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Currency risk management

A case study of Superfos

Bachelor Thesis within Business Administration

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Abstract

Purpose: The purpose of this thesis is to evaluate the currency risk management at Superfos and analyse how it can be improved.

Background: Currency markets have during the latest decades become more volatile. Along with an increasing globalisation, the multinational companies face greater currency risks today than ever. These need to be managed in an efficient way. To analyse the effects of this and to explore what is done to minimise the currency risks, a case company is used in this thesis. The company is Superfos and with its 11 production facilities across the world and where currency risks are a part of their daily agenda it is interesting to look at the issue from their point of view.

Method: This thesis is using a mix between exploratory and descriptive purpose in order to both understand the topic but also to evaluate the process. To fulfil this, a qualitative approach is used where the primary data consists of interviews made with the finance manager at the subsidiary in Tenhult, Jonas Fallberg and the group risk manager Jesper Morgils. Secondary data has been collected through literature from the university library in Jönköping and various databases.

Conclusion: The authors found that communication and strategy are the core areas where Superfos should focus in order to evolve their currency risk management. It is today heavily focused on the group risk manager's work and even though the management is satisfying, it would be enhanced with a greater knowledge of the currency risk management throughout the organisation which is achieved by better communication and a clearer structure.

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1 Introduction

In this introductory section of the thesis, a general background of currency risk management will be presented, along with a short presentation of the case company in this thesis - Superfos. Following is a discussion of the problem, leading into the purpose. To clarify the structure of the thesis, a disposition will conclude this first section.

1.1 Background

“The ability to foretell what is going to happen tomorrow, next week, next month and next year. And to have the ability afterwards to explain why it didn't happen” (cited in Wit and Meyer, 2005)

This quote was once stated by Winston Churchill as the requirements for a politician. However, it can indeed be applied in today's field of currency risk management as well. Due to the continuously change in the currency rates, a risk occurs to the party involved in the market, seeking to analyse the future. To meet this risk, a management with the authority to face adversity is crucial. Hence, you find yourself in the field of currency risk management.

Following the abandonment of the Bretton Woods agreement and fixed exchange rates in the early 1970s, currency markets have become more volatile (Redhead, 2001). Together with a world experiencing an increased globalisation, companies are exposed to great risks when conducting business. Risks that require the ability an efficient management that can evaluate the future risks is established in the organisation.

An interesting example when considering the impact of a company's vulnerability regarding currency risks is the case of Laker Airlines. In the late 1970s, the performance of the US Dollar (USD) was weak compared to the British Pound (GBP). As a consequence, it was a bargain for the Englishmen to go on vacation in the US. The American entrepreneur Freddie Laker had acknowledged this and offered flight travels from Britain to the US. It was a success. However a delightful problem developed; more people wanted to fly with Laker Airlines than there were seats. To solve this, Freddie Laker decided to buy five additional aero-

planes, with the financing carried out in USD. Throughout the following years though, the dollar started to appreciate which led to higher costs for the planes. At the same time the number of vacationers decreased as the cost for the British individual rose as well. Thus, costs increased and revenues decreased simultaneously. The bankruptcy was a fact in 1982 (Smithson, 1998).

As noticed, companies face the risk when interacting in a foreign currency. This interaction is normally carried out through conducting business with another company in another country. Furthermore, companies today are often formed into large groups with subsidiaries in different countries, causing a risk itself. In these cases, when experiencing an internal risk, there is a clear need for communication in order to achieve a management that fulfils the goal with how to encounter the currency risks. Hence, it is therefore important that companies encounter currency risks both externally, when conducting business with customers and suppliers across borders and internally, when interacting with the different subsidiaries within the organisation.

1.1.1 Introduction of the case company

The case company being used throughout this thesis is Superfos. It is a multinational company, with the head office located in Denmark. The company operates within the plastic industry where they develop, manufactures and sells injection moulded plastic packaging. The customers are mainly found in the grocery industry and the chemical/technical industry. In Sweden, the company is represented by the subsidiaries Superfos, located in Tenhult and Mipac, located in Mullsjö. Since it is a large company with 1 500 employees at 10 production facilities across Europe and 1 in the US and with a turnover of 360 Million Euro (EUR), it is an inspiring task to analyse the currency risk management within Superfos.

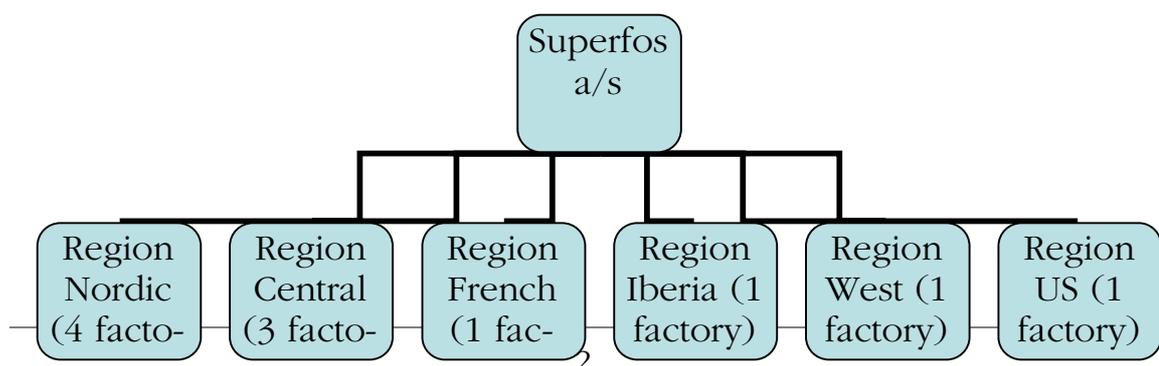


Figure 1 - Organisation chart (Superfos website)

1.2 Problem

A currency risk occurs when a company conducts businesses in a currency different than in which the exporter has its costs and the importer has its revenues (Grath, 2004). When considering a company's currency risk management it is important to look at different areas. Strategies, view of risk, organisation, share of responsibility and communication are all important parts to consider. In this thesis the authors want to investigate these parts from the perspective of Superfos.

Every company has its unique strategy regarding currency risk management. A common element is the use of derivatives. However, the strategies on how to deal with currency risks by using different tools such as derivatives differs (Artsberg, 2005). In this thesis, the authors aim to investigate which strategies the case company applies but also analyse how these strategies can be optimised.

When discussing currency risk management three different risks usually exists; transaction risk, accounting risk and operation risk. In short, the transaction risk is concerned with the currency risk that occurs after a contract is signed. The accounting risk deals on the other hand with the risks related to the change in value of foreign assets and liabilities due to changes in the exchange rates. The operation risk is valid for all companies whose revenues and costs are affected by changes in the currency, which is the way of which changes in the currency rate have an impact on the company's cash flow (Shapiro, 1999). In this thesis the authors aim to analyse the transaction risk of the case company.

For multinational companies, the management of transaction related risks is attached to the daily agenda. The management is done through the use of different instruments, such as forwards, options and swaps. Additionally it is also important to bear in mind how the information which serves as a basis for the decisions is communicated internally and how the risk with internal transactions is managed.

1.2.1 Research questions

The discussion above leads to the following questions:

- What does Superfos' currency risk management consist of?
- What corporate strategies are used at Superfos for the management of currency risks?
- How is the communication and involvement concerning currency risk management handled at Superfos?

1.3 Purpose

The purpose of this thesis is to evaluate the currency risk management at Superfos and analyse how it can be improved.

1.4 Delimitations

In this thesis the authors have chosen to only examine two parts of Superfos, which are the subsidiary in Tenhult and the head office in Taastrup. The authors have therefore limited the thesis to not include the entire group which would have demanded time well above the requisites of this thesis. Furthermore, the focus will be set on the currency risk management of the case company, and the transaction risk in particular that they have towards their customers and how the communication related to the field is performed. The authors consider this limitation to be valid and that the thesis still will give a fair picture of both the currency risk management in Superfos as well as the communication between the head office and the subsidiary in Tenhult. It will also create a deeper understanding of how things are carried out in Superfos.

