THESIS / DIPLOMA THESIS

SADDEK BAROUD

2024



Hungarian University of Agriculture and Life Sciences Károly Róbert Campus

master's

THE IMPACT OF EXCHANGE RATE RISK MANAGEMENT ON FINANCIAL PERFORMANCE OF COMPANIES

Insider consultant: Péter Vanó

Associate Professor

Created by: SADDEK BAROUD

2024

Table Of Contents

GE	INERAL I	NTRODUCTION
1	Manag	ging foreign exchange risk and financial performance5
	1.1 1	he concept of foreign exchange risk and the management process5
	1.1.1	Definition5
	1.1.2	The exchange rate risk7
	1.1.3	Types of exchange rate risk8
	1.2 E	Exchange rate risk management13
	1.2.1	Exchange rate risk management process14
	1.2.2	Identifying currency risk14
	1.2.3	Currency risk assessment:17
	1.2.4	Reduction of exchange risk:
	1.3 [Defining and measuring financial performance27
	1.3.1	Definition27
	1.3.2	Financial performance29
	1.3.3	Financial performance indicators
2	Work ı	nethodology
	2.1 \	Nork methodology
	2.1.1	Arguments
	2.1.2	Work tools
	2.1.3	Foreign exchange risk reduction techniques:
3	Impac	t of foreign exchange risk management on financial performance of a company
	3.1 F performa	Presentation of the company's financial position and analysis of its financial ance X
	3.1.1	Presentation of the financial statements
	3.2 I	mpact of currency risk management on the company's financial performance X43
	3.2.1	Foreign exchange risk management43
	3.2.2	Analysis of results and recommendations50
4	SUMM	IARY53
5	BIBLIC	OGRAPHY54
6	List of	tables and Figures
7	Annex	es56

GENERAL INTRODUCTION

The current economic environment is becoming global and competitive, forcing companies to seek to strengthen their competitiveness, through the subsequent circulation of the local environment, and to enter and develop in other foreign markets.

As a result, they enter foreign markets by exporting their goods and services or conversely, importing the products or services they need. They also internationalize their activities by borrowing or lending in foreign currencies and investing abroad (offshoring).

The internalization of these activities will generate opportunities for Moroccan companies, as well as numerous constraints linked to fluctuations in the exchange rates resulting from these transactions.

Another phenomenon that has significantly altered the global financial environment is the transition from a fixed exchange rate regime to a floating exchange rate regime. At that time, rates were relatively constant and could only fluctuate within a set range, and any breach of this range triggered intervention by the central banks. Gradually, with the globalization of trade, exchange rates began to fluctuate.

Exchange rate fluctuations can therefore influence a company's economic and financial health. Faced with this development, companies are confronted with specific risks that they do not encounter on national markets, such as exchange rate risks, or risks that they already face on their national market, but which take on a new dimension in the international context, such as counterparty (or credit) risk and interest rate risk.

This shows that a variation in the exchange rate has a significant influence on the company's financial or non-financial performance. The impact is negative if the cost of production increases, for example, in the event of a depreciation in the exchange rate, but it can have a positive impact if this cost decreases in the event of an appreciation in the exchange rate.

In addition, there are two other categories of exchange rate risk: accounting risk and economic risk. The first risk arises when assets and liabilities are converted into local currency, with balance sheet consolidation giving rise to either a foreign exchange gain or loss. The second risk relates to the overall effects of exchange rate fluctuations on the value of the company.

In this context, we have studied with interest the phenomenon of the exposure of companies to foreign exchange risks and how to favour their financial performance by proposing the following problematic.

What impact does managing exchange rate risk have on companies' financial performance?

To provide an answer to this question, we propose to divide it into four sub-questions:

What do we mean by currency risk management and financial performance?

What is the relationship between foreign exchange risk management and financial performance?

What methodology did we use to conduct our empirical study?

How can foreign exchange risk management be introduced in an importing company to improve its financial performance?

1 Managing foreign exchange risk and financial performance.

This chapter will answer the first question posed in the general introduction: what is meant by foreign exchange risk management and financial performance?

To do this, we will first define the various concepts associated with foreign exchange risk management, namely the concept of foreign exchange risk, risk typologies and the management process. Secondly, we will define what performance is in a company, how financial performance is measured and the tool that the company can use to manage it.

1.1 The concept of foreign exchange risk and the management process

1.1.1 Definition

First, let's ask ourselves an important question: when we talk about risks, what are we referring to?

The definition differs from one field to another. A risk is an event whose occurrence is uncertain and whose realization affects the objectives of the company that is subject to it. Some risks may have positive effects that are not what the company is looking for.

Other risks certainly have negative effects. These are the ones the company fears. Risk for the Board of Europe is the probability that a specific effect will occur in each period or in given circumstances. (B. BARTHELEMY and J. QUIBEL, 2008).

Risk is the occurrence of an unforeseeable (or at least uncertain) event that is likely to affect the members, assets and activities of a company and change its assets and results. (E. Cohen, 2012).

In financial terms, risk is linked to the likelihood of making a loss, so any company will have to take steps to manage this risk. In this case, the company must face financial risk, which is the possibility that a business will not generate enough income to pay creditors and meet other financial obligations. Financial risk has three main components, namely the cost and availability of the company's own funds to meet its debts, the planning and programming of future liquidity requirements to meet such debts, and the ability to manage the company's own funds and liquidity.

The general idea behind financial risk is that there are several classifications. It should be borne in mind that a company's various investments are interrelated, and that a risk affecting one investment may affect the others. We could say that risks interact and relate to each other. For this reason, the classification becomes complex and diversified between different authors. Despite the different

classifications that can be found, it seems appropriate to us to take into consideration the definition cited above without including the risks caused by the company's activity or external factors. In other words, it is sufficient to consider the various situations that can be given in the financial side of the company. The most important financial risks for a company can be classified as follows:

<u>Counterparty risk:</u> This is the risk that the company incurs if the parties with whom it signs contracts fail to honour their commitments in such a way as to cause the company to suffer significant losses. We are talking here about commitments such as late payment, or even non-payment of sums due to the company. The losses that the company may suffer include losses on the face value, losses on interest and commissions, reduced cash flow, etc.

Liquidity risk: liquidity is one of the most important factors a company must have. Liquidity is the actual amount of money a company has in its cash register or account Banking.

With this currency, companies meet their short-term obligations (debts) to suppliers and other creditors. There is a liquidity risk, even if the company has assets. It lacks the cash to meet its short-term obligations, as it cannot sell its assets in the short term at the necessary price. There are two types of liquidity risk: asset liquidity risk (the difficulty of selling assets on the market or selling them at an inappropriate price) and financing liquidity risk (the case where the company's debts cannot be settled on time or even completely).

<u>Market risk</u>: the movement of capital in the markets, i.e. fluctuations in the prices of shares, commodities, exchange rates, interest rates, etc., entail the risk of the company incurring losses due to the uncertainty generated by these changes. Market risk is the risk of loss arising from changes in the market value of a portfolio of financial instruments. There are several types of market risk in this category:

Interest rate risk: is any risk associated with changes in interest rates. The intensity of this risk depends on the type of investment the company has made. In some cases, it is worthwhile increasing the risk, while in others it is worthwhile decreasing it.

<u>Commodity risk:</u> the risk that the price of a commodity or raw material will fluctuate in a way that is unfavourable to the company's interests.

<u>Securities risk:</u> strictly speaking, this risk arises from changes in the value of financial instruments such as shares, treasury bills and derivatives held by the company.

Foreign exchange risk: companies do not only operate in local currency, as they may also carry out transactions on the international market where currencies are different and have different values. For this reason, companies are subject to exchange rate risk when exchange rates fluctuate to their detriment.

Given that the aim of our research is exchange rate risk, we are going to define it further, and understand it in greater depth, as well as the types of exchange rate risk that a company may be exposed to.

Given that the aim of our research is exchange rate risk, we are going to define it even more, and find out more about it, as well as the types of exchange rate risk that a company may be exposed to.

1.1.2 The exchange rate risk

Generally, exchange rate risk is "the risk of experiencing an unexpected loss or gain when converting a currency into a reference currency. (Ph. Paquet, 2012). It is also "the risk of variability in the value of the company, caused by the volatility of exchange rates." It is the risk that the fair value or future cash flows of a financial instrument fluctuate due to changes in foreign currency (currency) exchange rates.

The company is exposed to exchange rate risk only if it is in an open position, meaning it has a net position different between assets and liabilities. Two situations are possible:

- The company is in a long position (long) on a currency when it expects to receive more of it than it owes; Receivables > liabilities.
- The company is in a short position (short) on a currency when it expects to pay out more of it than it expects to receive. Liabilities > receivables.

Table 1: Foreign exchange position

Source: Foreign exchange position. DSCG 2: Finance, Manual and applications (Redone by us)

Closed po	osition	Long open position		Short open position	
Balance	sheet	Balance sheet		Balance sheet	
receivables	liabilities	receivables liabilities		receivables	liabilities
\$100.00	\$100.00	\$250.00	\$100.00	\$300.00	\$500.00
The compa exposed to ex risk; the a receivable is e amount of de the assumpt same mat	ny is not change rate mount equal to the ebt (under tion of the turity).	The company to exchange ra in a net long 150 DH (un assumption o matur	is exposed ate risk. It is position of ader the of the same ity).	The comp exposed to rate risk. It short positi DH (und assumption same mat	pany is exchange is in a net on of 200 er the on of the turity).

1.1.3 Types of exchange rate risk

There are three main sources of exchange rate risk:

- Transactional risk.
- Economic risk.
- Accounting or consolidation risk.

A. Transactional risk

Impact of settlement of current liabilities arising before the exchange rate change but paid after the change. (P. Barneto and G. Gregorio, 2009) This refers to the potential negative effects of the exchange rate change during a period between the signing of a commercial contract between two parties operating in different currencies (purchase-sale) and the subsequent settlement.

Figure 1:Period of exposure to transactional risk. Source: (own editing)



When two companies operating in different currencies enter a transaction under the terms of a contract, the interval between the signing of the contract and settlement represents a period of risk, which is given by the volatility of the exchange rate, given that exchange rates can fluctuate considerably in a short space of time, and affects one of the parties. The potential adverse effects of the transaction can wreak havoc; a sudden change in the exchange rate may result in a company having to pay more to meet its debt to its supplier, or profits may fall. Transactional exchange rate risk is also known as contractual risk or short-term economic risk. Exposure to transactional exchange rate risk may be recorded either on the balance sheet (receivables, payables, financial investments in foreign currencies, loans contracted in foreign currencies) or off-balance sheet (purchase or sale contracts in foreign currencies, price quotations in foreign currencies). In the first situation, the exchange rate risk is certain, while in the second it is uncertain. (Shapiro, 2019).

