VAASAN AMMATTIKORKEAKOULU
VASA YRKESHÖGSKOLA
UNIVERSITY OF APPLIED SCIENCES

Helena Backlund

CURRENCY RISKS AND CURRENCY RISK MANAGEMENT

Business Economics and Tourism

2011

UNIVERSITY OF APPLIED SCIENCES
International Business

ABSTRACT

Author	Helena Backlund
Title	Currency Risks and Currency Risk Management
Year	2011
Language	English
Pages	51 + 2 Appendices
Name of Supervisor	Niklas Kallenberg

The aim of this thesis is to describe the different currency risks arising within companies and to describe which risk management methods and instruments companies use to minimize these risks.

International trade has increased fast during the past decades. More and more firms decides to expand their operations abroad to take advantage of other markets. This may lead the firm to face different kinds of risks that they have not needed to face before, including currency risks. Because of a floating currency rate and results of unexpected shifts in the exchange rate, a currency can drop suddenly drop in the value of a particular currency. In order to manage these risks and avoid losses caused by these incidents, companies needs to have updated knowledge about the currency risks and become familiar with all the methods and tools available to be able to manage the risks as well as possible.

A qualitative research method was used in this study. Information was gathered through the annual reports of different companies, and data from different literature and websites. Also a personal interview was earned out with a person in the company with knowledge on the company´s risk management. The interviews were conducted through email.

When a company is doing business internationally, no matter what the business is, currency risk management becomes an essential part of the daily business life. Transaction risk and translation risk are the most common currency risks that firms are faced. The currency risks that occur are seen as both opportunities and threats, and companies have different kinds of ways dealing with these risks, usually following the company´s own risk management policy. The most used instruments used in minimizing the currency risks are forward contracts, swaps and options.

Keywords Currency Risks, Currency Risk Management

UNIVERSITY OF APPLIED SCIENCES
VASA YRKESHÖGSKOLA
International Business

SAMMANFATTNING

Författare	Helena Backlund
Titel	Valuta risker och valutariskhantering
År	2011
Språk	Engelska
Sidor	51 + 2 Bilagor
Namn på handledare	Niklas Kallenberg

Syftet med detta slutarbete är att förklara de olika valuta risker som uppstår inom företag och vilka valuta risk hanterings metoder och instrument företagen använder sig av för att minimera riskerna.

Den internationella handeln har ökat snabbt under det senaste decenniet. Fler och fler företag väljer att expandera sin verksamhet utomlands för att dra fördel från andra marknader. Detta kan leda företaget till olika typer av risker som de inte behövt möta tidigare, bland annat valutarisker. På grund av en flytande valutakurs och resultat av oväntade förändringar i växelkursen, kan valutan göra ett plötsligt fall i värdet av en viss valuta. För att hantera dessa risker och undvika förluster som orsakats av dessa händelser, måste företagen ha en uppdaterad kunskap om valutarisker och bekanta sig med de metoder och verktyg som finns för att kunna hantera riskerna.

Den kvalitativa undersöknings metoden har blivit använd i denna studie. Jag har samlat information genom de olika företagens årliga rapporter samt data från litteratur och olika webbplatser. I slutändan har en liten personlig intervju gjorts med en person inom företaget med kunskap om bolagets riskhantering, denna intervju har skett genom e-post.

När företaget gör affärer internationellt, oavsett affärsområde, blir valuta riskhantering en viktig del av det dagliga arbetslivet. Transaktionsrisk och omräkningsrisk är de vanligaste valutarisker som företag ställs inför när de expanderar internationellt. De valutarisker som uppstår ses som både möjligheter och hot, och företagen har olika sätt att hantera dessa risker, vanligtvis efter företagets egen policy för riskhantering. De mest använda instrumenten för att minimera valutarisker är terminer, swappar och optioner.

Nyckelord Valuta risker, Valuta risk hantering

CONTENT

ABSTRACT
SAMMANFATTNING
1 INTRODUCTION 9
1.1 Background 10
1.2 Specifying the Research Problem 11
1.3 Aim of the Study 12
1.4 Limitations 13
1.5 Outline of the thesis 13
1.6 Collection of the theory 13
2 THEORY 14
2.1 Financial Risk Management 14
2.2 Financial Risk Management in Corporations 14
2.3 Types of risks 14
2.3.1 Commercial or Credit Risk 15
2.3.2 Political or Country Risk 15
2.3.3 Goods Delivery Risk 15
2.3.4 Currency Risk 15
2.3.5 Interest Rate Risk 17
2.3.6 Liquidity Risk 17
2.4 Currency Risk Management tools 17
2.4.1 Forward contract 18
2.4.2 Future contract 19
2.4.3 Option 20
2.4.4 Swaps 21
2.4.5 Debt 23
2.5 Divestment 23
2.6 Value-at-Risk 24
3 RESEARCH METHOD 25
3.1 Qualitative versus quantitative research method 25
3.2 Validity 26
3.3 Reliability 27

4 EMPIRICAL STUDY 28
4.1 Nokia 28
4.1.1 Risk management in Nokia 28
4.2 UPM-Kymmene 30
4.2.1 Risk management in UPM-Kymmene 31
4.3 Fiskars 32
4.3.1 Risk management in Fiskars 32
4.4 Sanoma Group 33
4.4.1 Risk management in Sanoma 33
4.5 Neste Oil 34
4.5.1 Risk management in Neste Oil 35
4.6 KONE 37
4.6.1 Risk management in KONE 37
4.7 Finnair Group 39
4.7.1 Risk management in Finnair Group 39
5 RESULTS 42
5.1 Currency Risks 42
5.2 Risk Management 44
6 CONCLUSION AND DISCUSSION 46
6.1 Conclusion 46
6.2 Further Studies 46
6.3 Validity of the study 47
6.4 Reliability in the study 47
REFERENCES 48
LIST OF FIGURES
LIST OF TABLES
APPENDICES

LIST OF FIGURES

Figure 1. Swap agreement between company A and Company B 22

Figure 2. Risk Management process in Neste Oil. 36

LIST OF TABLES

Table 1. Comparison of forward and futures contracts. 20

Table 2. Result 42

LIST OF APPENDICES

APPENDIX 1. Interview questions sended as email to Nokia, Fiskars, Sanoma Group, Neste Oil, KONE and Finnair (English)

APPENDIX 2. Interview questions sended as email to UPM-Kymmene (Swedish)

1 INTRODUCTION

We live in a globalized world, nearly every corner of the world can be reached with a phone or the internet, and we can travel to all parts of the world incredibly fast. Many goods and services we consume are made abroad, and more and more people live and work in other parts of the world than where they were born. Finance has also become international; anyone can invest in companies anywhere on earth and purchase financial instruments like stocks and bonds of any company around the planet. Euros can be exchanged for dollars and most other currencies easily and quickly, but the exchange rate often changes frequently and drastically, and a financial crisis in one country is quickly spread across the world in the click of a mouse (Salvatore 2011: 2).

Things do not always go as planned, and for those doing business on the international level, the range of risks is particularly high and changes constantly (Osec, 2010). To avoid these risks companies are set to do risk management, and like any other business transaction, export involves risks. International transactions involve different risks from those in the domestic sales. These international risks are currency risks, political risks, legal risks, quarantine, local legal issues and standards regulation. Many export risks are country-specific (Australian Government, 2011). In this thesis the concept of currency risk and currency risk management will be discussed and analyzed more deeply.

This chapter will introduce the reader with a broad overview, by presenting the background and specifying the problem of the study. Further on the purpose of this thesis is stated, followed by the limitations and the outline of the thesis so that the reader can understand and follow the content. Last but not least, a section of how the theory was collected will be presented.

1.1 Background

Today, nobody needs to ask the question what an exchange rate[1] is and why to study it, since it seems like almost everything discussed in the world ends up with an answer that revolves around exchange rate, currencies and money (Copeland, L, 2005).

The currency history before World War 2 is simply explained as that the exchange rate system was "dependent on the respective currency´s comparative convertibility to an ounce of gold" as EconomyWatch explains it. At the end of World War 2 the Bretton Woods Agreement was signed (Exchange rate history, Economywatch.com).

The agreement used the price of gold to fix exchange rates for major currencies; it established a fixed exchange rate linked to the U.S. dollar with the other countries pegging their currencies to the dollar. The member countries established the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (IBRD), a mother bank of today´s World Bank (Forextraders, 2011).

Since 1973 a floating exchange rate[2] has been used in many countries, but the period since has been characterized by several attempts to redo the era of fixed exchange rates, all these attempts has failed for one reason or another. The attempts of going back to fixed exchange rates has been done since the floating exchange rate era has not delivered anything approaching to the degree of stability its founders had hoped to see (Copeland, L., 2005: 31).

