the highest manager fee. He could also chose to only invest SEK 100 in stock A and then keep the remaining SEK 200 as cash until another opportunity would present itself. By doing so, the cash would not earn any return at



all and neither would he receive any fees for this capital. Hence, one could say that an optimal volume does exist when it comes to hedge funds, however it probably depends on what kind of strategies the hedge fund employs.

A result from the aspects discussed above gives rise to one vital part of Helios 2xL and its underlying funds, the value of information. Since Helios 2xL's individual performance is influenced by the underlying funds capabilities it is interesting to know if there is any kind of information exchange amongst them all. Is there any ensemble between them, in the form of holding strategies or occurrences in the world etcetera.

Mr. Borgeström stated the following regarding the subject:

*“All hedge funds at B&P are managed by individual companies resulting in eight different companies with its own employees and managers and so on. Most of us are working here but we also have a fund in Helsinki, one in Oslo and one in New York. We want to create an environment enabling exchange of ideas and intellectual thinking but the managers never talk about individual transactions. It never happens that somebody says, “Ericsson looks good now, so let buy it”. That would give rise to the funds starting to correlate and that is absolutely not in our interest. We have however the same infrastructure when it comes to risk measuring, control and development etcetera which the funds share. It also happens that the managers meet in the hallways and chitchat about social and economical world events. Zenit e.g. has a morning meeting discussing what happened on the American market last day, where everybody was invited to participate. A kind of “rap up” is done and Latitude usually participates since it provides them with information on the microenvironment and how the stock market is doing. They do not invest in stock but it is important for them to have knowledge about these fields in order to understand the macro environment, which they are actually working with. So of course there exists an exchange of information and one could call it asymmetric information. The system is built upon us having common knowledge, but to make individual decisions. If we find an article that might be relevant and seen as helpful, of course we send it to everybody. Investment banks often visit us and economists who present different cases for us which many of us are taking part in. But in the end we all go back to our positions and draw our own conclusion, which is extremely vital.”*

As we can see above Brummer & Partners believe that there is an information exchange. We however have trouble understanding the statement that information exchange can be seen as asymmetrical information, which according to Akerlof (1970) is that one side in a transaction knows more than the other. Asymmetric information between investors and managers always exist since the manager usually has more information at hand than the investor. In Brummer & Partners case the information sharing can result in that the managers of the different funds

gain more information than their counterpart on the market. If this is what Mr. Borgeström means then there asymmetric information towards the market exist. Although, we deem this highly unlikely since the various underlying funds implement different strategies and thus, they do not discuss individual positions on the market. It being a result of the funds correlating with each other is nothing that is desirable. As they made clear, they utilize this advantage by only sharing common knowledge, and accomplishing the individual decisions by themselves. This interacts with the critique on multi strategy funds, that an investor loses the control after investing in the fund. The investor does not have much control over a multi strategy fund as stated by (Lhabitant, 2002). If the investor does not agree with the management of a certain fund in the multi strategy fund he can not affect its investment other than to withdraw all the money from the fund. However, if the investor would have invested by himself in the individual underlying hedge fund that is included in the multi strategy fund in question he could have withdrawn his capital from one fund without affecting his other investments. Further Lhabitant (2002) also argues that since most hedge funds have a certain time limit that investors have to tie up their capital in the fund, ranging from one month to two years, further limiting the investor in the sense of controlling his capital. The commitment of capital could also be seen as a lack of flexibility. If another investment opportunity yielding a higher return arises the investor is unable to access his capital since it is tied up in the hedge fund resulting in a less profitable investment.

Mr. Borgeström, regarding the critique of an investor losing control when investing in a multi strategy fund:

*“Sure, one loses control. The investor is tied to a certain number of funds, which are determined by somebody else. This could be remedied by doing everything yourself which means that you are actually buying a service. We have the know-how for creating a well-diversified product, if you possess this yourself there is no need to do it through us. There is also a vast number of hedge fund out there on the world market and if you are to analyze them all, well it requires a great effort from the investor to compose the best well diversified portfolio. For private or institutional investors who do not have these resources, we are a perfect alternative. You get a great package, which might be troublesome to get on your own. In our case you do not have to pay fees, as you have to do at other companies. Certainly, you lose a part of the control but meanwhile that might be control that you should not have had in the first place, or do not want to have had, if you do not have the knowledge.”*

One can agree on that the investor saves a great deal of work and expertise within the area when going through skilled managers, since there is an enormous amount of hedge funds

available. However we feel that this does not stop an individual or institution that is wealthy from creating a well-diversified portfolio on its own, and then avoiding the wealth based fee and the incentive fees. According to Anderlind et al. (2003) companies that include their own hedge funds as underlying assets in the multi strategy fund brings a less qualified selection, due to them having certain incentives to choose certain funds. Also over time the authors say that over time there is a possibility that this might lead to uneven diversification of the underlying funds, where the one that has generated the highest return has the highest allotment.

We asked Mr.Borgeström why they divide the invested capital equally when it is spread out to the underlying funds, and if this is not something that the investors can do by themselves.

*“The probability of you as an investor making such a good allocation on your own, is equal to you getting a lower return. We feel that there is a certain beauty in having 1/7 in each underlying fund and we believe that this results in a very first-rate portfolio. Moreover we think that a balanced product like this gives us good key figures and is thus a fine product. Lynx e.g. started 2000 and was assimilated into our group in 2002, just because the three managers felt that they were not succeeding in gathering enough capital for the fund. Considering the fact that they did not have the infrastructure they have to today it is understandable that they had a hard time convincing large investors to invest. We at B&P have a whole structure, giving rise to a certain security with a large back office team and a well-known reputation in the business. A critical mass exists for the fund to be able to survive, it is not possible to exist on only managing SEK 10-20 million in a longer time span. You have to reach a certain volume before it becomes profitable. This allocation of 1/7 in each fund is something we started with in 2005. Earlier we used a system that when new money entered the fund it was allocated 1/7 to each fund. Then if a fund performed well its share grew and was then a little bit higher than the others. Then the fund received a little less the next time new capital was invested. We wanted to simplify the process since there is a beauty in keeping it simple. What we came up with was that we reallocate the capital once every quarter when Helios 2xL is tradable. This means that if a fund has performed well and another not so well, we gather the capital again just to redistribute (reallocate) it so that 1/7 is invested in the underlying funds again.”*

Here again Mr.Borgeström mentions that Lynx’s managers felt that they could not gather enough capital for the fund. This further implies that there must exist an optimal amount of capital that needs to be invested in the fund. But as we stated above, this must depend on the strategy that the fund employs.

What we also can conclude from the above passage is that Brummer & Partners has changed their allocation strategy among the underlying hedge funds. If they have changed it in less

then a year after the fund's launch we can see that the strategy they started out with was not the most appropriate. On the other hand the change shows us that they are willing to modify their original strategy and improve the return for the investors. However, the current allocation strategy might seem a little bit too simple. Scholar such as Lhabitant (2002) states that multi strategy funds that allocate the capital equally among its underlying funds and keep that allocation ratio over time, still does not really benefit the investors. He strongly believes that the investor could have conducted the distribution independently avoiding the extra fees that multi strategy funds charge. The exception from a regular multi strategy fund is that Helios 2xL does not charge any extra fees, therefore Brummer & Partners has the upper hand towards the academician, making the fund more attractive in comparison to other funds of the same kind. Since the allocation strategy is free of charge and very simple, we know that the investor could have done the allocation independently. However a higher investment amount would have been needed as mentioned earlier, resulting in SEK 4 million instead of SEK 850 000 when creating a diversified portfolio. Once again we would like to stress that a multi strategy fund is an effective alternative if an investor wants to diversify to a considerably lower amount of capital.

## **4.4 Leverage**

In the following chapter we have mediated what leverage is and how it is seen and used, by lifting out these central phenomenon's under three different headings.

The section illustrates how leverage is defined and the purpose it serves. In more detail some of the areas discussed are what role leverage has and the ways it is applicable when seen as a strategy. The collateral demanded by the credit institutions, having a crucial part in the ability to add on leverage to the hedge fund's portfolio will be discussed as well.

### **4.4.1 Defining leverage**

Throughout the thesis amounts of theories and thoughts have been dealt with in order to get a more significant and clear understanding of the term known as, leverage. Amongst the vast collection of theories presented in the thesis there are several views of what leverage is, or how it is applied when managing hedge funds.

To begin with it is relevant to focus on how authors define leverage. Brigham and Gapenski (1993) see it as debt or preferred stocks while Ineichen (2003) believes it to be comparable to balance sheet terms, where leverage is a ratio of total assets to equity capital. Moreover Ineichen (2003) refers to leverage as a measure of economic risk relative to capital.

If total capital is seen to have an economic risk factor, it most likely refers to the capital consisting of debt, hence a capital structure of both equity and debt. Interestingly then is that leverage is seen as the use of capital that bare reference to a debt.

In Helios 2xL leverage is defined and measured in more technical terms, as a part of the funds portfolio agenda. Brummer & Partners view of leverage is how large the portfolios value becomes in total when leverage is utilized. Mr.Borgeström expresses their view and definition on leverage as follows:

*“We usually say that leverage is long positions plus short positions divided by the funds total capital subtracted with 1. So what it really means is, how large is the value of long- and short positions in your portfolio? Let us say that you have invested SEK 100 million in long positions and at the same time lent SEK 100 million in short positions, this will bring a leverage of 100 percent. This is how we define leverage in our activities.”*

Interestingly it seems as if Brummer & Partners thinks of leverage as mainly a means to an end, where the end represents a position that has become doubled from the initial investment. As Ineichen (2003) mentioned earlier, leverage is a ratio of total assets to equity capital, which is further exemplified below. Nevertheless theories on the subject regard leverage meaning as something that involves a risk measure or taking on debt, which is not consistent with Brummer & Partners view.

#### **4.4.2 Leverage - a strategy**

This brings us to the different applications of leverage, for one where it is used as a strategy. The initial invested amount is doubled by lending, leverage then being a crucial part of the strategy. The use of leverage in Helios 2xL's capital management from an investor's perspective is then described as a double exposure of the initial investment outlay. In that sense Schneeweis' et al. (2005) definition of leverage is applicable to Helios 2xL's use of it, involving borrowing money to increase the effective size of the hedge funds portfolio.