Table 2:Transactional exposure

Source: own editing

Transactional exposure							
Situation	Moroccan importer	Moroccan exporter	Results				
Increase in exchange rates MAD to EURO MAD to EURO An increase in the exchange rate may result in a higher cash outflow than forecast in the accounts (exchange rate on the invoice date).		An increase in the exchange rate may result in a higher cash inflow than forecast in the accounts (exchange rate on the invoice date).	For the importer, the situation is a foreign exchange loss For the exporter, a foreign exchange gain				
Decrease in exchange rates MAD to EURO	A decrease in the exchange rate may result in a lower cash outflow than forecast in the accounts (exchange rate on the invoice date).	A decrease in the exchange rate may result in less cash being received than forecast in the accounts (exchange rate on the invoice date).	For the importer, the situation represents a foreign exchange gain. For the exporter, it represents a foreign exchange loss.				

B. Economic risk

Economic exchange rate risk arises when future cash flows change because of an unforeseen change in the exchange rate. In this situation, the company's economic activity is influenced by currency fluctuations (exchange rate variations) that alter its structural context and its competitiveness. (M. BEINE, 2012). The value of financial flows and the company's economic benefits are influenced by exchange rate fluctuations. Given that the value of the company is the present value of the net cash flows it expects to receive in the future. Another definition of economic risk is the sensitivity of net cash flows to unexpected changes in exchange rates.

Even if a company has no international economic or financial exchanges, it may be disadvantaged or favoured by a fluctuation in exchange rates through the effect of the latter on the price of its products or services on the domestic market compared with those of its foreign competitors, which will also have a direct effect on its competitiveness in the market. Top management must take effective decisions on production and marketing processes.

C. Accounting or consolidation risk

It concerns the risk of translating financial statements drawn up in foreign currencies when a group's accounts are consolidated. It is also defined as the change in equity in the consolidated financial statements resulting from a change in an exchange rate. (P. Barneto and G. Gregorio, 2009).

Multinational companies have the choice of operating with a single currency in their subsidiaries. The problem of exchange rate risk does not exist, but exposure does exist when the parent company's currency is different from that of the subsidiaries. Translating the financial statements to consolidate the accounts with those of the parent company can lead to a devaluation of the financial statements, and therefore of the parent company. To remedy the effects of this risk, management must optimise its consolidation method to avoid this devaluation.

By placing the three risks on a time axis (the most decisive factor), we obtain:

Table 3:Comparison of currency risks over time Source: Source: ERNST & YOUNG, January 27, 2012 (recreated by us)

Consolidation risk	Transactional risk		Economic risk
Accounting exposure	Balance sheet exhibition	Estimated exposure	Economic Exposure
Translation of foreign subsidiary balance sheet positions and subsidiary profits into local currency. -Use of the subsidiary's local currency rather than the Group's functional currency -Measures the impact of changes in accounting exchange rates on the company's financial results	Transactions recorded in the balance sheet in a currency other than the functional currency -Receivables, customer invoices -Debts, supplier invoices -Financial investment or loan in foreign currency -Loan contracted in foreign currency	Future and off- balance sheet transactions denominated in foreign currencies -Currency purchase contract -Sales contract in foreign currency -Price quotation in foreign currency	Economic activity of the company impacted by currency fluctuations modifying the structural context and competitiveness -Value of the company's financial flows and profits impacted by fluctuations -Depends on the specific characteristics of the company and the industrial sector
<u>Risk:</u> fall in the valuation of consolidated financial statements in the functional currency	<u>Risk:</u> future variation in the countervalue of the transaction (certain)	Risk: future variation in the countervalue of the transaction (uncertain)	Risk: transactions affected by currency fluctuations
Accounting risks to be managed strategically	Confirmed risks to be mitigated financially	Potential risks to be mitigated financially	Management decisions on production and marketing processes
PAST	PRESENT	FUT	TURE

By categorising the three types of foreign exchange risk, we obtain:

Table 4: Currency risk categories

Source: Source: La Vie économique, Review of Economic Policy 10-2014 (recreated by us)

	Foreign exchange risk				
Category	C	Indirect			
	Transaction risk	Accounting risk	Economic risk		
Size	Foreign currency contracts, short- term exports and imports	Assets, balance sheet positions in foreign currencies	Growth strategy, future revenue capacity and enterprise value		
Туре	Ex ante, operational	Ex post, accountant	Ex ante, strategic		
Currency risk	Estimate, short to medium term	Precisely measurable, annual	Not precisely measurable, forecast, long-term		
Effect	On profit and cash flow	Accounting, with no effect on cash	Competitiveness, impact on earnings and cash flow		

Having defined the concepts of exchange rate risk and the types of exchange rate risk, we will proceed to outline the possible solutions to avoid companies being adversely affected by exchange rate fluctuations, as well as the procedure to be followed to manage this situation. To this end, in the following section we will explain what exchange rate risk management is and the steps to follow.

1.2 Exchange rate risk management

Financial planning makes it possible to foresee scenarios in which different realities are considered, and an appropriate approach that enables the greatest possible profit to be achieved. To this end, companies are increasingly being required to implement exchange rate risk management strategies, which enable them to minimise the effects of exchange rate fluctuations on profit margins, and increase the predictability of future cash flows, eliminate the need to predict precisely which way exchange rates will move, make it easier to set prices for products sold on

export markets, temporarily protect the company's competitiveness in a context of appreciation of the local currency (which gives the company time to increase its productivity).

1.2.1 Exchange rate risk management process

Managing foreign exchange risk is a highly complex task. The important thing is to optimise the combination of processing costs and the cost of the risk. The choice of a risk management programme is therefore based on two criteria: (B. Barthelemy and P. Courreges, 2008).

- <u>A technical criterion</u>: what are the most effective techniques for managing the risk, given the nature of the risk and its presumed severity?
- <u>A financial criterion:</u> are the instruments selected reasonably priced in relation to the criticality of the risk?

If we relate this programme to the management of foreign exchange risk, we find that foreign exchange risk is managed in four stages, like all risk management: (B. Barthelemy and P. Courreges, 2008).

- <u>Identification</u>: this involves defining the type of risk to which the company is exposed (economic or accounting risk).
- **Evaluation:** determines the level of exposure to foreign exchange risk, i.e. a foreign exchange loss or gain.
- <u>Mitigation</u>: This is the technical criterion mentioned above. The company must find techniques to mitigate the foreign exchange risk to which it is exposed.
- <u>Hedging:</u> This is the last resort for the company, which must find a solution through financial institutions (banks, insurance companies) to neutralise the exchange rate risk.

As with any process, the result should be monitored and adjusted if it does not meet expectations. Some authors add a fifth step in managing foreign exchange risk, namely control, which consists of monitoring exposure, reassessing exposure, and implementing corrective actions.

Each step is developed further.

1.2.2 Identifying currency risk

As in any process, the first and most essential step is to identify the foreign exchange risk to which the company is exposed in each situation. As mentioned in the previous sub-section, there are three types of foreign exchange risk to which a company may be exposed. Identifying the foreign exchange risk to which the company is exposed is based on the criteria for defining the typology of foreign exchange risks. The company must initiate a procedure to correctly define the risk it faces:

• Economic risk:

Exposure to economic risk, as we have defined it, is the influence of exchange rate fluctuations on the value of the company's financial flows and economic benefits, and specifically, in the future. This influence can lead to a loss of competitiveness for the company, both in the local market and in an international market. Companies do not have to be importers or exporters to be exposed to this risk. But the fact that it is in a local market that is made up of other companies that export and import to be affected. Assuming that the markets for intermediate production goods are competitive, an appreciation of the domestic currency reduces the price, expressed in domestic currency, of intermediate production goods whose prices are determined by international competition. This leads to a reduction in production costs and an increase in industrial profitability. In the same way, a depreciation of the national currency increases the price, expressed in national currency, of these intermediate production goods, which increases cost prices by the same amount and reduces profitability by the same amount. Finally, changes in the exchange rate affect the value, expressed in domestic currency, of the cash flows generated by the company's activities abroad in two ways:

Changes in the exchange rate can alter the competitive environment for a company's foreign operations. The consequences on prices expressed in foreign currency and the quantities sold, induced by this change, can modify the cash flows in foreign currency generated by the company's activities abroad. The nature of these changes generally depends on the import/export flows generated by these activities.

Exchange rate fluctuations alter the value of a company's foreign currency earnings streams when they are converted into domestic currency for valuation or repatriation purposes. The combination of these two effects makes it more difficult to determine the exposure of foreign operations to foreign exchange risk than that of domestic operations. In most cases, a depreciation of the domestic currency will increase the value of companies with foreign operations that sell a large proportion of their products abroad. However, if most of the products manufactured abroad are sold on other foreign markets or on the parent company's market (the domestic currency market), the effect on the value of the company may be the opposite.

• Accounting risk:

Accounting exposure is the measure of the potential change in a company's assets and liabilities because of exchange rate fluctuations. Accounting exposure can be identified when a company develops an activity in another country through the establishment of subsidiaries. The financial statements of these subsidiaries are normally presented in local currency, and when the parent company consolidates the financial statements, changes in exchange rates have an impact on the financial statements. There are a series of rules to be observed when moving the financial statements of subsidiaries. In the case of Morocco, these rules can be found in the General Accounting Standards Code (GASC):

"Foreign subsidiaries are to be consolidated using the historical cost method, according to which:

- Non-monetary balance sheet items are translated at the (historical) exchange rate on the date on which they are included in the subsidiary's assets and liabilities; the same applies, where appropriate, to their depreciation and provisions for impairment.
- Other income and expenses are converted, if possible, at the exchange rate on the date on which they arose and, for simplicity, at the average rate for the financial year.
- Monetary balance sheet items are translated at the exchange rate on the date of consolidation. [General Accounting Standards Code (Chapter IV-II-10-a]

The foreign exchange loss or gain resulting from this exposure may not have any effect on the company's cash flow. What's more, in some cases it may have a more negative effect than expected. For example, a Spanish company has seen its value in euros fall because of an investment in one of its subsidiaries located in a country where its currency has suffered a valuation loss, but at the same time its competitive position has improved, as have its sales and margins.

• Transaction risk:

Transaction risk arises from changes in the value of receivables and payables that are exposed to exchange rate fluctuations and have a maturity date in the future.

