

BIESSE Group

Foreign exchange risk management policy March 2010

Contents

Intro	ductionduction	3
1	Guidelines of the risk policy	5
2	Foreign exchange risk management policy	7
2.1	Organisational units involved	 7
2.2	Assigning missions and responsibilities and the related mandates	7
2.3	Method of forming the exposures	12
3	Method of monitoring foreign exchange risk	15
3.1	Monitoring exposure	15
3.2	Monitoring exposureIndicators for measuring risk	15
4	Eligible instruments for hedging foreign exchange risk	17
4.1	General requirements of the hedge transactions for managing foreign exchanges for managing foreign exchanges from the following the following for managing for each of the hedge transactions for managing for eight exchanges from the following forms and the following forms from the following forms from the following for the hedge transactions for managing for eight exchanges from the following for the hedge transactions for managing for eight exchanges from the following forms from the following forms from the hedge transactions for managing for eight exchanges from the following forms from the hedge transactions for managing for eight exchanges from the following forms from the hedge transactions for managing for eight exchanges from the following forms from the following forms from the following from	_
4.2	Instruments eligible to hedge risks	18
	ex 1: Detail of the eligible instruments	
A1.1	Foreign exchange forward	
A1.2	Formal obligatory requirements of Forward contracts	
A1.3	Cross Currency Option	
A1.4	Mandatory formal requirements of Currency Option contracts	
A1.5	Zero cost hedging strategies	
A1.6	Formal requirements of a cylinder contract	32
	<u>ex 2</u> : Examples of hedging strategies	
A2.1	Managing currency collections using FORWARD contracts	
A2.2	Managing payments using FORWARD contracts	
A2.3		
A2.4	Managing payments using Options	38

Introduction

This Policy sets forth the guidelines related to management of foreign exchange rate risks generated by the core business of the Biesse Group. The risk management model used is centralised: the parent company BIESSE S.p.A. guarantees continuous control and supervision of the company value through active monitoring of exposure to risk and definition of strategies designed to mitigate the risks generated.

The document is organised as follows:

- Chapter 1 describes the guidelines of the risk policy with which the organisational units involved in risk management process must comply;
- Chapter 2 identifies the organisational offices involved in the foreign exchange rate risk management process, the missions and responsibilities of each office and the related system of mandates. In addition, the chapter describes the methods of forming exposure with reference to the business models adopted by Biesse;
- Chapter 3 includes a description of the measures used for managing foreign exchange risk. Furthermore, it defines the concept of fair value¹ of the instruments and the risk indicators of the exposure;
- After setting forth a concise definition of the foreign exchange risk, Chapter 4 describes "plain vanilla"² financial instruments which, in the framework of the present policy, are considered "eligible" for the purpose of hedging foreign exchange risk. This Chapter also describes the *modus operandi* to develop efficient hedges.

This Policy has been drafted based on the organisational structure, the Corporate Governance policy, and the methods and procedures for foreign exchange risk management currently in use within the Biesse Group, in compliance with market best practices.

In order to ensure a system of governing risk that matches the best practices on the market and one that is integrated for the various classes of risk, the present Policy may be subject to amendments or extensions pursuant to intervening developments:

• in the organisational structure of Biesse S.p.A., by identifying the missions and responsibilities of the organisational units involved, including in relation to

The *Fair value* of a financial instrument indicates the fair market value of that instrument, defined at the time the assessment is made. For instruments for which there is no market available, this value is determined by applying financial models.

² The term *Plain Vanilla* denotes traditional derivative instruments, characterised by a low level of financial complexity (and which by their nature, display characteristics similar to the characteristics of the underlying assets to hedge).

corporate financial management strategies (e.g. optimisation of the debt structure, rationalisation of the sources of indebtedness, capital allocation decisions), financial planning, and management of interest rate risk;

- in the methods of managing the currency payment system between the parent company and the foreign subsidiaries, in order to optimise risk management for the entire Group;
- in the system of operating limits, which makes it possible to identify lines of responsibility and competence in foreign exchange management consistent with the organisational model identified;
- in the organisational units dedicated to risk monitoring (Internal Audit/Management Control).

1 Guidelines of the risk policy

The Risk Policy includes centralised management of foreign exchange risk within the parent company.

The framework of applicability of the risk policy is limited to management of exposure to the risk of foreign exchange fluctuation, which has an impact on the individual financial statements of Biesse S.p.A. This exposure arises from:

- intercompany deals between Biesse S.p.A. and its foreign commercial subsidiaries;
- direct sales made by Biesse S.p.A. to end customers;
- intercompany deals between HSD S.p.A. (a subsidiary of Biesse S.p.A.) and the related American foreign commercial subsidiary³.

In any event, the objective of the policy is not to stabilise currency flows arising from sales made by the foreign subsidiaries to the end customers; in other words, the policy does not aim to govern management/stabilisation of the commercial margins generated by the foreign subsidiaries.

The individual foreign commercial subsidiaries that generate exposure in currency undertake the responsibility to provide the parent company with the necessary complete, timely and accurate operating information to support an efficient process of centralised mitigation of risk.

Below is a list of the guidelines with which the organisational units involved in the risk management process must comply:

- The parent company, Biesse S.p.A., undertakes to provide consistent supervision of company value through active monitoring of the exposure to exchange rate risk and definition of strategies finalised at mitigating this risk (i.e. active hedge).
- The parent company, Biesse S.p.A., sets the objective of stabilising cash flows (*cash flow hedge*) arising from direct sales and from intercompany financial and commercial transactions (intercompany loans in currency).
- The time period of the process of hedging exchange rate risks coincides with the time period in the order book and/or the underlying asset to hedge. The hedge strategy of Biesse S.p.A. does not include budget flow hedges.
- As part of the ordinary foreign exchange rate monitoring and management

^{3.} HSD S.p.A. has two foreign subsidiaries: HSD USA and HSD Deutschland (both operate independently in sales and technical assistance services). Only the commercial transactions between HSD Spa and HSD USA generate exposure to foreign exchange risk.

activities, the parent company, Biesse S.p.A., aims to decrease exposure to risk and related losses.

- In a view to continuously reducing the risk of loss, the parent company aims to minimise the costs related to use of the hedge instruments irrespective of economic trends, visibility and market expectations of the Administration, Finance and Control Office.
- Individual Foreign Subsidiaries are not authorised to negotiate derivative instruments to hedge foreign exchange risk, save for the exceptions indicated below.
- As part of the risk management processes, the parent company, Biesse S.p.A., adopts a system for quantitatively measuring risks, both to analyse currency exposure and assess the efficiency of transactions in negotiated derivative tools for hedge purposes.

