STOCKHOLM SCHOOL OF ECONOMICS

Master Thesis in Finance

The Incentive Structure in Swedish Mutual Funds and Hedge Funds

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Abstract: **In this paper the authors study the institutional and economic rationales for having dissimilar investment manager contracts in Swedish mutual funds and hedge funds. This paper is a qualitative study of the current Swedish market of mutual funds and hedge funds as of 2008. The institutional settings and the nature of Swedish mutual funds and hedge funds are presented with emphasis on the differing contract structures. The authors discuss the theoretical implications of the contracts and explain the differences in contract structure with various institutional and economic rationales. The various types of contracts are discussed and the components are analyzed as standalone entities. Few institutional and economic rationales are found to support the differences in the incentive structure between the two types of funds, although the seemingly replicated structure of international hedge fund industry praxis provides a fairly acceptable explanation.**

Contents

1. Introduction

1.1 Background

In most industrialized countries a significant part of financial wealth is not managed directly by savers. Instead the savers have outsourced the management of their invested capital to a financial intermediary, which implies the existence of agency contracts between the investors and the portfolio managers. Due to this, delegated portfolio management is arguably the most important agency relationship with impact on the financial market and on the real economy (Stracca, 2005).

The Swedish fund market has in recent years, like most industrialized countries, experienced a rapid growth in terms of the amount managed by investment funds. According to the Swedish Investment Fund Association (2008) the total amount has grown from 300mn SEK in 1971 to 1600bn SEK in 2006 and more than 70 percent of the Swedish population saves in different types of investment funds. The largest investor groups are middle class households and institutional investors.

This paper will focus solely on two types of investment funds: Swedish mutual funds and Swedish hedge funds. A number of studies have focused on measuring the performance of mutual funds and hedge funds relative to different benchmark indices. However, this study will focus explicitly on the various manager contracts that mutual funds and hedge funds apply and will have its focal point on discussing the various implications of the different types of contracts and the institutional and economic motives behind the differences in the contract structures.

Swedish investment fund managers generally have an incentive clausal in their contracts. These incentive clauses have numerous forms and functionalities. They have all nonetheless derived from contract theory, i.e. to eliminate negative agency effects and other opportunistic behavior due to information gaps between the investor (Principal) and the manager (Agent).

Due to mutual fund managers' and hedge fund managers' similar relation to their investors, agency theory suggests that a common advantageous contract structure for both the investors and the investment manager would have evolved and been used as praxis for all types of

investment funds. However, this is not the real world case and that is why this paper seeks to enlighten and elucidate why the contracts are dissimilar.

1.2 Purpose of paper and contribution

This thesis is a qualitative study of the Swedish investment fund market with a focus on the contract structures of Swedish mutual fund managers and hedge fund managers. The Swedish investment fund market has grown rapidly in Sweden over the past 10 years. As a result, new types of investment funds have entered the Swedish market and with them more rigorous regulation has followed. The legislation has, due to e.g. agency related issues, emphasized transparency and investor protection.

Due to the nature of the work investment managers do, their contracts generally have an incentive clause. The motivation for this incentive clause is primarily to insure the investor that the manager is induced to work hard. However, with incentive components agency problems arise. The Principal frames the design of incentive contracts for investment managers as a trade-off between incentives and insurance, with the basic concept of maximizing profit by motivating the agent while minimizing costs. Since incentive contracts is the cornerstone of agency theory, the aim of this thesis is to discuss, clarify and motivate both the components of the contracts and the important differences in the incentive contracts between Swedish mutual funds and Swedish hedge funds within the framework of contract theory.

Furthermore, the authors will present the complexities of the various agency problems and apply the asymmetric information perspective on real world examples of manager contracts with the aim to seek understanding of conceptual differences in the general contract structures in Sweden.

1.3 Problem

There are many differences between hedge funds and mutual funds. The most substantial ones are regulatory differences, risk taking strategies, investor profiles, financial instruments used and public reporting. However, in a conceptual agency model mutual fund managers and hedge fund managers practically do the same work, i.e. they manage their investors' money with the aim to maximize return given the risk level of the portfolio. This implies that a similar contract structure for both types of managers should motivate them equally well, but this is not the real world case. In fact, in Sweden the contracts are widely dissimilar. Therefore, the aim of this paper is to discuss and motivate various theoretical arguments that support the differences in manager contracts in Swedish mutual funds and hedge funds based on agency theory. This thesis seeks to answer the following questions:

What theoretical implications do the different types of contracts have and what institutional and economic rationales can explain the differences in the incentive structures between Swedish mutual funds and hedge funds?

2. Method

The authors of this thesis have used a qualitative method to gain access to information and data of the Swedish investment fund market. The authors chose a qualitative method due to the limited statistical data covering the dynamic contract structure of Swedish mutual funds and hedge funds.

Qualitative data is gathered from in-depth interviews of senior professionals within the Swedish investment fund industry. However, to obtain a non-biased picture of the industry, professionals from government bodies such as the Swedish Financial Supervisory Authority (Finansinspektionen) and the Swedish Central Bank (Riksbanken) have also been interviewed. Qualitative data will provide depth and detail through direct quotation and thorough descriptions.

The interviews have been conducted individually, where some of the interviewed professionals wanted to remain anonymous.

Various descriptive data from e.g. web pages have also been included to complement the interviews in order to obtain a detailed and accurate picture of the industry.

Furthermore, the definition of a hedge fund in Sweden is somewhat ambiguous, since the authorities have chosen to categorize them, along with many other non-mutual funds, as "Specialfonder". In order to perform this study the authors have therefore chosen to define the funds simply by what they call themselves. There are many funds in Sweden that goes by the name "hedge fond", and these are the ones that have been examined in this thesis.

3. Theoretical Outline

3.1 Contract Theory

Contract theory seeks to answer the multifaceted question of how a Principal can motivate an Agent to work as hard as possible for him while minimizing expenses and risk exposure.

There are countless theories on optimal contract theory and the authors of this article have therefore chosen to present only the most prominent and central ones in connection to managerial contracts for investment funds.

3.2 Problems in Contract Theory

3.2.1 The Principal-Agent Problem, the Asymmetric Information Problem and the Moral Hazard Problem

The most fundamental of the contract theories is the Principal-Agent problem. The Principal-Agent problem arises when a less informed Principal (the investor) compensates a more informed Agent (investment manager) for performing value enhancing acts for the Principal

that are costly to the Agent, when the Agent's performance costly to observe for the Principal (Salanie, 1996).

The Asymmetric Information problem could be widely defined as a situation in which one party in a transaction has more information than the other. The party with no risk exposure has in general more information about its actions than the party who is facing the negative consequences of the risk. Information asymmetry can albeit be avoided by proper signaling of the agent (Spence, 1973).

The Moral Hazard problem is associated with both the Asymmetric Information Problem and the Principal Agent Problem. However, in the Moral Hazard Problem the focal point is the prospect that a party insulated from risk increases its opportunistic behavior and enhances the risk exposure for the party that is not insulated from risk. If an individual does not bear the full consequences of his actions, he has a tendency to not be as careful as he otherwise would be (Perloff, 2004). Moral Hazard can occur if the manager is shielded from negative consequences due to his decisions, e.g. when his remuneration is independent of a project's success. In other words, a fund manager might choose to invest in unnecessary risky assets due to low or zero personal risk exposure.