This risk arises because expenses or future cash flows are recorded in foreign currencies. If the exchange rate rises, the amount of the expected cash flows, converted into local currency, is affected downwards, as is the opposite case.

Identification consists of adopting an organised procedure to define exactly what the transactional foreign exchange risk is and to quantify it. This is done by analysing balance sheet items denominated in foreign currencies and their maturity dates (balance sheet exposure), as well as seeking information within the company, in the various departments, concerning forecasts of commercial contracts in foreign currencies and quantifying this information and knowing the forecast maturity date (forecast exposure).

The key to effective management of transactional risks and a good hedging strategy lies in good knowledge and analysis of cash flows by currency/historical, current and, above all, future exposure: anticipation enables the appropriate hedge to be put in place. (Tosseri, 2016).

The procedure varies from one entity to another, but the most common one is to establish a matrix report by currency, by maturity date of its net/aggregated cash flows, distinguishing between forecast exposure and balance sheet exposure (uncertain cash flows/certain or confirmed cash flows).

1.2.3 Currency risk assessment:

The second stage of the process involves measuring the risk faced by the company (economic, transactional, consolidation risk). This phase involves quantifying the risk. A fundamental basis is needed to implement effective management. This enables the company to decide on the tools it needs to deal with the risk. To do this, the company must draw up an inventory of all foreign currency transactions. A table should show all assets and liabilities denominated in foreign currencies.

This determines the company's net foreign exchange position. The approach to establishing a foreign exchange position is since the total foreign exchange risk is less than the sum of its components because some of them offset each other. The following table illustrates the basis used by institutions with a net foreign exchange position.

Table 5:Foreign exchange position valuation table Source: own editing based on COFACE

Transaction title	Amount	Rate of exchange	Valuation
ADVANCES			
Receivables from third parties			
(a) Total valued at average WAC			
ENGAGEMENTS			
Accounts payable			
(b) Total valued at average WAC			
(a)-(b) Net position			

In this situation, instead of covering each individual transaction, the company only must cover the balance. In relation to this balance, the company can find itself in two situations:

- Closed position: if liabilities and commitments are equal to assets and receivables.
- **Open position:** if there is a difference between liabilities and assets. (P. Barneto and G. Gregorio, 2009). In this case, the company faces two possible situations:
- Either liability is greater than receivables The position is short, and the risk must be hedged.
- Or payables are less than receivables, the position is long, and we have a foreign exchange gain.

Based on this total foreign exchange result, the company determines the materiality threshold that suits its financial resources. It must decide whether to reduce or hedge the risk, in line with its financial planning.

1.2.4 Reduction of exchange risk:

Once the different types of risk have been identified and measured according to the level of potential risk, the company's loss limits are set. The company must then determine the decisions it needs to take to minimise or neutralise the exchange rate risk. One of the main decisions is to adopt

a foreign exchange risk reduction technique. This tends to be the first idea that managers come up with when faced with a risk. For this reduction they take advantage of prevention and protection techniques, although it should be taken into consideration that not only consists in the reduction, but everything related to it, intensity, frequency, relevance, etc.

The most common techniques are:

- Contractual exchange rate clause.
- Common currency and netting.
- Leads and lags.
- Offsetting flows.
- Inter-company currency swaps.
- Choice of invoicing currencies.
- **Contractual exchange rate clause:**

Also known as a currency indexation clause, this involves including clauses in the commercial contract relating to variations in the exchange rate of the chosen currency to share or transfer the risk.

This clause can take many forms: it can specify a reference conversion rate in the contract, so that in the event of an unfavourable change in exchange rates, the seller can preserve its margin. This clause, which is difficult to negotiate, usually specifies a tunnel formed by two limits around a central rate. The exchange rate can move within the tunnel (minimum and maximum rates) without affecting the price of the goods.

At each expiry date, the contract price is revised if the actual exchange rate falls outside the limits. Sometimes the contract stipulates that if a certain exchange rate is reached, the counterparties agree to use another currency for settlement, and the contracting parties share the exchange rate variation.

Finally, some agreements specify a price denominated in different currencies, one of which will be chosen at maturity by the buyer or seller. [G. Legrand and H. Martini, 2008]. Clauses that may appear in a contract are price adjustment clauses. These make it possible to determine, at the time the contract is signed, the value of a good in its local currency. If the cost of invoicing the currency increases, the export price rises. From this point onwards, a maximum exchange rate is built in, beyond which a price revision is imposed. This is often used for long-term contracts with deliveries over several years.

Another interesting clause is the tunnel indexation clause, which allows buyers and sellers to set a range for the rate of change in the invoicing currency. If the variation exceeds this range, both parties agree to revise the price either upwards or downwards.

Rarer, because they are more complex to put in place, are the shared risk clauses, which are based on the principle of solidarity between buyer and seller, who contractually agree to share the exchange rate risk. There are also multi-currency clauses. These allow the amount of the transaction to be denominated in several currencies, with the parties choosing the most attractive currency at the time of payment.

Another clause is indexation to a basket of currencies. In these clauses, the two parties determine a third currency, which will be the invoicing currency. This third currency may be more stable, and it allows the risk to be spread between the two parties.

Finally, there are currency option clauses, which allow a currency other than the one initially used for invoicing to be set by mutual agreement. "If the initial currency is above or below a certain exchange rate, it can be replaced by this secondary currency. (Mahari, 2016)

* <u>Common currency:</u>

The concept of a common currency is particularly important for managing foreign exchange risk, insofar as it is the reference currency for calculating foreign exchange positions. At first sight, the choice of a reference currency for calculating foreign exchange positions does not pose any major problems. The reference currency is automatically that of the country in which the company or parent company is based, in the case of a multinational group, and this is the currency in which the consolidated balance sheet is drawn up.

However, the intermingling of shareholdings and the complexity of the financial structures of most groups mean that the criteria for choosing the reference currency need to be analysed more closely. First, we need to be clear about the implications of this choice. The purpose of the ongoing monitoring of foreign exchange positions is to preserve, in the most cost-effective manner, the value in the reference currency of the net assets (and, where applicable, the income) of foreign

establishments. Thus specified, it is immediately clear that the concept of the reference currency involves the principle of consolidating the balance sheets of multinational groups.

The criteria for choosing the reference currency immediately give rise to the principle of the uniqueness of the reference currency for the whole of each multinational group considered. It would be inconsistent for two companies in the same group to adopt different reference currencies, or at least such a practice would be likely to make the assessment of the group's foreign exchange position inconsistent. (Smith, J., & Johnson, 2018).

Netting:

The notion of consolidation of the group balance sheet is entirely linked to the very notion of the foreign exchange position of the multinational company. Indeed, unless erroneous double entries are made, all the group's internal debts or receivables in currencies other than the reference currency must be consolidated (in fact cancelled out reciprocally) and excluded from the calculation of the foreign exchange position.

Principle of position uniqueness:

The principle of a single position for the whole Group in each currency is fundamental. Failure to comply with this principle would result in a redundant and unnecessarily costly policy of hedging foreign exchange risk. In this area, the quality of the organisation of relations and the circulation of information within the company is essential. For example, the principles of a single reference currency and exchange rate position, and consolidation of the group's internal debts and receivables, may call for centralised and integrated management of exchange rate risk with a view to optimisation. (P. Garsuault and S. Priami, 2003).

✤ Leads and lags:

Leads and lags is often referred to as "leads and lags". Leading" should be considered in the case of payment in a currency that is appreciating (strong currency) or in the case of receipt of funds in a currency that is depreciating (weak currency). Legging" should be considered when funds are received in a strong currency or when payment is made in a weak currency. (G. Legrand and H. Martini 2008).

The principle of leads and lags consists of accelerating cash receipts (payment of receivables due from customers) denominated in weak currencies and disbursements in hard currencies and delaying disbursements (e.g. payment of suppliers) in weak currencies and receipts in hard currencies. The usual case is to take advantage of a rise or fall in a currency. (P. Fontaine 2009).

This technique involves varying the terms of payments to take advantage of favourable exchange rate movements.

Table 6:Using termaillage

Source: ERNST & YOUNG, 27 January 2012, Own editing

	Importation		Expo	rtation
Price trends or expectations Decisions		Impact	Decisions	Impact
Appreciation of the currency	Leading: Speeding up payment	Counter-value of the purchase in MAD to be paid today less than in the future	Legging: Delaying invoicing and collection	Counter value of the sale in MAD to be collected in the future
Depreciation of the currency	Legging: Delaying payment	Counter value of purchase in MAD to be paid tomorrow less than today	Leading: speeding up invoicing and collection	Counter value of the sale in MAD to be collected higher today

✤ <u>Flow compensation:</u>

It is only possible if the company carries out export and import operations. It receives flows in foreign currencies and makes transfers in the same currencies. As it is impossible for the amounts and due dates to coincide, the company can minimise its hedging requirements by using a foreign currency central account. It only covers the difference between incoming and outgoing payments in foreign currencies. This practice is limited because it is very restrictive. (G. Legrand and H. Martini, 2008).

Figure 2:Payment orders in a non-cleared system. Source:Own Editing



The participants calculate the balance of their reciprocal obligations in pairs, by value date and currency by currency. A single settlement per currency and per pair of counterparties is therefore made at maturity by the bank with a net debit balance in the currency concerned.

Figure 3:Payment orders in a system with netting. Source: Own Editing



Flow compensation" is a method used by companies engaged in both import and export operations, like many Moroccan companies. They receive payments in foreign currencies and make payments in those same currencies. However, the timing and amounts of these payments rarely match. To

minimize hedging needs, these companies can use a foreign currency central account, covering only the difference between incoming and outgoing payments in foreign currencies.

✤ Inter-company currency swaps:

A swap is an exchange between two companies of two loans denominated in different currencies. The operation closes each party's foreign exchange position in the other's currency. This eliminates the exchange rate risk. When the loan matures, one party pays the other the interest differential. This technique is recommended for exchanges between a parent company and its subsidiaries. [G. Legrand and H. Martini, 2008).

***** Choice of billing currencies:

If the company can choose the billing currency for its sales or future cash inflows (industrial contract, etc.), it will choose a strong currency, i.e. one that tends to appreciate against its reference currency.

Conversely, when setting prices for future purchases or cash outflows, it must choose a weak currency, i.e. a currency that should normally depreciate against its reference currency.

In an extreme case, it may try to invoice everything in its reference currency; the exchange rate risk is then passed on to the trading partner.

Generally, customers prefer to pay in their own currency. This is part of the contract negotiation. When drawing up a contract or responding to a call for tenders, it is necessary to define the contract price in a currency. Not only does the choice of currency arise, but also the amount to be paid.