2 Foreign exchange risk management policy

The chapter presents a description of the roles and the missions of the diversity of organisational units involved in the foreign exchange management process, the system of mandates, and a description of the methods of formation of the exposure, starting from the structure of the business of the Biesse Group.

2.1 Organisational units involved

The organisational units involved in the process of foreign exchange risk management are:

- The Board of Directors.
- The Risk Committee.
- The Administration, Finance and Control Office, with particular reference to the Finance Service.
- Administration (Accounting/Financial Statements).
- Internal Auditing.
- Operating Control.

2.2 Assigning missions and responsibilities and the related mandates

Below are the missions and responsibilities - related to management of foreign exchange risk - of the company units as identified previously:

	A A	
Parent company organisational units	Functions	Responsibilities
Board of Directors	Defines the guidelines for foreign exchange risk management	Defines the strategic objectives for Group foreign exchange risk management
*	Delegates control of foreign exchange risk management to the Risk Committee	Authorises adoption of the policy as a tool of risk management, monitoring and control.
	Authorises adoption of the policy and the related operating mandates.	 Delegates to the Risk Committee adoption of the strategies considered most appropriate for management, monitoring and control of risk in line with the preset strategic objectives. Ratifies the work of the Risk
		Committee based on the reporting

BIESSE Group



Foreign exchange risk management policy update March 2010

Parent company organisational units	Functions	Responsibilities
		prepared by the Administration, Finance and Control Office.
Risk committee	Supervises and steers financial operations for foreign exchange risk management. The committee is composed of: the Managing Director Administration, Finance and Control Office Chief Financial Officer Finance Manager Internal Audit Manager	 Based on the reporting processed by the Finance Office, it analyses the financial structure and exposure to the foreign exchange risk relating to the period of observation. Incorporates the instructions of the Administration, Finance and Control Office with the guidelines and strategic objectives of the Policy to define the foreign exchange risk hedge strategies relating to the period of observation. At every calling and based on the reports prepared by the Administration, Finance and Control Office, verifies the hedge transactions executed and validated by the Management Control Service and Internal Audit Office for internal control and ratifies them.
Governance committee	Oversees and directs financial operations for the management of exchange rate risk. The committee comprises: Chie Executive Officer The Management of Administration, Finance and Control Chief Financial Officer Finance Manager The Head of Internal Audit Top Management of the reference operating area where the policy is to be implemented	 Operational definition of the strategic guidelines to be included in the policy to be presented to the Board of Directors for authorisation; Analyses the operational impact; Defines the operating methods and controls.

Foreign exchange risk management policy



update March 2010

Parent company organisational units	Functions	Responsibilities
Management meeting	Oversees the correct application of the policy, periodically analysing the relevant financial reporting The committee comprises: Chie Executive Officer The Management of Administration, Finance and Control; Top Management of the reference operating area where the policy is to be implemented	 On the basis of the reports compiled by the Finance Management, it analyses the financial structure and exposure to exchange rate risk in the period under study. On indications from the Management of Administration, Finance and Control, and in keeping with the guidelines and strategic objectives of the policy, it determines the strategies for covering exchange rate risk in the period under study. Each time it meets, using the reports submitted by the Management of Administration, Finance and Control, it checks any existing cover set up and validated by the Management Control Service and Internal Audit for internal control and approves them.
Administration, Finance and Control Office	 Implements the strategic instructions of the managing director reported in the guidelines of the Policy Manages and coordinates the activities of the: Finance Operating Control Administration offices 	 Supervises cash flow in the Group currency and is responsible for managing all related foreign exchange risks. Submits the hedge operations executed monthly to the attention of the Risk Committee Receives the results of the analyses related to the indicators for measuring foreign exchange risk on current exposure.
Finance	 Manages liquidities (cash management) and short-, medium-, and long-term debt in currency. Manages foreign exchange risk hedge operations in order to pursue an optimal financial structure, consistent with the objectives defined in the policy. 	 Prepares the Policy for managing exchange rate risk for approval by the Risk Committee and subsequently, the Board of Directors. Submits (or recommends) to the CFO the hedge strategies and the different technical forms available, based on market analyses and information. Guarantees execution of the approved foreign exchange risk hedge transactions. Is responsible for the periodic fair value assessment processes of the current derivative instruments and the process of estimating the changes in fair value generated by changes in

BIESSE Group Foreign exchange risk management policy

update March 2010



Parent company organisational units	Functions	Re	sponsibilities
			forward points (for the purposes of hedge accounting).
		•	Is responsible for the verification processes of the effectiveness profiles of the hedge operations, in an ex-ante and ex-post perspective, based on hedge accounting models of the <i>cash flow hedge</i> and hedging of the <i>net investment</i> .
		•	Sends to the administrative office all the figures necessary for the accounting entries connected to accounting representation of derivatives.
		•	Is responsible for accounting association between each derivative
		A	and the exposure subject to hedging and subsequent monitoring of the
	68		relationships for the purpose of identifying for all reporting data the percentage of hedging object of "discontinuing".
	100 Alter		Processes the reports on risk measures and submits them to the CFO and the Risk Committee.
Administration (Accounting/Financial statements)	o extension	•	Defines the rules of accounting for foreign exchange risk hedge instruments, subject to sharing with the Internal Audit Service. Checks current positions and balances the positions measured in the position keeping system of the Finance office with the accounting system and with the confirmation of the operations sent by the financial counterparty.
40)		•	Receives the formal documentation from the Finance Office to support the hedge accounting reports.

Parent company organisational units	Functions	Responsibilities
Operating Control	 Periodically checks that the entity of the foreign exchange risks assumed by the Group are consistent with the strategic objectives regarding risk defined by top management. Checks the correct input of the operations for foreign exchange risk in the Finance System (position keeping) and in the accounting / management system and conformity of the confirmation received from counterparties with the individual hedge operations executed by the Finance Service. 	 Analyses the characteristics of operations and traded financial instruments from the Finance Office, pricing algorithms, current positions and exposure to foreign exchange risk, checking the correctness of the processes based on the financial planning data and the market data available. Receives the details of the foreign exchange exposure and respective hedge derivatives from the Finance Office, checking that the residual open risk is below the threshold of tolerance set by the Risk Committee.
Internal Audit Office	Controls the correct application of the Policies and procedures applied for management of foreign exchange risk.	Checks the correct application of the Policy approved by the Board of Directors by the operating structures, with special reference to the formal requirements.