A wider definition of the Moral Hazard problem could be explained as when the party with more information tends to behave opportunistic from the other party's perspective. The less informed party cannot control for the informed party's actions and the imbalance of knowledge can sometimes cause transactions to go wrong (Perloff, 2004), (Foster and Rosenzweig, 1994).

3.2.2 The First Best Case

In the first best case, effort by the Agent is observable by the Principal and there is no information asymmetry before the contract is signed. The Principal and the Agent act as a collective entity. Basic microeconomic theory then states that the optimal level of effort is where the aggregate marginal benefit for the collective entity is equal to the marginal cost of the Agent. In the first best case, provided that both the Principal and the Agent are risk averse, the delegated portfolio management contract is reduced to a contract of optimal risk sharing between the Principal and the Agent (Stoughton, 1993).

Furthermore, the optimal risk sharing rule in this case requires that each individual receives a portion of the return (excess return) on the risky asset equal to the individual's risk tolerance divided by the aggregate social risk tolerance, i.e. a linear compensation contract (Wilson, 1968). The first best case is, however, only a theoretical "best case scenario" and cannot be applied to most real world cases and will therefore not be discussed further.

3.2.3 The Free Rider Problem

Another complex dilemma that could be discussed within the framework of delegated portfolio management is the free riding problem. This problem is generally applied to microeconomic problems such as environmental issues and public goods.

It is assumed that the Agent's effort is costly to the Principal if the Principal does not monitor or install incentive programs for the Agent. Nonetheless, in delegated portfolio management the free riding problem can also arise due to performance fees charged by the fund managers. The performance fee is calculated on the total performance of the managers in the fund, which means that a single manager can prefer to shirk instead of work due to his relatively smaller contribution to the total fund performance. Take the following example: if there is a total of 50 managers managing an equal share of the underlying fund (assume for the simplicity of the illustration that they are equally skilled and will thus have identical returns on their portfolio), every manager contributes with $1/50^{th}$ of the total return. Consequently, if the manager's utility function of shirking is higher than the utility of $1/50^{th}$ of the performance fee, the manager will prefer to shirk and free ride on the other managers' performance.

The free riding problem may lead to a suboptimal equilibrium for both investors and managers. To avoid free riding problems a number of strategies can be used, e.g. if the manager receives a performance fee on the capital he invests for the fund (Perloff, 2004).

3.3 Compensation contracts

There are various methods for eliminating or diminishing the Principal-Agent problem, the Moral Hazard problem and the Asymmetric Information problem. However, to solve these problems optimally one would need to solve both the investor's and the manager's dynamic maximization problems simultaneously and due the complexities of this scenario, the "first best" (the economic outcome in a setting in which all parts are equally informed) solution is not realistic (Arora and Ou-Yang, 2001).

A more realistic approach is to focus on second-best solutions to incentive problems and how coordination failure can be avoided (Stracca, 2005). Many of these methods are used by corporations worldwide and this paper will focus on the ones central to delegated portfolio management.

In most asymmetric information problems it is assumed that the Principal cannot monitor the activities of the Agent. However, the Principal can partially or imperfectly monitor in a variety of ways, e.g. by observing costs. Thus the Principal can in practice alleviate some of the disadvantages of the agency relationship (Almazan et al, 2004). The following sections will provide some insight to the various dilemmas within compensation contracts.

3.3.1 Relative and Absolute Return

To accurately measure an investment fund's performance one cannot always look at the fund's explicit returns. Markets around the world fluctuate heavily and a fund's performance must be in a relevant a context and compared to peers.

A common strategy for mutual funds is to use benchmarks in relation to their return. A benchmark is a predetermined index that has the same market risk (beta risk) as the mutual fund. The benchmark is then used as a proxy to see how the fund performs against the benchmark.

The absolute return on a fund's performance one year could e.g. be expressed as plus 2 percent or minus 8 percent. However, these numbers are in many ways irrelevant without a

proper context. For instance, a positive return of 2 percent is bad in a bull market, whereas a negative return of 8 percent is not so bad if the market return is down by 30 percent.

This is why many mutual funds express returns in relative terms. An investor has to know if the fee he is charged by the fund, who is actively managing the investment, is motivated or not. Therefore a mutual fund should benchmark the fund's performance to e.g. a passively managed index fund (to see if the relative return exceeds the fee) (www.absolutereturnstrategist.com).

3.3.2 Fixed Percentage Contracts

A common contract is that the delegated portfolio manager receives a fee based on the underlying pool, i.e. the total amount the manager controls. Such a contract is specified mathematically as:

$$f(x) = \alpha \sum_{i=0}^{n} I_n A$$

Where α is the managers percentage fee, I is the number of investors and A is the amount every investor invests.

This kind of contract is a fixed fee contact, where the manager gets remunerated the fixed percentage on the underlying fund's value. However, as the manager invests the underlying pool of assets, the fund's value will either increase or decrease depending on his own actions and external factors. However, a skilled manager will stand out from other managers in the long term and the demand for his services will increase, which in turn leads to a growing underlying investment pool and thus a higher $f(x)$ in absolute terms (Stracca, 2005).

3.3.3 Performance Fee's and High Water Marks

Effort and risk are unobservable features and there is information asymmetry both before and after signing the contract, which offsets the possibility of choosing the first best case. The

baseline concept of constructing an optimal contract is to make the Agent work as if he was acting on his own, i.e. investing his own money.

A second best case contract can be linear even though the moral hazard aspect of the problem comes into play. This is because a linear contract might lead to an optimal compromise between effort incentives and risk sharing (Holmstrom and Milgrom, 1987), (Sappington, 1991).

A typical management compensation contract is specified as a portion of fixed income plus a percentage of an excess return to a benchmark index. Hence, the payoff function is a fixed amount consisting of the minimum participation constraint of the Agent plus a call option payoff with strike price equal to the predetermined benchmark security.

Such a linear contract is mathematically specified as follows:

$$f(x) = C + B(x - b)$$

Where $B, C > 0$ and b is a benchmark value.

C is the Agent's participation constraint, B is a percentage of the excess return $(x - b)$. Note that a higher value of B pushes the Agent to expend more effort but also to take on more risk, which will increase the required fixed payment C.

The Principal has then complete control of the effort exerted by the manager through the parameter B (Stracca, 2005).

Furthermore, to complement the linear contract it is common for hedge funds to apply a high water mark on to an investor's money. A high watermark means that the manager will only receive performance fees on the investor's particular pool of money when the value is greater than the previous greatest value.

This eliminates the risk that a manager obtains bonuses although the investments have decreased in value, i.e. the manager must bring the value above the previous greatest value before he can receive a performance fee (Eurekahedge, 2008).

3.3.4 The Asset Substitution Problem

The essence of the Asset Substitution Problem is that an investment manager may substitute current assets to riskier assets when facing a debt maturity in due time that exceeds the current assets of the fund. The problem stems from the fact that creditors have higher seniority than equity owners. In a situation like this, the investment manager may turn opportunistic and gamble with the creditors' money and engage in riskier activities (Greenbaum and Thakor, 1995).