Mr.Borgeström provided us with a more thorough example of leverage and its function as a part of the double exposure strategy of Helios 2xL:

*“What happens is if a investor wants to invest SEK 850 000 which is the first mortgage, or lets make it easy for us, SEK 100 000 comes in to us from an investor, we then transfer them further to SEB or Nordea who then buy fund shares for the money. It results in SEK 100 000 of the investor's money along with the same amount added by one of the banks. This is adjusted so that if the funds value decreases with SEK 20 000, the holdings of SEK 200 000 will have decreased to*

*SEK 180 000. Then the investor has lost SEK 20 000 of its own share, which means that the remains are SEK 80 000 if the investor wishes to sell. What the credit institution does now is that they lower the leverage with SEK 20 000 so that the total exposure becomes SEK 160 000 instead. The exact same thing happens if the fund's value increases with SEK 20 000, then the credit institution adds on the same amount of leverage resulting in a total exposure of SEK 240 000. And if the investor wants to redeem its share, SEK 120 000 will be received, then with a profit of SEK 20 000. It is all built upon the exposure being double.”*

To simplify what Mr. Borgeström says is that leverage is a part of their strategy and he explains it as creating the double exposure of an investor's investment with precautions from the bank. When Helios 2xL's value decreases the amount of leverage will be lowered meaning that when the value of the fund increases the leverage will work in its favor and also increase. As Schneeweis et al. (2005) and IDD (2004) claim, leverage can be an extremely lucrative strategy when successful.

We find this to be an effective way of applying leverage into the hedge fund's operations, giving rise to the best outcome as possible for an investor given the risk conditions. However, the overall performance depends on the manager's knowledge and expertise within the field. Then there is always the possibility of the market faltering. When a fund suffers really bad conditions, where the liquidity of a fund would decrease enormously, Mr. Borgeström made the following manifestation on the strategy's implementation of leverage in Helios 2xL's case:

*“It means that the investor is responsible for the included risk of its own invested capital, but does not take part in the risk of the leverage being used. This is an effective way of not being exposed to a debt that can affect one hard if it is handled alone. Should the fund drop over 50 percent during a quarter then the investor could loose its entire capital. Up to a decrease of 50 percent the bank is totally safe, afterwards they take a risk and it is that risk they charge money for.”*

The usage of leverage has one purpose, which is to increase returns. The role of leverage in Helios 2xL raises thoughts such as is it really as simple as it sounds and what is preventing anyone from levering and doing the exact same thing on their own? Hypothetically anyone with a lot of capital could buy SEK 850 000 and at the same time lend SEK 850 000. Although if the fund increases in value to SEK 900 000, the loan would still be SEK 850 000, meaning that the leverage is not dynamic and adjustable depending on the situation. If the fund now drops in value, the borrowings would still exist as debt and all of a sudden the

possibility of losing more than what was invested in personal capital from the beginning is probable. In this sense Helios 2xL has a more profound way of adding leverage in its activities, with a leverage that is dynamic and that adjusts depending on the funds performance. Also the investor's risk exposure in capital measures is only the initial investment outlay and not the leverage. Moreover it is not likely that an investor investing independently is able to negotiate more beneficial circumstances from the banks than Brummer & Partners.

Having mentioned this, the thought of what Helios 2xL's faith would be if experienced a tremendous fall in value is impossible to ignore since it immediately would affect the investors. According to Ineichen (2003), if the market would suffer severely, the credit institutions providing leverage to a hedge fund need a significant amount of the hedge funds equity as a security. Having stated that, we asked Mr. Borgeström what the banks' specific involvement is when it comes to collecting equity as a means of collateral. He expressed the following:

*“What the banks charge us for is based on the risk-free rate plus a spread consisting of STIBOR and LIBOR, which is 140 basis points. And when it comes to collateral absolutely, the banks receive the initial cash outlay that the investor paid to us, which we later pass on to both the banks.”*

This supports Schneeweis' et al (2005) view of equity as collateral. It is seen as its liquidity, meaning that the credit institution supplying the leverage holds part of the funds equity as collateral. With this in mind we can draw the conclusion that credit institutions in the form of banks have special agreements with the users of leverage. These appear in the form of fee charges and securities by collateral holdings. By having a relationship with two banks Nordea and SEB, instead of a single one, it naturally means that Brummer & Partners' existing contract has been negotiated and beneficial for them. A single bank would most likely be able to charge more if it were the only one providing the leverage. Meaning that a third party could most likely bring an even more profitable deal forward for Brummer & Partners.

#### **4.4.3 Level of leverage and risk, the motive behind Helios 2xL**

Increasing the debt in an entity by leveraging makes the risk increase automatically, having a direct effect on the stakeholders (Brigham & Gapenski, 1993). The notion of leverage causing potential profits or losses, insinuates that the risk and return becomes a significant factor.

Even though leverage is described as a prosperous strategy above there are consequences that comes with it. Helios 2xL has an absolute return policy and the implications with that also have a connection with risk. One of the multi strategy fund's characteristics as we already know is that its portfolio of various hedge funds creates a diversification, which lowers the risk, is one aspect. However, by adding leverage in any type of fund increases the risk since more is at stake. The investors want more in return and the credit institution or bank providing the leverage wants something in return. In respect to this the motives and risk aspects behind Helios 2xL becomes relevant to explore in more depth. The following was revealed from Mr. Borgeström:

*“Not everyone has leverage products, having a fund and offering a levered version of the same fund. We have chosen to do this on Helios because it has those qualities, e.g. a fairly low risk, meaning a diversified product that is a result of the low risk. What can be said then is with a standard deviation of 4 percent and an expected return of 10 percent maybe this investment does not entice all investors. Many are maybe willing to take a considerably higher risk since if looking at the Stockholm stock exchange the standard deviation is around 24 percent. When Helios lays around 3-4 percent only, which is more similar to a bond index. On that note we felt that there were many that could be willing to take a little higher risk to be able to achieve a higher expected return. This is the reason for us choosing to create Helios 2xL with its unique leverage, because we thought there would be a market for it.”*

Comparing the performance of Helios 2xL and the initial version Helios, the risk has showed to be higher along with a return that is also greater than Helios. Mentioned earlier Helios 2xL has had an average annual return of 16, 7 percent and a standard deviation that has been equal to 8-10 percent along with a total managed capital of SEK 1,7 billion. With this in mind the motive behind the start up of the levered version can be seen as legitimate. How is it then that Helios 2xL does not apply more leverage to increase the effective size of its portfolio since it has shown that the expected return becomes higher to the cost of a reasonable increase in the risk? Is Brummer & Partners not eligible for more leverage or are the banks the reason behind it having certain limitations?

To prove our assertion wrong the following was concluded:

*“No, it is our choice of having the leverage on this level. The reason for it is that we believe Helios 2xL to have an appropriate risk level and sensible risk adjusted return. One could construct the fund with three times the leverage but then the fund would get characteristics that are not suitable for everyone to invest in. Then there are always a number of investors that are willing to take that risk. But then*



*there is that aspect of people becoming blinded of the possible returns that can be achieved and then the downside is not taken into consideration. So for that reason two times the leverage generates sensible ratios according to us.”*

At least we know that Helios 2xL’s likelihood of having a faith like LTCM is far away. Legislation in Bermuda regarding hedge funds use of leverage is in no harm due to Helios 2xL implementing this type of dynamic leverage. The hedge funds in the HFXS index are registered at FI and if they use this type of leverage technique there is also no need to create restrictions on excessive leverage unlike the American government had to do. We also see that it seems to be adequate of having two times leverage when looking at the return and Sharpe figures above. We also acknowledge that Brummer & Partners have the possibility to change this level if they feel that they can yield higher returns with more leverage. This means that they are somewhat in control of how much they want to leverage their fund and not the bank, however the bank always has the option to say no. As we see it Brummer & Partners has a great deal of flexibility here, which they receive because of their reputation and size in the Swedish hedge fund market.

#### **4.4.4 Multi strategy funds application of leverage**

Having investments in a hedge fund that uses leverage will increase the risk, which is why a portfolio of hedge funds is preferred as apposed to a handful of hedge funds (Ineichen, 2004). Maybe this is true, but we cannot seem to stop thinking that Helios 2xL could have proven even better than the already extremely well performance, under other circumstances. The first mortgage is SEK 850 000, which is a very high sum to invest. If an investor would have the opportunity to invest in Helios 2xL for a reasonably lower amount, we believe that the fund could have received even more possible investors than what they currently have today. Looking at the original version Helios e.g., has an entry fee of SEK 100 000.

Some authors believe that multi strategy funds have a positive effect on the market and that they are adding back the volatility to the industry by using leverage. The multi strategy funds use of leverage and the different underlying funds use of leverage creating a type of multiplier effect. Also this claims that the risk of the total portfolio becomes a somewhat unknown factor. (IDD, 2004)

Even if this is a rather common occurrence, it is not the case in Helios 2xL. Due to the underlying funds in the multi strategy fund consisting of only Brummer & Partners’s hedge

funds the uncertainty factor is excluded. Helios 2xL being unique with its characteristics, has proven to be a popular choice among the investors that come to Brummer & Partners.

According to Mr.Borgeström:

*“It has been positive and we are very satisfied with the current situation and we do not have any plan to have any more funds with leverage. But one does never know what the future holds. Helios 2xL’s capital, amounts to SEK 1.7 billion making it one of the larger hedge funds in Sweden only after being operational for 10 to 11 months. There are about 4 to 5 other hedge fund outside of B&P that are larger.”*

The fact that the fund utilizes leverage has turned out to be a successful investment vehicle. It seems as if Brummer & Partners believed that they could satisfy their current clients and new ones also with a new type of product, which is clearly evident. In respect to that, what is the effect on all the other funds that they also offer to investors has the interest in demand for them decreased or remained the same? Has a negative trend started to appear?