The authors have chosen to focus more on hedging than on the risk of raw material prices and contracts towards customers and suppliers. This is due to the fact that the time span did not allow the authors to thoroughly investigate the relationship and the contracts between Superfos and their suppliers and customers additional to the hedging investigation.

1.5 Literature search

A formal data collection process is necessary as it ensures that data gathered is both defined and accurate and that following decisions based on arguments embodied in the findings are valid. The process provides both a baseline from which to measure from and in certain cases a target on what to improve. To find the data needed in order to fulfil the purpose of this thesis the authors have col-

lected their data from a collection of sources (Saunders, Lewis & Thornhill, 2007). Interviews have been made with interviewees from the case company Superfos. The authors have also used literature in the form of books and scientific journals in order to create a deeper understanding of the subject. Other sources such as previous research and old thesis have also been read to deepen the understanding of the phenomenon and area of interest.

The authors used extensive literature as a foundation to the theory. This has provided the authors with a wide-ranging knowledge about the subject. The literature studies also endowed a base to develop the interview questions and accordingly the empirical study. Furthermore the authors also engaged a standpoint from the literature studies when analysing the empirical study.

The authors have also been searching for published articles through different databases provided by the university library in Jönköping such as ABI/INFORM and Google Scholar. In addition, the authors have searched for published books at the university library in Jönköping as well as Internet based search engines such as the Ebrary. After reading and sorting out the literature the authors have chosen to focus on the area of currency risk management. Nevertheless, the authors consider all the literature of value as it has widened their perspective on the subject.

1.6 Disposition

The thesis is divided into 6 different sections with the underlying thought to make it as logical as possible for the reader to follow. In order to give an understandable flow throughout the thesis, figure 2 below has been constructed to give the reader an overview of the disposition of the study. As seen in figure 2, this section permeates the whole study, describing the execution of the study as well as giving the reader a notification of what to expect.

The disposition of the thesis and the relationships between the different sections is illustrated. The first section is an introduction to the thesis. It is the fundamental base where the purpose is stated as an end to the previous discussion in the background and problem section. Following is a section on how the authors have encountered to, the method of the thesis. Thirdly, theories included in the thesis are explained to give the reader but also to use them when analysing the outcome. The empirical section will be covered and after this section, the analy-

sis of the outcomes. Finally the conclusion is stated which aims at answering the purpose.



Figure 2 - Disposition of the thesis

2 Method

In this section the methodology used to write the thesis will be presented. Definitions of some methodological terms will also be addressed, along with critique against the method used.

2.1 Research approach

A study can undertake different types of purposes, depending on the aim of the study. These purposes are often divided into exploratory, descriptive or explanatory purposes.

Exploratory studies aims to ask questions and investigate a phenomenon in a new light, and it is useful if the authors want to increase the understanding of a specific problem. The exploratory research signifies that hardly anything is known about the matter at the beginning of the project. The most appropriate ground for using this approach is that the authors will use an earlier study to support their study (Saunders et al., 2007).

Descriptive studies describe a phenomenon systematically to expose patterns, trends and connections that might otherwise go unobserved. These studies allow the authors to create an understanding of the phenomenon they are interested in. This is the central part of conducting a study, since it mostly is a forerunner for either exploratory or explanatory studies. This is due to the fact that a phenomenon can not fully be explained if not the phenomenon itself is understood (Saunders et. al., 2007).

Finally explanatory studies aims to establish relationships between different variables. In order to establish the relationship between different variables the importance in this kind of study is to focus on studying a problem or a situation (Saunders et. al., 2007).

As this thesis aims to investigate in a phenomenon in a case company with the research conducted through literature and interviews, both the descriptive and exploratory purpose is used. The descriptive as the authors aims to understand how the case company is dealing with currency risks, and the exploratory as the

wish is to enlighten the currency risk area as well as striving to find areas in the company's currency risk management that can be enhanced.

2.2 Qualitative vs. quantitative approach

To identify the distinctions between qualitative and quantitative data may be a problematic task. However, some differences are obvious. Quantitative data is focused on finding a meaning out of numbers, the data collection ends up in numerical and standardised data and analysis are made on the basis of diagrams and statistics. Qualitative data on the other hand are based on meanings expressed through words, the data collection results in non-standardised data which calls for categorical classification and the analysis is based on the use of conceptualisation (Saunders et. al., 2007). As the authors aim to analyse Superfos currency risk management investigating the meanings and non-numerical data, the qualitative approach is chosen. This is due to the fact that though quantitative data can show results regarding hedging, qualitative data were the suitable option in this thesis as the authors wanted to create a deeper understanding of the area of interest.

2.3 Deductive vs. inductive

When conducting a thesis, an approach towards the research is addressed. This approach can be either based on testing already existing theory, to build theory or to use a combination of these two (Saunders et. al., 2007).

The deductive approach is focusing on existing theory and by using this approach the authors are meant to use a theory in order to build the foundation for the empirical findings. The inductive approach is seen as the opposite of the deductive approach and means that the authors are focusing on the empirical findings and then drawing theoretical conclusions based on the empirical findings (Saunders et. al., 2007). This thesis is demanding the deductive approach. An approach that the authors found suitable as the background knowledge must be based on already existing theories when conducting a case study. However when the empirical findings are collected the thesis will be based on that information gathered, and further the theories will be implemented when conducting the analysis and conclusion.

2.4 Primary vs. secondary data

When collecting information to the study the information can be divided into primary and secondary data. Primary data are collected by the author of the study for that specific purpose. In order to collect primary data the authors can use interviews, questionnaires etc. Secondary data on the other hand is data previously collected for other purposes and studies. Secondary data are often taken from previous studies or from books and scientific papers. Primary data can hence be called new data and secondary data can be referred to as old data (Saunders et. al., 2007). In this thesis the authors will be using both primary data, from interviews with interviewees from the case company and secondary data from books and scientific papers.

2.5 Case study

Saunders et. al., (2007) defines a case study as a “research study that involves the empirical investigation of a particular contemporary phenomenon within its real-life context, using multiple sources of evidence”. Four different case study strategies exist where they are based upon two discrete dimensions. First there is the choice of a single case or the use of multiple cases. Case studies are complex because they generally involve multiple sources of data, may include multiple cases within a study, and produce large amounts of data for analysis. Researchers from several disciplines use the case study method to build upon theory, to produce new theory, to dispute or challenge theory, to describe a situation, to provide a basis to relate solutions to situations, to explore, or to describe an object or phenomenon. The advantages of the case study method are its applicability to real-life, contemporary, human situations and its public accessibility through written reports. Case study results relate directly to the common readers on a daily basis experience and assist an understanding of complex real-life situations (Saunders et. al., 2007). Furthermore, the case study is conducted as a holistic case or an embedded case. This thesis will take the form of an embedded single case study since two different departments on a different hierarchical level will be examined.

2.5.1 Selection of case company

The choice of Superfos as the case company is a result of different variables. The authors sought to find a multinational company with large operating activities in many various countries and currencies. Another condition was the presence of a high developed and centralised treasury department. The authors wanted to study a centralised treasury department since the authors believe that a centralised treasury department handles all currency risk management from the same perspective often set by the companies' treasury guidelines. This is also an evidence of consistency and developed hedging strategies. Another reason to study a centralised treasury department was to be able to collect information and study the entire currency risk management operation of the company when time and resources are limited. By choosing Superfos, which is a multinational company with the head office and a centralised treasury department located in Denmark, the authors consider the company to fulfil the preset requirements and were therefore appealing to the authors as a case company. Furthermore, the authors chose Superfos as the case company of this thesis since it is a large company with currency risk management set on their daily agenda. It is therefore of the authors interest to view the issue from the company's side. The connection with the company was established at an early point. When discussing the issue with the subsidiary in Tenhult, a problem with the sharing of information in the group came up. Hence, a clearer picture of the company's currency risk management was requested.