According to the webpage Encyclopedia of the Nations, Finland´s economy grew faster than the European average in the 1980´s, with relatively low unemployment degree and stable prices. But after two decades of growth the Finnish market got to feel a real downswing because of the collapse of the former Soviet Union and

---

[1] Exchange Rate, the rate of which currency A is changed to currency B (Investorwords.com).
[2] Floating Exchange rate, "a country´s exchange rate regime where its currency is set by the foreign-exchange market through supply and demand for that particular currency relative to other currencies. Thus, floating exchange rates change freely and are determined by trading in the forex market" (Investopedia.com).

the loss of Finland´s biggest trading partner. Following of the banking and speculation crises, Finland fell into a big recession. In the banking sector, almost one-third of the employees were laid off. When the country decided to change the markka[3] to a floating exchange rate, it effectively lowed the price of Finnish exports in foreign markets, which led to an increased demand of services and products. And from that the export sector became a leading star to the recovery of Finnish economy. In January 1999, Finland together with the ten other European Union member states joined the Economic and Monetary Union (EMU) locking together the exchange rates of all the 11 currencies involved. In 2002 Finland adopted the euro as its paper currency (Encyclopedia of the Nations, 2001).

A survey made by the Bank for International Settlements in the year 2004 shows that banks in the United Kingdom reported a daily average amount of foreign exchange trading of 753 billion $. The same survey also provided the result of a daily volume of currencies traded internationally to be over the whole world; equal to a sum of 2,406 billion US dollars. The most common currency in trading situations is the US dollar, followed by Euro and Japanese yen, which also leads to the conclusion that trading euros for dollar is the most popular trade made (Husted S, Melvin M, 2007).

Because of a floating currency rate and a result of unexpected shifts in the exchange rate, the currency risk can be termed a sudden fall in the value of a particular currency. In order to manage foreign exchange risks and avoid losses caused by these incidents, proper currency risk management strategy is very essential (Maps of World – Finance).

1.2 Specifying the Research Problem

“Currencies are a business challenge”, few currencies are only something for the financial specialists. Some of the risks are purely financial, but many more are problems or opportunities of the whole organization. The annual reports of many

---

[3] Markka, the former Finnish standard monetary unit – replaced by the euro in 2002 (thefreedictionary.com).

corporations describe currencies as major factors in their business performance, and if currencies have such major effects on businesses then they are surly of concern to the general management, not just to the financial specialists (Kenyon, A, 1990).

Currency risks can be divided into three different categories, transactional risk, translational risk and economical risk; these will be explained in more detail in a later part of this study. Shortly these risks can be explained by the internet page: Financial domain as transactional risk or exposure risk is essentially a cash flow risk. Translational risk, on the other hand, results from the consolidation of group and subsidiary balance sheets, and deals with the exposure represented by foreign investment and debt structure. Economic risk is an overall measure of the currency risk of the corporation, focusing on the present value of future operating cash flows and how this present value in the base currency changes as a result of the changes in exchange rates (Types of Currency Risk, Financial-domain.info).

Corporations can use different kinds of tools to handle these currency risks. These tools are, for example, hedging, leading-and lagging strategies, swaps, choice of invoice currency, exposure netting and cash pooling. In this study hedging strategies (forward and future contracts, and options), swaps and currency debt will be discussed. I find it interesting to explore how these techniques really work and which that is mostly common used in real life by businesses. The term divestment will also be explained.

The research questions are:

- What are the currency risks that companies have to manage?
- What tools do they use to minimize the risks?

1.3 Aim of the Study

The aim of this study is to explain the currency risks and the tools used to minimize these risks. The study will focus on the annual reports of Finnish listed corporations.

1.4 Limitations

Because of the size of the subject and time limitations this study will be limited to seven Finnish listed corporations which are Nokia, UPM , Fiskars, Sanoma, Neste Oil, KONE and Finnair. The survey will be based on the Annual Reports and Financial Statements of these corporations from the year 2010. The limitations also concern the techniques used; in this study hedging strategies including forward and future contracts and options, swaps and currency debt will be discussed.

1.5 Outline of the thesis

The aim of the thesis will be fulfilled after exploring the following objectives:

1. Explain the currency risks and currency risk management tools.
2. Analyze the annual reports of the corporations.

1.6 Collection of the theory

I began to explore the subject of currency risks by collecting data from theory; books and sources on the internet. In order to get relevant data I have used the school library databases to find books. I have also found much useful data through searches on the internet; for example explanations on certain topics. A small discussion with a risk advisor has been carried out during the study, mostly to get myself a broad overview of certain parts of the subject.

2 THEORY

This chapter explains the different kinds of currency risks that corporations are exposed of and describe the methods used to minimize the risks.

2.1 Financial Risk Management

Financial risk management is a practice by which a company optimizes the manners in which risks are taken. It includes monitoring of risk taking activities, updating relevant policies and procedures and distributing risk-related reports to their stock holders and owners (Holton, A Glyn, 2006).

2.2 Financial Risk Management in Corporations

International Financial Reporting Standard (IFRS) is a set of accounting standards used as the global standard for preparation of financial statements by public/listed companies (IFRS.com).

IAS (International Accounting Standard) 39, a standard from IFRS, demands listed corporations to implement safety reports. The intention of IAS 39 is that the financial instrument used by corporations in currency risk management should be stated and reported, in order with special guidelines. This is done so that the users, stakeholder and shareholder can understand how the financial instrument affects the current position of the company, the result and cash flow of the company, and also so that you can see a bit how the company´s position will look like in the future (IFRS - IAS 39).

2.3 Types of risks

According to Export Development Canada engaging in and financing exports, involves a number of common and well-known risks, some of these risks relate broadly to international trade, than specifically to the export finance sector (Edc.ca, 2010). At Nordea Banks internet page you can read that these financial foreign trade risks can be viewed in four broad categories: Commercial Risks, Political or Country Risks, Goods Delivery Risks and Currency Risks (Nordea.com).

Other financial risks mentioned in the Financial Statements and Annual Reports, have also been explained in this chapter.

2.3.1 Commercial or Credit Risk

According to Finnvera commercial risks arise from foreign banks, companies or project companies. Typical commercial risks include the buyer´s, guarantor´s or borrower´s unwillingness or insolvency to pay its debts (Finnvera.fi). This kind of risk can also be explained as a risk that arises if a customer or the other party of a financial instrument fails to meet its contractual obligations (adidas-group.com).

2.3.2 Political or Country Risk

The political risk or in other sources called country risk is explained by Finnvera as risks related to either the country of a foreign buyer or borrower, or to a third country which can cause the exporter, financier or investor credit loss. Political risks also include restrictions on transfer of the credit currency, rescheduling of debts, expropriation and war or insurrection. The term political risk refers to all factors which influence the country´s economy, international relations and internal stability (Finnvera.fi).

2.3.3 Goods Delivery Risk

Damages in goods are caused by unexpected external factors. Shipped goods may be damaged in transit or even lost, and the insurance company might not even cover the damage. Nordea Bank suggests that by using a suitable payment method, insurance and delivery term, you may control the damage risks related to the products (Nordea.com).

2.3.4 Currency Risk

A typical example of currency risk is when companies generate capital by borrowing debt or issuing equity and then use this to invest in assets and try to generate a return on the investment. The investment might be in assets overseas or financed in a foreign currency. Or another example of currency risk is when the company´s product is sold to customers overseas who pay in their local currencies. But it is

not only companies that trade internationally that face the currency risks, also domestic firms do. It could be that the firm buys raw material that are priced in a foreign currency, or it could be companies that only trades in domestic could come to deal with currency risk because the competitor trades in a different home currency (Permjit Singh, 2009).

According to Grath, 2004, the currency risks can be divided into three different categories: transaction risk, translation risk and economic risk.

Transaction risks occurs when the company has monetary assets and liabilities denominated in a foreign currency at a given time on the balance sheet, and that in the future you have expected commercial and financial flows of a foreign currency. A transaction risk can be expressed as of either a short-term claim/debt or long-term claim/debt. A transaction risk is both realized and unrealized income/loss, which is reported as either operating income/expenses or as financial income/expenses (Grath, 2004).

Translation risks arises when the company has foreign subsidiaries or other real assets (ex. houses, forest or land) that needs to be translated form these accounts to the parent company´s home currency in times of Financial Statements. The structure of a translation risk is directly related to the accounting principle of the parent company. Foreign exchanges gains/losses are not included in cash flow or have any tax related impact but remain unrealized until the subsidiary or the assets are sold (Grath, 2004).

Economic risk occurs in firms that has activities with an international focus. Economic risk is used to describe the economic value of the parent company´s home currency of a subsidiary´s foreign future cash flow in its own foreign currency. In order to measure the combined financial exposure it is required to 1) consider all of the subsidiaries flows in their own currency and foreign currency and to 2) the parent company´s own exposure (Grath, 2004).

2.3.5 Interest Rate Risk

Interest rate risk refers to possible changes in cash flow or in the value of assets and liabilities resulting from changes in interest rates (Fiskars Financial Statement 2010).