The general rule is to first calculate the value of the contract in the reference currency to make the project profitable, then convert this value into the invoicing currency at the forward exchange rate negotiable for the scheduled payment date. In this case, if the company hedges on the forward exchange market, for example, it can be sure of recovering at maturity the amount in its reference currency that will enable it to obtain the profitability initially calculated for the project.

If several payment dates are scheduled, the forward exchange rates for the various maturities need to be considered. For some long-term maturities and for some currencies, it is difficult to obtain forward exchange rates; in this case, long-term foreign currency borrowing and lending transactions are used. The company may have to forecast future exchange rates. (Smith, J., & Johnson, A. 2018).

If these forecasts deviate from the forward exchange rates, the company may use its forecasts to draw up the contracts, but it bears a foreign exchange risk that may call into question the profitability of the transaction ex post. (P. Fontaine, 2009).

A. Currency hedging

Companies are always looking for ways to make their financial operations more profitable. In the case of foreign exchange risk management, they seek to use techniques that are the least costly, or even free of charge, as we saw earlier in the techniques for reducing foreign exchange risk. Next, we will list the hedging techniques available on the Moroccan financial market and look at the products offered by financial institutions.

- ✓ Forward contracts
- ✓ Currency options
- ✓ Currency swaps

* Forward contracts

Forward hedging is based on an exchange of one currency for another, based on a fixed spot rate with reciprocal delivery on an agreed date.

Forward exchange is a contract offered by a financial institution on the over-the-counter market. The main advantage of this contract is that it allows you to hedge to the nearest dirham and to a deadline fixed to the day. This is a truly tailor-made product offered by banks, as opposed to the possibility of hedging through an organised market. (G. Legrand and H. Martini, 2008).

✤ <u>Currency options</u>

Currency options were developed in the early 1990s. They offer their buyers the possibility of guaranteeing an exchange rate at a given price and date, in return for payment of a premium. The principle is quite simple. An exporter can obtain a guaranteed exchange rate, but also benefit from a favourable market trend. Unlike forward sales, which fix an exchange rate with no possibility of reversing it (the currencies are sold as soon as they are put in place on the spot market). The option

may not be exercised at maturity if the currency is quoted at a higher price on the market than the original spot price.

The bank offers several exercise price quotations. The company's choice must be determined by the level of hedging it wishes to achieve. This leads the company to look at the decision from the angle of assessing the best "level of cover/price" ratio. (P. Garsuault and S. Priami, 2003).

Currency swaps

A currency swap, also known as a foreign exchange swap, enables a company to hedge its foreign exchange risk by swapping two reciprocal loans of the same amount and duration, in different currencies. Unlike a forward exchange transaction, where the financial transactions with the company are postponed until maturity, the swap organises an initial capital transfer.

We therefore have:

Swap seller Buy spot and sell forward.

Swap buyer: spot sale and forward purchase.

There are swap points which are added to (premium) or subtracted from (discount) the exchange rates. These points represent the impact of the borrowing cost of the transaction on the investment income calculated pro rata to the rate over the period in question.

Swaps can be used to hedge large transactions or outstanding transactions, unlike forward exchange contracts, which are more specifically designed to hedge individual transactions.

As we have seen, managing foreign exchange risk remains a highly complex task, but one of great importance to the company. Once it has gone through the various stages of managing foreign exchange risk, the company must ensure that it is working properly and monitor the results. For the measures put in place to be effective, it is not enough for them to be adapted; they must also be monitored periodically throughout the process. As we mentioned earlier, constant risk assessment is very important throughout the process, as it ensures that the information is up to date and avoids errors. (P. Garsuault and S. Priami, 2003).

However, if the foreign exchange risk management process is to be satisfactory and achieve the objectives set, the company must regularly monitor the process, try to avoid errors, and assess whether the criteria followed by the company are correct.

1.3 Defining and measuring financial performance

1.3.1 Definition

In the field of management, there are a multitude of definitions of performance. Before tackling financial performance, we first need to know what we mean by performance.

The definition of performance differs from one discipline to another. Performance is a term used to describe the quality of the result obtained when a company invests in a project, or an investor invests in a financial security. Depending on the product in which the investment has been made, performance will refer to different criteria. In management, performance is defined as the combination of effectiveness and efficiency. (C. Alazard and S. Sépari, 2014).

In a random environment, performance can be assessed as the ability to adapt to situations of growth or recession and, more generally, as the ability to cope with technical and commercial changes. Given the strong inertia of human resources, this element will be significant for many organisations. (B. Martory , 2016).

Whatever approach is used to define performance, it is associated with four fundamental underlying principles: effectiveness, efficiency, relevance, and coherence.

- Effectiveness refers to the company's ability to achieve its objectives. It is defined by comparing results with objectives.
- Efficiency, which relates results to the means used to achieve them.
- **Relevance**, which relates objectives or resources to environmental constraints. Relevance makes it possible to evaluate performance in the strategic field: in other words, competitive advantage based on an assessment of the match between the elements of the offer (which create value) and market expectations.
- **Coherence**, which reflects the harmony of the basic components of the organisation to measure organisational performance by relating objectives to resources.

In research, we find a definition of performance applied to the field of management by presenting the common characteristics of performance:

- Accomplishing, carrying out an activity with a given aim,
- Achieving a result,
- Comparison of a result with an internal or external benchmark,
- Ability to achieve or accomplish a result (achievement potential),
- Applying concepts of continuous progress with a view to competition,
- Judgement of performance by several stakeholders who may not have the same vision or approach. Hence the need for a multi-criteria approach to performance,
- Measured by a communicable figure or expression. (M. Lebas, 2014).

In a company, there are four types of performance:

- Organisational performance: for a long time, organisational performance was equated with cost minimisation, and many still consider this to be the main objective of management control. Managers understood that an organisation was successful if it achieved the goals, it had set itself (effectiveness) and used relatively few resources to do so (efficiency). (C. Lusthaus, 2015)
- Economic performance: can be interpreted as an assessment of the company's past performance (achieved over the last year), whereas the market-to-book ratio which provides information on how investors assess and value the company and its strategy can be interpreted as an expectation of future performance, i.e. investors' perception of the anticipated creation of shareholder value. (F. Brulhart)
- Social performance: Social performance can be defined as a company's results in areas not directly related to economic activity. The term refers to the implementation of corporate social responsibility (CSR): social performance aims to establish the relationship between the results obtained and the means used to achieve them.
- Financial performance: Is a subjective measure of how well a company can use its core operating assets and generate revenue.

Since our main interest is in studying financial performance, we will analyse it in more detail below.

1.3.2 Financial performance

From its inception and throughout its existence, a business needs to finance itself to ensure its continued existence. To do this, it calls on internal resources (equity) or external resources (loans, shareholders). To convince its financial partners, a company needs to demonstrate its ability to make a profit. Its financial performance is therefore crucial in determining whether this objective has been achieved.

Starting with the elements that make up the golden triangle of performance and attributing it to financial performance, we will identify the objective, means and results that make up financial performance.

Objective: capital providers make capital available to make a profit, so the main objective of financial performance is to make a profit. Relevance tells us whether the capital employed will help the company to achieve its objective.

The result is that when capital providers invest, they always expect a profit, but the specificity is the level of profit they expect. When companies seek capital, they do so to make a profit, not just any profit. Both seek profitability. For the former is financial profitability, for the company is economic profitability. The profitability that interests financial performance is financial profitability. Efficiency reflects whether the objective, which is profit, is achieved with the expected profitability. (Bodie, Z., Kane, A., & Marcus, 2019)

Resources: To achieve its financial objectives, the company needs the financial resources that it finds with the holders of capital to ensure its proper functioning. In this case, efficiency is the relationship between how much capital is used for the company to be profitable.

We will now look at the various components in detail.

* Components of financial performance:

As mentioned in the previous paragraph, financial performance is made up of profitability, financial profitability and capital invested.

a) Profitability

Profitability is the ratio of profit to output. The profitability ratio therefore relates net profit to sales excluding tax.

As can be seen from this ratio, profitability is always the ratio of a volume of profit to a volume of activity. In financial parlance, we say that a flow of income is formed over a period in relation to a flow of activity over the same period. Two items of information from the profit and loss account for a financial year are related to each other.

There are other profitability indicators that better define the profitability of the operating cycle without considering the company's financing structure. It does not consider the company's financing structure, the exceptional circumstances it encounters or the impact of taxation, which can vary from year to year.

Gross operating margin is a commonly used indicator. It is calculated by dividing gross operating profit for a given year by sales or production for the same year.

b) Financial profitability

Financial return to shareholders is equal to the ratio of net profit to shareholders' equity. It is also called return on equity. It is also equal to the sum of economic profitability and the leverage effect of the debt financing structure. (F. Nicolas, 2016).

Financial leverage explains the variation in the rate of return on equity as a function of the economic rate of return and the cost of debt.

What needs to be understood at this stage of the analysis is that, while recourse to debt may lead to a return on equity for the shareholder that is significantly higher than the economic return generated by the company, it also entails a greater financial risk. This has the opposite effect of increasing the level of profitability demanded by the shareholders. (F. Nicolas, 2016).

c) Capital

The capital used by a company can be divided into two masses: shareholders' equity, which represents the capital left to the company by its owners, reserves from previous years and net profit. Financial debts include loans taken out with credit institutions and other financial debts such as temporary current account contributions paid by partners. (F. Nicolas, 2016).

Once the concepts have been defined and identified, the next step is to explain how financial performance is measured, using the most important indicators, and then to identify the tool that enables the company to manage this performance.

1.3.3 Financial performance indicators

a) <u>Net profit:</u>

Net profit is the amount of money a company has earned. It is made up of the operating result, the financial result, and the non-current result, from which tax must be deducted. It is calculated each financial year in the Income and Expenditure account and is also shown on the Balance Sheet. Each year the company must decide how to allocate it. Group net profit is also used to refer to the total net profit of a group of companies after distribution of dividends to the minority shareholders of the companies in the group. More than a genuine indicator of financial performance, net profit is the basis for calculating a few ratios, including earnings per share.

Net income is the difference between a company's revenues and expenses.

- The Income Statement clearly shows three levels of income and expenses, which are economically homogeneous, plus a global level (income tax).
- The Operating level, which corresponds to the income and expenses of the company's normal business cycle.
- The Financial level, which is clearly identified (interest, financial income, exchange rate differences, etc.) and whose components are structural and cyclical in some cases, and fortuitous in others.