2.6 Interviews

The authors have chosen to collect information and data from Superfos through qualitative interviews. This is a method where researches interfere to the least, since the interviews are like an ordinary conversation. It is the person being interviewed who is designing the interview (Saunders et. al., 2007). However, to be more efficient, the authors formed a framework for the interviews with prepared questions. In the appendices the questions used as frameworks regarding the interviews, are provided.

2.6.1 Interview questions, advantages and disadvantages

The questions the authors asked during the interviews have been created with a base from the literature. Using literature as a standpoint gave the authors signals about the most valuable and interesting questions to ask. It is important that the interview questions are open questions. This will allow the participant to define and explain a situation or event. An open question is designed to encourage the interviewee to present an extensive and developed answer (Saunders et. al., 2007). The authors believe that they succeeded with the open questions and the answers did not show any signs of misunderstanding. To make sure that there were no misunderstandings from either side the authors asked leading questions to follow up on an open question. It was also concluded the answers at the interviews to be sure that a correct answer was provided. This ensured the quality of our questions and the answers.

The authors conducted two face-to-face interviews. The close relationship with the case company contributed to that the interview situations preceded efficiently. The advantages with face-to-face interviews are that they are less time consuming than other interview techniques. With a face-to-face interview it is possible to ask complicated questions and then have the ability to directly follow-up with a new question. The disadvantages with a face-to-face interview are “the interviewer’s effect”. This is related to the fact that an individual might respond different to the same question when it is asked by different interviewers. It is also difficult to evaluate “the interviewer’s effect” since the authors are not able to test it (Saunders et. al., 2007).

2.7 Validity and reliability

Validity deals with if the findings are about what they seem to be about (Saunders et. al., 2007). Furthermore, validity concerns the issue whether the results of the study are possible to apply on to other research settings. Since this thesis is designed in the way of a case study this criteria will be ignored. Hence, the findings of this study are not necessary generalised but rather specific for this case study of the relationship between the head office of Superfos and the subsidiary in Tenhult. However the authors believe that the study can be applied throughout the entire organisation.

Reliability concerns whether the techniques used to collect data will provide same result when tested more than once. Questions that are useful to address the problem are if the measures show the same results on another occasion, if the observations will be found similar by other observers and if there is transparency concerning how logic was made from the raw data collected (Saunders et. al., 2007).

2.8 Criticism of method

When dealing with primary data it is important to analyse the data critically. The authors are aware that by interviewing only the head office and one subsidiary the view of the entire Superfos group will be limited. It would though be impossible to interview all finance managers at all subsidiaries just to get a fair picture of the whole organisation. Furthermore, it would have been interesting to interview a person working with this in the bank, in order to see their side of the issues as well.

Another critique is the number of people interviewed. Since interviews only were conducted with the financial manager at the subsidiary and the group risk manager at the head office it might not provide all the information needed. For example when investigating the communication between the head office and the subsidiaries the authors will only be able to provide their view of the issue, therefore the scenario could differ if investigating another subsidiary. However the authors found that the interviewees in this thesis are those with a high knowledge of currency risk management, due to that the phenomenon will give a fair reflection of reality.

When conducting interviews there is always a risk that questions are misunderstood, or that the interviewers are on some level affecting the answers of the interviewee. Further there is a risk that the interviewee is not willing to answer a question and tries to avoid the subject. In order to prevent these things from happening, the authors aimed to explain the questions to the interviewee without thereby influencing their answers.

3 Theoretical framework

The third section includes theories that are important for the continuance of the thesis. Theories on risk, parity conditions, the currency market, derivatives and communication are presented in order to enable an analysis.

3.1 Attitude towards risk

A company can address the currency risk in different ways depending on their view of risk. On the basis of this view they also decide whether to minimise the risk or not by hedging. Rodriguez (1981) states the following attitudes a company may undertake:

Risk neutral

A company with this type of risk policy expresses no concern about the fluctuations in the currency market on the basis that the financial instruments are ineffective. As a consequence, the company never hedge (Rodriguez, 1981).

Risk avoiding

With this policy towards risk, the company acknowledges the risks and tries to reduce the exposure to the highest level they are able to. According to the author, the majority of the companies implement this policy towards currency risks today. Therefore they always hedge against the risks (Rodriguez, 1981).

Asymmetrical risk

This company policy is the main street between the two attitudes explained above. The exposure is reduced up to a certain level that the company finds fair and valid (Rodriguez, 1981).

3.2 A company's types of risks

A company faces different risks when involving in foreign business. Grath (2004) states five risks, as can be seen in figure 3, to be present in the case of conducting business in a foreign currency:

Product risk

The product risk includes the characteristic of the product; its expected lifetime, performance, or maintaining and service responsibility. This risk also contains a manufacturing risk since the product often is customer specific. Thereby it is important to consider the risk already at a planning stage of the production. Furthermore, risks with the transportation of the product are included (Grath, 2004).

Commercial risk

A commercial risk is present when the contrary part is not fulfilling the obligations it is set up to meet in an agreed contract. This can among other things be due to bankruptcy. Hence, before a contract is signed it is important to evaluate the counterpart's ability to fulfil the obligations. This can be done by using different credit information companies (Grath, 2004).

Political risks

This type of risk is related to the case if a transaction can not be conducted due to the country's political, social or economic instability. This risk is closely related to the commercial risk since political decisions have an impact on the companies in the country (Grath, 2004).

Currency risk

If payment is to be done in another currency than the currency of the company, a currency risk appears. The value of the payment is then related to the currency rate on the payment day. The risk is then connected to the choice of payment currency and the payment conditions (Grath, 2004).

Financial risk

If a deal with a foreign company does not evolve in the way that was intended, a financial risk evolves. This type of risk is mostly referred to large single orders and the risk is also connected to the payment conditions that are agreed between the companies (Grath, 2004).

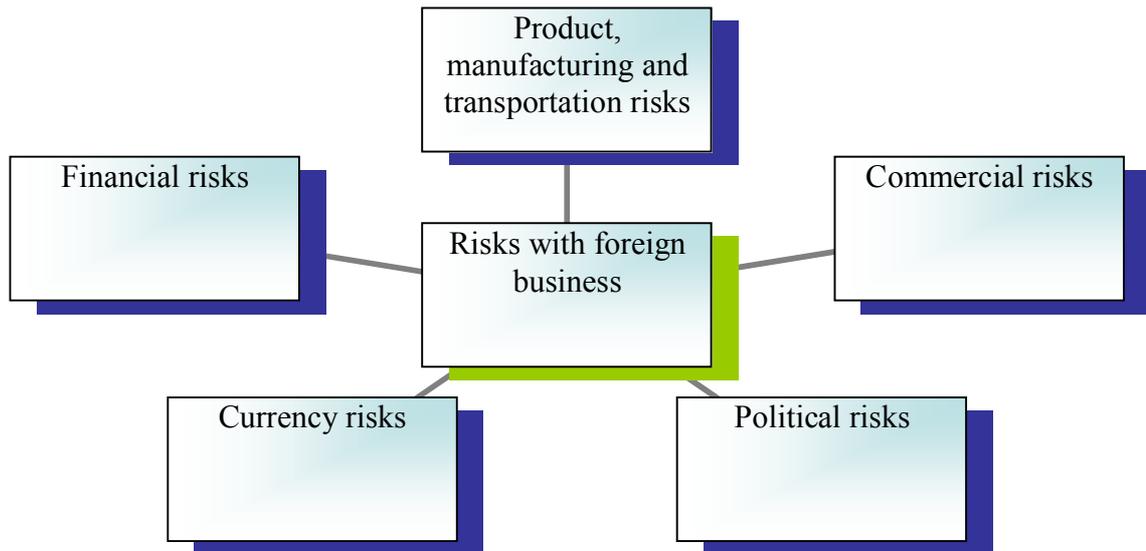


Figure 3 - A company's types of risks (Grath, 2004)

3.3 Currency risk exposure

According to Alan C. Shapiro the concept of exposures is referring to “the degree to which a company is affected by exchange rate changes” (Shapiro, 1999). This means that if a company through business with companies in foreign countries they are exposed for different types of exposures. There are different ways to measure the exposure as well as there are different exposures that a company can be affected by. The exposures the authors will look further into are; the transaction exposure, operation exposure and economic exposure. The first two exposures, transaction exposure and operating exposure together form economic exposure (Shapiro, 1999).

