

THE TYPES OF RISK AND HEDGING TECHNIQUES IN FINANCIAL MANAGEMENT

Natia Shengelia

GTU, Assistant-Professor

STU, Associate Professor

Zhuzhuna Tsiklauri-Shengelia

GTU, Professor

Revaz Shengelia

GTU, Professor

One needs money to make money. Finance is the life-blood of business and there must be a continuous flow of funds in and out of a business enterprise. Money makes the wheels of business run smoothly. Financial Management is one of the most functional areas of business, it is concerned with all aspects of a firm's financing or other decisions. **Ezra Solomon**, who laid the foundation for the modern understanding of financial management, has described the nature of financial management as follows: "Financial management is properly viewed as an integral part of overall management rather than as a staff specially concerned with funds raising operations".

Sound financial management is as important in business as production, PR and marketing. A business firm requires finance to commence its operations, to continue operations and for expansion or growth. Shortly, financial management means planning, organizing, directing and controlling the financial activities such as procurement and utilization of funds of the enterprise. It means applying general management principles to financial resources of the enterprise.

The key areas of focus are:

- Identifying and setting appropriate corporate financial objectives
- Achieving them by making the important decisions in 3 areas:

- Investment appraisal -should proposed investments be undertaken?
- Finance- from what sources should funds be raised?
- Dividend Policy- how should cash funds be allocated to shareholders?

- Risk management - to ensure safety of funds by creating reserves, re-investing profits, etc. (minimization of risk).

Financial Management should take into account:

- ❖ The broader economic environment in which the business operates

- ❖ The potential risks associated with the decision and methods of managing that risk.

Risk management occurs everywhere in the financial world. As Investopedia¹ explains: risk management is a two-step process - determining what risks exist in an investment and then handling those risks in a way best-suited to your investment objectives. It occurs when an investor buys low-risk government bonds over more risky corporate debt, when a fund manager hedges their currency exposure with currency derivatives and when a bank performs a credit check on an individual before issuing them a personal line of credit. **Financial risk management** is the practice of economic value in a firm by using financial instruments to manage exposure to risk, particularly credit risk and market risk. Other types include Foreign exchange, Shape, Volatility, Sector, Liquidity, Inflation risks, etc. Financial risk management can be qualitative and quantitative. As a specialization of risk management, financial risk management focuses on when and how to hedge using financial instruments to manage costly exposures to risk. We will pay our attention on foreign currency risk, its reasons and hedging techniques. Changes in exchange rates result from changes in the demand for and supply of the currency. These change may occur due to changes in international trade or capital flows between economies. When trading domestically, foreign currency risk arises for companies that trade internationally. If a currency depreciates, it is now worth less in home currency, but in case of vice versa if it worth more in home currency, then it appreciates. The example of deprecia-

1 www.investopedia.com

tion is discussed below. For example, one small company is based in Georgia, producing the washing machines; But it buys and imports the raw materials for 2000 \$s . For example, their foreign suppliers increase their prices, if taking current situation in Georgia, for buying 2000 \$ in December 2014 years, there were necessary $2000\$ \times 1.75 = 3500$ GEL, but now in February 2015 y. $2000\$ \times 2.35 = 4700$ GEL; So, while settling the company's liability , the transfer amount 2000\$ now cost 1200 GEL more, than earlier that is a loss due to the currency exchanges. Generally, there exist 3 types of foreign currency risk¹:

- Transaction Risk
- Economic Risk
- Translation Risk

The **Transaction Risk** is the risk of an exchange rate changing between the transaction date and subsequent settlement date; then gain or loss arises on conversion. The **Economic Risk** –variation of the value of the business-e.g. For the export company the sales can decrease if domestic FX (foreign exchange) rate appreciates. Refers to effect on the PV of longer CFs. The **Translation Risk** occurs when reported performance of a company is distorted in consolidated financial statements because of change in exchange rates (when accounting results of company's foreign subsidiaries are translated into the home currency).

Moreover, there should be mentioned the following hedging techniques:

➤ **Invoice in local currency**: when exporter invoices to his foreign customer or importer pays his foreign supplier in domestic currency, thus FX risk is transferred to second party.