2.3.6 Liquidity Risk

Liquidity risk refers to the possibility of the company´s financial assets proving that they are insufficient to cover its business needs or a situation in which arranging such funding would result in additional costs (Fiskars Financial Statement 2010.

2.4 Currency Risk Management tools

There are different kinds of tools the companies can use to insure themselves from risks that occurs in times of currency changes. The hedging tools are all serving the same purpose; the currency management instruments enable the firm to take a short or a long position to minimize the risks. These tools are for example hedging with forward contract, future contract or with option, swaps and debts. When the exchange of currency is done right now to the current currency rate, it is called the spot market or spot exchange rate (Giddy, I, 2011).

A hedge should seek to minimize risk, it should not be game, and a well done hedging program reduces both costs and risks. Hedging increases the value of the corporation to the shareholders by reducing the cost of capital and stabilizing the earnings, it also “frees up resources and allows management to focus on the aspects of the business in which it has a competitive advantage by minimizing the risks that are not central to the basic business”. The best hedging decisions are made when mangers, financial specialists and the whole corporation have acknowledged of the market movements unpredictability (Giddy, I, 2011).

Derivatives[4] such as different kinds of contract, options and swaps can be traded on exchanges such as Chicago Board Options Exchange or in the Over-The-Counter (OTC) market, where traders working for banks, fund managers and corporate treasures contacts each other directly (Hull, J C, 2012).

2.4.1 Forward contract

Forward contract is an agreement between two parties in which the currency exchange rate is set at the same time as the agreement is written, but for a specific time in the future. This means that while the amount of the transaction, the value date, the payments procedure and the exchange rate are agreed about in advance, no exchange of money takes place until the actual date in the future (Giddy, I, 2011).

An example of a forward contract could look like this, in first of July 2011 a financial specialist in an US corporation knows that his corporation has to pay bill of 1 million GBP in 6 months (i.e. first of January 2012) and wants to hedge against the exchange rate moves and that way minimize the risk of losing on the payment. The specialist can agree to buy £ 1 million in a 6 months forward contract at an exchange rate of 2,048 (USD/GBP). The corporation has then a long forward contract on GBP. It has agreed that on January the first 2011, they will buy £ 1 million from the other party (usually a bank or financial institution) for $ 2,048 million. The other party has a short forward contract on GBP; it has agreed that on the same date it will sell £ 1 million for a price of $ 2,048 million. Both sides have made a binding commitment (Hull, J C, 2009).

How to see if the corporation succeeded to hedge the risk? Let us say that the exchange rate fell to 1,9000 at the end of the six months, the forward contract would have a negative value to the business since the market price then would be $ 1,900 million for 1 million GBP, which means that the corporation would have paid 148 900 US dollar more than GBP actually would have been worth ($ 1 900 000 –

[4] Derivatives = another word of currency risk managment tools as swaps, options, future contract or forward contracts. An instrument used for hedging risks, including a contract between two parties (investopedia.com).

2 048 000), a total loss of 148 900 US dollar. If the rate, on the other hand, would have gone up, to 2,100 USD / GBP at the end of the 6 months period, the forward contract would have a positive value of 52 000 US dollar ($ 2 100 000 – 2 048 000). A total profit of 52 000 would be made, because it costs nothing to enter into a forward contract so the payoff from the contract is the traders total profit (gain) or loss (Hull, J C, 2009).

2.4.2 Future contract

Future contract may sound very similar to forward contract; a contract for delivery of a certain amount of a foreign currency at a future date at a known price. But the difference between future and forward contract is that forward can be traded with any amount while future contract is standardized, see table 2. For example, future contract is standardized in terms of delivery date, the normal currency futures delivery dates are in March, June, September and December (Giddy, I, 2011).

These standard features are necessary in order to increase the liquidity in the market. By standardizing the contract amount and the future expire date the different needs can be matched more easily with other buyer/seller's needs. Further then the maturity date and the contracting amount, also the amount that a party can buy or sell and the maximum daily price movements is standardized (Meera, A, 2002).

Also the location of the contract differs between future and forward contracts; with forward contracts the deal can be made by phone, over the internet or fax with the buyer or the other party, usually through OTC (On-the-counter). But future contracts, on the other hand, are traded in organized exchanges such as IMM[5] in Chicago, LIFFE[6] in London and SIMEX (Singapore International Monetary Exchange) (Giddy, I, 2011).

---

[5] IMM = International Monetary Market, a department of Chicago Mercantile Exchanges, deals with trading of currencies and interest rates futures and options. Trading on the IMM started in May 1972 (Investopedia.com).

[6] LIFFE = London International Financial Futures & Options Exchange, is Europe´s leading futures and options trading exchange, it was established in 1982 (businessdictionary.com).

A very large proportion of the futures contracts that are made, do not lead to delivery on the maturity date. Future contract are standardized, and they are regularly reported on the financial pages in the press, for example, the Wall Street Journal summaries the previous day's trading (Hull, J C, 2009).

Forward	Futures
Private contract between two parties	Traded on an exchange
Not standardized	Standaridized contract
Usually one specified delivery date	Range of delivery dates
Settled at end of contract	Settled daily
Delivery or final cash settlement usually takes place	Contract is usually closed out prior to maturity
Some credit risk	Virtually no credit risk

Table 1. Comparison of forward and futures contracts.
(Hull, J C, 2009; 39).

2.4.3 Option

A foreign exchange option is simply "the right, but not the obligation to exchange currency at a predetermined rate". For example, a computer manufacturer in Finland may give sales prices in Sweden in both Euros and Swedish crones (SEK). Depending on the strengths of these currency rates, the revenues may be paid in either SEK or Euros. In this case where the manufacturer cannot predict, in what currency the customer will be paying, it is no use doing forward or future contracts, since there is no point in hedging something you might not have (Hull, J C, 2009).

An option is a contract for "future delivery of a currency in exchange for another, where the holder of the option has the right to buy (or sell) the currency at an agreed price", but is not obligated to do so. The agreed price is called strike or exercise price, the right to buy is a call and the right to sell is a put. For such right the holder pays a price, "fee", called the option premium. The option seller receives the premium and he is then obligated to make (or take) delivery at agreed

price if the buyer (holder) decides to go through with his option. European options gives the permission to the holder to only exercise the option on the expiration date, where the American options permits the holder to exercise at any time before the expiration date (Hull, J C, 2009).

There are four different options

1. Bought Call (meaning that you have bought the right to buy at a certain price).
2. Sold Call (meaning that you have sold the right to buy at a certain price).
3. Bought Put (meaning that you have bought the right to sell at a certain price).
4. Sold Put (meaning that you have sold the right to sell at a certain price).

(Hull, J C, 2012).

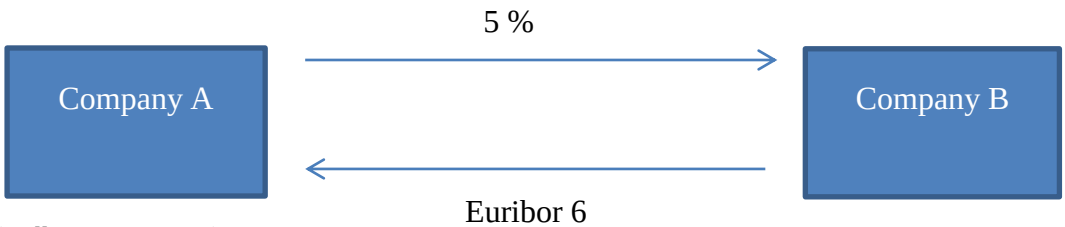
2.4.4 Swaps

A swap is an agreement between two companies to exchange cash flows in the future; the agreement includes the dates when the cash flows are to be paid and the way in which they are calculated. Often the calculated value of the cash flows involves the future value of an interest rate, an exchange rate or another market variable. The forward contract and a swap agreement can be viewed very similar, but the difference is that the forward contract usually exchanges the cash flows on just one future date where the swap typically lead to cash flow exchanges on several future dates (Hull, J C, 2009).

The most popular swap agreement is the “plain vanilla” interest rate swap, where a company agrees to pay cash flows equal to an interest rate at a predetermined fixed rate on a nominal amount for a number of years. In return it receives interest at a floating rate on the same amount and time from the other party (financial institution or bank) (Hull, J C, 2009).

An example of this is seen in Figure 1; a 3-year swap agreement is done on March 1, 2007 between Company A and Company B. We suppose that Company A

agrees to pay Company B an interest of 5 % per annum on a principal of 100 million euros, and in return Company B agrees to pay the 6-month Euribor (March 1, 2007; Eur6; 4,135 %, Bank of Finland) at the same principal. Company A is the fixed-rate payer and Company B is the floating-rate payer. The first exchange of payment would take place on September 1th 2007, six months after signing the agreement. Company A would pay Company B 2,5 million € (interest on 100 million € principal for 6-months at 5 %). Company B would pay Company A interest on the 100 million € at the rate of Eur6 determined 6 months before paying date in this case first of March 2007. Company B pays: 0,5*0,04135*100 same as 2,0675 million € (the calculation is simplified in that way that it ignores day count conventions). (Hull, J C, 2009).