In compliance with and within the limits set forth in the present policy, Biesse S.p.A. agrees to attribute the following powers of delegation defined in relation to the type of instruments.

Officer	Company	Title	Hedge instruments
Mr. S. Porcellini	Biesse S.p.A.	Chief Financial Officer	All eligible instruments
Mr. A. Amurri	Biesse S.p.A.	Head of the Finance Department	All eligible instruments

The eligible financial instruments defined in the table are negotiable with a notional quantity limit such to **guarantee a level of hedging** of the exposure to risk generated by

BIESSE Group Foreign exchange risk management policy update March 2010

the industrial activity of the Biesse Group (orders-invoices-loans) between 70% and 120%.

In the limits of the respective mandates listed above, the CFO and the Head of the Finance Office have the power to:

- define price and contract parameters in accordance with the principles defined by the foreign exchange risk policy;
- execute transactions by telephone, through electronic confirmation by e-mail or through dedicated IT systems (EXTRA).

Any changes in the aforementioned mandates and powers to negotiate and execute transactions must be authorised and approved by the Chief Executive Officer (CEO) and must be subsequently included in the present policy.

2.3 *Method of forming the exposures*

Foreign exchange risk exposure at Biesse S.p.A. is financial in nature and is generated based on two different models of sales:

- Direct sales of spare parts and/or machinery to the end client at a price expressed in currency other than the reporting currency of Biesse S.p.A.
- Indirect sales of spare parts and/or machinery to the end client through the brokerage of a Foreign Subsidiary.

Direct sales generate foreign exchange risks for Biesse S.p.A. since the transactions are executed in the reporting currency of the buying company, based on an exchange rate with respect to the Euro set at the time the order is received.

As part of executing indirect sales, Biesse S.p.A. uses a series of commercial subsidiaries that supervise the sale of spare parts and machinery on the local markets. Specifically, the companies that expose the parent company to foreign exchange risks are listed below:

- 1 Biesse Canada
- 2 Biesse America
- 3 Biesse Group UK
- 4 Biesse Group New Zealand
- 5 Biesse Group Australia

- 6 Biesse India
- 7 Biesse Asia
- 8 Biesse Schweiz GmbH

2.3.1 The standard model

The subsidiaries of Biesse America, Biesse UK, Biesse Canada, Biesse Australia, Biesse New Zealand and Biesse Schweiz GmbH present a cost and revenue structure denominated in the respective reference currencies. Biesse S.p.A. invoices supplies of machinery and spare parts in the local currency. Consequently, these subsidiaries are considered neutral to foreign exchange risk.

Biesse S.p.A. also stipulates internal deals for spare parts and machinery contracts with the aforementioned companies.

As regards spare parts, transactions with foreign subsidiaries are frequent and generally are of limited value. The Finance Office has access to information on current receivables and the related foreign exchange rates applied through the accounting system (formula). Decisions on fixing the foreign exchange rate applied to the sale of spare parts are reviewed monthly.

In relation to the machinery sector, sales are characterised by less frequent transactions of more significant value. The sales procedure, which can be either for direct sales or for stock objectives, requires drafting an Order Transmission Form (MTO), the document through which foreign subsidiaries communicate to Biesse S.p.A. the details of the order agreed upon with the end customer, or an order transmitted for stock purposes.

The price of the transactions for spare parts and machinery sales is defined in the local currency of the buying company, at the time of signing the purchase contracts, based on the spot exchange rate. In this way, Biesse S.p.A. centralises the risk of foreign currency exchange fluctuations against the Euro at its own company for the interim between the price setting date until the date of collection of the payment from the subsidiary or the final customer (in the event of direct sales). Foreign subsidiaries have no ability to manage and mitigate foreign exchange risks, since the cost and revenue structures are expressed in the same functional currency.

The exception to the standard model

With regard to the management of exchange rate risk relating to transactions involving Biesse Manufacturing – Bangalore (India), while it too has a cost and revenue structure

denominated in local currency (indian rupee), the specific nature of its activities represent an exception to the standard model. In particular the Indian company, in addition to receiving finished goods and components from Italy will also sell machines, both on its own local market and in other countries which therefore creates different potential risk situations.

The main countries involved in this activity are currently:

- Australia
- New Zealand
- China
- Singapore
- U.S.A.
- Canada
- Italy
- Central-South America

The sales and purchases of the Indian company will be denominated in Rupees thereby avoiding the assumption of any foreign currency exchange rate risk by the company. "Non-Indian" buyers will, on the contrary, have a potential exchange rate risk to neutralise (e.g. aud/inr - usd/inr). The atypical nature and difficulty of accessing Indian Rupee hedging operations as well as the chronic and historic weakness of the currency may not make it possible for exposed Subsidiaries to put in place specific hedging except in well defined cases or during periods of high market volatility. All entities with exposure to the Indian Rupee must provide a specific reporting system aimed at monitoring the type of risk to which they are exposed and the related amount expressed in each individual currency. The net balance of the currency flows determined on the basis of sales/purchases expressed in Indian Rupees against the euro will be managed on an organic basis by Biesse S.p.A. - Italia which, discretionally, can set up effective hedging operations on the basis of previously established typologies. The reference price list relating to the euro/inr exchange rate will initially be fixed on a six month basis. During this six month period any changes in the euro/inr exchange rate may give rise to specific valuations/revisions only if they exceed a range of +/- 10% compared to the original price list exchange rate.

3 Method of monitoring foreign exchange risk

Consistent with the methods of formation of the exposure, defined in Chapter 2, these are the details about the monitoring criteria of the exposure:

3.1 Monitoring exposure

In the framework of the Administration, Finance and Control office, the Finance Office is responsible for periodically monitoring exposure, with a view to activating appropriate hedge strategies. Below are the details of the monitoring activities conducted:

3.1.1 Monitoring exposure

On a weekly basis, the Finance Office draws up a timeline of the cash flows in currency, one for each currency, which includes information related to:

- 1 Invoices issued relating to sales of spare parts and machinery
- 2 Current orders not yet invoiced, based on all the MTO existing to date
- 3 Open positions in derivative instruments
- 4 Currency current account balances
- 5 Balance of intercompany loans in currency (assets and liabilities)

The Finance Office also sends the list of the exposures to foreign exchange risk and the list of open derivative instruments to the Internal Audit/Operating Control Offices and the Risk Committee on a monthly basis.