Mr.Borgeström said the following:

*“We still have new investments coming into Helios but of course there is a certain type of cannibalism between the funds since they are similar products. Some who have had investments in Helios have gone over to Helios 2xL. However we do not see this as a direct problem. For us it is actually something positive since we as a group receive an investment worth double, money wise, as it would have been if invested in Helios. Although we feel that Helios should continue as a product for we believe it to be very firm and stable. Both funds cater to different target groups. Helios is more of a low risk fund and it has a lower new investment hurdle at SEK 100 000 judge against Helios 2xL’s SEK 850 000. Not everybody can invest in Helios 2xL therefore we think that the investments into Helios will continue even in the future.”*

It becomes clear that Brummer & Partners knew that there was a potential market for Helios 2xL, thus to a certain extent since they mention that there would still be a demand for Helios. Meaning that a investor who is a bit more risk averse will more likely choose Helios as appose to Helios 2xL where an investor is willing to venture more capital, nonetheless to a higher risk. Just as Mr.Borgeström puts it a certain amount of cannibalism seems to have occurred after the launch of Helios 2xL. However this does not affect Brummer & Partners in a bad way since the investors seem to have switched to Helios 2xL from Helios. Thus, Brummer & Partners do not lose any investors and the fees that they charge are still paid by the same investors.

## 4.5 Legislation

### 4.5.1 Offshore registration

Helios 2xL is registered in Bermuda but catering to both the Swedish and international investors. One would think that the most obvious reason for having offshore hedge funds in Sweden would be the lower tax rate. According to Mr. Borgeström the reason is:

*“For Helios 2xL it was just a time factor, getting all the permits runs just so much faster in Bermuda. We previously had funds since 2003 in Bermuda so all the infrastructure was already set up. Finansinspektionen is a very good authority but they take long time when issuing new permits.”*

Besides the sheer speed of the Bermuda legislation apparatus other positive things with having an offshore fund in Bermuda are according to Mr. Borgeström:

*“In Sweden we have to create a brand new fund for each currency class. An additional advantage with Bermuda is that foreign investors have knowledge of the current legislation in contrast to Swedish hedge fund legislation. This is a factor of concern for both parties and now it is eliminated. Funds registered in Bermuda never yield dividends i.e. profits are reinvested in the fund. In Sweden you have to have dividends if you do not want to have double taxation, meaning that you have pay 30 percent tax on the profit. In short, this means that instead of paying tax each year you will receive an interest on interest effect at Brummer & Partners’ funds. You have a tax debt but on a long term perspective you get better returns.”*

The fact that investment vehicles in Bermuda reinvest their profits instead of paying them as dividends is like Mr. Borgeström says, a major reason for an investor to invest their capital in Bermuda registered funds. Many argue among them Mr. Borgeström that funds who reinvest their profits instead of paying a dividend, earn a higher return in the long run and are therefore more beneficial for the investor. This makes sense since more capital is invested that can earn more interest, thus you get an interest on interest effect.

Today there are many hedge funds registered in Bermuda, Cayman Islands etcetera, so of course there is a well-known knowledge on these countries’ regulations concerning hedge funds among investors. Therefore it might be a wise step to register a fund in these countries if the fund is catering to an international audience. Furthermore, these countries’ livelihood is greatly made up of financial services so the chances that huge changes in the legislation occur are unlikely, giving a stable legal environment for the hedge fund. Also in coherence with Gaber’s (2004) statements Helios 2xL being an offshore fund it can surpass the Swedish legislation.

The only downside expressed by Mr.Borgeström is that:

*“The downside with registering the fund in Bermuda was that the minimum hurdle rate got to be quite high, SEK 850 000 since their hurdle is USD 100 000. Had we chosen to register the fund in Sweden we could have lowered it to maybe SEK 500 000.”*

Of course there is a difference between SEK 850 000 and SEK 500 000 but to us it still is evident that these type of hedge funds are for people or institutions that have a lot of capital and if one has decided to invest in a hedge fund for half a million Swedish crowns then another SEK 350 000 is not that much. The higher entrance level of course affects the range of potential customers that will invest in the fund, however as Mr.Borgeström explained:

*“In sheer numbers the private investors are in majority. However, in the amount of invested capital the institutional investors account for about 80 percent.”*

Since as much as 80 percent of the capital in the fund is comprised of institutional investors, we do not believe that the entrance level becomes to be an obstacle.

Sweden has been in the forefront when it comes to hedge funds in the Scandinavia much thanks to Brummer & Partner who were the ones to first launch a hedge fund in Sweden.

*“When we created Zenit we were the first ones in Sweden, so the legislation was also created consistently with Zenit. There was a long one-year discussion with Finansinspektionen. Denmark and Norway are on their way but have dragged behind. Finland was rather fast and we have a fund there that started in 2002. There exists a need for hedge funds now since the fear of them has diminished. We see it as a possibility and not as a threat, there will most likely arise new hedge funds in Denmark and Norway, which will compete for the capital and the returns and so on. Beyond that our possibilities to find new investors and new managers for new funds are also a vital part for us.”*

Denmark and Norway are taking a more liberal approach towards hedge funds the coming year and just as Mr.Borgeström explains, the Scandinavian market will open up and present both threats and possibilities for Brummer & Partners. However we feel that Brummer & Partners has somewhat of a head start in comparison to other new hedge fund companies, which may arise in Denmark and Norway. Namely Brummer & Partners size will enable them to benefit from economies of scope along with their long experience having two distinguishing aspects that will help them in the near future. Although, they have to be on their toes and not fall into a comfort stage due to their current market share. Nevertheless,

what it comes down to is the performance of the fund(s). Even though historical return figures are notable, what future figures will be are still not known. We are sure that it will be an interesting year in the Scandinavian hedge fund industry.

With more and more hedge fund available for even more people through the Internet the European Parliament has been trying to harmonize the hedge fund market in Europe through a resolution on hedge funds, which focuses on provision of information to investors, rather than apply over-prescriptive rules and regulations. There is an ongoing debate about hedge funds and the obligations they should abide by. Needless to say the lawmakers and the hedge fund managers have two different opinions about the subject as explained by Mr. Borgström:

*“We want hedge funds to exist and be legal, but we also want there to be some kind of secrecy concerning what we are doing. Finansinspektionen demands that a regular fund should present its positions on a monthly basis. Previously we have presented our positions on a 6-month basis, but now it is quarterly even though there is a certain drag. We feel that one of the key points with hedge funds is that you should not know our current positions since it might be damaging for our investors. Besides it would make our managers’ jobs more difficult if everybody knew what positions we have. An index fund does not have that many options, they can either hold larger or few shares in Nokia, nothing fancy, whereas hedge funds have a completely different way of working. If someone knew exactly which positions a specific hedge fund had that person could go and act in a way that would damage the hedge fund. An aspect is that the fund could receive worse market prices when they are buying or selling their positions if the buyer and seller are known. Normally anonymity is provided through the brokers but if you know that B&P are in the possession of a large amount of a certain stock in a company, which they want to sell then you could take advantage of the situation and affect the price. So we think that we should be allowed to certain secrecy and now that Finansinspektionen seems to have moved a little bit in our favor it is promising, but we have to wait and see what the result will be. A relevant comparison would be as if H&M would show their clothes before selling them to the consumers.”*

Hedge funds have in contrast to mutual funds no restrictions such as a minimum cash reserve or that the investments must be spread out on at least ten different stocks and so on (Lhabitant, 2002; Lag (2004:46)). Hence, if a hedge fund manager (A) feels that a certain stock is undervalued he can invest all the hedge funds capital in a certain stock. Now, if he does this and his actions are known by everybody in the market another manager (B) that wishes to sabotage for manager (A), could affect the price of the stock in question. Or if he feels that manager (A) is a very competent manager maybe he will follow his move. This is what hedge fund manager’s fear, that they will lose their competitive power. Hedge funds are much more

vulnerable in the sense that they can have all their capital invested in just one investment and therefore their claim to not have to publish their holdings is comprehensible.

We acknowledge that this is a difficult subject to tackle and agree with Coffey et al. (2004) when they claim that since the LTCM crisis the industry has developed increased internal controls and risk assessment techniques. However, whether this change is enough or not is more difficult to say. Bearing in mind the after shakes of the LTCM crises the lawmakers viewpoints are understandable. But as Fox (2005) concludes, the hedge funds are a product of the current rules concerning mutual funds and fulfill a vital complement. Lawmakers have understood this fact and started to compromise as can be seen in Sweden where FI has changed the rules for hedge fund reporting concentrating more on risk and key ratios instead of holdings (FI: Promemoria, 2005-12-06). During our interview this had not been decided yet by FI, now it is definite. This will then enable Swedish hedge funds to continue their operations in secrecy, i.e. avoiding publications of their holdings falling into the wrong hands.

#### **4.5.2 Black box**

The fact still remains that hedge funds are a kind of a black box (Lhabitant, 2002; Gaber et al. 2004; Fox 2005) where money goes in one end and comes out in the others without us knowing exactly what transpires in the process. There are of course dangers with a black box like this as Gaber (2004) and Fox (2005) explains. The change of comparison index and so forth are all real examples and one thing we must keep in mind is that there are many actors in the global hedge fund market that might not be serious and stay around for long. Brummer & Partners have been active since 1996 and has earned a well-known reputation and received several awards for its hedge fund, it is also Sweden's largest hedge fund company (Cohen, 2005). Therefore, with these historical facts in mind we do not think it would have been possible for Brummer & Partners to have done similar acts as stated by authors Fox (2005) and Gaber et. al. (2004) earlier. In the long run no company benefits in tricking its future investors.

## 5 Conclusion

Our thesis purpose was to analyze how three variables affect Helios 2xL's performance in comparison to the Swedish hedge fund index HFXS. We have found that our research object Helios 2xL has outperformed the HFXS index

When looking at Helios 2xL's return for the whole period we found that it was higher than the HFXS index, with 53.2 percent and 39.3 respectively. The difference in the return figures above is explained by the difference in the standard deviation that was 2.2 percent for Helios 2xL and 0.9 percent for the HFXS index. We clearly see that Helios 2xL is earning higher return than the index and this is explained by the higher risk Helio 2xL is taking, measured by the standard deviation. Further, when looking at the Sharpe ratio, a well-used tool within the industry to measure the return depending on the risk taken, we found a noteworthy difference of 1.5 and 2.5 the former being Helios 2xL and the latter the HFXS index. This again is explained by the higher risk Helios 2xL is taking in comparison to the HFXS index however Helios 2xL is generating a higher return. We believe that the cause for the difference in the Sharpe ratios is more dependent on the standard deviation variable rather than the return variable since the standard deviation constitutes the denominator in the Sharpe ratio formula. We also used the OMXS\_PI index as a benchmark for a market comparison, and generally when looking at the hedge fund industry we found Helios 2xL and the HFXS index to be less volatile. Moreover, Helios 2xL and the HFXS index seem to have performed better than the market when it is bearish and worse when it is bullish.