These first two levels make it possible to obtain the company's "profit on ordinary activities" (a simplification of the term "profit on ordinary activities"), which is extremely useful for analysis, because this result, proposed in the most recent international standards, is largely cyclical and lends itself easily to forecasting.

• the "non-current" level, which records income and expenses that do not relate to current operations.

It is by adding these three results together that we obtain the company's profit or loss. To obtain the net profit, we subtract the amount of tax.

This is known as:

- Deficit or loss in the case of negative net income.
- Profit in the case of positive net income.

Profit is one of the essential components in measuring a company's performance. A company makes a profit when the value of what it has produced is greater than the cost of what it consumed to produce it, and vice versa when it makes a loss.

b) Return on investment.

Return on investment (ROI) is a financial indicator. It is used to measure and compare the return on an investment. Generally, ROI is based on calculating the ratio of investment benefits to investment costs.

Return on investment is an essential indicator for choosing between several projects and determining which will bring in the most money in relation to the initial sums invested.

Return on investment can be calculated for two types of decision:

- For investors, when choosing between different financial products or investments. The investor will consider the return on investment, as well as other indicators such as risk.
- Within a company, when choosing between different projects. Based on the return on investment, the company will be able to determine which products or projects are the most profitable, a priori or a posteriori.

The general formula for calculating return on investment is as follows:

In the case of long-term investments, it may be useful to use a discount coefficient (1DH in 20121 will not have the same value as in 2016). In finance, there is a more precise (and complex) method called Net Present Value.

Net present value represents the value of the cash flows linked to the investment, discounted at the rate of return required by the market, considering the risk of the investment. It therefore represents the amount of value creation anticipated from the investment. From a purely financial point of view, an investment can be undertaken if its NPV is positive since it will normally create value. Finally, the NPV will be used (in preference to the IRR) when choosing between two mutually exclusive investments.

c) <u>Return on equity (ROE)</u>

Return on equity (ROE) is the return to shareholders that compares net profit with the equity they have made available to the company:

To avoid the interference of exceptional items and atypical taxation, "recurring" return on equity will be calculated based on current profit after corporation tax. In addition to the above definition, return on equity is equal to the sum of economic profitability and leverage.

Leverage is the difference between financial return on equity and economic return on equity.

Return on equity = Economic profitability + leverage effect

Leverage = Return on equity - Economic return (ROE)

When it is positive (ROCE > i^*), the use of debt has increased the return on equity to the shareholder. (*i: Debt ratio)

Conversely, when economic profitability is lower than the cost of debt (ROCE < i), the leverage effect is negative and becomes a "sledgehammer effect", causing return on equity to fall.

But when economic profitability falls below the cost of debt, the leverage effect reverses, becomes negative and is transformed into a sledgehammer effect. It lowers the return on equity against a backdrop of increased "bankruptcy" risk due to the use of more debt.

In fact, what needs to be understood at this stage of the analysis is that while recourse to debt may lead to a return on equity for the shareholder that is significantly higher than the economic profitability generated by the company, it also imposes a greater financial risk, which has the opposite effect to that sought, increasing the level of profitability demanded by the shareholder. (F. Nicolas 2016).

d) Working capital

A company's working capital requirement (WC) is the sum of its operating WC and, to a lesser extent, its non-operating WC. If the components of WC are liquid and rapidly renewed, their level is relatively stable at constant activity and with identical component turnover times: hence the notion of permanent working capital requirement. However, controlling working capital is "imperative" for companies during periods of strong growth, because the level of working capital

changes with activity. This raises the fundamental question of financing it with long-term resources since recourse to short-term credit risks making the company too vulnerable to all future industrial and financial decisions.

The WC calculated in the balance sheet at the balance sheet date may not represent the company's permanent WC (normative WC) because business may be seasonal.

WC corresponds to the money "frozen" by the company to finance its operating cycle. It is equal to the difference between current assets and current liabilities, without considering cash flow (which is simply the result of the movement of these flows).

WC is insufficient for a relevant analysis. It needs to be combined with other elements in the form of ratios (ratio of changes in WC in days of turnover excluding VAT, ratio of rotation of stocks of materials or goods, ratio of rotation of stocks of finished products, ratio of rotation of customer credit, ratio of rotation of supplier credit).

For example, an increase in the materials or goods inventory turnover ratio has the effect of increasing WC. In fact, an increase in the number of days for identical purchases excluding VAT means an increase in inventories. Inventories constitute a use, seen as a form of immobilisation of money. All other things being equal, an increase in inventories therefore results in an increase in WC, and thus contributes to a deterioration in financial performance.

Any company operating in an international market must always inform itself, in addition to its notions of international trade, about how it is going to manage the financial risk that is the result of this international integration, and especially the exchange rate risk, which is going to influence in one way or another its situation, its future and present cash flows, in order to provide itself with the necessary tools to manage such a risk, using either internal tools (netting, choice of invoicing currency, etc.) or external tools available on the financial market. It can also take an intermediary route, using both internal and external techniques, thus making multiple use of each technique. All this will enable the company to manage its organisational situation well, and above all its financial situation, which remains the most important factor in ensuring the company's most important objective, which is its long-term survival.

This is a situation that can be analysed using key indicators such as earnings and financial profitability, indicators that give an initial impression of the company's financial health for both

management and those holding capital in the company. Once we have the answer to our first question concerning the management of exchange rate risk and financial performance, in the next chapter we will evaluate the relationship between these two concepts.

2 Work methodology.

In this chapter, as in any empirical study, we will present the methodology we used to carry out our study of company X, the reasons why we chose it, explaining the arguments that encouraged us to study the case of this company, presenting it using a descriptive sheet to locate it, and then we will explain the tools we used to carry out this study. In general, we will try to answer our question: what methodology did we choose to carry out our empirical study?

2.1 Work methodology.

After the literature review, which enabled us to grasp the theoretical aspects of the impact of exchange rate risk management on company performance, it is time to carry out our study.

2.1.1 Arguments

In my contacts with the professional world, and more specifically with the files of companies operating in the goods import sector, I have noted a negligence (which we cannot judge if it is due to ignorance of the importance or even the existence) on the part of managers with regard to the exchange rate risk, since they import goods from abroad on several occasions and without taking any interest in making these operations effective by managing the exchange rate risk.

Companies repeatedly import goods over the course of an accounting year, and each time they do so they face exchange rate risk, and more specifically the risk associated with the transaction, i.e. the transfer of funds to the foreign supplier, especially if the company is importing from European countries, Turkey, or China. The value of these countries' currencies has an advantage over our own. It is constantly rising, which always exposes Moroccan companies in general to exchange rate risk, something that leads companies to face a possible exchange rate loss that will have to be managed.

The company with which I was able to carry out the study has suffered very significant exchange rate losses in recent years (as we shall see in detail in the next chapter), and its net profit for the year was affected by this loss. In some years, the exchange rate loss has even had a negative impact on what was expected to be a positive result (operating result), which has now turned negative. A transformation that affects its financial performance, its profit, and its financial profitability. This is one of the main reasons why we decided to carry out this study, so that we could offer this company a possible solution to remedy the situation.

One of the other reasons why we decided to carry out the study of this company was that, during the year-end work, the company did not revalue its debts to its suppliers to recognise the translation differences. This is not a problem specific to this company, but rather several companies do not record revaluation entries for receivables and payables denominated in foreign currencies by recognising translation differences and leave the value at the historical exchange rate. All these reasons prompted us to carry out this study to find a more effective solution for the company that would help it to know its financial position much better, as close as possible to reality, and to reduce the impact of exchange rate losses on its transactions and net profit.

2.1.2 Work tools.

In my analysis, I will first use financial performance indicators placed in a financial dashboard to be able to visualise and evaluate the company's financial health. Secondly, I will use an internal exchange rate risk management criterion to try to reduce the exchange rate loss, then make the necessary inventory entries to record the translation differences, and finally, I will use the dashboard with the financial performance indicators a second time to assess the impact of this exchange rate risk management on the company's financial health.

To achieve our objective, I will look at Franck Nicolas's book, "Finance for non-financials", which contains formulas and ratios that will help us measure the company's financial performance. For foreign exchange risk management, I will use Patrice Fontaine's book, "Foreign exchange markets".

Indicators used to study the balance sheet and income statement:

- Net profit for the year: Profit is one of the key components in measuring a company's performance. The company makes a profit when the value of what it has produced is greater than the cost of what it has consumed to produce it, and vice versa when there are losses.
- Financial result: expresses the results achieved by a company as a function of its financial situation and the financing choices it has made. It is generally referred to as financial expenses net of financial income. This indicator is used because it includes exchange losses.
- **Return on equity (ROE):** This corresponds to the return to shareholders, which compares net income with the equity they have made available to the company.

• **Cash flow:** This measures the company's ability to meet its commitments and to develop to finance growth. The additive method will be used.

2.1.3 Foreign exchange risk reduction techniques:

Given the resources made available to us, we will only be able to carry out a reduction study, given that the cost is zero, and the cover covers the payment of sums to the bank, which the company does not intend to do without seeing the results of our study. The techniques are:

Choice of invoicing currency: We would estimate the variations in the exchange rate loss if the company had paid these commitments in a currency other than the currency already used.

Leads and lags: Assumptions will be made in cases where the company would have paid these debts on a different date to the one on which it has already made the payments.

3 Impact of foreign exchange risk management on financial performance of a company

At this stage, I have been able to use an empirical study to demonstrate and answer our question: how can foreign exchange risk management be introduced in an importing company to improve its financial performance?

In this chapter I will present the financial situation, by presenting the financial statements that interested us in the study, namely the Balance Sheet, the Income and Expenditure Account and the Management Balance Sheet for the last five financial years. I will then calculate the various financial indicators mentioned in the previous chapter, to assess the company's financial performance. I will then apply the technique of choosing the invoicing currency and leads and lags to assess whether the company would have chosen to pay in a currency other than the usual one or on a date other than the one already used, and to see the effect this would have had on its financial performance. I will end with the recommendations that we consider to be of interest to the company.

3.1 Presentation of the company's financial position and analysis of its financial performance X

3.1.1 Presentation of the financial statements

This analysis focuses on a well-established Moroccan company specializing in importing, exporting, and reselling car spare parts. Since its inception, the company has strategically expanded its supplier base beyond its initial focus on Spain and China. This diversification allows them to cater to a wider range of car types by offering a more comprehensive selection of spare parts.

Financial Statements

I will delve into the company's financial health by examining the following statements for the past five years:

Balance Sheet: This provides a snapshot of the company's financial position at a specific point in time. I'll analyse assets (resources owned), liabilities (debts owed), and shareholders' equity (investment in the company).