(Hull, J C, 2009;148)

Figure 1. Swap agreement between company A and Company B

The second payment would take place on March 1, 2008, a year after entering the agreement. Company A will still be paying Company B the same amount since it is a fixed rate; 2,5 million. Company B will be paying interest rate on the 100 million determined 6 months before the paying date; for example 4,764 % (August 31, 2007; Eur6; 4,764 %, Bank of Finland) similar to 2,382 million €. An interest swap is usually structured so that one side remits the difference between the two payments to the other side. In this example, Company A would pay Company B 0,4325 million (2,5 million – 2,0675 million) on September the first, 2007, and 0,118 million (2,5 million – 2,382 million) on 1 March, 2008. The agreement would continue until the maturity of the swap. (Hull, J C, 2009).

2.4.5 Debt

A company can use debt instead of forwards or futures in hedging the currency. Either by borrow in the currency to which the company is exposed to or invest in interest-bearing assets to offset a foreign currency payment is called debt. An example of this could be a Finnish company that has sold goods to Stockholm, Sweden. The exporter has hedged with forward contract in SEK to protect them against a fall in the SEK currency. The company could have, instead of doing a forward contract, borrowed SEK and changed them into euros in the spot market, held them in in a euro deposit for example two months. When the SEK payment was received from the customer, the payment could have been used to pay the SEK debt directly. This kind of a transaction is called money market hedge (Giddy, I, 2011).

The cost of this transaction, the debt – borrowing, is the difference between the SEK interest rate paid and the euro interest rate earned. This hedge tools suits if the company has to borrow for a one going purpose anyway, since it is then just a matter of denominating the company's debt in the currency which it is exposed to. The negative aspect of money market hedge is that it is very costly if the firm does not have to borrow for another purpose, since they then have to borrow from one bank and lend to another (Giddy, I, 2011).

2.5 Divestment

Divestment can be a way of manage a risk, divestment means a sale of asset, for example for a corporation divestment can be referred to as a sale of a subsidiary to raise capital or to focus on the parent company. Divestment is the opposite of investment (investorwords.com). A downturn in a subsidiary´s profitability can lead to a divestment decision. The more unrelated a subsidiary´s business unit is compared to the core business plan of the parent firm, the more likely that the unit will be divested (Heather, B, 2010). According to Holmberg J, Senior Risk Advisor and partner at Operandi Oy, a privately owned and independent advisory company specializing in foreign exchange and interest rate risk management consulting, is unprofitable units sold or alternative investing in a foreign unit, done to minimize

the currency risk. Divestment or investment of a currency risk is an internal risk management method to minimize the currency risk (Holmberg, J, discussion)

2.6 Value-at-Risk

Value-at-Risk is a methodology that estimates the potential fair value losses in market risk sensitive instruments (Nokia – in 2010). The most traditional method on how to measure a risk is volatility[7], but the problem with volatility is that does not take into account in the measurement the movements of an investment, for example, a stock investment can be volatile. For an investor the risk is about the odds of losing money, and Value-at-Risk methodology (VaR) is based on that. VaR answers the question, "What is the worst case scenario?" or "How much can I really lose in a really bad month?". VaR calculates the maximum loss expected on an investment over a given time period and a given specified degree of confidence. There are three methods of calculating VaR: the historical method, the variance-covariance method and the Monte Carlo simulation (Harper, D, 2010).

[7] Volatilitiy = is statistical measure of the dispersion of returns for a certain given security or market index. Volatility can either be measured by using the standard deviation or variance between returns from the same security or market index. Usually; the higher volatility, the security is more riskier (investopedia.com).

3 RESEARCH METHOD

In this chapter the research methods are discussed, also the terms validity and reliability will be explained. This chapter does also present the methods used in this study.

3.1 Qualitative versus quantitative research method

The gathering of information can be done in two different ways, the qualitative method or the quantitative method. The qualitative research method is mostly used when a deeper understanding of a target group is needed, or when it is really not known what information the target group is interested in. It could be so that the organization which is doing the research only thinks that one thing is important, for example the development of a service for the target group, and wants to ask about that. But there is really something else that is more important for the target group. Through a qualitative method the chance is bigger that this kind of information will come forward than with the use of a quantitative research method (edelegationen.se).

A qualitative method gives the target group more freedom in responding then what the group gets with a quantitative research method. The qualitative research method is an unstructured research method which gives the respondent the chance to explain and express the answer himself with his own words. Most often it does not work to draw general conclusions of a target group or their answers from a qualitative research. When analyzing the results of this kind of a research, the focus should be on finding differentiations instead of finding repeating patterns (edelegationen.se).

In a quantitative research method and models there is often some kind of form or, questionnaire included in the research study. This kind of a research method is a structured method and the answers are already given as examples (fixed response alternatives) of which you just choose which one suits / are true to you. The advantages of that, is that it is quite cheap to reach many respondents with one questionnaire through, for example, mail or phone. Also all the respondents get the

same questions and alternative for answers which gives the possibility to draw general conclusions of the result (edelegationen.se).

Questionnaires are suitable when looking for some kind of conclusion of something, but they are not so suitable when there is a study of deeper knowledge of something since it a limited opportunity of a two-way conversation in these kind of quantitative research. If there is some uncertainty about what is relevant to get from the respondents, is it usually suitable to do some kind of a qualitative research study first to find out what should be asked in the quantitative research study. The biggest advantage about this kind of research is that it gives an opportunity to gather information from a bigger number of respondents and a lower price than if everyone should have been interviewed in one place. When doing a quantitative research, the amount of sampling is essential as well as the way the questions are asked (edelegationen.se).

In this study have I used the qualitative method, since I want to gain a deeper understanding of the subject. I have collected the information from the different company's annual reports, as well as the facts of the companies from their internet home pages. The companies used in this study were randomly selected. The criteria's used in selection was 1) International business, 2) listed on stock exchanges, 3) different business areas, 4) well known. In the end, short interviews with someone in every company have been done through email, unfortunately only four out of the seven companies replied. The respondent companies where UPM, Finnair Group, KONE and Neste Oil.

3.2 Validity

Validity refers to the degree to which a study accurately reflects the specified concept that the research is measuring. Validity is how good the study is at measuring what the researcher wanted to measure (Colorado State University).

3.3 Reliability

Reliability refers to which extent a study or test would get the same result on a repeated test. Reliability is critical in many parts of our lives, for example in manufacturing, medicine and sports (Colorado State University).

4 EMPIRICAL STUDY

In this chapter the empirical results of the study is presented. A short introduction of each corporation as well as the currency risks they are facing and their risk management plan i.e. what tools they use to prohibit the risk, are presented.

4.1 Nokia

Nokia is a Finnish corporation founded in 1865 as Nokia wood-pulp mill. In 1967, upon merge of three separate companies, Nokia took its current form as a corporation under laws of the Republic of Finland. The newly formed Nokia Corporation had a pioneering role in the early evolution of mobile communications. Today, Nokia manufactures and sales 3G, mobile multiplayer gaming and multimedia devices, its head quarter is in Espoo, Finland and it is a public limited liability company listed on the stock of exchange in Helsinki, Frankfurt and New York (Nokia – about).

At 2007 Nokia was recognized as the 5th most valued brand in the world. In the end of 2009, Nokia operated in a total of 15 manufacturing facilities in countries as Finland, Brazil, China, Germany, Hungary, India, Mexico, the Republic of Korea and the United Kingdom and in the end of the same year it has 123 553 employees all over the world. The reported operating profit in 2009 was 1.2 billion euros and the net sales were 41.0 billion (Nokia - about).

4.1.1 Risk management in Nokia

Nokia has a common and systematic approach towards risk management; risks and opportunities are identified, analyzed, managed and monitored. The company´s overall risk management policy is based on the visibility of the key risks which holds Nokia from reaching its business goals, rather than only focusing on eliminating the whole risk. Nokia Group has a strong focus in creating shareholder value; therefor, the risk management of Nokia is very essential. Treasury activities

are carried out by policies approved by the CEO[8]. The general financial risks Nokia is exposed to are:

1) Market risks
    a. Foreign exchange risk
    b. Interest rate risk
    c. Equity price risk
    d. Value-at-Risk
    e. FX risk
2) Credit risks
    a. Business related credit risk
    b. Financial credit risk
3) Liquidity risk
    a. Hazard risk

(Nokia in 2010).