The three variables that have been focused on are what make Helios 2xL significant and solitaire in the Swedish hedge fund industry. Its application of multi strategy, the usage of leverage and it being an offshore registered fund has all made it to be a unique type of hedge fund.

Helios 2xL being a multi strategy that includes its own funds as underlying fund is somewhat of a special feature in Sweden and we can see the benefits of this in the form of Brummer & Partners reap benefits from economies of scope and also being able not to charge double layers of fees. Moreover, the multi strategy fund gives the investor a diversified portfolio with a lower required amount of investment than if the investor would try to achieve the same diversification on his own. However, the downfall is that the investor also gives up control of his investment since the capital has to be committed to the fund for a specific length of time and in addition, he is in no position to affect the choice of the underlying funds that are

included in Helios 2xL. Another aspect is that Helios 2xL is only comprised of seven underlying funds, and since Helios 2xL has yielded a higher return than the HFXS index we believe that the current number of underlying funds is optimal. However this number may change in the future depending on the market environment.

Leverage is seen as a value enhancement tool that with implementation increases the exposure of the funds investments. Helios 2xL's usage of the leverage in their operations has proven to have an effective result since a type of dynamic leverage is used with precautions in the form of regulating the leverage exposure depending on the markets environment. An investor that wants to increase his exposure by leveraging himself creates two kinds of risks. Firstly, the implementation of a dynamical leverage is not possible and secondly taking the risk of being stuck with a debt to the bank if outcomes are not as predicted. The positive aspects with this type of leverage strategy, is that the investor avoids the risks involved with having borrowings from a bank.

Being an offshore registered hedge fund has given Brummer & Partners a fund that abides by better-known sets of rules and thus also caters to an international clientele. Furthermore, offshore funds registered in Bermuda reinvest their profits into the fund in contrast to funds registered in Sweden that have to pay out a certain amount as dividends. The reinvestment gives offshore funds a better performance in the long run since the capital is earning interest on interest giving Helios 2xL an advantage towards other Swedish hedge funds. Hedge funds have a reputation of being somewhat of a black box, where the investors have no insight into the fund. Helios 2xL being an offshore fund benefits from these characteristics and can continue to act unaffected by the Swedish legislation. During the process of this thesis FI decided to change the reporting rules for Swedish hedge funds, focusing more on risk and key ratios instead of holdings. This will allow hedge funds to continue to function as a black box just as their offshore counterparts. We must however understand that the hedge funds are a consequence of the current legislation concerning mutual funds and fulfill an important role in the financial market today as an alternative investment.

Conclusively, we can see that the three variables multi strategy, leverage and offshore registration in coherence with each other have all contributed in making Helios 2xL yield a higher return than the comparison HFXS index. We feel that through our research, Helios 2xL has proved itself to be a suitable investment vehicle. This is due to it currently having an optimal diversification and implementing a dynamic use of leverage. Both these factors have



shown to be extremely difficult for an investor to conduct on his own. Moreover, the fact that no double layers of fees exist for Helios 2xL and that it is exposed to an offshore environment, which in the long run yields the fund a higher return, are characteristics that further increase our believes of Helios 2xL being prominent investment opportunity.

## 6 Further research

During our thesis we noticed that there are many areas that are not dealt with when it comes to hedge fund performance, not only concerning different measurement tools but also when focusing on various variables. Due to the hedge fund industry's history, there is still a lot of research that can be done to get further knowledge and understanding of the industry. We feel that the areas we would like to see further research within are:

- How do the three variables we included in our paper act independent from each other. In our paper we have seen that when they interact, the return for the fund is significantly higher than the comparing index. Then how does e.g. a multi strategy fund with underlying funds except its own perform or how does an offshore hedge fund without leverage perform?
- Another interesting research topic is to see how the development of hedge fund legislation will affect the claim made by many, that hedge funds are seen as black boxes. Will the new proposed law made by Finansinspektionen really let hedge funds to continue acting in secrecy or will it lead to greater insight into the hedge funds operations? It might be of interest to see how other countries tackle the black box problem and then make a comparison study.
- During the process of writing this paper we have come into contact with many publications that held the Swedish hedge fund industry in great regards. Does the Swedish hedge fund industry really have high key ratios in comparison to e.g. American or European hedge funds?

## References

- Aaker D., Day G. (1986). *Market Research-Third Edition*. John Wiley & Sons, Inc.
- Ackermann, C., McEnally, R., Ravenscraft, D., (1999). The Performance of Hedge Funds: Risk, Return, and Incentives. *Journal of Finance*, Vol. 54, p833-874.
- Akerlof, George, (1970). The Market for 'Lemons': Quality Uncertainty and the Market Mechanism, *Quarterly Journal of Economics*, 1970, Vol. 84, Issue 3, pp.488– 500.
- Alexander, C., Dimitriu, A., (2004). *The Art of Investing in Hedge Funds: Fund Selection and Optimal Allocations*. Workingpaper, ISMA Centre. 2004
- Amenc, N., Bied, S.E., Martellini, L., (2003). Predictability in hedge fund returns. *Financial Analysts Journal*, 2003, Vol. 59, Issue 4, p32–46.
- Amenc, N., Giraud, J.R., Martellini, L., Vaissie, M., (2004). Taking a Close Look at the European Fund of Hedge Funds Industry: Comparing and Contrasting Industry Practices and Academic Recommendations. *The Journal of Alternative Investments*, Winter 2004, p59-69.
- Amin, G., Kat, H., (2002). *Portfolios of Hedge Funds – What Investors Really Invest In*. Working paper. Alternative Investment Research Centre, 2002.
- Anderlind, P., Dotevall, B., Eidolf, P., Holm, M. & Sommerlou, P., (2003). *Hedge Fonder*. Lund: Grahns Tryckeri AB.
- Bell. J., (2000). *Introduktion till forskningsmetodik*. 3:e upplagan, Studentlitteratur: Lund.
- Bolander, H., (2003). Fondsparande - För och emot nya fond-i-fond. *Privata Affärer*, 2003-10-27.
- Brigham, F. & Gapenski, L. (1993). *Intermediate Financial Management*. HB Dryden: UK.
- Brown, S.J., Goetzmann, W.N., Ibbotson, W.N., (1999). Offshore Hedge Funds: Survival and Performance. 1989-95. *Journal of Business*, Jan99, Vol. 72 Issue 1.
- Brown, S.J., Goetzmann, W.N., (2003). Hedge funds with style. *The Journal of Portfolio Management*, Vol. 29 Issue 2, p101-112, 12p, 3 graphs, Winter 2003.
- Coffey, J., Somnier, J.O., Wessing T., (2004). The European Parliament Wants Hedge Funds to Come Onshore. *Alternative Investment Management Association Journal*, April 2004.

Cohen, B., (2005). Pioneering firm leads the way. *Eurohedge Special Report Scandinavia*, 2005 July, p.12-18.

Dahmström, K., (2005). *Från Datainsamling Till Rapport – att göra en statistisk undersökning*. Studentlitteratur: Lund.

Denzin, N.K. & Lincoln, Y.S., (1994). *Handbook of Qualitative Research, Introduction: Entering the Field of Qualitative Research*, in Denzin, N.K. & Lincoln, Y.S. (Eds), California, USA: Sage Publications, 1994, pp.1-17.

Do, V., Faff, R., Wickramanayake J., (2005). An empirical Analysis of Hedge Fund Performance; The Case of Australian Hedge Fund Industry. *Journal of Multinational Financial Management*, 2005, Vol. 15, Issue 4-5, p377-393.

Ellis, C., (1993). *Investment policy: How to win the loser's game*. 2<sup>nd</sup> ed. Homewood, IL: Business One Irwin.

Elton J, Gruber M, Brown S, Goetzmann W, (2003). *Modern Portfolio Theory and Investment Analysis*, 6<sup>th</sup> edition, John Wiley & Sons, Inc., USA, 2003.

Engzell-Larsson, L., (2005). Än bestämmer rädslan hur svenskarna sparar, *Affärsvärlden*, 2005-03-15.

Edwards F, Caglayan M, (2001). Hedge Fund Performance and Manager Skill. *The Journal of Futures Markets*, (2001), vol. 21, nr. 11.

Edwards, R., F., (1999). Hedge funds and the collapse of Long-Term Capital Management. *The Journal of economic perspectives*, Vol. 13, No. 2 (Spring, 1999), p. 189-210.

Eriksson, K., (1992). *Broar – Introduktion i vårdvetenskaplig metod*. Oy Arkmedia AB, Vasa, 1992.

Fama, E.F., (1965). Random Walks in Stock Market Prices, *Financial Analysts Journal*, Sep/Oct 65, Vol. 21, Issue 5, p55-59.

Favre, L., Galeano, J.A., (2002). Mean-Modified Value-at-Risk with Hedge Funds, *The Journal of Alternative Investments*, vol. 5, nr. 2, p. 21-25.

Finansinspektionen, Promemoria, (2005-12-06). *Förändrade rutiner av publicering av specialfondens (inclusive hedge fonders) innehav och risktagande*.