3.3.1 Transaction exposure

When a company have made a transaction where an uncertainty concerning the real value appears it is called currency exposure. This appears when a company makes payments in one currency today and receives payments in another currency in the future. The insecurity of which the true value of the received payments in the future and whether they will cover the payments the company already made represents the transaction exposure (Wramsby & Österlund, 2005). In order to deal with and try to reduce the risks of transaction externally when a company has a cash flow of foreign currency, the company can use certain derivative instruments.

Transaction exposure is a result from transactions generating either cash inflows or outflows and that have a future that is bound in a contract. As the exchange rates continuously change the value of the transactions when they settle will be different from the value of the transactions now, leading to either losses or gains (Shapiro, 1999).

3.3.2 Operation exposure

Operating costs measures to which extent fluctuations in currencies can alter future operation cash flows of a company, meaning the revenues and costs in the future. All companies whose revenues are affected by changes in currencies have operation exposure, even if their operations are denominated to its home currency (Shapiro, 1999).

Transaction exposure and operation exposure together is called economic exposure. Economic exposure means how the value of a company, measured by the value of expected cash flows today, changes when the exchange rates changes (Shapiro, 1999).

3.3.3 Accounting exposure

Accounting exposure, also called translation exposure, comes from the need to convert the financial statements of a foreign operation from the currency local to the foreign operation to the home currency. This is done for the purpose of reporting and consolidation. If the exchange rate of the foreign currency change from one reporting period to another the translation of those assets will result in wither foreign exchange rate losses or gains (Shapiro, 1999).

3.4 Parity Conditions

The parity conditions are a set of equilibrium relationships meant to apply to product prices, interest rates, and forward and spot exchange rates for markets that are not impeded. The parity conditions are working as a link between the different variables included in these conditions and assumes that the returns of financial assets should be the same in different markets. The five theoretical economic relationships that are presented in literature are; the purchasing power parity, the Fisher effect, the International Fisher effect, the Interest rate parity and the Forward rates as unbiased predictors of future spot rates (Shapiro, 1999).

Purchasing power parity

The purchasing power parity aims to equalise the purchasing power of two countries by using the equilibrium of their exchange rates. This theory is developed by the Swedish economist Gustav Cassel in 1918 and in its absolute version it states that in the ideal world prices for identical goods should be the same. One assumption for the “law of one price”, as purchasing power parity also are called, should apply is that free trade exists. However the relative version of the purchasing power parity states that if there are changes in the price levels of two countries, this change will be make the exchange rates between the home and the foreign currency to adjust so that it reflects the changes in the price levels (Shapiro, 1999).

Fisher effect

According to Shapiro (1999) the Fisher effect states that the nominal interest of a country is made up from two parts, that is the real required rate of a return and the inflation premium of the expected inflation amount (Shapiro, 1999).

International Fischer effect

If the Fisher effect is combined with the purchasing power parity the result will be the International Fisher effect. That means that the International Fisher effect expects that the currency of the country with the lower interest rate will be appreciated by the countries with high interest rates (Shapiro, 1999).

Interest rate parity

The interest rate parity means that the difference between the interest rates of two countries should be equivalent to the same difference between the currency spot exchange rate and the forward rate. The interest rate parity says that the currency from the country with the lower interest rate should be made as a forward premium to the currency of the country with the higher rate. On a market without any transaction costs, the interest differential should be equal to the forward differential and then the equilibrium in the money markets exist (Shapiro, 1999).

Forward rates as unbiased predictors of future spot rates

The relationship between the forward rate and the future spot rate suggests that equilibrium only is achieved when the forward differential is equal to the ex-

pected exchange rate. If this occurs there will no longer be any incentives to either buy or sell the currency forward today (Shapiro, 1999).

3.5 Derivatives

To understand hedging, the simplest approach is to think of it as insurance. When people decide to hedge, they are insuring themselves against a negative event. This does not prevent a negative event from happening. However, if it does happen and you're properly hedged, the impact of the event is reduced. Therefore, hedging occurs almost everywhere, and everyday. For example, if you buy house insurance, you are hedging yourself against fires or other unforeseen disasters. Hedging techniques generally involve the use of complicated financial instruments known as derivatives, the two most common of which are options and futures. Derivatives are a collective name on a form of security for currency hedging. The typical derivatives that companies use today are options to sell and to purchase, currency swaps and currency forwards. The differential for financial derivatives is their connection to events or expectations at a certain point in time in the future, or to a specific time period in the future. The value of the derivative is directly connected to the value of an underlying asset, for example stock, stock index, currency, interest rates or raw materials. A derivative always have two parties and a kind of contract where one part buys the right to buy or sell the underlying asset in the future while the other part have the obligation to fulfil that agreement at that point in the future (Artsberg, 2005).

By buying a derivative an investor get the opportunity to possibly obtain control of considerably larger assets in the future than the original investment in the derivative. The potential return for the derivative are often higher than the potential return of the underlying asset, however at the same time the risk is significantly higher that the investment looses in value or ends up worthless.

Derivatives do create a market to trade with risks, or, to put it in a different way, to assure an investment portfolio against decreasing rates. For example those who fear a decrease in the stock market can buy an option to purchase that will increase in value if the stock market rate would decrease. The price of the option consists of a premium in order to decrease the financial risk of the underlying security. The part with the option to sell will make money out of charging a premium like that.

What all derivatives have in common is that they split and share the risks in different forms and through the globalisation of the entire economy the possibilities and the will of spreading the risks have increased dramatically. Swaps, when a currency sells in order to be bought back in the future, have increased the most in the last couple of years. The development has mainly been driven by the large international banks. Since the number of links between the underlying assets that the transaction concerns and the investor increase rapidly the number of people with knowledge in the transactions and the risks that follow the transactions decreases (Artsberg, 2005).

3.6 Options to sell and purchase

There are both options to sell and options to purchase. The difference between them is that a option to purchase gives the buyer the possibility, but not the obligation, to buy for example a currency to a pre-decided price at a pre-decided expiry date, while an option to sell gives the buyer the right to sell the option to sell for a pre-decided price at a pre-decided expiry date. The seller is paid a premium by the buyer of the option. When trading with options the buyer is not forced to fulfil the deal if they do not wish to do so (Larsson, 2000).

One example of options to buy is that if a company knows that they at a certain point in time will receive a payment of a certain amount of money, they can purchase the right to sell this amount of money at the time they receive the payment. This is a way for the company to get more control over the risks that comes with making business involving different currencies, and if the rate of the option to sell is lower than the currency rate at the expiry date the company can sell the option and thereby lose less money (Larsson, 2000).major difference between the both kinds of options is that in the case of options to sell the seller has an obligation to buy the asset for a price decided in advance on an expiry date, the seller has then also the right to sell the option. In order to do

3.7 Currency forwards

A currency forward is a contract between two companies, to exchange one currency for another at a specified date in the future at an exchange rate that is fixed on the purchase date at a specified point of time in the future. The buyer and the seller are put under an obligation to buy and to sell where the time of

trade is, not the time where the stocks themselves are exchanged. The parties are committed to buy and sell. The Currency forward contract is the most common existing derivatives. The reason why a currency forward contract is the most frequent tool amongst Swedish companies is that the contracts can be designed after the companies wish due to the consideration of amount, currency and term. The normal approach to cover risks of currency exposure is to conduct a currency forward with a bank. Even other elements can influence for example expectations in future exchange rates (Grath, 1999).