Nokia´s net sales, costs and results of operations as well as the US dollar value of their dividends and market price of their products, are affected by exchange rate fluctuations, particularly between the euro and US Dollar (USD), but also by Japanese Yen (JPY) and the Chinese Yuan (RMB). Because Nokia operates globally are they therefor exposed to foreign exchange risks in the form of both transaction risk and translation risks. Their policy is to monitor and hedge exchange rate exposure and they manage their operations to mitigate but not to eliminate the impacts of exchange rate fluctuations (Nokia, Form 20-F 2010).

Hedging in material transaction foreign exchange exposures is done, unless hedging would be uneconomical because of market liquidity and/or hedging costs (Nokia in 2010). Nokia states in their Form 20-F 2010, that there, however, can-

[8] CEO; Chief Executed Officer; the highest ranking executive in a company, whose main tasks includes developing and implementing high-level strategies, making major corporate decisions and taking care of the communication between the board of directors and the corporate operations (investopedia.com).

not be any assurance that their hedging activities will be successful in minimizing the impact of exchange rate fluctuation (Nokia Form 20-F 2010).

According to Nokia in 2010, are the exposures mainly hedged with derivative financial instruments such as forward foreign exchange contracts and exchange options. Most of the financial instruments hedging for currency risk have duration of less than a year. Nokia uses the Value-at-Risk (VaR) methodology to assess and measure interest rate risks of net investments and related derivatives (Nokia in 2010).

Nokia´s financial statement is prepared in accordance with IFRS as issued by the International Accounting Standards Board (IASB) and prepared under the historical cost convention, the notes to the financial statements also conform to Finnish Accounting legislation. Nokia is meeting the requirements set out in IAS 39 according to the company´s own statement (Nokia in 2010).

4.2 UPM-Kymmene

UPM was established in 1995 when Kymmene Corporation, Repola Ltd and its subsidiary United Paper Mills Ltd announced their merger. UPM has a long tradition in the Finnish forest industry, the group's first mechanical pulp mill, paper mills and sawmills started operations in the early 1870s, pulp production began in the 1880s and paper converting in the 1920s (About UPM, UPM.com).

The present group has some 100 production facilities, which were originally functioning as independent companies. For example has following companies merged into the group: Kymi, United Paper Mills, Schauman, Rosenlew and Rauma-Repolaś forest industry operations (UPM – about UPM). In 2010 UPMś sales was 8.9 billion euro and employed around 22 000 people worldwide. The corporation had production plants in 15 different countries and has shares listed in Helsinki stock exchange; NASDAQ OMX Helsinki (About UPM, UPM.com).

4.2.1 Risk management in UPM-Kymmene

"UPM regards risk management as a systematic and proactive means to analyze and manage the opportunities and threats related to its business operations." The main risk factors that are affecting the business and its financial result are strategic risks, operational risks, financial risks and hazard risks. The financial risks that the operation is facing are foreign exchange risks, interest rate risks, liquidity and re-financing risks, credit risks and electricity price risks. The policy of financial risk management is to protect the company from unfavorable changes in financial markets and at the same time help to secure profitability. Treasury activities are carried out by policies approved by the Board of Directors (UPM, Annual Report, 2010). UPM has practice constant financial risk management style, based on a defined risk policy, since the beginning of 1990 (Email interview, Råman K)

The purpose of foreign exchange risk management is to narrow the uncertainty of changes in currency rates. Part of UPM´s sales and purchases are stated in other currencies than euro, mostly USD, GBP (British pound) and JPY. "The foreign exchange risk arises from future commercial transactions, from recognized assets and liabilities and from translation exposure." To manage exposure of these currency exchange rate fluctuations, UPM is closely monitoring these risks with hedging, using financial instruments including forward contracts and currency swaps, but only such instruments whose market value and risk profiles can be continuously and reliably monitored are used for these purposes (UPM, Annual Report, 2010).

According to Kenneth Råman, Director of Market Operations of UPM, does forward contracts and currency swaps have a linear risk profiles which follows the same risk profiles as the goals of UPM´s risks policy, and that is why UPM have chosen these instruments to hedge the risks that they are facing. The advantages of these instruments are that they are liquid instruments with an effective pricing on the market. The possible disadvantage is that particularly currency swaps with a long maturity are credit intensive, which means that they cost a little more (the banks or other dealers that you buy these swaps from need a compensation for the

credit risk they take on). The compensation is “baked in” in to the pricing of the instrument (Email interview, Råman K)

According to the company´s Treasury Policy; 50 % hedging is considered risk neutral, at the same times as it is the company´s policy to hedge an average 50 % of its estimated net currency cash flow for duration of 12 months ahead. UPM´s financial statement, Risk management sections is prepared in accordance with International Financial Reporting Standards (IFRS), IAS 39 (UPM, Annual Report, 2010).

4.3 Fiskars

Fiskars is an international supplier of branded consumer products for home, garden and outdoors. The group´s products are recognized worldwide for their functionality and cutting-edge design. Founded in 1649 Fiskars is Finland´s oldest company. Fiskars had a net sale in 2010 of 716 million and employed about 3600 people. The company is listed on Helsinki stock exchange; NASDAQ OMX Helsinki (Fiskars).

4.3.1 Risk management in Fiskars

Financial risks are managed by the company´s Treasury department in order with a set of risk management principles approved by the Board of Directors. The financial risks that Fiskars is facing are currency risks, interest rate risks, liquidity and re-financing risk, commodity risks and credit risks (Fiskars Financial Statement 2010).

The currency risk of the company is split between transaction risk and translation risks. Fiskars aims to manage its currency risks mainly through business means. The main currencies they are dealing with when it comes to the sales of their products are the US dollar and Swedish krona (SEK). Also, changes in the exchange rate of Chinese Renminbi/Yuan (RMB) are of high importance to Fiskars, since it is the local currency for most of the company´s suppliers. Currency forwards and swaps are the most used instruments in hedging currency risks in the company (Fiskars Financial Statement 2010).

Fiskars does not apply hedge accounting as defined under IAS 39 for transaction risk purposes; all gains and losses coming from currency hedging are booked in the income statement. Fiskars did apply hedge accounting in translation risk according with IAS 39 and IAS 21 in respect of net investments made in units outside Finland. During 2010 the company did not use any hedging instrument on the net investment (Fiskars Financial Statement 2010).

4.4 Sanoma Group

Sanoma Group is a diversified media group, having business operations in magazine publishing (Sanoma Magazines), newspaper industry (Sanoma News), electronic media (Sanoma Entertainment), book publishing (Sanoma Learning & Literature) and kiosk operations and press distribution (Sanoma Trade). These five business areas cover business operations in more than 20 countries, mainly in Europe. The Sanoma Group´s parent company is Sanoma Corporation, a Finnish public limited liability company placed in Helsinki, with euro as the home currency (Sanoma).

Sanoma inspires, informs and connects, the company brings information, experiences, education and entertainment to millions of people every day while making sure that they have the right quality and interesting products available meeting the demands of their customers. The goal of the company "is to be one of the leading media companies in Europe, with a focus on sustainable growth and profitability" (Sanoma).

During 2010 nearly 20 000 employees was working for Sanoma Group through 20 countries and the net sale reached up to 2,8 billion euro. Sanoma shares are listed at NASDAQ OMX (Sanoma).

4.4.1 Risk management in Sanoma

Sanoma is exposed to interest rate, currency, liquidity and credit risks. But since the Group mainly operates in euro area, the currency risk is reduced. However, since some of the countries in Europe are not trading in euro the currency risk still exists in the Group. The countries that are not using euro account for about 12 %

of the consolidated net sales of the Group, mainly for sales in Russian ruble, Hungarian forint, Polish zloty and Czech koruna. Translation risk occurs from the translation of balance sheets in the above mentioned countries. The Group is not currently using hedging instruments to minimize the foreign exchange risks due to the relatively high portion of euros in net sales and in the balance sheet (Sanoma, Annual Report, 2010).

An example of the impact of other currencies in Sanoma Groups equity, would be that if all reporting currencies within the Group would weeken 10 % against euro and other involved variables remained constant, the Group equity would decrease with 18,8 million euro (based on the figures on 31.12.2010 of Sanoma Group). But, on the other hand, if all the same currencies would strengthen against euro by 10 %, the Group equity would increase by 23 million euro (Sanoma, Annual Report 2010).

The Groups interest rate risks mainly refer to changes in the market rates of the loan portfolio. In order to hedge against fluctuations in interest rates the Group applied hedge accounting to interest rate swaps, which were accounted as cash flow hedging. The Group had a strong and predictable cash flow during the financial year 2010, which reduced the liquidity risk (Sanoma, Annual Report, 2010). To maintain a good financial risk management, Sanoma keeps good contacts to banks and a close co-operation with different kind of investment agencies, at the same time as they maintain a good knowledge of the average market and financial situation (Sanoma).

The Group Treasury unit is responsible for managing the Group´s treasury; it operates in order with the unit´s guidelines approved by Sanoma´s Board of Directors. Financial instruments are classified in order with IAS 39 (Sanoma, Annual Report, 2010).