- Fox, J. (2005). Fear of Black Box. *Fortune*, 11/14/2005, Vol. 152 Issue 9, p86-90, 4p.
- Gaber, M., Gregoriou, G. N., Kelting, W., (2004). *Funds of hedge funds: Ethics of this black box strategy*, *Pensions*, Vol. 9, 4, p328–335.
- Gill J., & Johansson P., (1997). *Research Methods for Managers*. London: Paul Chapman Publishing Ltd.
- Goldman Sachs, (2003). *Goldman Sachs Prime Brokerage Annual Hedge Fund Survey*. 2003.
- Gummesson, E., (1988). *Qualitative Methods in Management Research: Case Study Research, Participant Observation, Action Research/Action Science, and other “Qualitative Methods” used in Academic Research and Management Consultance*, United Kingdom, Chartwell-Bratt Ltd.
- Hedge Fund Index Sweden, (2005). *Regelverk för Hedgefondsindex Sverige*. Published by Harcourt Investment Consulting AB.
- Holme, I.M. & Solvang, B.K., (1997). *Forskningsmetodik: om kvalitativa och kvantitativa metoder*. Sverige: Studentlitteratur AB.
- Ineichen, A.M., (2002). Do Fund of Hedge Funds Managers Add Value?, *Alternative Investment Management Association*, February 2002.
- Ineichen, A., (2003). *Absolute returns*. John Wiley & Sons, Inc., Hoboken: New Jersey, USA.
- Ineichen, A., (2004). Absolute returns: The future in wealth management? *Journal of Wealth Management*, summer 2004 p.64-73.
- Johnson, M., (2004). *Funds of Hedge Funds Hit the Muni Market*, *Financial Planning*; Aug2005, Vol. 35 Issue 8.
- Jones, A., W., (1949). Fashion in forecasting. *Fortune*, 88, March, p. 186.
- Kat, M. (2003). *10 Things Investors Should Know About Hedge Funds*. Working Paper #0015. Alternative Investment Research Centre.
- Kvale, S., (1997). *Den kvalitativa forskningsintervjun*. Lund: Studentlitteratur.
- Lag (2004:46) om investeringsfonder.

- Liang, B., (1999). On the Performance of Hedge Funds. *Financial Analyst Journal*, Vol. 55, Issue 4, p72-85.
- Lhabitant, F., S., (2002). *Hedge Funds : Myths and Limits*. Chichester, New York : Wiley cop.
- Lekvall, P.,(2001). *Information för marknadsbeslut – fjärde upplagan*. Göteborg: Ihm Publishing.
- Learned, M., Lhabitant, FS., (2002). Diversification: How Much Is Enough. *The Journal of Alternative Investment*, Winter 2002, pp. 23-49.
- Lenzner, R. (1998). Archimedes on Wall Street. *Forbes*. October 19, p. 52.
- Lindmark, J., (2005, February 18). The Economist varnar för hedgefonder. *Morningstar*, p.24-25.
- Loomis, C., (1966). The Jones nobody keeps up with. *Fortune*, April, p. 237-247.
- Macrea, D., (1992). Getting rich with hedge funds. *Global Investor*, June 1992.
- Markowitz, H., (1952). Portfolio selection. *Journal of Finance*, Mar, 1952, Vol. 7 Issue 1, p77-91, 15p.
- Merriam, S. B., (2002). *Qualitative research in practice: examples for discussion and analysis*. Jossey-Bass: San Francisco, USA.
- Miles, B.M., Huberman, M., (1994). *Qualitative Data Analysis*, CA, USA: Sage Publications.
- IDD, (2004, September 9). Multiplier effect. *Investment Dealers Digest*, Vol. 70 Issue 36, p24-33, 8.
- Nathanson, A., (2005). *Funds of Funds: A Growing Class of Middlemen, Buyouts*. 2005, July 18, p22-24.
- Neuman, L., (2000). *Social Research Methods- Qualitative and Quantitative Approaches*. USA: Allyn & Bacon.
- Naik & Uppal (1994). Leverage constraints and the optimal hedging of stock and bond options. *The Journal of Finance and Quantitative Analysis*, Vol. 29, No. 2 (Jun., 1994), 199-222.

Palutko Macéus, K., (2004). *En helt naturlig utveckling Intresset för hedge fond i fond ökar*, Dagens Industri, 2004-12-06.

Patel. R. & Tebelius, U. (1987). *Grundbok i forskningsmetodik*. Studentlitteratur: Lund.

Report of the presidents working group on financial markets, (1999).

Schneeweis, T., Martin, G., Kazemi, H., Karavas, V., (2005). The Impact of Leverage on Hedge Fund Risk and Return. *Journal of Alternative Investments*, Spring 2005, Vol. 7 Issue 4, p10-21.

Schwager, J.D., (1990). *Market wizards: Interviews with top traders*. New York: NY, 1990.

Sharpe, W.F., (1964). Capital asset prices: A theory of market equilibrium under conditions of risk, *Journal of Finance*, 19 (3), p.425-442.

Sharpe, W.F., (1966). Mutual Fund Performance. *Journal of Business*, Jan66 Part 2 of 2, Vol. 39 Issue 1, p119-139.

Soros, G., (2003). *The alchemy of finance*. Published by John Wiley & Sons, Inc., Hoboken, New Jersey.

Svenning, C., (2000). *Metodboken*. 4:e fjärde upplagan, Conny Svenning och Lorentz förlag, Eslöv, 2000.

Temple P., (2001). *Hedge Funds: Courtesans of Capitalism*. John Wiley & Sons. Inc., New York, USA, 2001

Yin, R., (1994). *Case Study Research: Design and Methods*. (2<sup>nd</sup> ed.), United Kingdom, Sage Publications.

Weinberg, N., (2003, August 12). Fees on Fees. *Forbes*, Vol. 172 Issue 12, p186-188.

Williamson, C., (2004). Hedge funds of funds adding leverage brud. *Pensions & Investments*, 2004-12-13, Vol. 32 Issue 25, p.3-49.

## **Internet**

Hedge Fund Association <http://www.thehfa.org/> (2005-10-10)

Avanza <http://www.avanza.se> (2005-11-30)

Morningstar <http://www.morningstar.se> (2005-11-29)





# Appendix 1

## Brummer & Partners

The Brummer & Partners Group, which is privately owned and independent, was founded in 1995. The Group has approximately 125 employees in four countries (Sweden, Finland, Norway and USA). Brummer & Partners is ranked as one of the leading hedge fund managers in Europe.

Brummer & Partners offers a wide supply of absolute return funds, so called hedge funds. As of November 30<sup>th</sup> 2005 the total managed capital came up to SEK 34 billion. Brummer & Partners is currently owned by Patrik Brummer, Svante Elfving, Kent Janér, Per Josefsson, Klaus Jääntti, Torbjörn Olofsson and Peter Thelin.

### The hedge funds

At present, the Group is engaged in the management of eight hedge funds, one multi-strategy fund and one leveraged multi-strategy fund. Each of the hedge funds uses a different absolute return strategy (long/ short equities, market-neutral, derivative-based, macro and quantitatively oriented fixed income and currency strategies). The individual funds focus on different absolute return strategies and they are the following.

Zenit Asset Management AB manages the onshore hedge fund Zenit, a fund that invests in global equities and equity-related financial instruments. The Fund was started in July 1996.

Nektar Asset Management AB manages the onshore hedge fund Nektar, a market neutral fund that started in January 1998. B & P Asset Management (Bermuda) Ltd. manages the fund Nektar (Bermuda) Ltd. that started in July 2003.

Futuris Asset Management AB manages the onshore hedge fund Futuris, a long/short equity fund with focus on Europe and the Nordic countries. Futuris was started in October 1999.

Lynx Asset Management AB manages the onshore hedge fund Lynx, which is managed with a concept called Systematic Global Asset Allocators. Lynx was started in May 2000. B & P Asset Management (Bermuda) Ltd. manages the fund Lynx (Bermuda) Ltd. that started in April 2004.

The Finnish fund management company Avenir Fondbolag Ab manages Avenir, an onshore hedge fund which was also started at year-end 2000.

Manticore Capital AB manages the onshore hedge fund Manticore, focusing on IT, telecommunications and media. The Fund was started at year-end 2000.

Latitude Asset Management AB manages the onshore hedge fund Latitude, a macro fund focusing mainly on fixed income markets within the OECD area. Latitude was launched on October 1, 2003. B & P Asset Management (Bermuda) Ltd. manages the Latitude Fund (Bermuda) Ltd. that was launched in October 2003.

The Arcos Fund, a quantitatively based absolute return Fund focusing on the global government bond and currency markets, was launched on February 1, 2004. The Fund is managed by Finnish Arcos Fondbolag AB.

Helios and Helios Euro were launched in April 2002 and October 2002, respectively, and are funds of hedge funds that invests equally in Zenit, Nektar, Futuris, Avenir, Manticore, Lynx and Latitude.

Helios 2xL (from “2x Leverage”) is a multi strategy fund offering a leveraged investment in a basket of hedge funds (same as in Helios above) managed by fund management companies within the Brummer & Partners Group. The fund is managed by B & P Asset Management (Bermuda) Ltd.

All the above-mentioned Swedish and Finnish Fund management companies manage onshore hedge funds, where Finansinspektionen in Sweden and Finansministeriet in Finland have approved the fund rules. The Fund management companies are subject to supervision by these authorities.

Source: Brummer & Partners

## Appendix 2

### 1. Interview with Filip Borgeström at Brummer & Partners, 25th November 2005

#### General Questions and Questions Regarding the Fund's Performance

1. *Tell us a little about your role here at Brummer & Partners (B&P)?*

I work at Investor Relations together with my boss who has contact with the investors. I personally work a lot with the information on the web, make different reports and meet investors and inform them about our different products. It is not specifically called “sales”, we do not express it like that, we take care of our customers who come in and often they have found us on the internet or in different databases or in financial magazines. Usually they know a little bit beforehand but when they want more information that is when we meet them. After having an initial meeting with some customer they perhaps want to meet one of the managers and hopefully after that they invest in our funds.

2. *How many managers are working with Helios 2xL and how much capital does the fund contain.*

Helios and Helios 2xL are a little special since they do not have their own managers as a usual fund. Just like an share based fund the fund invests shares in different assets, in our case our seven underlying funds. If you compare this to any other fond of funds you find a whole analyst team who go through a whole universe of hedge funds in order to find a well balanced product. We have chosen a different method. We only take in fund which we feel fit into the group and contribute low correlation with out previous funds and have a great confidence from our managers. One could say that his is the actual management of Helios 2xL and this is done at a partner lever, the executive board at Brummer & Partners. It is between seven and ten people. Once this point had been reached and an interesting object has been found a group of quant analysts go to work and analyze the fund more toughly. All Helios 2xL's capital is equally distributed among the seven underlying funds, there is no intelligent allocation present.