3.2 Indicators for measuring risk

With reference to the methods of monitoring exposure as described in Chapter 3.1, Biesse S.p.A. implements calculation models to estimate the *fair value* and *stress tests*, providing for calculation of the quantity indicators set forth as part of the Hedge Accounting (IAS 39) rules, both ex-ante and ex-post.

3.2.1 Fair Value analyses

The *Fair Value* of a position in currency at any given date makes it possible to quantify the value of a currency position in a single amount. The *Fair Value* of the position in currency summarises the market value of the individual cash flows expressed in currency for all the dates that the flows occur.

In particular, the *Net Present Value* or *NPV* of the flows, combined with the *fair value* of the derivatives traded for the purpose of hedges, can provide useful information on the effectiveness of the hedges implemented.

This effectiveness is monitored monthly by the Administration, Finance, and Control Office by means of analyses of the changes in the *fair value* reported on the value in Euro of the currency flows and the change in the sign on the position in derivatives.

3.2.2 Analyses of the Sensitivity, Scenario and Stress Test measurements

Sensitivity measurements make it possible to produce scenario analyses conducted beginning with a marginal change in the market parameters. More specifically, sensitivity measurements summarise the change in the value of the position against a change in the foreign exchange rate. These measurements can be calculated numerically, pressing an additional change to the market parameters that influence the value of the exposure and therefore, recalculating the fair value of these latter in the new discretional scenario generated. As a result, a sensitivity measurement is equal to the change in the *fair value* reported on the risk position against a change equal to

- a basis point of shift parallel to the rate curve
- one percent additive on the volatility parameter.

Scenario analyses are calculated using the same methods implemented to make the sensitivity analyses. With respect to these, scenario analyses include formulation of discretionary, non-marginal shocks on factors of substantial risk. These analyses allow the risk manager to estimate the possible evolution of the fair value of the net currency position against reasonable changes imposed on market parameters.

Stress test analyses have the purpose of estimating the impact of extreme events on the fair value of the portfolio. Therefore, they are estimated starting from extreme scenarios imposed on market parameters.

4 Eligible instruments for hedging foreign exchange risk

4.1 General requirements of the hedge transactions for managing foreign exchange risk

The Administration, Finance, and Control Office of the parent company, Biesse S.p.A., supervises the Group cash flow in currency and is responsible for managing correlated foreign exchange risk.

In this framework, the Administration, Finance, and Control Office executes financial hedge transactions on foreign exchange risk in compliance with *cash flow hedge* principles, which consist in neutralising the effects created by a change in the foreign exchange rate on the Euro value of a *cash flow* denominated in foreign currency ⁴.

According to these principles, each position in derivatives:

- refers to a specific source of risk; internal offsets between the position in derivatives for the purposes of neutralising exchange rate risk are not allowed
- concentrates on a specific hedge objective
- assumes the existence of an underlying asset of an "opposite" sign with a higher or equal value, documented by a procedure to estimate the currency flows
- is considered static and not subject to total or partial changes in each contractual element

Therefore, it is not possible to negotiate, restructure or close a position originally opened for the purpose of hedging in order to take advantage of a favourable expectation in the market movements (*trading for speculative purposes*), except in the case in which news that *cash flows* originally considered highly probable do not take place at the expected time or do not occur at all. In this case:

- the transaction can be restructured by closing the original transaction (*unwinding*) and substituting it with an equivalent that has the same qualities as the previous one, but compatible with a different degree of probability associated with the underlying flow;
- the transaction can be cancelled if the incoming or outgoing flow does not occur (payment or collection of payment is not made).

⁴ In the scope of this *Policy*, the term *Cash Flow Hedge* denotes hedge transactions executed in order to neutralise the impact that the volatility of the foreign exchange rate could have on the Euro value of a cash flow denominated in currency. A Cash Flow Hedge strategy therefore aims to stabilise the economic value in Euro of cash flows denominated in foreign currency.

The hedging policies that can be implemented can take advantage only of the use of *forward* contracts (forward currency sale/purchase) and *plain vanilla* options on foreign exchange (right to buy/sell currency in the future).

4.2 Instruments eligible to hedge risks

4.2.1 Currency Current Accounts

The hedging transactions that Biesse S.p.A. executes to protect against foreign exchange risk are based on underlying assets represented by cash flow expectations generated during commercial and financial operations of the Group.

The maturity dates relating to collections and payments related to commercial transactions are defined based on an estimate of cash flows, updated with changes to the maturity date of the MTO, collection of payments, invoicing, and any other event that changes foreign exchange rate exposure. As a result, there may be interim differences between forward trading of the currency compared with the actual currency collections/payments. Any surplus liquidity produced by early collections (or deferred payments) versus the corresponding maturity dates are absorbed into specific Currency Current Accounts denominated in the same currency as the expected flows. Specifically, hedges can be constructed so that the following cases in point are honoured:

- Incoming flows have an early maturity date with respect to the maturity date of the derivative: if the collection in currency is done before the maturity date of the derivative, the surplus of the currency account arising from the collection will enable the subsequent payment of the amounts due at the maturity date of the hedge contracts.
- Payments in currency have a later maturity date with respect to the maturity date of the derivative: if a supplier makes payment after the maturity date of the derivative, the surplus of the currency account arising from collection of currency from the hedge will make possible successive payment of the amounts due to the supplier.

4.2.2 Derivative instruments

Foreign exchange risk can be defined as the possibility that the liability/asset in currency increases or decreases in value due to changes in the foreign exchange rate. The concept of foreign exchange risk, therefore, includes the possibility that favourable and unfavourable events may take place.

BIESSE Group Foreign exchange risk management policy update March 2010 BIESSE

The concept of risk is closely linked with exposure to risk, for which there is a risk to the party which manages it only if it affects its assets and liabilities.

Biesse S.p.A. assumes a foreign exchange risk generated by the currency office of costs and revenues of commercial transactions executed by direct sale in currency to end customers or sales to Foreign Subsidiaries.

Use of derivative contracts meets the need to alleviate or, where possible, neutralise the effects related to changes in currency exchange rates on assets/liabilities susceptible to this risk. In fact, derivative contracts make it possible to fix the exchange rate to trade assets/liabilities that will be booked in the future, thereby neutralising the effects of the negative fluctuations of the foreign exchange rate on underlying financial assets.

There are derivative contracts that are able to completely eliminate the risks associated with exchange rate changes (*Forward*) and other contracts that only eliminate the unfavourable risk component, subject to payment of a premium (option).