Suppose that a fund has debts that must be repaid in the near future and that the fund will get liquidated if the fund cannot raise enough capital to the creditors. The current cash reserve is less than what needs to be repaid. Furthermore, the manager can either invest in a risky project with low probability of success that will deliver a high return, or a safe project that has a fixed return. If the risky project succeeds, the fund will be able to cover the debt but not if it fails. The safe project will not cover the full debt *although* the safe project's expected return is higher than the risky projects expected return.

$$E(r)_{Safe} > E(r)_{Risky}$$

The investment manager has nothing to lose and will thus act in his own and the equity owners' best interest by investing in the riskier project that might leave a residual for the equity owners. Even though the net expected payoff of the riskier project may be lower than the safe project, the investment manager will still choose the riskier (Harris and Raviv, 1991).

Seen from the creditors' viewpoint, they want the investment manager to choose the safe project so that they get their debt back. However, it is the investment manager who makes the ultimate decision and will thus choose the riskier project in conflict with the creditors. The investment manager's decision will be rational but nevertheless opportunistic. This conflict of interest between creditors and equity owners may arise in a situation where the fund is in some kind of distress and needs additional capital for a debt maturity (Greenbaum and Thakor, 1995).

3.3.5 Risk Sharing and Share Ownership

A performance based contract is suboptimal due to the payoff structure of it, since the managers can choose to increase the risk level to unwanted levels in order to seek and maximize the performance fee. Managers may also take on excess risk if the fund is close to a default value (Admati and Pfleiderer, 1997).

In order to control for incentive constraints and for opportunistic behavior, one of the simplest and most common applied strategies is risk sharing. Risk sharing means that the Principal makes the Agent share the downside risk and the upside return that the Principal faces when hiring the Agent with the purpose of aligning both incentives. A common and relatively simple way to do this is to demand the Agent to invest his own money in the company (Shavell, 1978). If the Principal (in this case the investor in the fund) make it compulsory for managers to invest their private wealth in the fund, the Agent has further incentives to work harder and the Principal saves monitoring costs. However, this implies that the risk is transferred to the Agent, which he might not find optimal (yet necessary to convince investors) (Shavell, 1979).

This risk sharing strategy is referred to as share ownership. Share ownership reduces opportunistic behavior at the same time as it motivates them to work harder, which ultimately increases the security for the investor.

In the case of share ownership the manager's contract would be dynamic in the sense that the effort he exerts could have a positive effect on the share price which is beneficial for both the Principal and the Agent. Unlike a linear contract where the managers receives a fixed amount plus a percentage of the excess return to a given benchmark, the share ownership contract will also have a real negative effect on the managers' already accumulated wealth. This strategy increases the motivation of managers to do well, but it also decreases the chances of the manager taking on unnecessary risk when his option like program is not in the money (Merton, 1969). Unlike the payoff diagram in section 5.4.2.2, where the effect is single sided to the plus side of the strike price, the share ownership has a negative effect the bigger the loss of the fund (Hodder, 2007).

3.3.5 Herding Mentality

Investment fund managers are also susceptible to so called herding behavior, where the manager is affected by the risk and returns of the assets of which he invests. Herding behavior is a phenomenon that has been observed and discussed by e.g. Scharfstein and Stein (1990), Zwiebel (1995), Prendergast and Stole (1996), and Avery and Chevalier (1999), where they have found that the fund manager will make fewer independent decisions and herd more as the risk exposure of the portfolio is high.

4. Delimitation

The size and the nature of the Swedish fund market make it compatible for this study due to several reasons. First, it is a mature and sophisticated fund market with e.g. favorable access to data from the Swedish banking concentration that are highly involved in the fund market. Secondly, the Swedish fund market is relatively homogenous, which makes it compatible for our qualitative study and for generalizing the data obtained. Thirdly, the Swedish fund market is also of comprehensible size for this type of qualitative discussion paper.

5. The Institutional Setting of Funds

5. 1 The Swedish Fund Market

All funds operating within the European Union are subject to the UCITS (Undertakings for Collective Investments in Transferable Securities) directives originating from 1985. Regardless of the individual fund set-up, the funds are legally approved to be marketed freely within the EU according to the directives. These directives reflect the ambition of harmonizing funds on the European market, but in practice member states also impose national restrictions that impede the free cross-border movements of funds (EFAMA, 2005).

On a national level, the European UCITS- directives have boiled down to the Swedish Investment Fund Act (2004:46). This act comprises rules that are exclusive for the Swedish market and together with the Swedish Financial Supervisory Authority they make up for the Swedish regulatory framework for fund activities (www.fondbolagen.se).

The legal construction of investment funds in Sweden is built on a contractual ground between three involved parties: the fund owners (investors/Principals), the fund company (investment managers/ Agents) and the custodians of the fund (the bank). The investors contract with the fund company and implicitly with their investment managers, whereupon the fund company in turn has contracted with the custodian that safe keeps the fund. Both mutual funds and hedge funds are in Sweden subject to this legal arrangement (The Swedish Investment Fund Act (2004:46)).

Swedish investment funds are also required to register their investment strategy before they can operate legally in the Swedish market. Due to this ex ante regulation of the investment strategy and the risk profile, investors are protected from e.g. sudden strategic changes made by the investment company (the owner of funds) that perhaps would want to take on more risk and ex post change the investment profile of the fund (Thalén, 2008).

The Swedish fund regulation has divided funds operating in Sweden into two categories: "Värdepappersfond" and "Specialfond". "Värdepappersfond", or harmonized funds, are equivalent to mutual funds.

With "Specialfond" the definition is broader, since it entails all funds deviating from the much more homogenous and standardized nature of mutual funds. For a fund to be classed as a "Specialfond" it has to be approved by the Swedish regulators to deviate from the UCITS-directives and the Swedish Investment Fund Act (2004:46). This makes the "Specialfond" category somewhat ambiguous in the sense that it contains all other funds than the harmonized mutual funds. Hedge funds are thus one of the many kinds of specialized funds in the "Specialfond" category. (The Swedish Investment Fund Act (2004:46). Although hedge funds, together with several other specialized funds make up for the "Specialfond" category, they nevertheless share distinguishing features that separate them from other funds in the same category. The stylized characteristics of hedge funds will be more thoroughly scrutinized in section 5.2, with additional attention given to the different fee structures for mutual funds and hedge funds (Strömqvist, 2008).

5.2 Mutual Funds

A mutual fund pools money from investors and invests in securities e.g. bonds, stocks, short-term money market instruments. The investors receive a share of the profits or losses, which is proportionate to their investment in the mutual fund. Investors buy shares issued by the mutual fund itself and shares cannot be bought on a secondary market. A distinguishing feature of mutual funds is that the shares are redeemable, which means that the investor can sell his shares back to the fund at the current price level. The mutual fund's portfolios are in turn managed by investment managers that, in turn, work for investment companies (www.sec.gov/).

5.2.1 Open-end Funds and Closed-end Funds

Swedish mutual funds are open-end funds, which means that an investor can both buy shares and redeem shares from the fund on a daily basis. The underlying implication of a fund that is open-ended is that it puts additional pressure on the liquidity practices and the capital structure compared to the much less regulated hedge funds. Mutual funds are required to be transparent and offer instant liquidity in contrast to hedge funds, which usually have lock-in periods when they restructure their capital base are relatively illiquid (Greenbaum and Thakor, 1995), (www.sec.gov/).