4.5 Neste Oil

Neste Oil is a refining and marketing company, producing petroleum products. Its purpose when it was founded 1948 was to secure Finland´s oil supply, today it has

grown internationally and successfully combines the industry experience with the business and environmental demands. The company has today also established itself as a well-known retail service station brand which operates in 15 countries and has some 5 000 employees. Neste Oil is one of the world´s leading suppliers of renewable diesel and the company focuses today on premium-quality traffic fuels (Neste Oil, History).

Neste Oil is a highly ranked company and it is included in "The Global 100 list of the world´s most sustainable corporations" at the same time as Forest Footprint Disclosure (FFD) has ranked them as the best performer in the oil & gas sector. Neste Oil´s shares are listed on the NASDAQ OMX Helsinki stock exchange and in 2010 the company had a turnover of 11,9 billion €. The head office of the corporation is in Espoo, Finland (Neste Oil, In Brief).

4.5.1 Risk management in Neste Oil

Neste Oil focuses on handling risks related to the volatile commodities and foreign exchange markets, and promotes a risk aware culture in all decision making. The Risk Management policy of the company emphasizes awareness and proactive management towards risks, puts value in enchanting opportunities reducing threats and through that gain competitive advantage. All risk management principles in the Treasury department of Neste Oil are approved by the Board of Directors of the company. In Figure 2 the process of Risk Management in Neste Oil is shown, first the context of risk management is established, the risk is identified and analyzed. Then the company evaluates the risk and does something about it. The risk process is a returning process that is reviewed and monitored again (Neste Oil, Annual Report, 2010).

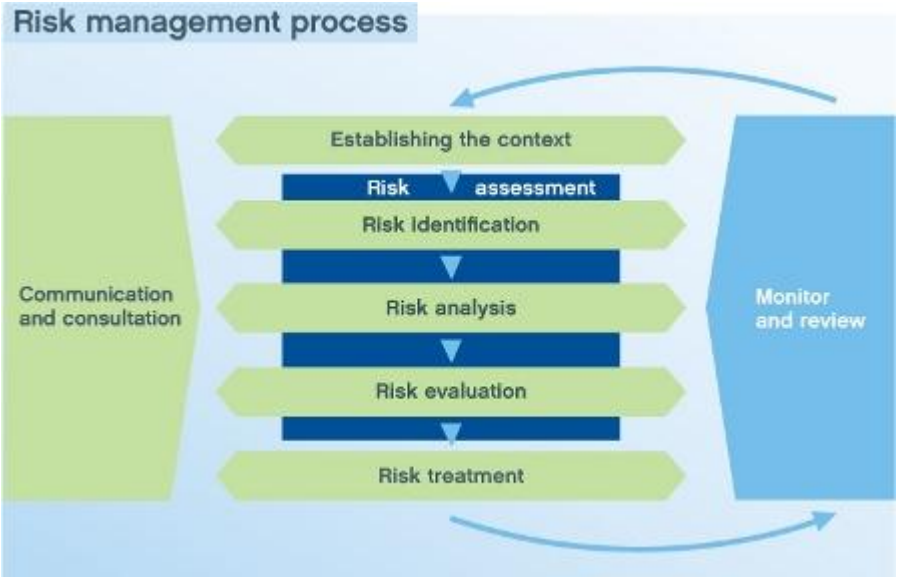


Figure 2. Risk Management process in Neste Oil.
(Neste Oil, Annual Report, 2010).

The company considers risks as an "integral and unavoidable component of its business", which is characterized by threats and opportunities. The policy of financial related risk is to reduce the volatility in earnings, balance sheet and cash flow at the same time as securing an effective and competitive financing for the company (Neste Oil, Annual Report, 2010).

Since the pricing currency used in the oil industry is US dollar and Neste Group is reporting in Euros, it exposes the group to transaction risks. This also shows that the most important hedging currency is US dollar. The company predicts that the Malaysian dollar (MYR) will be a large hedged currency during 2011. Neste Oil has several currency related assets and liabilities in their balance sheet, such as foreign currency loans, deposits, net working capital and cash in other currency than their home currency. To hedge these currencies and avoid and minimize the risks the Group uses forward contracts and options. Forward contract is also used in order to hedge translation exposure coming from investing in foreign subsidiaries and joint ventures. Neste Oil reports in order with IAS 39 and IAS 21 (Neste Oil, Annual Report, 2010).

According to Kaisa Lipponen, Communications Manager in External Communications at Neste Oil, Neste Oil has hedged against these risks since the late 1980´s. She also states that Neste Oil uses forward contracts and options to hedge these risks since these instruments fit with the underlying risk exposures and their existing risk management approach that the firm is having. The only disadvantages that company has faced using these instruments have been the material disadvantage of possible counterparty's credit exposure or negative liquidity impact of the hedging instrument (Email interview, Lipponen K).

4.6 KONE

KONE is one of the leading companies in the elevator and escalator industry, and has provided their customers with innovative solutions during the past century. Their objective "is to offer the best people flow experience by developing and delivering solutions that enable people to move smoothly, safely, comfortably and without waiting in buildings in an increasingly urbanizing environment" (KONE).

KONE is a global company, operating in more than 1 000 offices around the world, with the head office in Helsinki. In 2010, the company had an annual net sales of 5 billion euro and approximately 33 800 employees. The shares of KONE are listed at NASDAQ OMX Helsinki Ltd (KONE).

4.6.1 Risk management in KONE

As KONE operates globally is it only natural that it is exposed to risks which arises from foreign exchange rate fluctuations related to currency flow from revenues and expenses (transaction risk) and from translation of foreign currencies from subsidiaries to the parent company´s euro (translation risk). The objective of risk management at the company is to coordinate a systematic assessment of risks and opportunities within the daily business and decision making process. The financial risks that KONE faces are foreign exchange risks, interest rate risks, liquidity risks and credit risks. The Group Treasury is responsible of financial risks in accordance with Group Treasury Policy approved by Board of Directors. Subsidiar-

ies manage their financial risks locally in accordance with the Group Treasury Policy (KONE, Annual Report, 2010).

A big part of the maintenance business of KONE´s operations are done in the local currency of the selling subsidiary, at the same time; component and material deliveries or production may occur in other currencies than the sales currency, which exposes KONE to transaction risks. The company´s risk management policy is to hedge the foreign exchange exposure of orders received future sales and purchases with forward contracts. The Investor Relation Specialist in KONE, Katri Saarenheimo, says that interest rate differential is something that they would prefer to eliminate when they are using forward contracts (Email interview, Katri Saarenheimo). The majority of these currency forward contracts expire within one year, and most used currencies are US dollars, Chinese Yuan, British pounds and Swedish crowns. When it comes to internal loans applied to the subsidiaries from the parent company, they are mostly done in local currency of the subsidiary in which case it may occur foreign exchange risks for the parent company. These risks are hedge using foreign exchange swap contracts (KONE, Annual Report, 2010).

More than 50 % of KONE´s revenue occurs in other currency then euro, which tells that the translation risk is significant to the company. The translation of the balance sheets of the subsidiaries into euro caused a translation difference of 45,5 million euro in 2010. But the translation risk is not hedged, as a rule with financial instruments, as the company´s business consists of so many operations in various currency areas. US dollars, Chinese Yuan, Australian dollars and British pounds are the most exposed currencies in translation risks of KONE. The company prepares the Annual Report, Financial risk management according to IFRS, IAS 39. (KONE, Annual Report, 2010).

The Investor Relations Specialist, Katri Saarenheimo, assumes that exchange rate risks in KONE have been hedged against in more than 20 years. She comments the question. Why has KONE decided to use forward contract instrument to hedge these risks? with a quote from KONE´s Financial Statement 2010; “The Group policy is to hedge the foreign exchange exposure of orders received and highly

probable future sales and purchases with foreign exchange forward contracts. The profitability of business operations is hedged by fixing the exchange rates using foreign exchange forward contracts". So the reason why they use forward contracts is purely because they want to fix the value of future sales and foreign exchange forward contracts are the most suitable instrument for this. The advantage of forward contracts is according to Katri Saarenheimo, that they are simple products in the means of effectiveness and reporting (Email Interview, Saarenheimo K)

4.7 Finnair Group

The Finnair Group has its business field in worldwide air transport operations and supporting services to these operations; transporting passengers between Europe and Asia, via Helsinki. The group is one of the world´s oldest operating airlines, and was established in November 1923. The operations are divided into Airline Business, Aviation Services and Travel Services. The parent company of Finnair Group is Finnair Plc., which has its head office in Helsinki. The parent company is listed on NASDAQ OMX Helsinki Stock Exchange (Finnair Group).

The success factor of Finnair are quality, freshness and creativity; for example does Finnair offer several daily frequencies to all major European cities, at the same time as the timetables are built to offer quick connections to Asian flights. The competition strategy of the group is based on high quality of services, punctuality of timetable and the offer of the fastest, most eco-efficient and most convenient connections to Asia´s large hubs from those cities in EU which does not offer direct flights (Finnair Group).