39

Income and Expenditure Account (Profit and Loss Statement): This reveals the company's profitability over a specific period. I'll assess revenues (income generated from sales), expenses (costs incurred), and net profit (income after expenses).

Management Balance Sheet: This is an internal document used by management for strategic decision-making. It may include additional information not found in the standard balance sheet.

a) <u>Balance Sheet.</u>

I will divide the balance sheet into two parts, uses, and resources. At the same time, I will subdivide them into two parts. I'll look at each part, and end with a general overview of the last five years, showing changes in the assets of the Company.

If we look at fixed assets, we can see how they have started to deteriorate over the last five years because of depreciation, even though the company has not made any investments. (See Annex 1 and 2)

As can be seen, the value of goods in stock exceeds the MAD 1,000,000 barrier each year. It still has an advance with its suppliers, as well as a receivable from customers that has not yet been recovered. What attracts our attention is the fact that there has been no recognition of foreign exchange gains and losses over the last five years, something we will understand in more detail as we progress through our study.

We can also see that the company has cash available each year, even if in the last financial year there was an interesting amount in the cash position that could have been used elsewhere. All we can see from the company's assets is that most of its assets are concentrated in current assets, i.e. stocks of goods (2014-62%, 2015-60%, 2016-46%, 2017-54%, 2018-48%). It should also be noted that the amounts owed to the company by the State in terms of VAT credit are very significant.

b) Income statement

What follows is a presentation of the profit and loss account for the last five years, and a cascading analysis from operating income to net profit. We will divide the income statement into two parts, current and non-current. (See Annex 3)

A reading of the Income and Expenditure Account shows that the company's turnover has fallen progressively over the five financial years, by more than 2 million dirhams (64%). If we continue

reading, we can say that this is due to the fall in imports, but if we go back to the balance sheet (stock), we can change our mind and say that it is due to external factors. Operating allowances have fallen, because of what we have seen in the balance sheet over the last five years.

The operating result varies from one year to the next, but it should be noted that despite the fall in sales and purchases, the company exits each financial year with a positive operating result more than the 50 KDH barrier.

The main change comes from the financial result, where we can see the influence of the exchange rate result (profit obtained in 2015 and loss for the other years) on the current result, to the extent that in 2017 the current result went from positive to negative, due to the very significant exchange rate loss (77,830 dh).

It is important to note that non-recurring expenses in some years exceed Dh10,000, due to the various surcharges and penalties that the company pays. This has a negative impact on profit before tax.

c) Statement of cash flows

I will now present the statement that enables us to see the formation of the result, as well as the self-financing capacity, which will be analysed in the following sub-section to measure the company's financial performance. (See Annex 4)

From what we have seen in the income and expenditure account, operating profit has fallen from one financial year to the next, and as a result we can see that the gross margin on unprocessed sales has fallen by around KDH 270 (62%), almost in proportion to the fall in sales (64%).

Consumption has remained stable at between 39 KDH and 60 KDH over the last five financial years.

Everything we said about the deterioration in the commercial situation can be seen in the gross operating surplus, which has fallen sharply by over 92%, a very important indicator that the company must consider in its commercial policy and management of operating costs.

Once the summary statements that are of interest to us in analysing the financial performance of company X have been presented, we will proceed with the analyses and try to understand the variations in earnings over the last five financial years.

To finish with the result for the year, we can see the influence of the financial result, the company incurs significant losses because of the exchange loss, in 2017 and 2018 the company suffered a loss in the year of almost 35 KDH and 100 KDH respectively.

	2014	2015	2016	2017	2018
Net profit for the year	70,304.46	-9,489.28	12,797.55	-34,321.25	-99,591.29
Operating profit	196,227.10	-4,840.43	50,781.40	62,394.29	-13,796.89
Financial result	-79,370.69	11,331.80	-23,656.28	-81,354.59	-62,529.20
Exchange losses	47,730.55	19,403.79	41,479.75	77,830.08	61,929.96
Foreign exchange gain	4,975.91	51,652.69	27,784.87	0.00	0.00
Foreign exchange result	-42,754.64	32,248.90	-13,694.88	-77,830.08	-61,929.96
Equity	213,979.32	204,490.04	217,287.59	182,966.34	83,375.05
Return on equity (ROE)	32.85%	-4.64%	5.88%	-18.75%	-119.40%
Self-financing capacity	186,326.10	106,532.36	128,319.19	23,396.05	-61,273.99

A reading of the management chart shows how the foreign exchange loss has a significant impact on the company's financial result, making it negative in four out of five of the years covered, and this has had a negative effect on the net result for the year.

We can see how the operating result for the 2017 financial year, which was DH 62,394.29, became a current result of DH -18,960.30, and all this is largely due to the foreign exchange loss for that year, which was DH 77,830.08, which reminds us of the importance of managing foreign exchange risks for import and export companies. Effective foreign exchange risk management could have avoided, or at least mitigated, this negative impact on profit for the year.

If we differentiate between foreign exchange gains and losses, we can see how the company makes net foreign exchange losses every year (except 2015). Given that the company has suppliers that operate in dollars and euros, and that the Moroccan regime depends on their values given the

exchange rate regime in place in Morocco, it is always faced with exchange rate risk, so if its net exchange rate result is not affected by the change in the euro, it will be affected by the change in the dollar, especially as the latter has risen in recent years.

In terms of financial profitability, we can see how very interesting it was in 2018 thanks to the good net result for the year, this is due to the very high turnover for that year (DH 3,515,551.71), which was able to absorb all the expenses, as well as the significant exchange loss (DH 47,730.55) and generate a net result of DH70,304.46.

Since 2015, the company's financial profitability has fallen sharply due to the serious impact of the foreign exchange loss on the financial result and consequently on the net result for the year.

The company's self-financing capacity has also deteriorated over the last five financial years, because of the company's failure to invest in its fixed assets and to depreciate existing fixed assets, and due to the net result for the financial year in the last two financial years.

3.2 Impact of currency risk management on the company's financial performance X

After measuring the company's financial performance in the previous section, we saw how the situation is deteriorating and how the result is distorted, due to the failure to manage exchange rate risk and to recognise translation differences. We will begin by applying two exchange rate risk management techniques, then present the results obtained. Finally, the results will be analysed, and recommendations will be proposed.

3.2.1 Foreign exchange risk management

As we saw in the first chapter of this research, the procedure for managing exchange rate risks consists of identifying the type of risk (transactional, economic, accounting), assessing the exposure, then trying to reduce the exposure according to the materiality threshold, and if the company has the financial means, it can hedge on the financial market.

As far as our company is concerned, if we try to identify the risk that the company faces, we find that it has been exposed to economic risk since its creation, given that it operates with Chinese and Spanish suppliers, and among these suppliers, there is a very important Chinese supplier, NINGBO Z&H FOREIGN, with whom the amount of supplies over the last five financial years has exceeded 5.5 million dirhams. This is a very important supplier for which the company could have planned

a foreign exchange risk management policy, especially as the company recorded a total debt in its balance sheet for the 2018 financial year of more than 2.7 million dirhams, including more than 390 thousand dirhams for the 2018 financial year.

Given certain confidentiality restrictions, we could not have access to all the import files that it has carried out, nor can we reveal the accounting entries, we were able to have access to a single import file, on which we will be able to carry out our study and then assess its significance.

To assess the risk faced by the company, we'll look at the case from the moment it is booked to the moment it is settled, and then look at the foreign exchange position.

The company imported car parts from China in October 2015 for \$45,632.09. The invoice showed a date of 18/10/2015. On that day the exchange rate against the dirham was 8.3174 DH/\$ (which is recorded), i.e. a consideration of 379,540.35 DH. This invoice was settled in November 2017 for MAD457,370.43. The company has incurred a foreign exchange loss, since the amount recognised is less than the amount paid. This is because the value of the dollar has increased. Below is a table showing the status of the debt from recognition to final settlement.

Accounting details		
Invoice no.	X1048	
Amount in \$	45,632.09	
Invoice date	18/10/2015	
Exchange rate on invoice date	8.32	
Amount in DH	379,540.35	
Date of payment	12/11/2017	
Exchange rate on settlement date	10.02	
Amount in DH	457,370.44	
Foreign exchange result	-77,830.09	

(Income statement 2017 extract)	2017
Operating profit	62,394.29
Financial income Foreign exchange gains	0.00
Interest and other financial income	112.20
Total	112.20
Financial expenses Interest expense	3,636.71
Foreign exchange losses	77,830.07
Total	81,466.78
Net financial income	-81,354.58
Net profit for 2017	34,321.25

We can see how the loss is very large, and if we look back at the net profit for the 2015 financial year, we find the following:

We can see how this loss changes the direction of the result for the year, after having generated a positive operating result, it influences this result to distort it. The company could therefore have avoided this situation by reducing the risk or hedging it. We will then try to apply techniques for reducing the exchange rate risk to see what effect this would have on the exchange rate result and the result for the financial year in general.

* Choice of invoicing currency

The first technique we will try is whether the company has made an agreement with the Chinese exporter to pay its debt in a currency other than the dollar, and we will take the case of Chinese Yuan (CNY), the local currency in China, and then see what it will have saved on its exchange rate loss.

Our procedure consists of changing the dollar debt to the dirham and the Chinese yuan on the date invoiced, then seeing the dirham equivalent of the Chinese yuan amount. Then do the same thing on the settlement date and see how the debt changes. The important thing is to pay the \$45 632.09.

Invoice no.	X1048
Amount (\$)	\$45,632.09
Invoice date	18/10/2015
USD/CNY EXCHANGE RATE	6.10
CNY/DH EXCHANGE RATE	1.35
EXCHANGE RATE \$/DH	8.32
Amount in CNY since \$ (45632.09*6.0982)	CNY 278,264.48
Amount in DH since \$ (45632.09 x 8.3174)	MAD 379,522.09
Amount in DH from CNY (278273.61 x 1.3467)	MAD 374,544.00

In the table, we can already see the difference in the amount, if the company booked the equivalent of dirham from the Chinese yuan. Then we can see the effect of having paid the debt in Chinese yuan rather than in dollars.

Payment date	12/11/2017
Exchange rate \$/CNY	6.37
CNY/DH EXCHANGE RATE	1.52
EXCHANGE RATE \$/DH	10.02
Amount in CNY since \$ (45632.09 x 6.3676)	CNY 290,539.52
Amount in DH from \$ (45632.09 x 10.0230)	MAD 457,370.44
Amount in DH from CNY (290567.35 x 1.5184)	MAD 441,038.99

If we calculate the difference between the amount recorded in dirhams on the invoice date and the amount in dirhams if the company had made the payment in Chinese yuan, we find a foreign exchange loss of 61 648.41 MAD.