➤ **Matching receipts and payments**: since the Company offsets FX receipts with FX payments, it does not matter whether FX strengthens or weakens.

➤ **Matching assets and liabilities**: If the enterprise expects to receive FX income (risk that FX will weaken). So, the entity can take a loan in FX and then repay loan from proceeds in FX (financing cost < potential FX loss).

1 ACCA-F9-Financial Management;

➤ **Lead payment:** payment in advance if expected that the local currency will weaken against FX and **Lag payment:** delay in payment (when fines < potential FX gain) ;

➤ **Netting** : Objective is to save transaction cost rather than to manage it.

➤ **Forward exchange contracts:** it specifies in advance the rate at which a specified quantity of currency will be bought and sold.

➤ **Money market hedge:** hedging a FX payment or FX receipt.

For more understanding of these hedging methods, it will be clear on an example:

The UK company bought goods from the US supplier and must pay \$ 5 000 000¹ in 3 months. Which will be the cheapest hedging method for the company if considering:

a) forward exchange contract b) money market hedge c) lead payments ?

there are currently the following interest rates available:

Period	US \$		GBP	
	Deposit rate (%)	Borrowing rate (%)	Deposit rate (%)	Borrowing rate (%)
1 month	8	11	11.5	14
3 month	8	11.25	12	14.25

Indirect Quote	\$/ 1 GBP
Spot rate	1.902- 1.903
1 month forward	1.892-1.894
3 month forward	1.884- 1.886

a) Forward:

The UK Company needs dollars (so \$ is FX) to buy and pay in 3 months' time, the bank sells expensive but as given the indirect quote

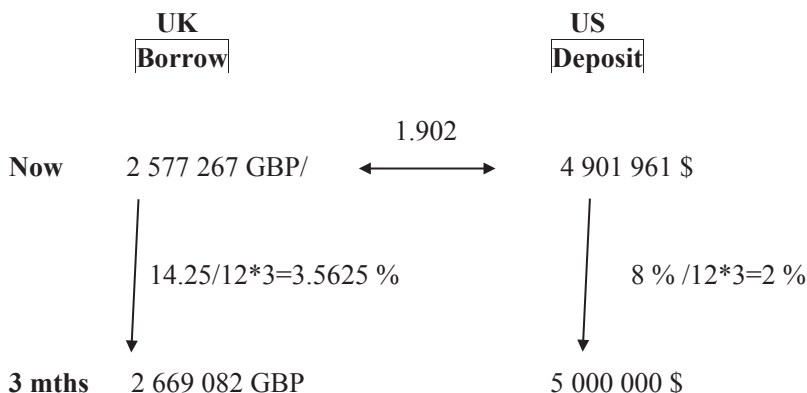
¹ The example is taken from the Pwc course notes examples.

which is equal to the amount of foreign currency (FX) / 1 domestic currency, we should take the lower rate: 1.884:

$\$ 5\,000\,000 / 1.884 = 2\,653\,928 \text{ GBP}$ → cost of transaction in 3 months' time

b) Money Market (MM) Hedge:

Payment in \$s (FX) → need to buy FX in 3m time → so buy it now from a bank → borrow local currency= GBP → convert it into FX→ deposit FX (\$)



Furthermore, the deposit and borrowing rates are annual, thus we calculated for 3 months. But as we need to know how much \$ is necessary to deposit now in order to get 5 000 000 \$ in 3 months, we calculated “3 months back” like this: $5000\,0000 / 1.02 = 4\,901\,961 \text{ \$}$.

Cost of transaction now = 2 577 267 GBP, and in 3 months = 2 669 082 GBP ($2\,576\,589 \text{ GBP} * 1.035625$);

c) lead payments→ means to pay now

$5000\,000 / 1.902 = 2\,628\,812 \text{ GBP}$ → cost of transaction now;

For summarizing all the hedging methods, we should compare the results below in the table and choose the cheapest technique:

	Now (GBP)	3 months later (GBP)
FW	2 562 634	2 653 928
MM	2 577 267	2 669 082
Lead	2 628 812	2 722 463

In order to get 2 561 954 GBP, we have discounted in this way: Assuming, the enterprise doesn't have cash now, it should borrow 2 653 928 at 14.25%/12*3m=2 653 928/(1+0.035625)= 2 562 634 GBP; Analogically, assuming to borrow money in 3 months time, 2 628 812 * (1+0.35625)= 2 722 463 GBP.