Below is a description of the derivative instruments that can be used in the scope of the present Policy to hedge foreign exchange risk.

These instruments are represented chiefly by:

- Currency swap;
- Forward purchase or sale;
- purchase options;
- zero cost strategies realised by combining options (cylinder);

These instruments have been identified by virtue of the simplification of the structure of the payments and efficiency in closing existing risk positions.

Currency swaps

In the scope of risk management processes, the Administration, Finance and Control Office can negotiate currency swaps which generate a spot currency purchase/sale and a concurrent forward purchase/sale in order to neutralise exposure to exchange rate risk arising from future collections and payments. Currency swap transactions are essential to align differentials that arise between the date of occurrence of the hedged flow and the date of final settlement of a hedged derivative instrument.

Foreign exchange forward

A forward contract is an agreement between two counterparties that assume the obligation to buy or sell a specific financial asset at a certain date and at a price

BIESSE Group Foreign exchange risk management policy update March 2010 BIESSE

established at the time the contract is executed. The value at which the financial asset is traded is called its forward value and this value is established so that neither of the two counterparties will incur losses or gains at the date of execution of the contract.

The value of forward contracts depends on the value of an underlying parameter, represented by the exchange rate. The inverse relationship between value changes of the forward contracts and value changes of the underlying assets (cash flows arising from commercial transactions) makes it possible reduce risk.

Exposure to foreign exchange risk can be subject to hedging by forward contracts if the following requirements exist:

- reasonable certainty of the financial occurrence of the event (incoming or outgoing cash flows in currency). This level of certainty is connected to the type of underlying flow (i.e., certain, anticipated, uncertain);
- reasonable certainty of the amount and the value date of the incoming or outgoing cash flows. This amount is calculated by averaging the exposure by the specific level of probability associated with the specific currency flow;
- the existence of a currency current account/negotiation of currency swaps to absorb any discrepancies between the dates of collection/payment in currency and the maturity date of the forwards. The balance of the current account must always be positive.

The notional value of the *forward* must be lower than or equal to the amount of the cash flow obtained, averaging the amount by the specific level of probability. This level of probability is objectively determined based on the category of belonging of the flow (i.e., certain, expected, uncertain).

For more details related to the contractual terms of the instruments in question, see Annex 1.

Cross Currency Option (CCO)

Options are derivative contracts that give the buyer, subject to payment of an initial amount of money (a premium), the right to buy (CALL) or sell (PUT) currency at a future time at a predetermined exchange rate (strike price).

Exercise rights arising from the option contract can be enjoyed at a specific date (European exercise option) or no later than a specific date (American exercise option).

Unlike forward contracts, option contracts give the buyer a right which may be exercised or not. In exchange for this right, the subscriber pays a premium and incurs a

BIESSE Group Foreign exchange risk management policy update March 2010 BIESSE

monetary expenditure. This class of instruments, calling for payment of an initial premium, can be considered admissible as part of a cost and benefit analysis related to the uncertainty of cash flows in currency and must be submitted to the attention of the Risk committee.

Due to their characteristics, these contracts are particularly useful for controlling uncertainties related to the date of occurrence of the currency flows.

The exposure to foreign exchange risk object of hedging through Currency Options must have the following prerequisites:

- uncertainty of the financial occurrence of the event (incoming or outgoing cash flows in currency);
- uncertainty of the amount and the currency of the incoming or outgoing cash flows.

The notional amount of the options must be lesser than or equal to the original amount of the flow.

The maturity date of the contract must be prudently set in order to ensure that the currency current account maintains a positive balance at all times.

As regards the type of option, the following types are available:

- for hedging currency collections, put options will be used on the foreign currency;
- for hedging currency payments, call options will be used on the foreign currency.

Refer to Annex 1, for the details relating to contractual terms of the option contracts; refer to Annex 2 for details relating to the hedging methods through options.

Zero cost hedging strategies

Zero cost strategies are financial contracts that give the contracting party the right to buy and sell currency through forward contracts based on two differentiated strike price thresholds. In the scope of this type of instrument, Biesse operates exclusively through Collar or Cylinder contracts.

The contracts in question are obtained as a combination of the purchase of a call option and the concurrent sale of a put option (and vice versa). The costs incurred against options acquired are perfectly balanced by the premiums received against options sold. Like Forward contracts, less commission components, Cylinder strategies are negotiated at zero cost and do not require any initial expenditure by the contracting party. However, unlike Cross Currency Options, these contracts produce a forward

currency negotiation obligation, if the exchange rate is higher than the threshold set by contract.⁵.

For the purposes of a *Cash Flow Hedge*, financial options whose object is an amount in currency cannot be sold, unless the sale is related to the concurrent option purchase according to a zero cost hedge strategy.

Financial hedges can be realised by means of *cylinder* contracts if the same conditions apply as defined for *forward* contracts.

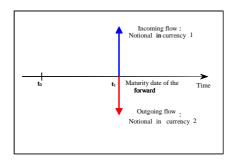
⁵ In this case, the related call and put options incorporated into the contract would be exercised.

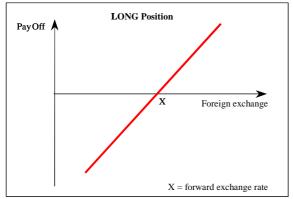
Annex 1: Detail of the eligible instruments

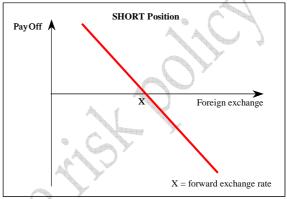
A1.1 Foreign exchange forward

A forward contract is an agreement between two counterparties who assume the obligation to buy or sell a specific financial asset (quantity of currency) at a certain date and at a certain price (exchange rate) established at the time the contract is executed. The value at which the financial asset (quantity of currency) is traded is called the forward value and it is established so that at the date of execution of the contract, neither of the two counterparties experiences losses or gains.