3.8 Currency swaps

A swap is an agreement between two companies to exchange a specific amount of foreign currency. In which the currencies are returned at a specified date in the future. An interest rate swap is regularly used in combination with a currency swap. The second tool that a company can apply to decrease the risks of transaction exposure with foreign currencies is swaps. This tool is applied when two companies exchange interest and instalments on foreign loans to insure that the principal amounts are exchanged back (Artsberg, 2005).

3.9 Netting

Internal currency risk management strategies are an instrument used when companies aspiration to minimise the currency risk within the corporate group itself. The internal hedging techniques use characteristics of the company's trading relationships without recourse to the external currency or money markets and therefore are usually simple in theory and operation. The strategy of netting applies when the company and its foreign subsidiaries net off intra-organisational currency flows at the end of every period, leaving only the balance exposed to risk and hence in need of hedging. Netting is a tool for diminishing the number of transactions taking place internally in a group. An example is the one of A owing 10 to B and B owing 3 to A. While there should be two transactions taking place, Bs obligation towards A is netted and as the only transaction, A should pay B 7 (Turing, 2000).

Within a corporate group, internal cash flows are often processed locally by each unit leading to high costs for payments and currency management. Netting provides an instrument to make your payments more cost effective by reducing the

number of payments and thus leading to greater efficiency. In general netting indicates to allow a positive value and a negative value to set-off and partially or entirely cancel each other out. Netting provides a common platform for all receivables between the various units of a group to regularly settle via a netting centre. All units participating in the netting process report their intra-group transactions to the netting centre. At the end of the netting cycle, each unit either pays or receives an amount in its domestic currency (Pike et. al., 1999).

3.10 Cash pooling

To minimise the currency risks, there is a possibility to trade the incoming versus outgoing payments in a specific currency. Thereby the company is able to collect and use incoming payments in one currency for outgoing payments in the same currency in another case. These currency accounts are opened at the bank where the contract is stated (Grath, 2004).

3.11 Employee involvement

According to Jablin and Putnam (2001), employee involvement is important in an organisation. The process is about providing information, influence the employees and the effect of their incentives. The degree of participation in an organisation can be divided into three steps where there is either *no participation* by the employees, or *consultation* where the employees provide the managers with input but the decisions are carried out by the managers and finally *full participation* where the employees and managers share an equal right of influence on the decision-making.

The outcome of this is the employee satisfaction and productivity which is related to the degree of employment involvement. Furthermore, the authors state that worker participation is valuable to the organisation since the employees may have more information on the specific issue than the management. A higher degree of participation also provides as an opportunity to get more knowledge about the organisation and its policies, which in the end could have a positive effect on the quality of the decisions and the productivity.

3.12 Follow-up

Griffin (2001) mentions the importance of following up your hedges after they are done. The cause for this is thereby to give the hedger valid information whether the hedge turned out as predicted or if something could have been executed differently. Hence, on the basis of this analysis, the hedging policy may be continuously revised in order to achieve successful results in future hedges.

3.13 Previous studies

A study by Hentschel and Kothari (2001) shows that corporate use of derivatives focus on whether firms apply derivatives to decrease or increase firm risk. This study empirically explains the relation involving the use of derivatives and the risk level of firms in a sample of 425 non-financial firms in the USA. Previous studies examine whether firms systematically diminish or increase their risk with derivatives. These studies show that firms reduce their risk by apply derivatives. However, the study by Hentschel and Kothari (2001) shows that the effect of derivatives increases total risk and firm-specific risk. Nevertheless, the quantity of the increase is not economically considerable. Additional analysis provides some evidence on the association between derivatives and stock options. The results show that there is a positive relation between the use of derivatives and stock options. In addition, firms introducing stock options invest in research and development performances to a larger extent than firms that do not establish stock options. These results recommend that non-financial firms in the USA use derivatives to hedge standardised risk and adopt stock option as a compensation to take business risk.

A study by Géczy, Minton and Schrand (1997) aims to examine why firms use currency derivatives, but also how firms use derivatives and what affects the choice of which derivative the firms choose. The study shows that the extent of foreign exchange rate exposure to the firm is an important factor when choosing among the different types of currency derivatives. The study shows that the extent of foreign exchange rate exposure to the firm is an important factor when choosing among the different types of currency derivatives.

4 Empirical findings

This section has the aim to present the compilation of the interviews conducted with the group risk manager of Superfos, Jesper Morgils and the former finance manager at the subsidiary in Tenhult, Jonas Fallberg.

4.1 Introducing the interviewees

Jonas Fallberg is currently working as the finance manager at Mipac in Mullsjö. Until recently he was the finance manager of Superfos in Tenhult. Since he had been worked there for several years, the interview is based on how things are done from the perspective of Tenhult. Jonas Fallberg will be referred to as the finance manager.

Jesper Morgils is the group risk manager and treasurer of Superfos and he has worked in the organisation for 17 years. He is placed at the head office in Taasttrup, Denmark. From now on, he will be referred to as the group risk manager

4.2 Strategy

When the authors asked the group risk manager about Superfos strategy regarding risk management and hedging the following answers were retrieved. The strategy for Superfos concerning currency risk management is to minimise the financial risk that the company is exposed to. Their policy is available as a formal statement at the head office in Denmark as well at the corporate bank. The subsidiaries do not have a copy of the statement at their premises. According to the group risk manager this is due to the fact that the subsidiaries can not deal with foreign currencies on their own without contacting him.

The policy statement has been unchanged for many years and changes are only made when needed in order for the strategy to stay effective. The group risk manager considers the need for changing the policy as minimal since their currency risk management is working well. He also stress that ordinarily the board in a company are supposed to discuss their policies and statements once a year, but Superfos do instead discuss the statement at board meetings only when there is a need for change, due to the statement not working very well.

The authors asked the group risk manager, if Superfos consider changes in currency when setting prices. The answer the authors got was that the price of raw material is their main concern when setting prices. And that since the company are selling much to customers over borders, for example from France to United Kingdom and have the price of raw materials in EUR they can not increase the price of the final good if the prices of raw material increase. So in order to try to avoid this problem, and having the ability to correct the prices according to possible increases in the price of raw material they should, in that case, have the price of raw materials in GBP. However this does not work in practicality, because if the company does that the customer might take their business to a competitor instead.

Another risk is that since Superfos are a supplier of plastic packaging their customers wish to get fixed prices on their products, since the price of the packaging can not change the price of the final product. However Superfos can not get a fixed price from their suppliers since the price of the plastic raw material can differ very much from one day to another. Therefore the real risk in this case is, according to the group risk manager the strength of the contract between Superfos and the customer. The ideal contract would include an agreement between Superfos and the customer where the customer promises to purchase a certain amount of raw material. The customer is through this not bound to buy certain products as long as the raw material they agreed to buy are fully used in their purchases. One problem with this type of contracts though are deciding what should happen if the customer requires more or less raw material than agreed upon in the contract. If for example the customer has signed a contract to purchase 400 tons of raw materials and only require 200 tons before the end date of the contract, Superfos should be able to penalise that customer to pay the raw material cost for the 200 tons they did not purchase.

When asking the finance manager about the operations at the subsidiary, he also mentions the price of raw material. He states that since the price of oil has until just recently been very high, and therefore the price of raw material have been higher than usually for the Swedish subsidiaries. But recently when the oil price began to decrease, which would lead to a decrease in the price of plastic as well, the EUR began to increase in value compared to the Swedish Krona (SEK). Leading to that the price of raw material for the Swedish subsidiaries are equally high as it was when the oil price was peaking.

The current financial crisis (2008) has not affected Superfos to any larger extent yet. They are though aware of threat it causes and try to hold on to the strategies they have in order to diminish its impact on the company. The group risk manager has also proposed a suggestion to the board to shorten the time frame of when to stop deliveries due to late payments in order to tighten the leash.

4.3 Hedging policy

Superfos has a hedging policy which says the length of the contract should normally not reach over 12 months. The most frequent type of derivative used is a forward contract. The group risk manager estimates that 95% of the hedges are made as forward contracts. The rest is conducted as options and is primarily executed in currencies they found harder to predict, for example the SEK.