Finally, if we consider payment now or after 3 months, in both cases the cheapest hedging method can be regarded the Forward Contracts.

In Summary, **financial management** can play a key role in the life and development of business. Sound financial management is as important in business as production, PR and marketing. A business firm requires finance to commence its operations, to continue operations and for expansion or growth. Shortly, financial management means planning, organizing, directing and controlling the financial resources and generally activities such as procurement and utilization of funds of the enterprise in an effective way. Finance is the life-blood of business and there must be a continuous flow of funds in and out of a business enterprise. Money makes the wheels of business run smoothly. Financial Management is one of the most functional areas of business, it is concerned with all aspects of a firm's financing or other decisions.

Financial risk management is the practice of economic value in a firm by using financial instruments to manage exposure to risk, particularly credit risk and market risk. Other types include Foreign exchange, Shape, Volatility, Sector, Liquidity, Inflation risks, etc. As a specialization of risk management, financial risk management focuses on when and how to hedge using financial instruments to manage costly exposures to risk. We paid our attention on foreign currency risk, its reasons,

types, such as : Translation, Transaction and Economic Risks. We have discussed the following hedging techniques of foreign currency risk: Balance Sheet hedges, Practical Approaches (Lead and Lag payments), Forward Contracts, Money Market Hedge. Some of them were analyzed in a practical example and then there was chosen the best cheapest technique for hedging.

რისკის ტიპები და ჰეჯირების ტექნიკა ფინანსურ მენეჯმენტში

ნათია შენგელია

სტუ, ას. პროფესორი

სსუ, ასოც. პროფესორი

ჟუჟუნა ნიკლაური-შენგელია

სტუ, პროფესორი

რევაზ შენგელია

სტუ, პროფესორი

რეზიუმე

ფინანსურ მენეჯმენტს შეუძლია გადამწყვეტი როლი ითამაშოს ბიზნესის არსებობასა და განვითარებაში. იგი ისეთი მნიშვნელოვანია კომპანიისთვის, როგორც წარმოება, ჯლ და მარკეტინგი. მოკლედ, ფინანსური მენეჯმენტი ნიშნავს სანარმოო ფინანსური რესურსებისა და ზოგადად საქმიანობის ეფექტურად დაგეგმვას, ორგანიზებას, მართვასა და კონტროლს.

ფინანსურ რისკ-მენეჯმენტს კი შეუძლია ბიზნესს აარიდოს და დაიცვას იგი სხვადასხვა მოსალოდნელი საფრთხეებისაგან, მაგალითად, როგორიცაა: საკრედიტო, საბაზრო, უცხოური სავალუ-

ტო, ინფლაციის, ლიკვიდურობის, სექტორის და სხვა რისკები. ფინანსური რისკ-მენეჯმენტი მთავარ აქცენტს აკეთებს, როდის და რა ფინანსური ინსტრუმენტების გამოყენებით დაიცვას ბიზნესი რისკებისგან. სტატიაში ყურადღება გამახვილებულია უცხოურ სავალუტო რისკზე, მისი წარმოშობის მიზეზებზე და სახეებზე, კერძოდ, ეკონომიკურ, ტრანზაქციისა (კურსათაშორის სხვაობის) და კონვერტაციის (კონსოლიდირებული ფინანსური ანგარიშგების მომზადებისას) რისკებზე. ასევე განხილულია უცხოური სავალუტო რისკების ჰეჯირების მეთოდები: საბალანსო ჰეჯირება, პრაქტიკული მიდგომები (წინასწარი და გადავადებული გადახდები), საკრედიტო-სავალუტო ბაზრის ინსტრუმენტებით ჰეჯირება და საფორვარდო კონტრაქტები.