Closed-end funds entail hedge funds and other non-harmonized funds, where new shares are rarely issued and where outstanding shares are normally not redeemable until the fund liquidates. However, in Sweden closed-end funds are obligated to at least once a year offer the investors the possibility redeem shares. The closed-end funds' shares can be sold on a secondary market due to the lock-in periods (EFAMA, 2005).

There are very few restrictions regarding investors when it comes to investing in a mutual fund and the minimum investment is typically very small. Investors may regularly add small amounts to the fund over a long period of time (www.sec.gov/).

5.3 Hedge Funds

On a general level, mutual funds and hedge funds operate in a similar fashion; at the outset there are investors and the end goal is to achieve a positive return (relative or absolute) at the end of the reporting period or the investment horizon. This is done by investing in different kinds of financial instruments available on the market.

But more specifically, hedge funds differ from mutual funds in several distinct ways. Unlike mutual funds, hedge funds invest in a broader set of instruments and often with substantial leveraging, which significantly increases the risk/reward nature of the hedge fund (www.sec.gov/).

There is no legal title of hedge funds in Sweden. Instead they fall into the category of "Specialfond", which is in the non-harmonized funds category. Hedge funds in Sweden are operating under the regulation of general collective investment schemes (CIS), a term used throughout EU's member states. In contrast to other European countries, hedge funds in Sweden operate solely under the law of contract (Thalén, 2008).

Hedge funds in Sweden are also required to provide information regarding who the intended investors are, i.e. if it is towards the public or a limited group of investors. In the information provided, it should also be described when redemptions are possible (EFAMA, 2005). Swedish investors are to a great extent protected in the sense that the investment company is secluded from the investment fund and an eventual default of the investment company does not necessarily affect the investors. In many foreign funds the investors own a share of the equity in the investment company and would thus be negatively affected to a greater extent (Thalén, 2008).

The basic argument for investing in a hedge fund is that hedge funds, in contrast to mutual funds, seek to be uncorrelated with markets. Mutual funds have a tendency to be exposed to fluctuations in the market due to the long-only nature of their investments. Investors can avoid this by investing in a hedge fund or by complementing their existing investment portfolio, which would result in a hedge against the market risk and thus a more stable portfolio over time (Strömqvist, 2008).

A hedge fund can freely choose its compensation structure and the fund is not required to follow the practices that apply for mutual funds. Nonetheless there are stylized compensation contracts for hedge fund managers that will be discussed later in this paper.

Hedge funds apply a wide variety of investment strategies, where leveraging techniques make up for a large part of the portfolio structure. Leverage significantly adds to the riskier nature of hedge funds. Hedge funds are not subject to the tight leveraging policy that applies to mutual funds, where all positions have to be covered (Thalén, 2008), (www.sec.gov/).

Leverage in the context of hedge funds in Sweden is not on-balance sheet bank loans per se but rather economic leverage, which entails numerous and complex derivatives agreements between the hedge fund and its counterparties (Thalén, 2008). Economic leverage could e.g. be repurchase agreements and short positions, which is not as tangible as bank loans but nevertheless binding and may incur profits or losses (http://www.ustreas.gov/).

The leverage is nevertheless an important component that generally makes the hedge funds more lucrative due to the amplifier (the interest rate on a loan is less than the expected return on equity). The counter argument is of course the increased risk, since high leverage can easily turn against the hedge fund (www.sec.gov/).

5.4 Investment Manager Contracts in Sweden

Investment manager contracts differ between mutual funds and hedge funds in some key aspects. However, the investment manager contracts are relatively similar within the two groups respectively. The contracts are homogenous to the extent that the percentage rates may vary within a range but the components remain the same.

5.4.1 Mutual Fund Manager Contracts in Sweden

5.4.1.1 Relative Return and Benchmark Indices

Mutual funds use benchmark indices to measure their performance over time. Due to the fact that mutual funds are highly market correlated, the market and various peer groups are used as a relative measure of performance. This is in contrast to how hedge funds use benchmark

indices, since hedge funds are designed to be uncorrelated with the market and focus solely on absolute return regardless of the overall market performance (Strömqvist, 2008).

The rationale for comparing an actively managed mutual fund to a passive benchmark index is that the difference constitutes the investment manager's role. It is the potential excess return over a passive benchmark index that motivates the less informed investor to hire the more informed investment manager to manage his investment. For example, if the fees charged for an investment manager is deducted from the return on the managed investment and it proves to be less than the return of a passive index, it has been more costly to contract with an investment manager (Thalén, 2008). Whether the investment manager proves to be value-adding or more costly (in terms of the opportunity cost) is purely an empirical question and it will be not dealt with in this thesis.

Common benchmark indices in Sweden are the MSCI indices (Morgan Stanley Capital International), which are made up of a collection of stocks from developed countries. The indices can in turn be either e.g. regional, country specific, industry specific or world indices. Depending on the type of fund in Sweden, the benchmark MSCI will be chosen thereafter (http://www.mscibarra.com/), (www.nordea.se).

5.4.1.2 The Management Fee in Mutual Funds

In most types of investment funds the investment companies charge a management fee for professionally managing the principals' capital. This is the cornerstone fee of the relationship between the principal and the agent. The fee is first and foremost there to compensate the manager for the portfolio management but also for the frequent reporting of the fund performance and several administrative costs e.g. custody and marketing. This fee could for instance be paid daily, weekly or on a quarterly basis based on the value of the underlying pool of assets (HQ Fonder, 2008), (www.seb.se).

The Management fee is expressed as:

$$f(x) = \alpha \sum_{i=0}^{n} I_n A$$

where α is the manager's percentage fee that varies between 1-1.5%, I is the number of investors and A is the amount every investor invests (Strömqvist, 2008).
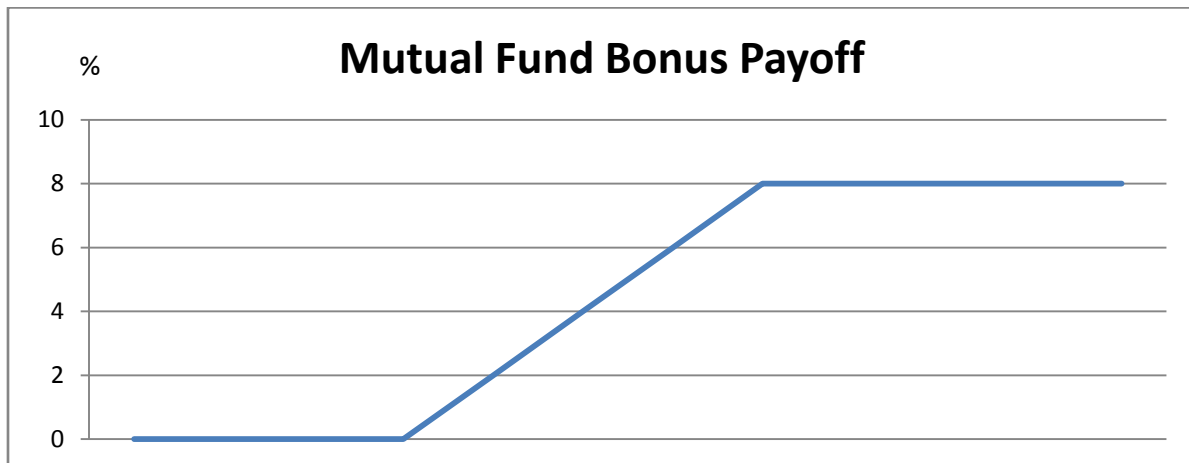
There are underlying incentives with the management fees. For example, it works as a return on effort for the managers; if the underlying pool of money increases in value, the managers will receive an even bigger portion of the funds value and hence increase their own compensation. But more specifically, the incentive structure for mutual funds managers works like this:

The management fee, regardless of how often it is collected, is an accumulated amount that the fund collects during a year and it adds up to the fund's bonus. The total amount of the management fee, which is a lump sum, will then be reduced by the different costs associated with operating the fund. When only the profit remains, it is then the CEO's responsibility to distribute the fund's profit to the investment managers according to their performance (HQ Fonder, 2008) (Avanza, 2008).