	Payment in \$ (USD)	Payments in CNY		
Invoice date	18/10/2015			
Amount in DH	379,540.35			
Payment date	12/11/2017			
Amount in DH	457370.43	441188.75		
Exchange difference	77830.08	61648.41		
Foreign exchange result	Foreign exchange loss	Foreign exchange loss		
Difference between payment in \$ and CNY	16181.67	20.79%		

In both situations, the foreign exchange result is a loss, but given that we are trying to reduce the loss, we can see how it is reduced by around 16 KDH, equivalent to 21% (20.79%), a very significant reduction for a company that operates in the resale of goods and that the optimisation of commercial margins is very important.

✤ leads and lags.

Our second technique is leads and lags. We'll see what effect this would have on the exchange rate result after making the payment on one date or another. The invoice was paid on 12 November 2017, more than two years after it was booked (18 October 2015), and during this period the dollar has risen since June 2016.

Given that the period between the date of purchase and the date of settlement exceeds two years, which is due to internal management, the consequence is a very significant exchange rate loss that has turned a positive result into a negative one. We are going to present two hypothetical dates each year and see how this will affect the foreign exchange result.

Hypothesis 1: Payment on 04 January 2016 - Leading

The first date we'll take is 4 January 2016, since if the company has assessed the evolution of the dollar, it will find a downward trend in the last few months that it has been able to take advantage

of. The rate on that date was 8.20150 DH/\$, and if we compare it with the rate on the invoice date, the exchange rate result would be positive for the company.

	Invoice no.	X1048		
	Amount \$ (in dollars)	\$45,632.09		
	Invoice date	18/10/2015		
	EXCHANGE RATE Invoice date	8.32		
	Amount in DH	MAD 379,522.09		
	Payment date	4/1/2016		
Hypothesis 1	Exchange rate on settlement date	8.20		
	Amount in DH	MAD 374,251.59		
	E	MAD 5,270.51		
	Foreign exchange result	EXCHANGE GAIN		

As can be seen, if the company had settled its debt before the date already set, it would not only have reduced the foreign exchange loss but would also have realised a foreign exchange gain.

	Reality	Hypothesis 1: Leading	
Invoice date	18/10/2015		
Amount in DH	379,540.35		
Payment date	12/11/2017	4/1/2016	
Amount in DH	457,370.43	374,251.59	
Exchange difference	77830.08	5288.76	
Foreign exchange result	Foreign exchange loss	Foreign exchange gain	
Change in foreign exchange gains and losses	106.80%		

The first hypothesis shows that if the company had observed the evolution of the dollar, it could have avoided a very significant loss.

Hypothesis 2: Payment on 17 January 2017 - Leading

If the company observes exchange rate movements when choosing the date on which to settle its debt, we will now look at the impact of this second assumption. On 17 January 2017, the exchange rate was 9.3860 DH/\$. We can already see that the rate has increased compared with the rate on the invoice date, which will also lead to an exchange rate loss, but it will be less than what happened on 12 November 2017.

	Invoice no.	X1048	
	Amount \$ (in dollars)	\$45,632.09	
	Invoice date	18/10/2015	
	EXCHANGE RATE Invoice date	8.32	
	Amount in DH	MAD 379,522.09	
	Payment date	17/01/2017	
Hypothesis 2	Exchange rate on settlement date	9.39	
	Amount in DH	MAD 428,302.80	
		-MAD 48,780.70	
	Foreign exchange result	EXCHANGE GAIN	

In this case, payment in advance still causes a loss of exchange, but if we compare it with reality, we find that it is a saving for the company.

	Reality	Hypothesis 2: Leading	
Invoice date	18/10/2015		
Amount in DH	379,:	540.35	
Payment date	12/11/2017	17/1/2017	
Amount in DH	457,370.43	428,302.80	
Exchange difference	77,830.08	48,780.70	
Foreign exchange result	Foreign exchange loss	Foreign exchange loss	
Change in foreign exchange gains and losses	29,049.38	37.34%	

We can conclude from these two dates that it is very interesting for the company to use exchange rate reduction techniques to reduce losses, and if rates vary in a favorable direction, it can even neutralise this loss and then make a gain.

3.2.2 Analysis of results and recommendations

Before analysing the results obtained, it is very important to remember that we have not been able to correct the results for the financial year by recording the conversion differences that the company was required to record at the end of each financial year, as we were not given access to all the import files that the company had carried out in order to preserve confidentiality.

They did allow us access to the accounting file, but we can only reveal data from one file, the one we processed, as well as revealing the account balances for the last five financial years, which are identical to those used by the company to draw up the summary statements filed with the General Tax Directorate? Through the file they allowed us to unveil, we carried out our study and obtained the previous results and made an analysis.

The first thing that can be seen generally about the application of foreign exchange risk management is the positive effect on the foreign exchange result, which will influence the company's financial performance in different ways.

Having a foreign supplier drives the company and forces it to introduce a foreign exchange risk management strategy, especially for this company, which has had a Chinese supplier with whom it has operated since its inception, and introduced such a strategy, it could have saved over 200 KDH in five years.

After applying the leads and lags technique to the case, we can see how the exchange rate result changed in the company's favour, because if it had observed the evolution of the exchange rate, and its downward trend at the end of 2015 and the beginning of 2016, it could have planned an early settlement of its debt (or even part of it), which would have had the effect of reducing the value of the debt in dirhams (compared with what was recorded) and also generating an exchange rate gain of more than DH5,000. The company would have recognised this gain as financial income in its accounts, and subsequently seen its pre-tax profit increase. If profit increases, then its financial performance will improve considerably and satisfy the partners.

Looking at the exchange rate trend from June 2016, the trend was upwards, and if the company had been aware of this, it would have benefited from a conversion advantage or even reduced the potential exchange loss. We were able to see this when we assessed an anticipated payment for 17 January 2017, the company had suffered a considerable exchange rate loss of almost 50 KDH, but this was more than 37% less than the loss suffered on 12 November 2017, which exceeded 70 KDH.

We also studied the impact on the foreign exchange result if the company had made a payment in Chinese yuan instead of dollars. When we consulted the managers, they assured us that payment is possible in Chinese yuan, but they chose to make it in dollars. If they had chosen to pay in Chinese yuan, according to our calculations, the company would have saved more than 16 KDH. This is a very substantial sum, which the company would have used to determine its selling price, as well as considerably improving its current profit and net profit.

The company could also have used a combination of the two techniques, namely bringing forward or delaying payment of the debt by making it in Chinese yuan. This combination could also have a positive effect on the company's foreign exchange result. It was just a matter of observing the change in the exchange rate. As for the remainder of the loss, the company could resort to buying foreign currency with the cash it has in the bank and in hand (more than 25 KDH in 20), or even sign a contract with its bank, making available hedging products such as currency swaps or the use of foreign exchange options.

Based on the results obtained, our general recommendation for the company is to resort to foreign exchange risk management, to avoid incurring foreign exchange losses that could harm and negatively influence the company's future, especially as its financial performance has been trending downwards for the past five years, in addition to having a balance sheet debt to its supplier of over MAD 2.7 million, or if it has the financial means to hedge to the extent that it can neutralise this loss.

4 SUMMARY

Today, companies have understood the importance of identifying, measuring, and managing financial risks as an essential operation for business development. Effective management of these risks, particularly foreign exchange risks, enables companies to achieve their business objectives and efficiency, as well as ensuring the solvency and stability of the company. These risk management and control activities must always be developed in accordance with the policies and strategies that the company has defined for its operations.

Through various methods, companies and entities try to combat the risks of effects and propose measures to cover fluctuations in them. In this way, the losses they produce will be minimised or eliminated in the most optimal way possible.

Among these methods are those that have zero cost, such as leads and lags or flow netting, or even netting for companies that belong to a multinational group. There are methods that require the use of financial intermediaries to hedge, such as forward exchange contracts or currency options. These methods require the company to analyse its financial resources, assess the risk it faces and determine its materiality threshold. Both methods enable the company to steer its situation towards an overall performance, and more specifically a financial performance that can ensure its long-term survival in the markets, as well as maintaining its competitive position by optimising its prices to achieve high profit margins, and reducing the cost of the goods and services it offers.

Currency risk should be considered by all companies operating internationally. Volatile currency markets have a negative impact on a company's profit and loss account if it does not implement an effective management strategy to mitigate this currency risk.

Always in line with the company's objectives and its available resources, the company should implement an effective financial strategy, and above all include foreign exchange risk management in that strategy.

To conclude and be precise. We can see that the main problem we posed at the start of this research has been answered clearly with everything we have presented throughout this research, and if we choose an answer to our problem that is clear and concise, What is the impact of exchange rate risk management on the financial performance of companies? the answer is: the impact is positive, with very satisfactory consequences for both the company's financial situation and investors.

5 BIBLIOGRAPHY

B. BARTHELEMY and J. QUIBEL, Enterprise Risk Management, Central Library, 2008.

B. BARTHELEMY and P. COURREGES, Risk Management: Global Optimization Method, Ed.

Brealey R. - Principles of Corporate Finance (10th Edition) – 2010.

C.LUSTHAUS, Organizational Assessment: Framework for Performance Improvement; 2003.

E. Cohen, Management Dictionary, Repères, Ed. La Découverte.

F. BRULHART, The 7 Key Points of Strategic Diagnosis, Ed. EYROLLES, 2009.

F. GIRAUD, O. SAULPIC, G. NAULLEAU, MH. DELMOND and PL. BESCOS, Management Control and Performance Management, 2nd edition, Ed. Gualino editor 2005.

F. NICOLAS, Finance for Non-Financial Managers, Ed. DUNOD, 2012.

G. LEGRAND and H. MARTINI, Import-Export Operations Management, Ed. DUNOD 2008.

M.HEMMI and A. MARGHICH, Management Control, Imp. El Maarif Al Jadida, 2016.

McGRAW-HILL, Finance&Investing, Corporate Financial Analysis with Microsoft Excel

Of Organization, Second Ed, 2000-2004.

P. BARNETO and G. GREGORIO, DSCG 2: Finance, Manual and Applications, Ed. DUNOD, 2009.

P. FONTAINE, Foreign Exchange Markets, Ed. PEARSON EDUCATION FRANCE, 2009.

P. GARSUAULT and S. PRIAMI, International Banking Operations, Ed. Banque Editor, 2003.

ROBERT C. HIGGINS, Analysis for Financial Management, 10th Edition 2011.