Brummer & Partners consists of 125 to 130 persons where 85 people work in the actual management, both analysis and trading, and 45 employees work with back office and infrastructure. Brummer & Partners future goal is to take in new funds and approximately a new fund has been added every year since the start in 1996. It is kind of a goal that when we find a good team or a manager we should be able to start up new funds. This summer we started a fund called “Raisepoint” with a focus on the American sectors and industry groups. It does not invest in specific stock but neither in the large groups but somewhere in-between. It is quantitatively driven, meaning they have a certain number of indicators such as, unemployment rate, level of stock and so on. From these they get an overall picture of how the large groups operate.

The optimal number of funds in Helios 2xL is somewhere between 10 to 12 funds. If we look at what happens when one increases the number of funds in the portfolio we see that the diversification and the allocation of risk is increased resulting in a decrease in the volatility. Meanwhile we should not over diversify because then in the end we would not receive any

return. Somewhere in-between there is an optimal level and we believe it is 10 to 12 funds in our case.

3. *Hedge funds are characterized by managers investing their own capital in the funds. Is this also the case for Brummer & Partners?*

Absolutely, when Zenit was launched in 1996 it consisted of the five partners who all come from Alfred Berg. They started with their own capital and this custom has continued. When new funds are added the managers invest their own capital and likewise other employees tend to do so too. It is common for B&P to invest a share of its profits in the funds. I do not know the exact figures but roughly SEK 1 billion of B&P's capital is invested in the funds plus what the managers' capital. Of course it is a part of our business plan and it shows our customers that we have confidence in what we do. We strongly feel for what we are doing and believe that it is better than investing at another company or putting the money in the bank.

4. *How has the development been for Helios 2xL?*

It started January 1<sup>st</sup> 2005 so it has not been active so long yet, but already it has generated a return of about 15 percent. It had a very heavy month in November but before that the return has been around 20 percent. And since this fund is built upon the regular Helios and Helios 2xL being the levered version, history from 2002 is retrievable. Simulations even further back can be done since the underlying funds in Helios have existed longer than that. If one chooses to do that it will show an average return of 16,7 percent, a standard deviation of 8 to 10 percent and a Sharpe of close to 1,6 which is really good. Then as always, a pro forma is not a guarantee tool of the future, but if one looks at how Helios performance it shows that it has been extremely stable. What is fun is that under the years it has been different underlying funds that have been the driving force for Helios. During 2002 it was Zenit and Nektar that were performing very well and in 2003 it was Lynx and Manticore. In 2004 Latitude was the star with a return of 50 to 60 percent. This year it has been a little more mixed between them, Avenir has put its neck out and Latitude has performed pretty well. This demonstrates how the diversification strategy works, that funds can have bad years, however seeing the product as a whole it has an extremely good return process.

5. *How has the performance been in comparison to other funds on the market?*

Extremely good, but what we must always bear in mind in the hedge fund world is that performance is always measured in accordance with the risk. There are probably funds with an annual return high as 16 percent but if we look at the risk adjusted return, we look at a Sharpe ratio, Helios 2xL has a ratio of 1.5 to 1.7 which is good, really good. Anything over one is good. It came to my attention yesterday that the Investor Institutional Review will probably reward Helios 2xL with the title of being the best leverage product in Europe this year.

6. *How have you concluded the pro forma and is it commonly used in the industry?*

Since Helios 2xL is a levered version of Helios so we have omitted from Helios and looked at its monthly returns, and also we know that the exposure is the double. Meaning that if there

would not be any additional financial costs the return would be the double. What we do is to compensate for certain calculation costs and different fees, it is very easy everything is done in Excel and it is all standardized. What we really do is look at the interest rate position, which we then have to deduct on the return. And yes, this is fairly ordinary. A pro forma is a little bit special, one may often use it when a started fund has another currency class on the specific fund. Then it is used to extrapolate back in time on the basis of how the other mirror has performed. The reason for us choosing to base our pro forma from the period of 2002 is because Helios started then. We have calculated the outcome even further back in time, but it does not provide much. Now we have three years and then one usually starts to talk about those statistical measures without it becoming a too large uncertainty. It is hard to calculate a standard deviation for six to seven years' correlations and it easily arises miscounts then.)

7. *What do you mean by absolute return and are you comparing the return to an index*

The difference between absolute and relative returns is that one does not compare it to an index. So regardless of how the markets perform we always aim for a positive return. The goal is to create value incensement. This is a broad goal but then each underlying fund has its own more specific goals. They all have different strategies i.e. Lynx which is a pure quantitative trend following model with its models set at a annual standard deviation of 18 percent and it has historically generated an return of 20 percent. So it depends on the fund's strategy. Latitude, who has a goal of generating an annual standard deviation of 10 to 20 percent, but also an annual return of 10 to 20 percent. Then under really bad conditions the managers might be satisfied with an annual return of 6 to 7 percent. The bottom line is that we should not loose money and all funds should increase.

8. *How is the distribution of private and institutional investors?*

In sheer numbers the private investors are in majority. However, in the amount of invested capital the institutional investors account for about 80 percent. Still there is quite a large portion made up of private investors, which is the case for all B&P's funds. The number of private investors exceeds the institutional in volume but not when it comes to capital, which is relatively natural since the institutions have access to more capital.

## **Questions Focusing on Multi Strategy**

9. *What are the benefits of investing in your multi strategy fund from a investor's perspective? Instead of investing in each individual fund?*

The overall benefit is that with a multi strategy fund you receive a diversification, which you would not get if you choose only one or two funds. In other words you get a well-balanced and diversified portfolio of hedge funds. And with hedge funds this is very difficult to achieve by your self. It is a complex product and hedge funds might perhaps be difficult for many people to understand what it is they do. It requires quite a lot from an investor to fully understand which environments and which expectations that are best for a fund such as Lynx for example. Secondly, with hedge fund you are presented with quite high minimum investment level. We have a minimum new investment level of SEK 850 000, which is rather low compared internationally. If glancing at the European or American hedge fund market where USD 1 million is not totally unthinkable, SEK 850 000 is pretty low. So if an

institution or a private person would want to create his own portfolio with us, he would have to invest at least SEK 4 million in order to get his own diversified portfolio, similar to Helios. Not everybody can do that. Then Helios is a good choice for the private investor since he or she gets access to this type of product, to a lower price. Although perhaps not everybody can invest in this type of hedge fund, but it surely becomes easier for many, instead of having an investment cost of SEK 4 million. An additional benefit with hedge funds, multi strategy funds are that they are closed, which gives rise to certain limits. An usual index fund traded on the Stockholm stock exchange, where all the companies are so large that they actually only grow on sheer volume, since they in theory can take in unlimited amounts of capital. But a hedge fund uses more exotic products and then there are capacity limits. The fund cannot grow indefinitely and is commonly closed. However, investors who have already invested in the fund are usually allowed to continue. In this way the investors still have access to closed funds.

In our case Latitude (Bermuda) is closed and Latitude (Sweden) is attached with a higher investment fee to defer new investment. Helios invests in all funds, including Latitude granting the investors access to otherwise closed funds, which is an advantage.

*10. What is the fee structure for Helios 2xL?*

“Helios 2xL does not charge any fees, the only fees are the ones for each underlying fund. There are fund of funds that take as much as half of the performance fees or some other kind of fixed fee. We do not approve of that structure since in the end it is always the investor who pays. This is an additional reason why we invest in our own funds, in order to offer this to the investors while still making money on it. We also have not kick backs.”

*11. Is the statement correct that if one invests in a Helios 2xL then I have to pay double fees?*

No, see previous question

*12. Do Helios 2xL employ "hard-" or "soft closure" and where is the line drawn?*

This is a special case, since Helios 2xL is not a Swedish fund, and Swedish funds are not allowed to close. What one does instead is to postpone the investment so that the fund gets a temporary closure. In Sweden we have to treat all investors as equals and we can have a fund opened for some and closed for some. In the case of Helios 2xL, the fund is registered in Bermuda so we could close or open the fund for a specific individual or put a limit on how much would be allowed to invest in the fund or just close the fund completely if we want to. So far this has not been a topic since we still have capacity in our funds except for Latitude, which is one of the underlying funds and is closed. Moreover, in our credit agreements we have rather large margins allowing us to grow greatly before they have to be revised. Currently we have no “closure” but it might be relevant in the future if we do not find new funds that can accommodate new investment, due to our funds starting to reach their maximum capacity. We do not want to grow on volume, we do not make money on managing billions of trillions of capital. What we make money on is that our funds perform

well with huge returns. Most of our income comes from performance fees and if we feel that the possibilities might be limited by the size, then we will not earn anything. Therefore it is not in our interest to take in more capital than we are certain that we can manage. This is similar to what investors usually want. They are not interested in whether the fund increases in size or not. The only thing that is important is that the fund yields a good return. In this aspect this is where our two worlds as investor and manager touch.

*13. What interaction exists between the underlying funds? Do they have knowledge about each others holdings in certain assets and does Helios 2xL draw any benefits from this? (asymmetric information towards the investors)*

All hedge funds at B&P are managed by individual companies resulting in eight different companies with its own employees and managers and so on. Most of us are working here but we also have a fund in Helsinki, one in Oslo and one in New York. We want to create an environment enabling exchange of ideas and intellectual thinking but the managers never talk about individual transactions. It never happens that somebody says “Ericsson looks good now, so let buy it”. That would give rise to the funds starting to correlate and that is absolutely not in our interest. We have however the same infrastructure when it comes to risk measuring, control and development etcetera which the funds share. It also happens that the managers meet in the hallways and chitchat about social and economical world events. Zenit for example has a morning meeting discussing what happened on the American market last day, where everybody was invited to participate. A kind of “rap up” is done and Latitude usually participates since it provides them with information on the microenvironment and how the stock market is doing. They do not invest in stock but it is important for them to have knowledge about these fields in order to understand the macro environment which they are actually working with. So of course there exists an exchange of information and one could call it asymmetric information. The system is built upon us having common knowledge, but to make individual decisions. If we find an article that might be relevant and seen as helpful, of course we send it to everybody. We are often visited by investment banks and economists who present different cases for us which many of us are taking part in. But in the end we all go back to our positions and draw our own conclusion, which is extremely vital.