The investment managers are individually measured and they receive a fixed salary and a variable salary, which is determined by their performance and it may vary from manager to manager. The delegation of the bonus to the different investment managers is a subjective/arbitrary decision based on individual performance. The performance is measured against an adequate benchmark but it also takes other aspects into account e.g. the cost of running the portfolio in relation to the return (HQ Fonder, 2008).

This is how the incentive structure is constructed for Swedish mutual fund managers and it is in contrast to the incentive structure employed by hedge funds. Even though the individual mutual fund manager receives a fixed and a variable salary that varies performance – it is nevertheless subject to the overall management fee constraint that serves as a ceiling. The mutual fund manager's incentive structure is created from the bonus lump sum (aggregated management fee) and has thus only a variable part (performance fee) within a fixed amount of capital, in contrast to the hedge fund manager's additional variable performance fee that is unrelated to the management fee (Avanza, 2008).

Graph 4.1 The Bonus Payoff in Mutual Fund's Management Fee

Mutual Fund Bonus Payoff

%

(Chart showing a payoff curve that stays at 0 until a threshold, then rises linearly to 8, then remains flat at 8. Y-axis marked 0, 2, 4, 6, 8, 10.)

Hence, a mutual fund manager has a variable component in his compensation contract, although the mutual fund manager's variable part is only a part of the management fee whereas the hedge fund manager's variable compensation is based on the total excess return over a benchmark subject to the high-water mark constraint outside the management fee i.e. charged in addition to the management fee (which will be described further in 5.4) (HQ Fonder, 2008).

Second, a more dynamic incentive for the mutual fund manager to achieve excess return over their benchmark index is that a well performing fund will attract new investors and thereby new capital in the long run. When the fund attracts new capital, the underlying pool of assets will increase and in turn the managers' compensation (keeping the percentage fee fixed). Hence, by striving for excess return the market will learn about the well-performing fund and it will serve as a signaling function for skilled managers and their respective funds (Strömqvist, 2008).

5.4.2 Hedge Fund Manager Contracts in Sweden

In strong contrast to mutual funds, hedge fund investors are assumed to be more sophisticated investors and thus more knowledgeable regarding the investments hedge funds do. The assumption is enforced by a relatively high investment minimum that is common for hedge funds to implement and is often large enough to limit the hedge fund investors to a circle of wealthy and presumably well-informed individuals and institutions (www.riksbank.se).

Even though the hedge fund investors may be more sophisticated, they still want to safely entrust the asset managers with their capital. By aligning the incentives of the asset manager and the investors, they can endogenously work toward the same goals (Strömqvist, 2008).

5.4.2.1 The Management Fee in hedge funds

Swedish hedge funds charge a management fee from the investors in a similar fashion as the mutual funds. This fee is determined as a percentage on the underlying assets, i.e. the total equity amount controlled by the hedge fund. However, this contract is often just one several components in the hedge fund's incentive contract. The linear management fee is specifies mathematically like this:

$$f(x) = \alpha \sum_{i=0}^{n} I_n A$$

Where α is the managers percentage fee, I is the number of investors and A is the amount every investor invests (www.brummer.se), (Strömqvist, 2008).

In a simple linear context the manager can affect the total management fee $f(x)$ by attracting more capital to the fund. This is hard to carry out with credibility and the investors often look at previous performance for the fund. The management fee is basically the same for Swedish mutual funds and hedge funds although the level of α varies slightly.

5.4.2.2 The Performance Fee

In addition to the management fee, hedge funds generally include a performance fee to further incite the managers. The performance fee is often a standardized model with small variations. The management fee is a fixed fee and will be paid to the manager regardless of how he performs, whereas the performance fee is specified as a percentage of the excess return of the fund relative to a pre-specified benchmark index (www.brummer.se).

Such a linear contract is mathematically specified in the following way:

$$f(x) = C + B(x - b)$$

Where $C = \alpha \sum_{i=0}^{n} I_n A$ is the management fee. $B, C > 0$ and b is the benchmark value.

B is a percentage of the excess return $(x - b)$. This value is often set to 20 % for Swedish hedge funds. Thus the Principal has complete control of the effort exerted by the manager through the parameter B (www.brummer.se).

In a typical hedge fund the manager is responsible for a part of the underlying pool of assets, since the fund value is divided between the managers. However, a typical hedge fund in Sweden imposes a system where the performance fee is calculated on the total fund performance, where the manager does not receive a performance fee based on his specific investments but of the average performance of the total fund. In Sweden the commonly used benchmark is the STIBOR 3-month interest rate. This is because the hedge funds strive for an absolute return and do not seek to mimic or outperform the market (Strömqvist, 2008).

A payoff diagram for call options illustrates the incentives for managers to overinvest in high risk assets. A symmetric managerial contract with no negative enforcements e.g. decreased salary, fines, degradation etcetera but with positive incentives on excess returns is shown in the payoff structure in figure 4.2.

Graph 4.2 The Payoff Structure of Performance Fees
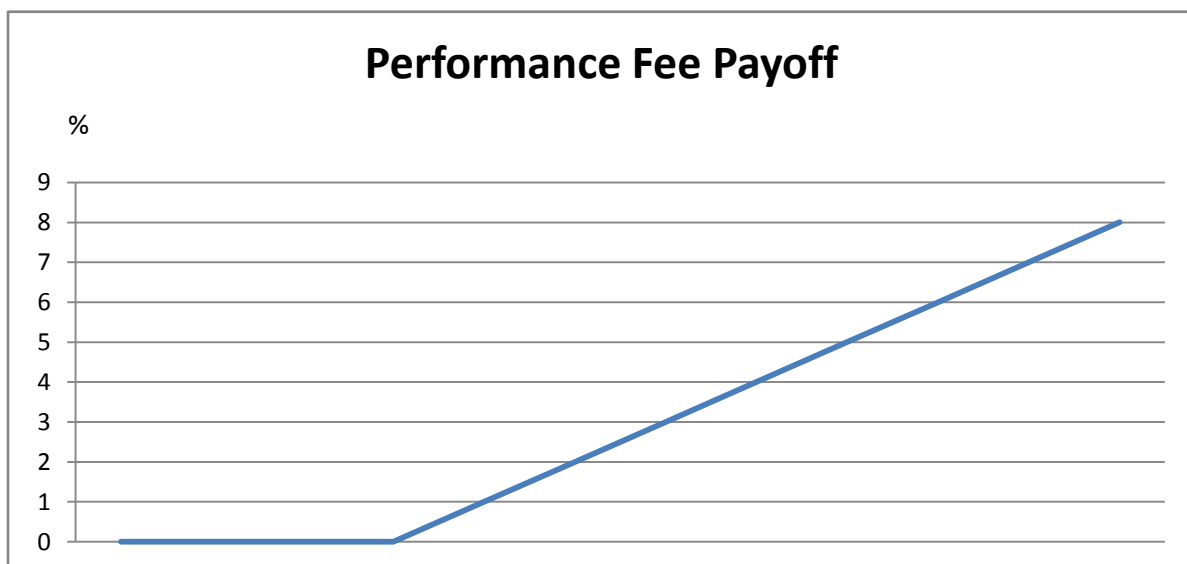
The diagram illustrates the lack of downside an Agent faces when he is not sharing the risk of his own actions. Notice that the payoff is a linear trend of excess returns above the strike price and is thus endorsing risky behavior. In other words, the manager's payoff is fixed but when