In 2010 the turnover of the group was 2 023 million euro and Finnair carried a total of 7 139 000 passengers. The number of personnel was approximately 8 000 (Finnair Group).

4.7.1 Risk management in Finnair Group

Finnair Group´s business operations areas do naturally expose the company to currency risks such as foreign exchange, interest rate, credit and liquidity, and fuel

price risks. The company´s principle of financial risk management is to minimize the uncertainty caused by such risks on cash flow, financial performance and equity. “The management of financial risks is based on the risk management policy approved by the Board of Directors” (Finnair Group – Financial Statement).

In the management of foreign exchange, interest rate and jet fuel positions the Group uses different derivative instruments, such as forward contracts, swaps and options (Finnair Group – Financial Statement). According to Pasi Keski-Karhu, Director of Treasury Operations of Finnair Oyj, oil price risks have been hedged for ten years and currencies and interest rates for over ten years but no certain time period could be given on the question of how long Finnair have been using different kinds of instrument to hedge against these mentioned risks (Email interview, Keski-Karhu P).

In hedging of future cash flows the Group reports according IFRS, IAS 39. Foreign exchange rate risk arising in Finnair Group, are mainly the risks from exchange rates fluctuations in fuel and aircraft purchases, aircraft leasing payments and foreign currency incomes. The foreign exchange position of the group can be divided into two parts; the profit and loss position which includes of dollar-denominated fuel purchases and leasing payments, sales revenue in several different currencies and foreign currency money market investments and loans, while the other position; investment position includes dollar-denominated aircraft investments (Finnair Group – Financial Statement).

The group uses forward exchange contracts and interest rate swap agreements in the hedging of interest rates and exchange risks of foreign currency denominated loans. Finnair uses jet fuel swaps and options in hedging the price risk of jet fuel, and they uses electricity derivative contracts in hedging the risks arises from changes in electricity price. The effectiveness of hedging is tested quarterly (Finnair Group – Financial Statement). Forwards, swaps and options are OTC-derivatives which can be more tailor-made according to the user’s needs so that is why Finnair uses those instruments according to Pasi Keski-Karhu (Email interview, Keski-Karhu P).

Around 68 % of Finnair´s turnover is denominated in euros, while other important foreign sales currencies are Swedish crown, Japanese yen, Chinese Yuan, US dollar and British pound. Approximately one third of the group´s operating costs are denominated in foreign currencies, where the most important purchasing currency is US dollar, which stands for almost 27 % of all operating costs (Finnair Group – Financial Statement).

5 RESULTS

The aim of the study is to explain the currency risks that Finnish corporations have to face and which currency risk management tools they use to minimize the risks. I have analyzed seven different corporations' annual reports and financial statements to get the results. In this chapter the results are presented.

Company	Industrial area	Currency risks	Hedging method	Hedged currency
Nokia-Group	Telecommunications	Transaction Translation	Forward contract Options	USD, JPY, RMB
UPM	Paper and forest products	Transaction Translation	Forward contract Swaps	USD, GBP, JPY
Fiskars	Home, garden & outdoor products	Transaction Translation	Forward contract Swaps	USD, SEK, RMB
Sanoma	Media	Translation	Interest rate swaps	RUS, HUF, PLN CZK
Neste Oil	Refining Oil - fuel - diesel	Transaction	Forward contract Options	USD
KONE	Elevator and escelator industry	Transaction Translation	Forward contracts Swaps	USD, RMB, AUS, GBP
Finnair Group	Air transport industy	*Transaction * Economical	Forward contracs Swaps, Options	SEK, JPY, RMB, USD, GBP

** Finnair Group did not state the currency risk, an assumption was made, further explanation is written below.*

Table 2. Result

5.1 Currency Risks

In table 2 the results of the study can be read. Based on the table above it can be seen that most of the firms are affected by transaction and translation risks. The risk of being affected by currency rate-changes in the result of the company, is big and this because the group's international expansion. The firms have big incomes, costs, assets and liabilities in other currencies than euro, since many of the firms are dealing outside the euro-zone. That is why there occurs a significant amount of currency exposure in their income statements, balance sheets and cash flow. The currency rate fluctuations do also lead to big changes in the value of loans and investments, as well as assets and liabilities. Since each and every company

analyzed in this study does have a turnover in several million euros it can be assumed that if there is changes in exchange rate or the interest rates drop suddenly even one percent or the other way around this will have a huge effect on the result.

The biggest currency exposure for most of the companies is the exposure of sales in US dollar against euro. The transaction risk occurs when the cash flow of a firm in a foreign currency are exposed to fluctuation in the currency rate which affects the size of the commercial income and expenses. For example, Nokia´s net sales, costs and results of operations as well as the US dollar value of their dividends and market price of their products are affected by the euro dollar rate. However, it does not necessary have to be the rate change of euro against dollar, it could also be another currency against the dollar or against euro that affects the transaction risk.

Except for the transaction risk several of the companies are also exposed to translation risks. The translation risk occurs when the result of the foreign subsidiaries is calculated to euro. The result of the subsidiaries result can be unchanged in a local currency, but increases in euro if the euro rate depreciates or decreases if the rate increases.

Finnair Group has not stated the currency risk (transaction, translation or economic risk) that they face but describes that their currency risk occurs mainly from the risks in exchange rates in fuel and aircraft purchases, aircraft leasing payments and foreign currency incomes. After analyzing their Financial Statement and internet homepage, I would draw the conclusion that many of Finnair Group's subsidiaries are located in Finland or in the Euro-zone, which means that the translation risk may occur, but is fairly low. On page 27 of the Financial Statement, Translation of Foreign Currency items is discussed, which means that the translation situation exists.

Transaction risk was an essential cash flow risk in another currency, and since Finnair Group is doing cash flow hedging in currency denominated purchases, I assume that they are facing transaction risks. Economical risk is a risk which I think all and each of these analyzed companies are facing, more or less, since they

all know that in the future they will be purchasing or selling in a foreign currency. This means that they are facing the economic risk right now as they do not know the present value of the future sales or purchase nor whether if the foreign currency will go up or down.

5.2 Risk Management

In all the firms written about risk management is an important part of business operations. Many of the companies have a clear policy or aim in their risk management, they consider risk management a systematic tool to analyze and manage the opportunities and threats related to their different business operation. The threats and opportunities are identified, analyzed, managed and monitored to protect the company from unfavorable changes in financial markets and to help to secure the profitability of the firm.

After analyzing the risks the companies have to start to manage the risks, while is usually done by the Financial department in the companies. Some kind of a group policy approved by Board of Directors to manage the risks is usually used. In this paper it can be read that there are a number of instruments a company can use to handle the currency risk exposure and, to minimize the currency rate fluctuations. The derivative instruments that can be used are forward or future contract, option and swaps. Also, currency debt can be used as a hedging tool, but none of the responding companies have used that.

Six of the companies analyzed above uses forward contract as a hedging instrument, and a reason for this can be that a forward contract is mostly suitable for fixing future sales in foreign currency, as Ms. Saarenheimo, Investor Relations Specialist from KONE has said. It also seems like a forward contract has the most similar risk profile with the companies own risk policies of the companies.

Also five out of the respondents uses swap instruments, for example at the moment Sanoma Group only use interest rate swaps to hedge the interest of their loans. Nokia together with Neste Oil are the only companies which do not use swap agreements; instead they use forward contracts and options. UPM uses

swaps in their hedging, but only such instruments that can be reliably monitored for its purpose. The company does also use forward contracts as it follows the risk profile of their policy. While Nokia mostly uses instruments with a duration of less than a year, UPM´s policy hedges 12 months ahead.

Fiskars uses forward contracts and swaps, mainly to hedge their net sales in US dollar but also to hedge their purchases in in Chinese RMB. To hedge themselves against fluctuations in US dollar, which is the sales currency in the oil market, Neste Oil uses both forward contract and options. Finnair tests their hedging strategy quarterly in order to see how their derivatives contracts are going. In 2010 the group used 2010 different kinds of swaps and options to hedge in fuel and electricity price changes, while in currency denominated loans they used forward contracts and swaps.

These instruments are all used to try to minimize the risks at foreign exchange fluctuation, both threats and opportunities, but as we all know; no one can really predict the future, we cannot be sure that the company´s hedging activities will be successful in minimizing the risk. For example, to be on the sure side, Nokia has stated clearly in their Annual Report of 2010 that there cannot be any assurance that the hedging activities will be successful in minimizing the impact of exchange rate fluctuation.

6 CONCLUSION AND DISCUSSION

6.1 Conclusion

In this part of the study the conclusions of the empirical part will be presented as well as the main answers to the research questions.

The aim of this thesis is to explain the currency risks and the tools used to minimize these risks by analyzing seven different companies' annual reports. The research questions asked were; what the currency risks that companies have to manage are and what tools do they use to minimize these risks.