- The party that buys at term has a "LONG" position and undertakes the obligation to acquire the underlying asset at the forward price established.
- The party that sells at term has a "SHORT" position and undertakes the obligation to sell the underlying asset at the forward price established.
- Forward contracts:
 - are negotiated directly between the counterparties (over-the-counter);
 - do not have standard characteristics and this is why they are best suited to the needs of the counterparties (also known as *tailor made* financial instruments);
 - are not very liquid instruments;
 - each party undertake the risk of non-performance of the counterparty (counterparty risk).
- Aside from the commission components, forward contracts must start out balanced at the date of execution: the financial value of the return of a counterparty must be equal to the financial value of the return of the other counterparty (therefore, the fair value of the derivative at the time of execution is zero).
- At maturity, the two notionals in different currency are traded: one counterparty transfers the amount agreed upon in currency, the other counterparty acquires it at the exchange rate agreed on the date of execution (physical delivery). If the contract includes a cash settlement clause, the contract will be settled in cash at the foreign exchange noted at the termination date.
- The profile of the cash flows generated by a contract of this type can be represented as follows; the cash collected is in blue (currency 1), while the cash paid, expressed in a different currency, is in red (currency 2).







• The party who signs a forward contract with a "LONG" position undertakes the obligation to buy the currency at the forward price established: if the forward value of the foreign exchange is higher than the forward value set, the contract will report a gain; otherwise, the contract will report a loss. The party who signs a forward contract with a "SHORT" position undertakes the obligation to sell the currency at the forward price established: if the forward value of the foreign exchange is lower than the forward value established, the contract will report a gain; vice versa the contract will report a loss.

Forward contracts are financial contracts the value of which depends on the value of the *underlying asset*; in the case of forward contracts, the value of the contract depends on the changes in the foreign exchange rate. The relationship between changes in the value of derivative contracts and changes in the value of the underlying financial assets makes it possible to create strategies to hedge the risk related to the volatility of the underlying financial assets. In the specific case, changes related to the spot foreign exchange rate and the forward foreign exchange rate (the forward exchange rate is a function of the spot exchange rate and the differential between the *free risk domestic and foreign* rate) can be used to neutralise the risk related to the volatility of foreign exchange rates and the changes in the value of the financial assets and liabilities related to them (i.e., regulatory receivables/payables).

A1.2 Formal obligatory requirements of Forward contracts

The table below illustrates the information that a forward contract must include:

Required contract information	Specifications
Spot exchange rate	Exchange rate quoted on the markets at the inception date (the time of execution) of the contract
Deal date	Date when the contract can be considered executed by the parties.
Notional expressed in the currency 1 (Notional 1)	Cash flow received from the counterparty 1
Notional expressed in the currency 2 (Notional 2)	Cash flow received from the counterparty 2.
Buyer of Notional 1 / Seller of Notional 2	Counterparty 1
Seller of Notional 1 / Buyer of Notional 2	Counterparty 2
Forward rate	Exchange rate established by the contract, based on which the two notional amounts are exchanged at the maturity.
Maturity date	Date in which the contractual flows are traded

A1.2.1 Rules of consistency to check in the hedging of certain flows

Forward contracts to hedge flows identified as certain must consist in:

- forward currency sale / forward purchase of euro, if a currency structure includes revenue in currency;
- forward Euro sale / forward purchase in currency, if a currency structure includes costs in currency;
- notional value equal to (or less than) the certain amount of the cash flow;
- for collection in currency, maturity date of the contact equal to (or greater than) the date of collection in currency;
- for payments in currency, maturity date of the contact equal to (or lesser than) the date of outlay in currency.

A1.2.2 Rules of consistency to check in the hedge of the temporary flows

Forward contracts to hedge the flows identified as temporary, must consist in:

- forward currency sale / forward purchase of euro, if a currency structure includes revenue in currency;
- forward Euro sale / forward purchase in currency, if a currency structure includes costs in currency;
- notional value equal to (or less than) the certain amount of the cash flow.

As regards the maturity, it is possible to distinguish the case of hedging a collection in currency and hedging a payment in currency:

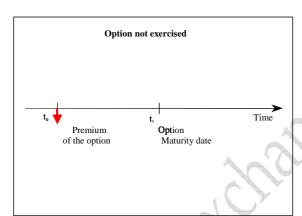
- to *hedge* currency collections, the maturity date of the *forward* buy contracts must be prudently defined at a date after the date of the projected collection, so as to promote the early entry of the currency on the underlying transaction and maintain the balance of the currency current account positive.
- to *hedge* currency payments, the maturity date of the *forward* sell contracts must be prudently defined at a date prior to the date of the projected payment, so as to promote the early entry of the currency by effect of the derivative and keep the balance of the currency current account positive.

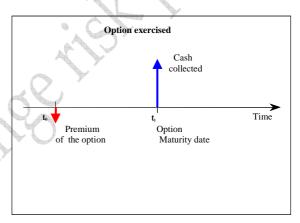
A1.3 Cross Currency Option

Options are derivative contracts that attribute to the buyer the right to buy (CALL) or sell (PUT) the underlying asset at a certain date for a certain price (*strike price*), subject to payment of an initial amount of cash (premium). Exercise rights arising from the option contract can be enjoyed at a specific date (European exercise option) or by a specific date (American exercise option).

- The party that buys an exercise right is called the "BUYER" and has a "LONG" position.
- The party that sells an exercise right is called the "SELLER" and has a "SHORT" position.
- The party that buys the right pays a sum of money to the party which is selling the right, called a premium.
- Option contracts give the Buyer the right to exercise at the expiration date of the contract (European exercise) or by a specific date (American exercise) or at a preset date (Bermudan exercise).
- Option contracts:

- are negotiated on regulated markets but are also negotiated directly between the counterparties (over-the-counter);
- each party assumes the risk of non-performance of the counterparty (counterparty risk).
- The profile of the cash flows generated by an option contract must be represented while making reference to the two states in the world that can be realised at term: the option "is exercised" or the option "is not exercised". The first graph represents the cash flow profile of the operation in which the option right is not exercised. The second graph shows the cash flow profile of the operation for the BUYER if the option right is exercised: blue represents the cash collected, while red represents the cash paid. In both cases, the cash paid is the only certain amount, while the cash collected is a variable amount that will depend on the market price of the underlying asset at the strike price set by contract.