*14. What is your view on the criticism on multi strategy funds arguing e.g. that by investing in this kind of funds one loses control of his investment?*

Sure, one loses control. The investor is tied to a certain number of funds which are determined by somebody else. This could be remedied by doing everything yourself which means that you are actually buying a service. We have the know-how for creating a well-diversified product, if you possess this yourself there is no need to do it through us. There is also a vast number of hedge fund out there on the world market and if you are to analyze them all, well it requires a great effort from the investor to compose the best well diversified portfolio. For private or institutional investors who do not have these resources, we are a perfect alternative. You get a great package, which might be troublesome to get on your own. In our case you do not have to pay fees as you have to do at other companies. Certainly, you lose a part of the control but meanwhile that might be control that you should not have had in the first place, or do not want to have had, if you do not have the knowledge.

*15. Why do you divide the capital equally among the underlying funds? Why does the investor have to pay a fee when he could have done this allocation himself?*

The probability of you as an investor making such a good allocation on your own, is equal to you getting a lower return. We feel that there is a certain beauty in having 1/7 in each underlying fund and we believe that this results in a very first-rate portfolio.

Moreover we think that a balanced product like this gives us good key figures and is thus a fine product. Helios 2xL has closed to SEK 1 billion invested in each fund. B&P usually owns around 40 percent of the underlying fund where the remaining 60 percent is owned by the managers resulting in a share of losses and profits. Lynx for example started 2000 and was assimilated into our group in 2002, just because the three managers felt that were not succeeding in gathering enough capital for the fund. Considering the fact that they did not have the infrastructure they have to today it is understandable that they had a hard time convincing large investors to invest. We at B&P have a whole structure, giving rise to a certain security with a large back office team and a well-known reputation in the business. A critical mass exists for the fund to be able to survive, it is not possible to exist on only managing SEK 10-20 million in a longer time span. You have to reach a certain volume before it becomes profitable. This allocation of 1/7 in each fund is something we started with in 2005. Earlier we used a system that when new money entered the fund it was allocated 1/7 to each fund. Then if a fund performed well its share grew and was then a little bit higher than the others. Then the fund received a little less the next time new capital was invested. We wanted to simplify the process since there is a beauty in keeping it simple. What we came up with was that we reallocate the capital once every quarter when Helios 2xL is tradable. This means that if a fund has performed well and another not so well, we gather the capital again just to redistribute (reallocate) it so that 1/7 is invested in the underlying funds again.

*16. What is the main reason for B&P to have a multi strategy fund?*

We saw a demand and we thought that a market existed among our investors. It turned out better than our expectations and we have a total capital in just money, around SEK 1,7 billion. In total that is a little more than SEK 3 billion. So the market, press and investors have given our product a warm welcome.

*17. Can you just not say that the multi strategy fund is a competitive tool?*

Helios and Helios 2xL's prerequisites give case for a very powerful competitive tool, but the reason for starting Helios 2xL is that we have a large amount of high net private investors who have a lot of money invested in one fund but they are not aware of the risks. We felt that it could have been complicated to reach a relatively big private market. Therefore when we started Helios 2xL we tried to reach investors who had gathered financial assets of around SEK 500 000. These people would be possible customers but as time went on more and more institutional investors started to invest in the fund. This was something we had not considered. We thought they were more interested in specific strategies but many of them think this strategy is perfect. Hedge funds is a somewhat new concept in Sweden and requires some knowledge.



## Questions Focusing on Leverage

*18. How many hedge funds employ leverage in Sweden today?*

I do not know, but most of the funds employ some sort of leverage somehow.

*19. Some consider leverage to be a mean to increase return on the investment, what is your definition of leverage?*

We usually say that leverage is long positions plus short positions divided by the funds total capital subtracted with 1. So what it really means is, how large is the value of long- and short positions in your portfolio? Let us say that you have invested SEK 100 million in long positions and at the same time lent SEK 100 million in short positions, this will bring a leverage of 100 percent. This is how we define leverage in our activities

*20. In the case of Helios 2xL the usage of leverage is a special variable, do you consider leverage to be part of a strategy, Helios 2xL's strategy?*

Not everyone has leverage products, having a fund and offering a levered version of the same fund. We have chosen to do this on Helios because it has those qualities, for example a fairly low risk, meaning a diversified product that is a result of the low risk. What can be said then is with a standard deviation of 4 percent and an expected return of 10 percent maybe this investment does not entice all investors. Many are maybe willing to take a considerably higher risk since if looking at the Stockholm stock exchange the standard deviation is around 24 percent. When Helios lies around 3-4 percent only, which is more similar to a bond index. On that note we felt that there were many that could be willing to take a little higher risk to be able to achieve a higher expected return. This is the reason for us choosing to create Helios 2xL with its unique leverage, because we thought there would be a market for it.

Anybody can borrow on their positions but in regard to how we do it with the huge volume we can lower the credit cost and get much better terms than any individual could have. Another effect is that the leverage is dynamic, so the relationship between the invested capital and the borrowed capital is always one to one. Further it is readjusted quarterly, if the fund increases the borrowed amount also increases and the other way around. This means that the relation is always equal. If you were to buy Helios 2xL for SEK 100 000 and borrow SEK 100 000 then the fund would increase in value to SEK 150 000 you would still have a loan of SEK 100 000. As a result your borrowed ratio would not be as high as before. On the contrary of the fund would decrease in value you are stuck with a loan of SEK 100 000 and then you can loose more than you have invested. In our way, you have a constant borrow amount and you never risk more than the capital you invested, which is a good thing for you. It would be though to loose all ones money and than on top of that own the money just as much.

*21. What is the motive behind leveraging your multi strategy fund and not on of the underlying hedge funds instead?*

We deem Helios to have been tremendously reliable and therefore it is legitimate to leverage the fund. We would however not have done this on any of our underlying funds. Looking at Zenit that has a standard deviation of 14 percent it can loose 4-5 percent without being a cause

of concern. Having leverage on a fund like this would give us hefty volatility and there are always people who would enter the fund during a bad period causing a lot of bad will. Therefore, we have decided to use Helios which as a more stable return as the base for a leveraged fund.

*22. Many authors see leverage as strategy tool, some say that it involves borrowing capital, spreading the return form short sales or that it is used through derivate instruments. What is leverage's function in Helios 2xL?*

By taking short positions, it does not mean that one uses leverage in the sense that we do in Helios 2xL. It is rather that one uses leverage in the active management of the fund making it a part of the long/short strategy. Our reason for using leverage is that we want to increase the exposure to the underlying funds. Easily said here once more, instead of investing only SEK 100 000 the leverage utilizes the total exposure to be SEK 200 000, which in turn increases the expected return but also the risk

*23. Is it practical to use this dynamic leverage?*

It is perhaps practical for many but not for everyone. There are people who are day-trading and take loans on their houses just to get a higher exposure on their investments. Maybe then the dynamic part is not very practical but normally when you have a certain level of leverage you have to have some kind of dynamic, in order to keep it constant. Because things move up and down they would have to be adjusted.

*24. Technically how does the leverage work for Helios 2xl? When and how does the leverage fulfill its purpose?*

What happens is if a investor wants to invest SEK 850 000 which is the first mortgage, or lets make it easy for us, SEK 100 000 comes in to us from an investor, we then transfer them further to SEB or Nordea who then buy fund shares for the money. It results in SEK 100 000 of the investor's money along with the same amount added by one of the banks. This is adjusted so that if the funds value decreases with SEK 20 000, the holdings of SEK 200 000 will have decreased to SEK 180 000. Then the investor has lost SEK 20 000 of its own share, which means that the remains are SEK 80 000 if the investor wishes to sell. What the credit institution does now is that they lower the leverage with SEK 20 000 so that the total exposure becomes SEK 160 000 instead. The exact same thing happens if the fund's value increases with SEK 20 000, then the credit institution adds on the same amount of leverage resulting in a total exposure of SEK 240 000. And if the investor wants to redeem its share, SEK 120 000 will be received, then with a profit of SEK 20 000. It is all built upon the exposure being double. It means that the investor is responsible for the included risk of its own invested capital, but does not take part in the risk of the leverage being used. This is an effective way of not being exposed to a debt that can affect one hard if it is handled alone. Should the fund drop over 50 percent during a quarter then the investor could loose its entire capital. Up to a decrease of 50 percent the bank is totally safe, afterwards they take a risk and it is that risk they charge money for.

What the banks charge us for is based on the risk-free rate plus a spread consisting of STIBOR and LIBOR, which are 140 basis points.

25. *Leverage can also be used to increase the actual size of the hedge fund's portfolio or be used in "margin purchasing" of futures and bonds as the case was with LTCM (Long Term Capital Management). Is this something you make use of in your strategy?*

We do not employ any kind of "margin purchasing". It is only the size of the actual portfolio which is increased.

26. *Helios 2xL has a leverage of 2-1, how come you do not have a higher leverage ratio? The return could increase even if the systematic risk increases. Is it you creditors SEB and Nordea who refuse to lend more or are there specific rules concerning the amount of leverage?*

No, it is our choice of having the leverage on this level. The reason for it is that we believe Helios 2xL to have an appropriate risk level and sensible risk adjusted return. One could construct the fund with three times the leverage but then the fund would get characteristics that are not suitable for everyone to invest in. Then there are always a number of investors that are willing to take that risk. But then there is that aspect of people becoming blinded of the possible returns that can be achieved and then the downside is not taken into consideration. So for that reason two times the leverage generates sensible ratios according to us.

27. *When talking about hedge funds and leverage one can not escape thinking of the LTCM crises 1998, could this fate happen to Helios 2xL and B&P?*

Not with our current leverage, we are a drop in the sea in comparison to them. It is like comparing Chernobyl with the boiler room in my house.

28. *The creditors must have some kind of security for lend you capital, how much of Helios 2xL's equity do they demand as collateral or is this done in any other way?*

And when it comes to collateral absolutely, the banks receive the initial cash outlay that the investor paid to us, which we later pass on to both the banks.