The group risk manager states at several times during the interviews that his role in currency risk management is to limit the risk and keep the numbers as close to the budgeted numbers as possible. The hedging is not done in speculative reasons. Superfos only hedges against commercial risk. Meaning that the risk Superfos is hedging against is the risk of the contrary part of some reason, for example due to bankruptcy will not be able to fulfil the agreement.

As stated before the hedges made at Superfos head office by the group risk manager should not exceed 12 months. They normally reach between 3 to 12 months. Normally the hedges that are 3 months are made on currencies which exchange rates are falling. But if the currency has an exchange rate that has already fallen the hedging period will be longer, up towards 12 months. He also stresses that the corporate policy at Superfos is to never cancel a hedging contract, not even if they for example have made a hedge over 12 months concerning the dollar and the dollar shows tendencies for further depreciation. He further states that hedges over 12 months can also be done, but that they are very rare and if done, the group risk manager is meant to discuss the matter with the CEO before making the hedge. The reason for hedges increasing 12 months not being normal is due to the fact that the future of financial issues such as currency exchange rates can not be forecasted. Therefore when dealing with financial issues you always have to base your decisions on educated guesswork.

As an estimate, the group risk manager says that he makes about five hedges every month for each subsidiary. When asked if follow ups and analysis were

made on the hedges, he said that he did not analyse the contracts after they pass their due date. The reason for that is because the financial market can not be predicted, and hence analysing the results will not make a big difference for future hedges. The group risk manager also states that his role as a treasurer at Superfos is to limit the financial risks and to secure the budgeted results, his role is not to receive the maximised profit. Therefore if risks are limited by a hedge he made he is happy with the hedge no matter the result.

The current financial recession has not exceeded the currency risk for Superfos, due to the fact that almost all currencies have been affected in the same way by the recession. If one currency had been affected much more than the other currencies the situation would have been different, the only currency that can be singled out as affected more than the others are the GBP, and in order to deal with that risk more hedges are made against the GBP.

The final question asked to the group risk manager concerning hedging was if the situation would be different if they did not perform any hedges. The answer to that was that in the long-run there would not be any difference performance wise according to the purchasing power parity. But in the short-run hedging helps to try to secure the goals set in the budget.

4.4 Internal transactions

When asked about the netting system at Superfos both the group risk manager and the finance manager agreed that is a simple system that saves time and money. The netting system used at Superfos is a basic inter-company, multi-currency netting system. This means that the inter-company accounts are squared and cleared once every month. If one subsidiary owes another subsidiary in the group, the sum of this is cleared once every month and the subsidiary in debt contacts the group risk manager and tells him to transfer the money to the other subsidiary. If the same issue would be done using local bank offices it would take more time to transfer the money and the currency rates would be higher plus a transfer rate would be added to the sum transferred between the subsidiaries over boarder.

Apart from the netting system Superfos are using a system consisting of three sets of cash pools. The cash pools at Superfos is working as an inter-company bank, giving Superfos a cheaper, faster and easier way to borrow and send money be-

tween the different subsidiaries in their own currencies. The a few sets of cash pools are handled by Danske Bank and a bank in London that control the GBP cash pool. Danske Bank, who is the corporate bank of Superfos, and are holding cash pools including five to six different currencies, including the SEK.

The group risk manager does not consider either cash pools nor netting as currency risks. Concerning cash pools this is due to the fact that the cash pools are currency based and if a subsidiary needs to borrow Swedish Kronor that will be taken from a SEK cash pool. The same thing goes for swaps.

4.5 Risk communication

The group risk manager states that the communication between the finance managers at the subsidiaries and the group finance manager is done through different reporting systems. On a monthly basis the finance managers send information concerning the realised debtors and creditors they have at the moment plus their estimated sales and purchases for the upcoming 12 months. According to the finance manager this information is taken straight from their budget and records over realised debtors and creditors, and that no specific evaluation of the information is done before it is sent to the treasurer. This information is then the foundation of the group risk manager's decision whether to hedge against a risk or not. If a hedge is made a statement of this will be sent from the controller at the head office to the financial manager at the subsidiary. And if the numbers the financial manager at for example Tenhult is inconsistent, he will receive feedback to check his numbers once again and see if they are correct. Apart from that the financial managers do not receive information from the head office regarding why they made a hedge against a risk towards a currency. They only receive information that a hedge has been made in your behalf concerning this currency. However if the financial manager at the subsidiary have questions regarding the hedge they can of course ask either the controller or the group risk manager.

When asked if the financial managers at the subsidiaries were aware of the company's risk management and how to perform it, the group risk manager answers that he would tend to say that they are aware of it. But he continues to say that he occasionally realise that the financial managers do not always know what exactly they do at corporate. However even if he would like to change this he also says that what the financial managers at the subsidiaries should do is to find out

their exposure to risk and which currencies they perform their sales and purchases in, and then he takes care of it from there. This problem also comes up when talking to the finance manager about the operations in Tenhult. He mentions that they do not know much about what the treasurer does when he hedges, and the reasons behind the hedging. He finds that if the financial managers at the subsidiaries would know more about hedging and financial risk management at Superfos they would know better why the numbers they send to corporate is important. He also mentions that he would like a guideline for more exactly how they should put sales into their information files they send to corporate.

The group risk manager ought to visit each of the subsidiaries once every six months, however that is not achievable. As the subsidiaries are spread across the globe, he instead aims to visit them every other year, although the visits to the US subsidiary are less frequent and the factory in Tenhult is visited once a year. The main intention with the visits is to discuss work related issues and everything involved and stated in the finance managers job description.

5 Analysis

Within this section, the empirical findings are analysed along with the theories previously stated in the theoretical framework section.

5.1 Strategies

Superfos strategy towards risk is in accordance with the empirical findings asymmetric (Rodriguez, 1981), the authors claim. This is due to the fact that they hedge major currency risks but not all of them. The group risk manager tends to hedge against only the currencies that answers to the greatest currency risk. If looking at the company attitudes of hedging towards the SEK, and the GBP, one can notice that their attitude is more risk avoiding (Rodriguez, 1981), since these currencies are more volatile. He states that the GBP has been more vulnerable lately due to the financial crisis, and the SEK is always a difficult currency to hedge against. However considering the DKK the corporate attitude towards risk is risk neutral (Rodriguez, 1981), this due to the fact that the DKK follows the EUR exchange rate.

Apart from hedging the price of raw material is a great currency risk for Superfos, this because the oil price is very unpredictable and changes a lot and quickly. It is a problem not specifically for Superfos, but particularly for the subsidiary in Tenhult as the risk lately has persisted even though the oil price has decreased. The reason for this is because when the oil price decreased earlier this year the SEK was weakened against the EUR, hence the price of raw material today is almost equally high as it was at the oil price peak this summer.

Further the contracts with customers are a risk as the price of raw material is constantly changing, and as Superfos cannot get a fixed price of raw material from their suppliers, so in order not to face the risk within the company, Superfos tries to transfer that risk towards the customer. For example if Superfos has invested in new machinery in order to produce an order from a customer, contracts will be stated binding the customer to buy a certain amount of products in order to pay off the investment. Although this seems to be an appropriate way of reducing the risk, the danger is that the currency risk might be very large as contracting the customer to purchase products might lead to exchange rate risks de-

pending on which country that company is situated in. There is also a risk that the customer might file for bankruptcy, since the financial situation on the market today is bad.

The authors consider that there is a risk involved in the way that Superfos deals with their strategy, even though they find the strategy to be accurate and efficient today, by not revising and discussing their strategy they are facing a risk. Although the policy for hedging is flexible at Superfos today, it might be too flexible in some ways, since the group risk manager has everything under control. It is also hard to know when to hedge when currencies are depreciating since the currency market and exchange rates are impossible to forecast. The company should be more aware of the importance of reviewing their strategy, possible flaws and drawbacks in it in order to update it and prevent accidents from happening.