The conclusions of this are that when a company is doing business internationally, no matter what the business area is, currency risk management is an essential part of the business. The studied companies see the risks as both opportunities and threats. The currency risks that they are facing when trading abroad are economic risks, translation risks and transaction risks, where the most essential ones are transaction and translation risks. But I, however, think that each and every company exposed to foreign currency risk is exposed to all these three risks, just the mix of how much or how little varies.

To minimize these above mentioned risks, a firm can use different kinds of hedging instruments, and the most used derivatives are forward contracts, swaps and options.

6.2 Further Studies

During the writing of this thesis many questions, reflections and ideas have been waked. The subject has been interesting to study, and the interest for further studies is something that I could consider. Sadly, due to time limitations and the size of the subject, this study did not advance to as deep as I thought in the beginning.

If there had been more time it would have been interesting to carry out a bigger survey with more companies investigated in order to reach more answers. It would also have been informative to see more thoroughly what kind of advantages and

disadvantages companies have found in the hedging tools they use. In further studies the theory could also be deepened or narrowed, since currency risk is a very wide subject with many angels to it. This kind of a study could be interesting for a risk advisory company.

Furthermore, it would be interesting to study IFRS more, in order to see what kind of demands on do the standards set on currency risk management, and how well the companies actually follow them. Also to study what has happened after the recession, how have companies changed their currency risk management style or have they changed at all compared to before the recession.

6.3 Validity of the study

The validity of a study does as explained before describe if the used measuring method really measured what the aim to the researched was. In this case the validity was affected by the choice of companies and the information given in their Annual Reports. The information given in the Annual Reports can be hard to measure, since it is the company´s own information and they have chosen how much they have wanted to tell. They have also given out their information in different kinds of ways, using different kinds of names, even if they might be talking about the same thing.

Validity of this study are affected by these above mentioned criteria's, since almost all the information have been collected from the company's Annual Reports.

6.4 Reliability in the study

Reliability is, as explained earlier, how reliable the data of the research is, and if the same research would give the same answers twice. In this study is it hard to show if the result is reliable, since I have choose the selections myself from the Annual Reports. If another research had been made, some other selection could have been chosen.

REFERENCES

Books

Copeland, L. 2005. Exchange Rates and International Finance. Fourth edition. Essex. Pearson Education Limited.

Grath, A. 2004. Företagets utlandsaffärer – Riskhantering, Betalning, Valuta och Finansiering. Eight edition. Stockholm. Industrilitteratur Ab.

Heather, B. 2010. When Do Firms Divest Foreign Operations? The Wharton School, University of Pennsylvania. Philadelphia.

Hull, John C. 2009. Options, Futures, and other Derivatives. Seventh edition. New Jersey. Pearson Education, Inc.

Hull, John C. 2012. Power points of Options, Futures, and other Derivatives. Eight edition. New Jersey. Pearson Education, Inc.

Salvatore, D. 2011. International Economics; Trade and Finance. Tenth edition. John Wiley & Sons (Asia) Pte Ltd. P 2.

Husted, S & Melvin, M. 2007. International Economics. Seventh edition. Boston. Pearson International Edition.

IFRS. International Accounting Standard, 39.

Kenyon, A. 1990. Currency Risk and Business Management. Oxford. Vindale Limited.

Financial Reports

Finnair. Annual Report, 2010. Financial Statement.

Fiskars. Annual Report 2010, Financial Statement.

KONE. Annual Report, 2010.

Neste Oil. Annual Report 2010.

Nokia Corporation. 2010. Form 20-F.

Nokia. Nokia in 2010.

Sanoma. Annual Report 2010.

UPM. Annual Report 2010.

Electronic publications

Adidas-Group. 2011. Financial Risks. Accessed 18.08.2011. http://www.adidas-group.com/en/investorrelations/corporate_governance/risk_management/risks_financial/default.aspx

Australian Government. 2011. Risk Management. Accessed 18.08.2011. http://www.austrade.gov.au/Risk-management/default.aspx

Bank of Finland. www.bof.fi.

Business Dictionary. http://businessdictionary.com

Colorado State University. Accessed 12.11.2011 URL:http://writing.colostate.edu/guides/research/relval/pop2b.cfm

EconomyWatch, 2011. Exchange Rate History. Accessed 10.08.2011. http://www.economywatch.com/exchange-rate/history.html

Edelegationen. Metoder Accessed 6.11.2011. http://feedback.edelegationen.se/vlbehov/metoder/

Encyclopedia of the Nations, 2011. Finland - Money. Accessed through Google.com 10.08.2011: Floating exchange Finland. http://www.nationsencyclopedia.com/economies/Europe/Finland-MONEY.html

Export Developement Canada (Edc). Export- Finance Guide. Accessed 17.8.2011. http:// www.edc.ca/english/exportfinanceguide/efg_sub4_12107.htm

Finacial domain, 2009. Types of Currency Risk. Accessed 17.8.2011. http://www.financial-domain.info/types-of-currency-risk/

Finnair Group. http://www.finnairgroup.com

Finnvera, 2011. Finnvera – an Export Credit Agency. Accessed 17.8.2011. URL:http://www.finnvera.fi/eng/Export/Finnvera-an-Export-Credit-Agency

Fiskars Group. http://www.fiskarsgroup.com/corporation/index.html

Forextraders, February 2011. What is the Bretton Woods Agreement?. Accessed 10.08.2011. http//forextraders.com/forex-glossary/what-is-the-bretton-woods-agreement.html

Giddy, Ian H. 2011. Corporate Hedging: Tools and Techniques. New York University, Stern School of Business. Accessed 25.9.2011. http://pages.stern.nyu.edu/~igiddy/articles/hedging_techniques.html

Harper, D. 2010. An introduction To Value at Risk (VAR). Accessed through http://www.investopedia.com/articles

Holton, A Glyn. 2006. Financial Risk Management. Accessed through: http://www.riskglossary.com

Investopedia. http://www.investopedia.com

Investorwords. http://www.investorwords.com

IFRS. http://www.ifrs.com

KONE: http://www.kone.com

Maps of World – Finance. Currency Risk Management. Accessed 17.8.2011. http://finance.mapsofworld.com/risk-management/types/currency.html

Meera, A. 2002. Hedging Foreign Exchange Risk with Forwards, Futures, Options and the Gold Dinar: A Comparison Note. International Islamic University Malaysia. Accessed 25.09.2011. URL:http://www.lariba.com/knowledge-center/articles/pdf/Malaysia%20-%20GOLD%20-%20Hedging%20With%20Dinar.pdf

Neste Oil. http://www.nesteoil.com

Nokia. http://www.nokia.com/about-nokia

Nordea, 2011. Risker. Accessed 18.08.2011. http://www.nordea. http://www.nordea.fi/F%C3%B6retag+och+organisationer/Utlandsaff%C3%A4rer/R%C3%A5d/Risker/944402.html

Osec. 2010. Risk management for exporters. Accessed 08.08.2011. http://www.osec.ch/internet/osec/en/home/export/knowhow/risk_management.html

Sanoma. http://www.sanoma.com

Singh, P. 2009. Corporate Currency Risks Explained. Investopedia. Accessed 17.8.2011. http://www.investopedia.com/articles/forex/09/corporate-currency-risks.asp#axzz1VGnSzBtW

The Free Dictionary. http://thefreedictionary.com

UPM. http://www.upm.com/EN/ABOUT-UPM/Pages/default.aspx

Interviews

Keski-Karhu, P. 2011. Director, Treasury Operations. Finnair Oyj. Interview, email, 31.10.2011

Lipponen, K. 2011. Communications Manager, External Communications. Neste Oil. Interview, email, 31.10.2011.

Råman, K. 2011. Director, Market Operations. UPM. Interview, email, 31.10.2011.

Saarenheimo, K. 2011. Investor Relations Specialist. KONE Corporation. Interview, email, 31.10.2011.

Discussion

Holmberg, J. Senior Risk Advisor, Partner. Operandi Oy. 6 - 8.11.2011.

INTERVIEW QUSTIONS SENDED AS EMAIL (ENGLISH)

1. For how long have company X used different kinds of instrument to hedge against fluctuations in interest, exchange rates or electricity, oil prices?
2. In the Annual Report of 2010 is it written that company x mostly uses ... to hedge against / minimize the risks in interest, exchange rates or electricity, oil prices, why have company x decided to use these instruments?
3. What kind of advantages and disadvantages has company x faced using these instruments?

INTERVIEW QUSTIONS SENDED AS EMAIL (SWEDISH)

1. Hur länge har UPM använt olika finansiella instrument för att säkra sig mot förändringar I valuator och räntor?
2. Enligt Annual Report 2010, använder sig UPM av valutaterminer (forward contracts) och valuta swappar i riskhanteringen, varför?
3. Vilka fördelar och nackdelar har UPM möt med/i dessa instrument?