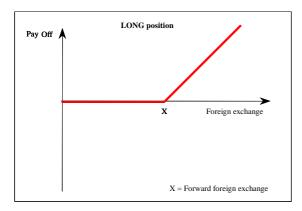


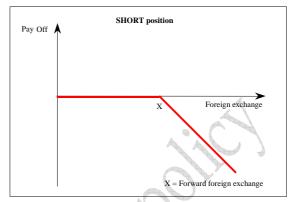


• The party that acquires the foreign exchange options contract (the BUYER) has a "LONG" position and in exchange for payment, acquires the right but not the obligation to buy currency 1 (*CALL*)/sell currency 2 (*PUT*)⁶ at the forward price established. The option will only be exercised if the value at maturity of the exchange rate (currency 1/currency 2) is greater than the forward value agreed (*CALL*) or lower than the value of the forward exchange rate agreed (currency 2/currency 1) (*PUT*). In these cases, the contract will incur a gain for the BUYER; otherwise, the contract will have no effect and the BUYER will report a net loss equal to the premium paid. The party that sells the option on a foreign exchange contract (SELLER) has a 'SHORT' position and assumes the obligation of selling currency 1 (*CALL*)/ buying currency 2 (*PUT*) at the forward price established if the BUYER decides to exercise. Therefore, the SELLER of a foreign exchange option is exposed to the risk of unlimited losses against a certain initial collection (premium).

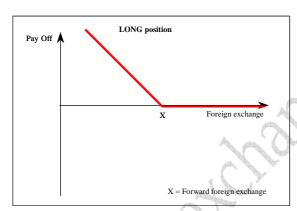
⁶ The exchange rate is the result of the relationship between two currencies: Currency 1/Currency 2. In the case of options, buying or selling a *Call* on currency 1 is exactly identical to buying or selling a *Put* on currency 2.

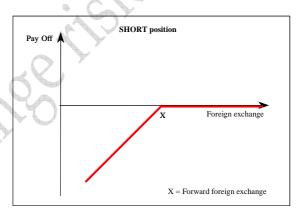
• The gains and losses profile for a *Call* option in a LONG position (BUYER) and a SHORT position (SELLER) will be as follows:





• The profile of gains and losses for a PUT option in a LONG position (BUYER) and a SHORT position (SELLER) will be as follows:





A1.4 Mandatory formal requirements of Currency Option contracts

The following table illustrates the information that an option contract must include:

Required contract information	Specifications
Spot rate	Exchange rate quoted on the markets at the inception date.
Deal date	Date when the contract can be considered executed by the parties.
Notional Amount	Currency amount to hedge.
Option Buyer	Counterparty 1
Option Seller	Counterparty 2
Strike	Exchange rate established by the contract, based on which a calculation is made of the flow that the SELLER must give to the BUYER in the event of exercise.
Maturity date	Date when the flow that SELLER must give to the BUYER is determined.
Settlement date	Date when the amount payable will be liquidated.
Style (of the option)	Specifications of the type of settlement signed: <i>CALL/PUT</i> .
Type of exercise	Indication of the method of exercise: European/American.
Premium payment	Cash paid/collected initially to enter into an option contract.

Based on the business characteristics of Biesse, option contracts must consist generally in:

- purchase options *PUT* on foreign currency (*CALL* on Euro) for managing short positions in currency (expected or uncertain);
- purchase options *CALL* on foreign currency (*PUT* on Euro) for managing long positions in currency (expected or uncertain);
- notional amount equal to or lesser than the amount of the *cash flow* estimated in the framework of the financial planning and reconciliation process;
- maturity date of the contract, defined so that the balance of the currency current account is always positive. To hedge collection, the maturity date of the option must be on or after the date expected for the cash to be collected. To hedge payments in currency, the maturity date of the option must be on or prior to the date expected

for the cash to be paid.

Given the nature of the contracts in question, options are used to hedge cash flows in currency identified as certain or probable.

A1.5 Zero cost hedging strategies

Zero cost strategies are financial contracts that attribute to the contracting party the ability to buy and sell currency with forward contracts based on differentiated strike price thresholds.

They are defined *Zero cost* because the premium paid to buy the option (put or call), less commissions, is zeroed out by the premium collected for sale of another (call or put). As a result, they require no initial outlay by the contracting party.

In the framework of this type of instrument, Biesse operates using so-called *Collar* or *Cylinder* contracts.

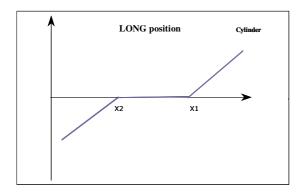
From a financial perspective, the purchase of a Cylinder on currency consists in:

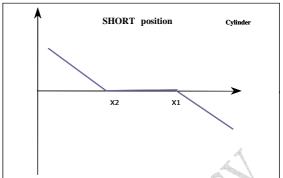
- Sale (purchase) of a *put* option on the foreign exchange rate with a *strike* X1;
- Purchase (sale) of a *call* option on the foreign exchange rate with a strike *X2>X1*.

Specifically:

- the party which buys at maturity assumes the obligation to buy the underlying asset at the foreign exchange of X1 if the exchange rate is higher than X1 and at the foreign exchange X2 if the exchange rate is less than X2;
- the party which sells at maturity assumes the obligation to sell at the foreign exchange of X1 if the exchange rate is higher than X1 and at the foreign exchange X2 if the exchange rate is less than X2;
- CYLINDER contracts are negotiated OTC and therefore, can be regulated based on different maturities / strikes.

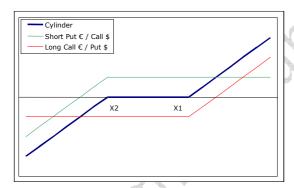
The party which signs the *Cylinder* in a LONG position can incur a gain if the exchange rate appreciates. The party which signs the *Cylinder* in a SHORT position can incur a gain if the exchange rate depreciates.

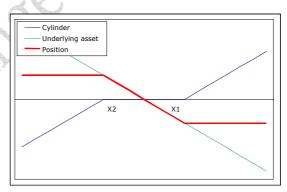




A1.5.1 Hedging certain flows using Cylinder contracts

The operating mechanism of a *Cylinder* contract can be effectively described in the two graphs reported below: the first graph illustrates the breakdown of the *pay off* of a *cylinder* strategy. The second graph shows the effect of a hedge, presuming an exposure in foreign exchange (e.g. receivable in USD).





Like *forward* contracts, the X axis represents the foreign exchange rate while the Y axis represents the profits and losses. A long *cylinder* position on the US dollar, combined with a short position on the US dollar produces the effect of limiting losses due to changes in the foreign exchange rate within a minimum and maximum *range*.