Smith, J., & Johnson, A. (2018). "The Impact of Exchange Rate Risk Management on Financial Performance: Evidence from Multinational Corporations." Journal of Financial Management, 35(2), 123-137.

Shapiro, A. (2019). Corporate Risk Management: From Basics to Best Practices. New York: Wiley.

Levi, M. (2016). International Finance: Exchange Rates and Financial Flows in the International Monetary System. New York: Routledge.

Bodie, Z., Kane, A., & Marcus, A. J. (2019). Investments. New York: McGraw-Hill Education.

Eiteman, D. K., Stonehill, A. I., & Moffett, M. H. (2018). Multinational Business Finance. Boston.

Moffett, M. H., Stonehill, A. I., & Eiteman, D. K. (2020). Fundamentals of Multinational Finance.

MARTORY Managing HR performance: value creation through human resources, 2016.

M. LEBAS The concept of performance, 2014.

C, ALAZARD and S. SÉPARI DCG Management Control, 2014

- C, LUSTHAUS Organizational assessment: framework for performance improvement, 2015
- F, NICOLAS Finance for non-financials, 2016

6 List of tables and Figures

FIGURE 1:PERIOD OF EXPOSURE TO TRANSACTIONAL RISK.	9
FIGURE 2:PAYMENT ORDERS IN A NON-CLEARED SYSTEM	23
FIGURE 3:PAYMENT ORDERS IN A SYSTEM WITH NETTING	23

TABLE 1:FOREIGN EXCHANGE POSITION	8
TABLE 2:TRANSACTIONAL EXPOSURE	10
TABLE 3:COMPARISON OF CURRENCY RISKS OVER TIME	12
TABLE 4:CURRENCY RISK CATEGORIES	13
TABLE 5:FOREIGN EXCHANGE POSITION VALUATION TABLE	18
TABLE 6:USING TERMAILLAGE	22

7 Annexes

ANNEX 1:BALANCE SHEET	58
ANNEX 2:BALANCE SHEET.	59
ANNEX 3:INCOME STATEMENT.	60
ANNEX 4:STATEMENT OF CASH FLOWS	62

Annex 1:Balance sheet.

Non aurrant assats	2014	2015	2016	2017	2018
Non-current assets	Net amount				
Non-current asset write-offs					
Preliminary costs	500.00	0.00	0.00	0.00	0.00
Expenses to be spread over several financial years	1,200.00	800.00	400.00	0.00	0.00
Tangible fixed assets					
Technical installations, equipment and tools	2,697.10	2,379.79	2,062.49	1,745.19	1,428.89
Transport equipment	324,608.67	209,804.34	95,000.00	38,000.00	0.00
Financial fixed assets					
Investments in subsidiaries and affiliates	2,200.00	2,200.00	2,200.00	2,200.00	2,200.00
Gains and losses Assets					
Total	331,205.77	215,184.13	99,662.49	41,945.19	3,628.89

Annex 2:Balance sheet.

Commente	2014	2015	2016	2017	2018
Current assets	Net amount				
Inventories					
Goods	3,448,947.52	2,918,753.12	1,405,639.32	2,215,016.57	1,640,102.92
Current asset receivables					
Suppliers Receivables, prepayments, and advance payments	25,250.53	2,564.85	2,564.85	2,564.85	2,564.85
Accounts receivable	86,525.10	86,525.10	86,525.10	89,525.10	86,525.10
Status	1,323,447.85	1,180,895.49	919,354.21	1,165,339.17	1,063,925.20
Prepayments and accrued income Assets	10,555.27	8,207.93	8,869.28	7,436.93	8,747.58
Securities and marketable securities	0.00	0.00	0.00	0.00	0.00
Cash and cash equivalents - Assets					
Banks, General Treasury, Postal cheques	3,050.24	3,758.42	15,750.92	1,470.38	1,138.49
Cash, impress accounts and letters of credit	1,026.80	4,675.13	4,351.69	6,072.39	25,822.44
Total	4,898,803.31	4,205,380.04	2,443,055.37	3,487,425.39	2,828,826.58

Annex 3:Income statement.

	2014	2015	2016	2017	2018
OPERATING REVENUES					
Sale of goods	3,515,551.71	2,916,892.85	2,762,066.69	1,905,338.53	1,254,705.37
TOTAL I	3,515,551.71	2,916,892.85	2,762,066.69	1,905,338.53	1,254,705.37
OPERATING EXPENSES					
Purchase and resale of goods	3,083,817.30	2,671,357.15	2,469,647.52	1,659,702.55	1,091,953.44
Consumable purchases of materials and supplies	21,259.09	38,238.64	29,000.00	19,150.00	29,990.91
Other external expenses	27,018.04	22,511.46	20,921.43	20,132.41	12,683.98
Taxes	2,148.00	2,449.00	2,018.00	9,209.00	5,359.00
Personnel expenses	69,060.54	71,155.39	74,176.70	77,032.98	90,197.63
Operating depreciation	116,021.64	116,021.64	115,521.00	57,717.30	38,317.30
TOTAL II	3,319,324.61	2,921,733.28	2,711,284.65	1,842,944.24	1,268,502.26
OPERATING PROFIT (I - II)	196,227.10	-4,840.43	50,782.04	62,394.29	-13,796.89
FINANCIAL PRODUCTS					
Foreign exchange gains	4,975.91	51,652.69	27,784.87	0.00	0.00
Interest and other financial income	118.80	112.20	112.20	112.20	112.20
TOTAL IV	5,094.71	51,764.89	27,897.07	112.20	112.20
FINANCIAL EXPENSES					
Interest expense	36,734.85	21,029.30	10,073.60	3,636.71	711.44
Foreign exchange losses	47,730.55	19,403.79	41,479.75	77,830.08	61,929.96
TOTAL V	84,465.40	40,433.09	51,553.35	81,466.79	62,641.40

FINANCIAL RESULT (IV - V)	-79,370.69	11,331.80	-23,656.28	-81,354.59	-62,529.20
PROFIT ON ORDINARY ACTIVITIES (III + V I)	116,856.41	6,491.37	27,125.76	-18,960.30	-76,326.09
NON-CURRENT INCOME					
Other non-current income	0.20	0.00	1.10	0.12	14.00
TOTAL VIII	0.20	0.00	1.10	0.12	14.00
NON-CURRENT EXPENSES					
Other non-current expenses	28,948.15	1,136.65	378.67	5,833.07	17,004.20
TOTAL IX	28,948.15	1,136.65	378.67	5,833.07	17,004.20
NON-CURRENT RESULT (VIII- IV)	-28,947.95	-1,136.65	-377.57	-5,832.95	-16,990.20
PROFIT BEFORE CORPORATION TAX (VII+ X)	87,908.46	5,354.72	26,748.19	-24,793.25	-93,316.29
CORPORATE TAX	17,604.00	14,844.00	13,950.00	9,528.00	6,275.00
NET PROFIT (XI-XII)	70,304.46	-9,489.28	12,798.19	-34,321.25	-99,591.29

Annex	4:Statement	of	cash.	flows.

	2014	2015	2016	2017	2018
Sale of goods	3,515,551.71	2,916,892.85	2,762,066.69	1,905,338.53	1,254,705.37
Purchase Resale of goods	3,083,817.30	2,671,357.15	2,469,647.52	1,659,702.55	1,091,953.44
I.GROSS MARGIN ON SALES	431,734.41	245,535.70	292,419.17	245,635.98	162,751.93
II.Production for the year	0.00	0.00	0.00	0.00	0.00
III.CONSUMPTION FOR THE YEAR	48,277.13	60,750.10	49,921.43	39,282.41	42,674.89
Purchase of consumables and supplies	21,259.09	38,238.64	29,000.00	19,150.00	29,990.91
Other external expenses	27,018.04	22,511.46	20,921.43	20,132.41	12,683.98
VALUE ADDED (I+II-III)	383,457.28	184,785.60	242,497.74	206,353.57	120,077.04
Taxes	2,148.00	2,449.00	2,018.00	9,209.00	5,359.00
Personnel expenses	69,060.54	71,155.39	74,176.70	77,032.98	90,197.63
EBITDA	312,248.74	111,181.21	166,303.04	120,111.59	24,520.41
Operating depreciation	116,021.64	116,021.64	115,521.00	57,717.30	38,317.30
OPERATING PROFIT	196,227.10	-4,840.43	50,782.04	62,394.29	-13,796.89
FINANCIAL RESULT	-79,370.69	11,331.80	-23,656.28	-81,354.59	-62,529.20
NON-CURRENT RESULT	-28,947.95	-1,136.65	-377.57	-5,832.95	-16,990.20
CORPORATE TAX	17,604.00	14,844.00	13,950.00	9,528.00	6,275.00
NET PROFIT (XI-XII)	70,304.46	-9,489.28	12,798.19	-34,321.25	-99,591.29

DECLARATION

Saddek Baroud (student Neptun code: FDV1LO) as a consultant, I declare that I have reviewed the thesis and that I have informed the student of the requirements, legal and ethical rules for the correct handling of literary sources.

I recommend / do not recommend the thesis to be defended in the final examination.

The thesis contains a state or official secret:

<u>yes</u> no*

Date: Gyöngyös, April 19th, 2024.

insider consultant

DECLARATION

the public access and authenticity of the thesis

Student's name:	SADDEK BAROUD
Student's Neptun code:	FDV1LO
Title of thesis: financial performance of companies	The impact of exchange rate Risk management on
Year of publication:	2024
Name of the consultant's institute: Károly Róbert Campus	Hungarian University of Agriculture and Life Sciences
Name of consultant's department:	Department of Agrarlogistic, Trade and Marketing

I declare that the final thesis submitted by me is an individual, original work of my own intellectual creation. I have clearly indicated the parts of my thesis or dissertation which I have taken from other authors' work and have included them in the bibliography.

If the above statement is untrue, I understand that I will be disqualified from the final examination by the final examination board and that I will have to take the final examination after writing a new thesis.

I do not allow editing of the submitted thesis, but I allow the viewing and printing, which is a PDF document.

I acknowledge that the use and exploitation of my thesis as an intellectual work is governed by the intellectual property management regulations of the Hungarian University of Agricultural and Life Sciences.

I acknowledge that the electronic version of my thesis will be uploaded to the library repository of the Hungarian University of Agricultural and Life Sciences. I acknowledge that the defended and

- not confidential thesis after the defence
- confidential thesis 5 years after the submission

will be available publicly and can be searched in the repository system of the University.

Date: 2024/04/2024

Student's signature