outperforming a specific benchmark; the manager will obtain a percentage of the excess return and thus encourage him to take on extra risk.

5.4.2.3 High Water Marks

In Swedish hedge funds a common praxis is to use high watermarks to complement the performance fee contracts. The investor protection in this setting is intuitive: with a high watermark clausal the hedge fund manager will only receive a performance fee when a particular pool of money an investor has invested exceeds its previous greatest value. This eliminates the risk that the manager could obtain bonuses although the investments have decreased in value (www.brummer.se).

5.4.2.4 The Share Ownership

Another contractual component in the Swedish hedge fund industry is share ownership, where the hedge fund managers invest a substantial amount of their own wealth into the fund. This is not only a personal investment strategy, but also a signal of confidence to the investors (Thalén, 2008).

The share ownership also changes the composition of the payoff structure for a hedge fund manager. For instance, if the fund generates a negative absolute return, the hedge fund managers will not earn their performance fee but they will also lose money due to the reduced value on their investment share (www.riksbank.se).

Graph 4.3 The Payoff Structure of Share Ownership

Share Ownership Payoff
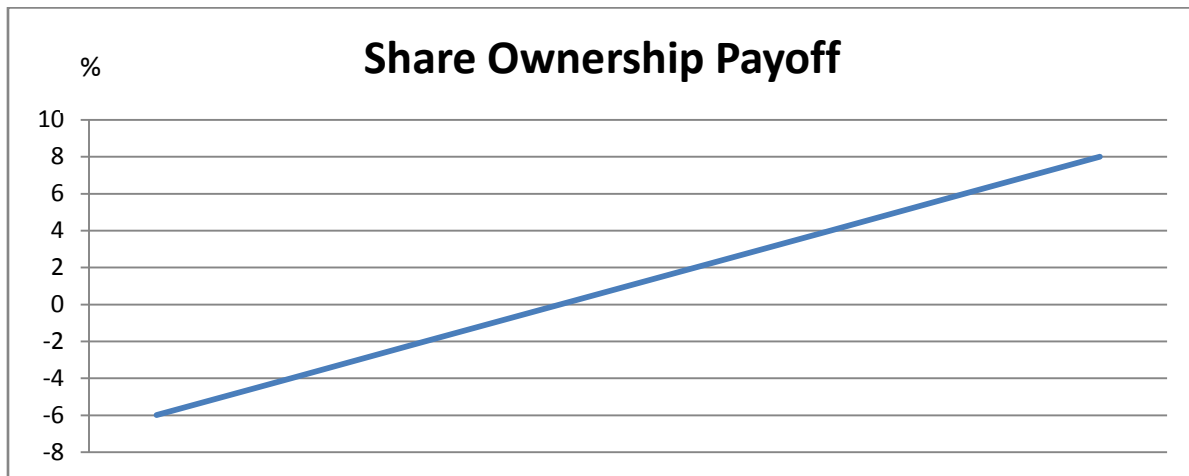
As graph 4.3 shows, the payoff structure not only has a positive upside when the return is positive, but also a harmful downside when the return is negative. This eliminates any unnecessary risk taking when the fund has a negative return and the manager seek to take on extra risk to increase their chances of ending up in the money and receive a performance fee.

5.4.2.5 Herding Behavior

In recent years hedge funds in Swedish have been claimed to engage in herd behavior, i.e. taking similar financial positions. Herding activities reinforce market fluctuations and have destabilizing effects on the economy. Furthermore, taking the hedge fund's traditionally high level of leverage into consideration in a market downturn, the destabilizing effect of herding behavior is even reinforced (www.riksbank.se).

6. Analysis and Discussion

This paper has so far described the theoretical framework, the institutional setting and the nature of the Swedish mutual fund and hedge fund market. In section 5.4 "Investment Manager Contracts in Sweden" the components and especially the mechanisms of the different contracts have been carefully depicted. It has also been shown that the fundamental

Principal-Agent relation between investors and investment managers in Swedish mutual funds and hedge funds is the same. Despite regulations and strategies, the managers at both types of funds seek to maximize the profit of their investments and to do this they need skill as their primary instrument.

This section identifies theoretical implications and outcomes of the incentive components earlier described and will provide different rationales for the differences in investment manager's incentive contracts between Swedish mutual funds and hedge funds.

6.1 Theoretical Implications of the Incentive Components

6.1.1 Competition Leads to Suboptimal Risk Levels

The management fee has interesting implications on competition and the risk taking behavior of investment managers. Recall that the absolute return on the management fee increases as the underlying pool of assets grows. In the long run, investors will only want to invest in funds with fund managers having industry leading (highest) consecutive annual returns. This puts pressure on the investment managers to deliver high returns in the long run in order to both maintain and to attract new investors. The investment manager may then be tempted to take on excessive risk in order to deliver the highest return

The governing restrictions for both Swedish hedge fund and mutual fund managers allow investment managers only to vary the risk within the constricted pre-specified investment strategy. Thus the investment managers have an interval, although narrow, where they can choose between relatively safe or risky investments in order to maximize their return. Assuming that CAPM holds (positive risk-return relationship), the investment managers have incentives to invest conservatively due to the level of competition. Instead they prefer riskier assets in order to be the industry leading fund. The level of competition in the industry might therefore force the investment managers to take on as much risk as possible within the pre-specified and regulated investment strategy, which is unwanted by the investors.

Therefore, the competition in the Swedish investment fund market might be both good and bad. It is good for the investors that the management fees are kept down by the competitive

forces and bad since high competition can make the investment managers take on excessive risk.

6.1.2 The Free Rider Problem

Incentive programs seek to eliminate shirking and promote effort and skill exertion by the manager. One of the most important incentive components in Swedish hedge funds is the performance fee.

However, economic theory suggests that if the manager is not solely responsible for his own actions, he has an incentive to shirk. This is closely related to the common pool problem and it is a central dilemma in organizational economics.

Due to the fact that the hedge fund manager's performance bonus is based on the fund performance and not the capital he invests for the fund over the year, he has an incentive to shirk and still get a performance bonus.

Suppose that there are 30 managers working in a hedge fund. The underlying pool of assets is 10bn SEK and each manager is responsible for an equal amount, i.e. 250m SEK. Further assume that each manager now has the choice to either work hard or shirk. If the manager works hard he will make a positive impact on the total return of the fund and if he shirks he will have a negative impact on the total return. However, since he is only responsible for 1/30 of the positive return, depending on how much he values shirking and wealth in his own private utility formula, he might prefer to shirk. The individual investment manager might thus free ride on the other managers' performances.