29. *Do "haircuts" exist in Sweden? Why, why not?*

In our case we do not have any "haircuts" at SEB or Nordea, the reason for it, well it is regulated by law in Sweden.

30. *How has the response to Helios 2xL been from the market, based on the fact that it uses leverage?*

It has been positive and we are very satisfied with the current situation and we do not have any plan to have any more funds with leverage. But one does never know what the future holds. Helios 2xL's capital, amounts to SEK 1.7 billion making it one of the larger hedge

funds in Sweden only after being operational for 10 to 11 months. There are about 4 to 5 other hedge fund outside of B&P that are larger.

*31. Has the interest for Helios decreased, do you see a negative trend in the investments for the other hedge funds after the launch of Helios 2xL*

We still have new investments coming into Helios but of course there is a certain type of cannibalism between the funds since they are similar products. Some who have had investments in Helios have gone over to Helios 2xL. However we do not see this as a direct problem. For us it is actually something positive since we as a group receive an investment worth double, money wise, as it would have been if invested in Helios. Although we feel that Helios should continue as a product for we believe it to be very firm and stable. Both funds cater to different target groups. Helios is more of a low risk fund and it has a lower new investment hurdle at SEK 100 000 judge against Helios 2xL's SEK 850 000. Not everybody can invest in Helios 2xL therefore we think that the investments into Helios will continue even in the future.

### **Questions concerning Legislation regarding hedge funds**

*32. Why do you have funds registered in Bermuda? Are there any other reasons besides obvious tax reasons?*

For Helios 2xL it was just a time factor, getting all the permits runs just so much faster in Bermuda. We previously had funds since 2003 in Bermuda so all the infrastructure was already set up. Finansinspektionen is a very good authority but they take long time in issuing new permits. The downside with registering the fund in Bermuda was that the minimum hurdle rate got to be quite high, SEK 850 000 since their hurdle is USD 100 000. Had we chosen to register the fund in Sweden we could have lowered it to maybe SEK 500 000. We still would have wanted to have it higher than Helios. An advantage with Bermuda is that we are allowed to have different currency classes e.g. on in Euro or USD for our international investors. In Sweden we have to create a brand new fund for each currency class. An additional advantage with Bermuda is that foreign investors have knowledge of the current legislation in contrast to Swedish hedge fund legislation which is a factor of concern for both parties and now is eliminated. Funds registered in Bermuda never yield dividend i.e. profits are reinvested in the fund. In Sweden you have to have dividend if you do not want to have double taxation, meaning you have pay 30 percent tax on the profit. In short this means that instead of paying tax each year you will receive interest on interest effect at B&P's funds. You have a tax debt but on a long term perspective you get better return.

*33. How will the liberal legislation which will come into effect in Denmark and Norway affect B&P*

When we created Zenit we were the first ones in Sweden, so the legislation was also created consistently with Zenit. There was a long one-year discussion with Finansinspektionen. Denmark and Norway are on their way but have dragged behind. Finland was rather fast and we have a fund there that started in 2002. There exists a need for hedge funds now since the

fear of them has diminished. We see it as a possibility and not as a threat, there will most likely arise new hedge funds in Denmark and Norway, which will compete for the capital and the returns and so on. Beyond that our possibilities to find new investors and new managers for new funds are also a vital part for us. The CEO for Futuris used to commute weekly between Oslo and Stockholm because of this. There should be a more liberal view of hedge funds and allow them. The magazine Eurohedge showed in an article that the Nordic hedge funds outperformed their European counterparts with a long shot.

*34. There is an ongoing debate about the transparency of hedge funds, what is your view on this?*

We want hedge funds to exist and be legal, but we also want there to be some kind of secrecy concerning what we are doing. Finansinspektionen demands that a regular fund should present its positions on a monthly basis. Previously we have presented our positions on a 6-month basis, but now it is quarterly even though there is a certain drag. We feel that one of the key points with hedge funds is that you should not know our current positions since it might be damaging for our investors. Besides it would make our manager's job more difficult if everybody knew what positions we have. An index fund does not have that many options, they can either hold larger or few shares in Nokia, nothing fancy, whereas hedge funds have a completely different way of working. If someone knew exactly which positions a specific hedge fund had that person could go and act in a way that would damage the hedge fund. An aspect is that the fund could receive worse market prices when they are buying or selling their positions if the buyer and seller are known. Normally anonymity is provided through the brokers but if you know that B&P are in the possession of a large amount of a certain stock in a company, which they want to sell then you could take advantage of the situation and affect the price. So we think that we should be allowed to maintain secrecy and now that Finansinspektionen seems to have moved a little bit in our favor, but we have to wait and see what the result will be. A relevant comparison would be as if H&M would show their clothes before selling them to the consumers.

## Appendix 3

### Interview with Carl Kuylenstierna at Harcourt Investment Consulting, 2<sup>nd</sup> December 2005

#### 1. *Why was HFXS started?*

Because the number of funds that are included in the index are sufficiently large for it to be relevant. The cooperation with SIX (Scandinavia's largest index distributor) began a couple of months earlier. The industry is mature and in need of more information regarding hedge funds.

#### 2. *How many funds does the HFXS index consist of?*

It consists of 30 Swedish hedge funds.

#### 3. *What is your definition of a hedge fund?*

First and foremost: management aimed on an absolute return target (i.e. not relative to an index). The fund must be able to show that it can and actively wants to take positions for all market conditions. Now e.g. most of the hedge funds have mainly long positions since the stock exchange is going well, if it turns they have to have more short positions.

#### 4. *What are the reasons behind criteria 3 and 4?*

“The fund must have a managed capital exceeding SEK 50 million and the fund must have reported returns with at least 6 months history”. These criteria's are set up to reflect how Swedish hedge funds develop best. Funds that do not fulfill these criteria's do according to us not deliver a correct picture of what the market looks like. E.g. often a “running-in period” is needed before a new manager is on the track sort of speaking.

#### 5. *How do you attend to survival-biased data that affects the index?*

When it comes to hedge funds indices internationally, there are a lot of biases. As you say, survivorship bias but also: “backfill bias” (new funds are counted for afterwards then affecting the index's historical values). “Reporting bias” (the funds do not care to report their returns to the index when performing badly). “Selection bias” (it is hard to claim on an comprehensive global hedge fund index when there exists several thousands hedge funds. The coverage rate is then really low).

When it comes to SIX Harcourt HFXS index there are none of these biases. The index covers hedge funds on the Swedish market and even includes all hedge funds that have ceased during the period the index has existed. We therefore do not have any survivorship bias.

# Appendix 4

## Appendix 5

Monthly Returns						
	Helios 2xL		HFXS		OMXS_PI	
March 2002	100,00		100,00		100,00	
April 2002	101,19	1,19%	99,44	-0,56%	88,30	-11,70%
May 2002	102,90	1,71%	100,62	1,19%	73,08	-15,22%
June 2002	106,10	3,20%	102,38	1,76%	51,99	-21,09%
July 2002	108,63	2,53%	104,05	1,67%	35,19	-16,80%
August 2002	109,50	0,88%	104,66	0,61%	24,98	-10,22%
September 2002	113,16	3,66%	105,90	1,24%	14,58	-10,40%
October 2002	111,86	-1,31%	106,75	0,85%	7,38	-7,20%
November 2002	111,76	-0,10%	107,86	1,11%	27,90	20,52%
December 2002	111,88	0,12%	108,15	0,29%	25,70	-2,20%
January 2003	112,42	0,55%	109,13	0,97%	18,39	-7,32%
February 2003	113,92	1,50%	110,07	0,94%	9,21	-9,18%
March 2003	113,43	-0,50%	109,95	-0,12%	7,90	-1,31%
April 2003	111,87	-1,56%	110,01	0,06%	14,17	6,27%
May 2003	114,79	2,92%	111,94	1,92%	19,43	5,26%
June 2003	116,84	2,04%	113,63	1,69%	25,57	6,13%
July 2003	115,44	-1,40%	113,65	0,02%	32,53	6,97%
August 2003	116,67	1,23%	113,62	-0,02%	41,17	8,64%
September 2003	119,95	3,28%	115,31	1,69%	47,74	6,56%
October 2003	121,02	1,07%	115,23	-0,08%	49,36	1,62%
November 2003	121,65	0,62%	115,83	0,60%	54,55	5,19%
December 2003	124,82	3,17%	117,47	1,64%	56,73	2,18%
January 2004	127,40	2,58%	119,51	2,04%	68,73	12,00%
February 2004	128,02	0,63%	120,28	0,77%	77,16	8,43%
March 2004	126,18	-1,84%	120,57	0,30%	77,02	-0,14%
April 2004	123,88	-2,30%	120,71	0,13%	82,98	5,97%
May 2004	122,88	-1,01%	120,29	-0,42%	71,19	-11,79%
June 2004	123,43	0,55%	121,24	0,95%	76,17	4,97%
July 2004	122,33	-1,10%	121,15	-0,09%	73,75	-2,41%
August 2004	123,35	1,02%	121,47	0,32%	70,79	-2,96%
September 2004	123,11	-0,24%	122,39	0,92%	78,25	7,46%
October 2004	125,05	1,94%	122,90	0,52%	83,23	4,98%
November 2004	131,31	6,26%	125,72	2,82%	90,57	7,34%
December 2004	134,17	2,86%	126,97	1,24%	93,64	3,07%
January 2005	135,33	1,16%	128,36	1,39%	95,95	2,31%
February 2005	137,30	1,97%	129,51	1,15%	103,29	7,35%
March 2005	136,70	-0,60%	129,79	0,28%	108,01	4,72%



April 2005	139,48	2,78%	130,20	0,41%	109,23	1,22%
May 2005	142,45	2,98%	131,70	1,50%	106,45	-2,79%
June 2005	148,99	6,53%	134,67	2,97%	116,90	10,46%
July 2005	149,78	0,80%	136,22	1,55%	129,64	12,74%
August 2005	149,98	0,19%	136,21	-0,01%	134,39	4,76%
September 2005	154,94	4,97%	138,43	2,22%	138,91	4,51%
October 2005	158,34	3,40%	137,24	-1,19%	140,45	1,54%
November 2005	153,20	-5,14%	139,27	2,03%	150,42	9,97%