A suggestion would be to establish the strategy statement at the subsidiaries as well, since they might have opinions on how to improve it, how to make the risk management strategy more efficient. By broadening the view of the subject, the finance managers at the subsidiaries might see risks that the group risk manager and the board are not aware of.

The organisation structure of Superfos is hierarchical and by letting the subsidiaries become more involved in the strategy improvement, and sending the strategy statement to the subsidiaries the organisational structure will be flattened and the distance between the head office and the subsidiaries will be decreased, and the subsidiaries will increase their understanding of the strategy and the way Superfos deals with hedging.

With a world in crises, it is important to stick to the strategy according to the group risk manager. It is positive that he tries to analyse the strategies in order to minimise the risks. The authors claim though that it is crucial to continuously updating the strategy in order to avoid unnecessary risks.

5.2 Hedging

When hedging, the group risk manager only hedges against commercial risk, which is the risk that the customer due to example bankruptcy not will be able

to fulfil the contract. This means that Superfos do not hedge against for example financial risks such as interest rate risks.

When making hedges there Superfos use a time span between 3 and 12 months depending on which currency that the hedge is regarding and due to the volatility and current situation of that currency. This is a risk as Superfos has a policy against regretting any hedges they have made.

Regarding the parity conditions the purchasing power parity strives, by using the equilibrium of their exchange rates, to equalise the purchasing power of two countries. This is issues that Superfos aims to reach by hedging, the group treasurer hedge in order to create a fair market, and reduce the risk that different currencies represent such as changes in exchange rates, so that the subsidiaries can compete on a fair market with equal presumptions.

Further the empirical findings showed that among the hedges that Superfos makes, 95% of them are made as forwards. According to the group risk manager, forward contracts are the derivative that best suits the purpose of the hedge. He states that when hedging towards more stable currencies, or currencies that are easier to predict he uses forwards. And options are only used when hedging more volatile currencies. A study by Hentschel and Kothari (2001) shows that for non-financial firms in the USA forwards and swaps are the derivative that makes up the vast majority of the hedges the corporations make. This implies that Superfos high percentage of 95% forwards is not that strange. This leads the authors to ask themselves: Are many of the currencies that easy to hedge against that it defends that high number of forwards, or can other derivatives be preferred? The study by Géczy, Minton and Schrand (1997) argues that the benefit with forwards is that it gives a low-cost method for harmonising the payoffs of uncertain and frequent transactions. The downside of using forwards is the differences between the characteristics of the underlying transaction and the forward contract. However this risk is quite small due to the short-term period of the transactions. The study further shows that firms being more exposed to operating and competitive exposure, exposure measured in pre-tax foreign income, are more likely to use forward derivatives as their main hedging instrument (Géczy et al, 1997). The authors find that this explains and justifies that Superfos uses that high percentage of forward hedges. Although it is important to not choose to do forwards automatic, but that the group risk manager keeps updated on the different currencies

and their tendencies, in order to choose a more suitable derivative where needed.

According to group risk manager he rarely does follow-ups of the hedges he have made. This due to the fact that the financial market is unpredictable and even if follow-ups are made there is not much to learn for the future by doing so. However Griffin (2001) states the importance of following up the hedges after they are done. Even though the financial market is unpredictable and constantly changing the follow-up will lead to that the hedging policy of Superfos will be revised, and the possibility of improvements of the policy will be visible in order to achieve successful results in future hedges.

5.3 Internal transactions

Netting

Superfos have implemented a quite simple netting technique where they match all their internal transactions against each other once a month. Even though neither of the managers consider the netting to involve any currency risk today, it is very likely the risk would be present without this process. Thereby the authors find the netting within Superfos to be an important tool in the management of currency risk. It seems also like it is well functioning since nothing is considered problematic.

Cash pools

Though the group risk manager does not consider the cash pools as currency risks, its pure existence is a mean to limit the risk itself. This also follows with Grath's, (2004) thought on currency cash pools, that they are implemented to minimise internal currency risks.

5.4 Risk communication

Communication is a difficult issue to manage, especially when considering communication within larger multinational organisations. Superfos is indeed affected by the communication issue and it is critical that the communication is conducted in a clear and efficient way. Since the communication between the finance managers at the subsidiaries and the group treasurer, primarily is conducted through different reports, it is

important that both the group risk manager and the finance managers at the subsidiaries know what is communicated. According to the empirical findings this is something that can be improved. If there is an uncertainty on how to report, there is definitely a call for improving the communication and hence diminish the risks.

Another issue that is important in the field of communication is the lack of follow up on the reports that are supplied by the subsidiary. The expressed concern over whether the numbers that the finance manager provides concerning the hedging are correct or not becomes problematic when there is a lack of follow up on the reported numbers. Even though there is feedback in the case when the group risk manager notices something that is missing or unclear for some reason, it would enhance the performance and reliability of the numbers if they received regular feedback on their work. Not only will the numbers be more accurate, the finance managers at the subsidiaries will also increase their involvement in the company. With reference to the involvement theory (Jablin & Putnam, 2001), the finance managers and the group risk manager seem to be at the consultative stage. The authors argue though that it is not optimal to strive for full participation in the case of currency risk management. There has to be a difference in their share of responsibility due to the difference in their work descriptions and too many chefs spoil the broth. What though can be optimised is increasing the consultation stage by enhancing the communication and evolving this stage.

Furthermore when asking the group risk manager about the frequency of his visits to the subsidiaries of Superfos and the reason behind those visits, it is clear to the authors that his visits are related to the work descriptions of the finance managers, but also that the group risk manager ought to visit the subsidiaries more frequent than he in reality is able to do. The fact that he ought to plan the visits at each subsidiary every six months but his job limits those visits to about every other year, with a few exceptions. The authors believe that the group risk manager visits the subsidiaries as regularly as he is able to. But they also consider that implementing another way of communicating between the visits, such as for example keeping the finance managers updated on how the currency risks are handled, and

giving them feedback on the information sent as a basis for hedging through for example e-mails or letters is important.

6 Conclusion

In this final section of the thesis, the conclusion is stated with the aim to answer the purpose. The section is based on the previous analysis. Furthermore, critique and further recommendations are provided on the company's behalf.

The purpose of this thesis was to evaluate the currency risk management at Superfos and analyse how it can be improved.

Firstly, it can be stated that the strategies concerning how the hedging should be conducted are kept and evolved at the top level in the company. The authors consider though that a preferable way would be to distribute the strategy and policy throughout the organisation. It would not only provide the finance managers' with information and understanding at the subsidiary level. It will also let them be a part of the evaluation and the evolving process of the strategy. This can be valuable since the company is spread across the globe and the diversity will contribute to a broadened view on currency risk management.

When it comes to the subsidiary's participation in hedging, there is a lack of knowledge on how the finance manager should report reliable information to the group risk manager. Further, how the group risk manager conducts the hedges is also vague to the finance managers. This was expressed both by the top and the subsidiary level. However the group risk manager did not consider this to be a problem whilst the finance manager showed a willingness to be more involved. The finance manager stated a desire to implement explicit guidelines in order to increase their efficiency and ability to provide numbers with higher accuracy. The authors agree that guidelines would improve the understanding of how the hedging is conducted. Having guidelines at the subsidiary level on the characteristics of the hedging process can also be a useful tool when a new finance manager enters the organisation.

The follow up process concerning hedges is also something that could be improved. Both internally in the organisation, with the group risk manager giving the finance managers at the subsidiaries greater feedback on the basis of their information provided, but also externally, how the group risk manager evaluates the hedges he has performed.

Furthermore, the empirical findings presented that 95% of the hedges were made as forwards. Though this number seems very high, previous research shows that it is in line with the majority of other companies hedging strategies (Géczy et al. 1997). The authors do not believe that this fact is causing any problems, however it is important that the group risk manager evaluates the conditions when to perform a hedge such as the volatility of the specific currency in order to use the optimal derivative.

Although hedging is an important part in the currency risk management, the fluctuations in the price of raw materials are considered to cause a greater risk.