This will give rise to commitment and coordination problems, since the investment manager has reasons not to trust one or multiple investment managers within the framework. In the case of hedge fund managers it could be suboptimal to both managers and the investors with an incentive structure like this. If an investment manager cannot be trusted or if someone believes that this investment manager cannot be trusted with the hedge fund, the investors will end up in a suboptimal equilibrium. According to this argument the performance fee is an unnecessary precaution in terms of investor protection. It is nevertheless arguable from a competitive view, where the best managers are attracted to the highest rate of performance based income.

6.1.3 The Asset Substitution Problem

When hedge funds apply share ownership it creates a situation with symmetric payoff for the hedge fund managers, which replicates the payoff structure that investor are facing (see Graph 4.3). This alignment of incentives comforts the investors, since the investment manager has reinforced incentives to act in line with the investors' preferences. Share ownership is not necessarily an optimal solution, since the investment manager now has to bear some risk, which he might be unwilling to do.

Share ownership has also interesting implications in the light of the Asset Substitution Problem. Swedish hedge funds use leverage as an important part of their investment strategy and by using leverage Swedish hedge funds are able to utilize and capitalize numerous investment strategies that mutual funds are not allowed to practice. The reason for this is that leverage increases the opportunities, the return but also the risks involved. The leverage Swedish hedge funds use is referred to as economic leverage, which entails diverse derivative agreements between the fund and its counterparties. An outcome of this is the close-ended nature of hedge funds, where they at times may be rather illiquid during the lock-up periods in contrast to Swedish mutual funds. Furthermore, if this economic leverage makes up for a large part of the portfolio value, it can in a distressed situation turn against the hedge fund.

It is then possible to assume a situation where a substantial part of the economic leverage is about to be paid back to the counterparties but the hedge fund has insufficient liquidity. This would put the hedge fund into severe financial distress, where it could face a liquidation threat. Moreover, the asset substitution problem assumes the cash that the hedge fund actually has at its disposal could either be invested in a safe project or a risky project in order to pay back the counterparties and perhaps even generate a surplus if successful. Since $E(r)_{Safe} > E(r)_{Risky}$ the counterparties would want the hedge fund to invest in the safer project regardless of the future of the hedge fund, whereas the hedge fund manager would make the bet on the riskier project even if there is only a slight chance it could generate a surplus for the fund and hence continue its operations. In the Asset Substitution Problem it is assumed that the investment manager will choose the riskier project even though the net expected return will be lower than that of the safe projects.

The interesting implication of this problem is that the share ownership could theoretically make the hedge fund manager take on excessive risk when facing a close down threat (in this case due to liquidity distress). In the context of the Asset Substitution Problem, the share ownership would therefore exacerbate the risk-taking, since he would not only lose his job but also his private investment in the fund.

6.2 Rationales for the Differences in the Contract Structure

6.2.1 Regulatory Rationales

Although the nature of mutual funds and hedge funds differ substantially, the institutional differences between Swedish mutual funds and hedge funds is lesser compared to other countries, where hedge funds can take on several legal forms. Thus when analyzing the Swedish regulatory differences between mutual funds and hedge funds, it should be noted that the differences are significantly smaller compared to international markets. This section is primarily concerned with regulatory and legal differences that can explain the differences in fee structures and does not take economic rationales or strategic investment consideration into account.

The reason why the "institutional gap" between mutual funds and hedge funds in Sweden is relatively narrow is that both funds are highly regulated since both funds are required to register with the Swedish Financial Supervisory Authority. This creates a good level of transparency in the Swedish investment fund market. Swedish funds are also protected in the sense that the investment company is secluded from the investment fund. Hence, a default of the investment company does not necessarily affect the investors. In many foreign funds the investors own a share of the equity in the investment company and would thus be negatively affected to a greater extent.

The key similarities in the regulatory framework are:

- The legal construction of investment funds in Sweden is built on a contractual ground between three involved parties: the investors, the custodian and the investment fund (regardless if it is a mutual fund or a hedge fund)
- Both types of investors are protected from default

- The reporting of risk levels within the current portfolio are demanded to be easily interpreted and understood
- In the information reports that the fund is required to publish, it is also required that the fund informs the investors about their investment strategies and how they manage the capital

The key differences in the regulatory framework are:

- Swedish hedge funds are not allowed to be distributed outside Sweden, since they deviate from the UCITS- directives
- According to the UCITS- directives, the mutual funds are by law obligated to enforce the investor guarantee of risk-spreading. In order to comply with the risk-spreading guarantee, a fund is not allowed to invest more than 5% of the fund value into one security. A fund is furthermore required to have at least 16 different securities in their portfolio

Even though mutual funds and hedge funds operate in different ways and attract different investor types, the overriding target remains the same: to earn an excess return on behalf of their investors and for themselves. Recall that the three party contractual agreement between the investors, the fund and the custodian is applied to both mutual funds and hedge funds creating an overall symmetric structure from a regulatory perspective.

Also, keep in mind that the managers of the funds would not have incentives to work without any variable compensation, i.e. they would work less efficient. Therefore, the two main differences enforced by Swedish mutual funds and hedge funds are the performance fee and the share ownership, which will be further analyzed in this section.

The share ownership applies a similar payoff structure to the investment manager as the investor. This protects the investor from excess risk taking when the fund is close to default and it further encourages the manager to work harder even if the fund is doing well.

The herding behavior observed by managers due to regulatory reasons in mutual funds is also a phenomenon worth mentioning. Interestingly, mutual funds have restriction posed on them that force them to sell a security whenever it experiences a sharp decline. Unfortunately, this could turn into a self-reinforcing spiral and create even greater turbulence on the market when mutual funds suddenly engage in big sell offs. Such herding behavior is reduced for hedge

funds, since they use absolute required rate of return, i.e. the herding behavior that hedge funds often get criticized for is prompted by regulatory measures in mutual funds.

The performance fee constitutes the biggest difference in manager contracts between Swedish mutual funds and hedge funds and it is not only a signal to the investor that the manager is confident in having a positive return but also a measure to attract competence (the most skilled managers) to the fund. The performance fee might be easier to justify in other countries where only mutual fund investors receive protection from default, but in Sweden investors of both mutual funds and hedge funds receive the same protection against default. Hence, the economic argument of further aligning hedge fund managers' incentives and the investors' incentives with a performance fee is reduced by the fact that there is a regulatory consistency between mutual funds and hedge funds in terms of default protection.

Taken together, from a purely regulatory viewpoint, the relation between the investors and the investment managers is unchanged regardless if it is a mutual fund or a hedge fund. It is nevertheless not said that there are no rationales for different incentive structures between mutual funds and hedge funds, but those rationales ought to be economic or others rather than regulatory.

Further, the share ownership structure imposed by the majority of the hedge funds should also offset the importance in the incentive effect that the performance fee otherwise might have.