Though the management of currency risks is overall handled in a satisfying way today, the authors wonder what would happen if Jesper Morgils leaves the company, since he has gained a lot of tacit knowledge during his years in the company. This can be seen as a risk itself and therefore explicit guidelines and strategies may be even more important. Furthermore, by improving the communication, the authors find that the finance managers at the subsidiaries would be more involved and thereby increase the accuracy and diminish the risks which in the end would make all parties in the company better off.

The main conclusion which the authors find as a red thread throughout the currency risk management at Superfos is the limited communication that is taking place between the head office and the subsidiary. Furthermore, the renewal of the strategy is not a prioritised issue at Superfos. Strategy and communication are interrelated and the management of those two areas is crucial since they serve as a basis for the total currency risk management at Superfos. Hence, working on this by the creation of, for example explicit guidelines, available across the group, would improve the management and diminish unnecessary risks. In the current financial crisis it is of greater importance than ever to analyse and discuss currency risk related issues within the entire organisation. The authors have though with the financial crisis in mind seen incentives of revising the strategy at the company, which is a positive sign for the future.

6.1 Criticism

This thesis presents an area of study that is very broad; there are many reasons both for currency risk management and tools in order to try to protect the company from the different exposures that currency risks mean to them. The idea

was that the thesis would point out some critical points for a company using some currency management tools. However when interviewing the interviewees from the case company the authors found that the cash pooling and netting is not at all a currency risk.

Using data primarily based on two qualitative interviews can lead to questions regarding the transparency of the data. However since the purpose of this thesis was to investigate a case company, the interviews were carried out in this way, since the time frame of the thesis did not allow the authors to conduct interviews with all of the subsidiaries. This might have lead to different views on communication between the head office and the subsidiaries. However since the group risk manager deals with the currency risks within the company, the authors believe that the currency risks that the company is exposed to and the views on the tools used are somewhat the same across the company.

6.2 Further research

During the making of this thesis some points were found that very well can be exposed to further research. This is valid both from the perspective of Superfos but also from an academic point of view.

When it comes to the communication part, it would be interesting to look deeper into the characteristics of what makes successful communication within an organisation. Lots of research can be found dealing with how the organisations interact with their external parties. However, how to communicate within a multinational organisation with its cultural obstacles is not investigated at a similar frequency and the analysis would enrich the area.

It would also be of interest to compare different currency risk management strategies, especially on hedging, by undertaking a quantitative research. The outcome of this research would then be interesting to compare across multinational organisations, as a suggestion companies operating within the same business as Superfos. Thereby it will provide a possibility of finding preferable strategies on how to manage currency risks.

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Interviews

Jonas Fallberg, Finance manager Mullsjö - 2008-11-11

Jesper Morgils, Treasurer Superfos Taastrup - 2008-11-13

Appendix 1 – Questions for group risk manager

Interview with Jesper Morgils, group risk manager.

General

- How is the organisation structure formed in Superfos?
- Which strategies/policies are used in Superfos' currency risk management?
- Is the strategy/policy explicitly stated or is it kept among the employees?
- How has the strategy and policy evolved? Who have been involved in this process?
- Does Superfos have specific goals set besides the strategy with the currency risk management and in that case how are these distributed throughout the organisation?
- Do all finance managers in the group have information on how to perform currency risk management in the different parts attached to it?
- What is your responsibility as corporate treasurer concerning currency risk management?
- Which parts do you consider to be included in currency risk management in Superfos?
- Which risks do you find attached to these?
- How is the currency risk management in Superfos affected by the current economic recession?
- How is the communication regarding currency risk management between the corporate treasurer and the finance managers at the subsidiaries managed?
- What do you as risk manager consider to be involved in the term currency risk management?
- Considering the terms of payment used for your customers, how many days are normally agreed between Superfos and the customer? Do you have a standard number of days on payment of invoices as a policy at the company?
- Does the number of days differ from one country to another, or from one type of market to another?

- How are the contracts with the customer formed? Are they formed in a way that binds the customer to Superfos for a specific time or for a specific amount of purchasing?
- Are any specific clauses implemented in the contracts with your customers?
- Would you consider implementing stated guidelines for the finance managers in the group concerning how to obtain and provide the information for hedging? And thereby increasing their understanding and involvement in the hedging process.
- Which are your main intentions with visiting the finance managers at the subsidiaries? To get to know the managers and their organisation, or to discuss issues related to their work and the accuracy of the data they report to you?

Hedging

- Which information is taken into account when you deal with hedging?
- Which risks are associated with currency hedging?
- Do you deal with the transaction risk differently depending on the external party?
- Do you deal with the transaction risk differently depending on the sum of the transaction?
- On average, how much do you hedge annually? (In percent and total amount)
- How many hedges are made each month/year? Both in total for the Superfos group and on behalf of the subsidiary in Tenhult?
- Which type of derivative is most frequently used?
- How do the costs associated with the currency derivatives differ?
- How long is the duration of a currency hedge in general?
- Do you use negotiable contracts or standardised contracts when hedging?
- Do you follow up the currency hedges that you perform in order to analyse the outcomes?
- Do the finance managers receive feedback concerning the information they contribute?
- How is your currency hedging affected by the current economic recession?

- Is any currency more likely to be exposed to risk and is therefore exposed to a greater hedge risk?
- What would the situation be like if you did not perform hedging?
- Why do you prefer using forwards as your main hedging instrument? In comparison to the use of options and other hedging instruments?

Netting

- Which type of netting technique is used in the organisation?
- How does this work practically in the organisation?
- How many currencies are used?
- Which risks are associated with netting?

Cash pool

- How does the cashpool system function?
- How is the contract with the bank formed?
- Which currency risks are associated with using the cashpool?
- Considering the current economic recession, how does it influence the cashpool?
- At which banks do you have cash pool contracts? Which currency cash pools are controlled from each bank?

Other

- Do you see anything that could be improved concerning the management of currency risks in Superfos?
- For how many years have Superfos dealt with currency risks by using netting, hedging, and cashpools?

Appendix 2 – Questions for subsidiary finance manager

Intervju med Jonas Fallberg, ekonomichef Superfos Mullsjö/Tenhult.

Övergripande frågor angående valutariskhanteringen i Superfos Tenult/Mipac Mullsjö

- Vad innefattar ditt ansvarsområde inom valutariskhanteringen?
- Vilka faktorer (valutasäkringar, kommunikation, interna – netting, cash pooling) inom organisationen anser du/företaget ingå i valutariskhantering?
- Vilka valutarisker behandlas på dotterbolagsnivå?
- Hur sker kommunikationen mellan ekonomichef i dotterbolag och VD?
- Hur kan kommunikationen förbättras inom Superfos ang. valutariskhantering?

Valutasäkringar

- Hur stor del valutasäkras (i %)?
- Hur tas underlaget fram för valutasäkringar? Görs det någon bedömning?
- Vad rapporteras till huvudkontoret?
- Hur mycket pengar säkras i genomsnitt vid varje tillfälle?
- Hur ofta genomförs valutasäkringar?
- Hur sker uppföljningen?
- Skulle du önska en tydligare uppföljning? (information, kommunikation)

Netting

- Vilken typ av nettingteknik använder ni er av?
- Hur fungerar det rent praktiskt med netting?
- Hur länge har ni använt netting i koncernen?
- Vilka uppgifter ligger till grund för netting?
- Hur många valutor hanteras i nettingen?
- Hur sker kommunikationen mellan de olika bolagen?
- Hur och när får ni informationen ang netting?
- Hur många valutor hanterar ni internt?
- Upplever ni i Tenhult att det finns risker med netting?

Cash pool

- Vilken insyn har ni i cash poolen?

- Hur behandlas riskerna?
- Finns det några kontrakt med banken?
- Likviditetshanteringen, möter ni någon risk i likviditetsanalysen?

Övrigt

- Ser ni i Tenhult någonting som kan förbättras inom valutariskhanteringen på dotterbolagsnivå?