6.2.2 Investment Manager Contracts Reflect Skills

A simplified model would explain the different contract structures with the argument that skill reflects compensation. In such a simplified setting skill would reflect output and output would reflect compensation. The underlying assumption is that the Swedish hedge funds demand more skilled managers, since a hedge fund manager deals with more complex instruments e.g. derivatives and short positions. This implies that the hedge fund manager ought to be more skilled than a mutual fund manager in order to produce the same satisfactory result for their investors. In the delegated portfolio management setting this would somewhat clarify the variation in Swedish hedge fund and mutual fund contracts. In conclusion, it is plausible that the hedge fund managers have a higher ratio of variable over fixed income than mutual fund managers simply because they are more skilled.

6.2.3 Import of Hedge Fund Structure

Another rationale for the dissimilar contract structures may be heritage and industry praxis. Mutual funds have been a common investment alternative for institutional, corporate and private investors since the mid seventies in Sweden. Mutual funds have since then had time to adjust the compensation contracts in accordance to the Swedish regulations.

Hedge funds, on the other hand, are relatively new to the Swedish fund market (Brummer started the first hedge fund "Zenit" in the late 90's) and might not have adjusted the fee structure and manager contract to optimal levels given the more extensive Swedish regulation with regards to investor protection and transparency.

Suppose there are more convincing rationales for a performance fee in countries other than Sweden with lesser investor protection and that the hedge fund manager's contracts are homogenous on the international market. It is unlikely to assume that all hedge fund contracts by pure coincidence are originally a national phenomenon around the world. A reason to why the investment manager contract structure in Sweden differs might be that the hedge funds structure is more or less imported from foreign investment fund markets. Swedish hedge funds may have, to some extent, replicated the international hedge fund structure from foreign markets and thus never really tailored an incentive structure entirely for the Swedish investment fund market. Perhaps would the hedge fund manager contracts in Sweden look different if they would have been designed without any influence from their international counterparties. The standardized hedge fund manager contracts have nevertheless been widely accepted on the Swedish market even though parts of it might be superfluous due to Sweden's more extensive investor protection.

By this line of argument, the hedge fund incentive structure ought to be a rather imported phenomenon in Sweden. It could then be argued that it is more a matter of industry praxis that explains the differences between mutual funds in hedge funds.

6.2.4 Variable Fees and Signaling

As mentioned earlier, the contract structure of investment fund managers is deduced from the various agency dilemmas that occur in the delegated portfolio management setting. A central

difference between Swedish mutual funds and hedge funds is the risk profiles and strategies the funds use. This is also why they attract different types of investors, where hedge funds commonly attract more informed and sophisticated investors. To do this their marketing is often word-of-mouth and a substantial minimum investment is required (although there is no industry standard). Mutual funds, on the other hand, seek retail investors, which is a much larger group of investors.

In theory, the performance fee and the share ownership in Swedish hedge funds are not only there to reinforce the manager incentives. It is also there as a signal to current and potential investors that the investment managers are highly motivated by economic incentives. The share ownership is a signal particularly appreciated by investors, since the payoff structure of this strategy basically mimics the investor's payoff structure.

However, given the relative benchmark measure, the market risk exposure, the transparency and the open-end structure of mutual funds, Swedish mutual fund managers ought to be equally as motivated by their bonus incentives as hedge fund managers, since most of these factors will limit opportunistic behavior. This would decrease the necessity for share ownership and performance fees from an investor protection view. From this perspective it could be argued that the signaling effect of hedge fund contracts such as share ownership and performance fees is purely a marketing strategy to attract potential investors. It could be argued that the performance fee is both attracting to the investors but it is even more likely that it works in the opposite way, since the performance fee is charged in addition to the management fee.

6.2.5 Entry Barriers for Investment Funds in Sweden

The relatively higher level of fees for Swedish hedge funds compared to Swedish mutual funds can in theory be explained by the concept of entry barriers. When there is a limited access to a market – entry barriers – funds may be operating with fees above a perfectly competitive level. Entry barriers are impediments for entering a particular market and it could be due to patents, marketing investments, capital requirements, high level of initial investment etcetera.

The entry barriers a Swedish hedge fund face can be divided into two categories: Regulatory and economical. The regulatory barrier for a hedge fund is rather extensive, since they first need to be approved by the Swedish Financial Supervisory Authority (Finansinspektionen) as an investment fund and then be approved for deviating from the UCITS-directives in order to be classified as a "Specialfond". The economic barriers for starting (and running) a hedge fund are the costs of attracting highly skilled managers, competence development and systems. One can thus talk about several obstacles and investment requirements for hedge funds compared to Swedish mutual funds. It is then plausible to conclude that these entry barriers in turn might contribute to the higher fees, since they might keep out potential competitors.

7. Conclusion

This thesis has described and depicted the various components in incentive contracts for mutual fund managers and hedge fund managers in Sweden, but also highlighted the most important differences. The aim of this thesis has been to shed light over the diverse incentive structures and to provide rationales for the prevailing differences in the contract structures on the Swedish investment fund market.

The competition on the Swedish investment fund market may force investment fund managers to take on excessive risk in order to attract and maintain investors. Although the investment manager is limited by the pre-specified fund profile, there is nevertheless room for risky or less risky decisions. Competition will conversely leave the level of management fees unchanged, which ultimately benefits the investors. The performance fee that Swedish hedge funds apply is based on the performance of the fund and the collective efforts of all the managers, which could give rise to a free rider problem for the individual investment manager. It seems that this performance fee, at its current state, is rather an unnecessary precaution. It nevertheless works as a tool for attracting and maintaining highly competent investment managers.

Another theoretical outcome of the different incentive components is the Asset Substitution Problem originating from the leveraged nature of hedge funds and the share ownership in the

manager's incentive contract. In a distressed financial situation, where e.g. the current liquidity is less than the value of the debt maturities, the hedge fund manager may invest the cash reserves at hand into riskier projects and gamble with the creditors' money in order to pay back the debts and avoid liquidation of the fund.

The regulatory gap between mutual funds and hedge funds in Sweden is relatively narrow compared to other countries. Although there are differences in the regulation that motivates differences in the incentive contracts between Swedish mutual funds and hedge funds, the similarities are more evident and do not explain the dissimilar incentive contracts in a satisfactory way. Hence, rationales other than regulation have been examined and there are three likely rationales for the differences in incentive contracts. First, the hedge fund structure seems replicated from international investment fund markets and while the extensive and transparent regulatory framework in Sweden provides a high level of investor protection, the most central difference – the performance fee – is hard to motivate from an institutional viewpoint. Secondly, the performance fee and the share ownership are marketing tools to attract and insure hedge fund investors. Due to limited investor pool in hedge funds, each investor's capital is a relatively larger proportion of the fund portfolio, which creates a higher demand for protection via incentives. Thirdly, an explanation to why hedge funds may charge higher fees could be explained by prevailing entry barriers to the non-harmonized fund ("Specialfond") market on the Swedish investment fund market. The barriers are both economic and regulatory.

The differences in incentive contracts between mutual fund managers and hedge fund managers in Sweden is a complex subject to take a stand on. However, from the viewpoint of this paper's theories it appears as if the performance fee has very few economic and institutional motives while the share ownership, on the other hand, has a more explanatory and positive role in the Swedish investment fund industry. The contractual differences in mutual funds and hedge funds are not motivated or justified by the differences in the nature of the respective funds, but can partly be explained by the seemingly replicated structure of international hedge fund industry praxis.

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