A1.6 Formal requirements of a cylinder contract

The table below illustrates the information that a cylinder contract must include:

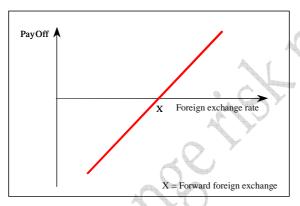
Required contract information	Specifications
Spot rate	Exchange rate quoted on the markets at the inception date.
Deal date	Date when the contract can be considered executed by the parties.
Notional expressed in the currency 1 (Notional 1)	Cash flow received from counterparty 1.
Notional expressed in the currency 2 (Notional 2)	Cash flow received from counterparty 2.
Buyer of Notional 1 / Seller of Notional 2	Counterparty 1
Seller of Notional 1 / Buyer of Notional 2	Counterparty 2
Forward exchange rate (X1)	Exchange rate set by contract, based on which the two notional amounts is calculated if the spot rate is higher than X1.
Forward exchange rate (X2)	Exchange rate set by contract, based on which the two notional amounts is calculated if the spot rate is less than X2.
Maturity date	Date in which the contractual flows are traded.

- If the underlying asset is represented by currency collections, the *Cylinder* must include purchase of a *Put* option and the simultaneous sale of a *Call* option.
- If the underlying asset is represented by currency payments, the *Cylinder* must include purchase of a *Call* option and the simultaneous sale of a *Put* option.
- To *hedge* currency collections, the maturity date of the *cylinder* buy contracts must be prudently defined on a date subsequent to the date of the projected collection, so as to promote the early entry of the currency on the underlying transaction and keep the balance of the currency current account positive.
- To *hedge* currency payments, the maturity date of the *cylinder* sell contracts must be prudently defined on a date prior to the date of the projected payment, so as to promote the early entry of the currency by effect of the derivative and keep the balance of the currency current account positive.
- As regards the value, the amount of the hedge will be defined based on the expected value of the outlays/collections in currency. The expected value is calculated by multiplying the probability associated with the flow for its amount.

Annex 2: Examples of hedging strategies

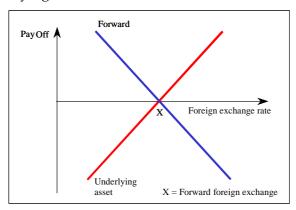
A2.1 Managing currency collections using FORWARD contracts

Financial assets in currency (receivables in currency, cash in currency, etc.) are subject to changes in value due to the volatility of the foreign exchange rate and present an earnings and losses profile such that if the foreign exchange appreciates, the underlying asset gains value, generating an additional profit. Otherwise, if the foreign exchange rate depreciates, the underlying asset incurs a loss in value that can erode the expected *mark up*. Therefore, assets denominated in currency typically present the following linear *payoff* profile:

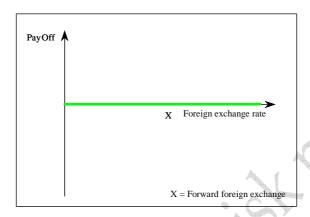


Based on the matters shown, it is essential to build hedging strategies that can neutralise the risk related to the uncertainty of foreign exchange rates in order to ensure *budget* objectives are reached. Therefore, it is essential to have financial assets that present a *payoff* profile that exactly reflects the profile of the financial asset that has to be hedged.

Forward contracts (or outright) are ideal for hedge uses since they present a *payoff* profile that exactly reflects the profile of the underlying asset to hedge. These contracts can also be bought or sold and generate cash flows of the opposite sign versus those generated by the underlying asset.

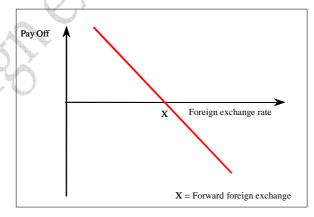


In the specific case, the hedge will be efficient if the gains or losses reported by the changes in value of the underlying asset are fully offset by the flows of the opposite sign, recorded by the hedged derivative (outright). The brief payoff profile of the underlying asset and the respective hedge must be completely neutral compared with any movements reported by the foreign exchange rate:



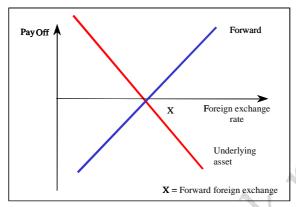
A2.2 Managing payments using FORWARD contracts

Financial liabilities in foreign currency (payables in currency) are subject to changes in value due to the volatility of the foreign exchange rate and present an earnings and losses profile such that if the foreign exchange depreciates, the underlying asset incurs a loss in value, generating an extra profit. Otherwise, if the foreign exchange rate appreciates, the underlying liability reports a gain that can erode the budgeted *mark up*. Therefore, liabilities denominated in currency typically present the following linear *payoff* profile:

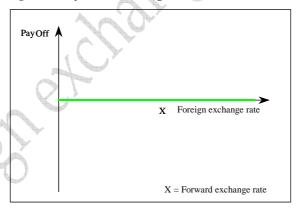


Based on the matters shown, it is essential to create hedging strategies that can neutralise the risk related to the uncertainty of foreign exchange rates in order to ensure compliance with *budget* objectives: therefore, it is essential to have financial assets that present a *payoff* profile that exactly reflects the profile of the financial asset that has to be hedged.

The *outright* contract lends itself to hedge uses since it presents a *payoff* profile that exactly reflects the profile of the underlying liability to hedge: the contract can also be bought or sold and generates cash flows of the opposite sign versus those generated by the underlying liability.



In the specific case, the hedge will be efficient if the gains or losses reported by the changes in value of the underlying asset are fully offset by the flows of the opposite sign, recorded by the hedged derivative (*outright*). The brief *payoff* profile of the underlying liability and the respective hedge must be completely neutral compared with any movements reported by the exchange rate:



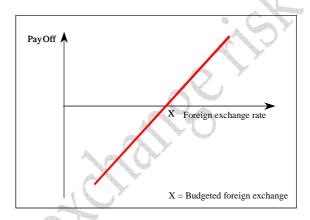
The prerequisite for correct operation of the hedge is represented by the certain knowledge of:

- values in currency: the total value of the orders in currency that will be subject to hedging;
- date of occurrence of the flow; maturity date with respect to which build the hedging contract.

A2.3 Management collections using Options

Financial assets in currency (receivables in currency, cash in currency, etc.) are subject to value changes due to the volatility of the foreign exchange rate and show an earnings and losses profile such that if the foreign exchange depreciates, the underlying asset reports an increase in value, generating an extra profit. Otherwise, if the foreign exchange depreciates, the underlying asset incurs a loss in value which can erode the budgeted mark up on revenue.

The asset in currency presents the following linear payoff profile: if the foreign exchange expressed in foreign currency appreciates, the value of the assets in currency (receivables, liquidities) will report an increase; the opposite is true for depreciation of the exchange rate in foreign currency.

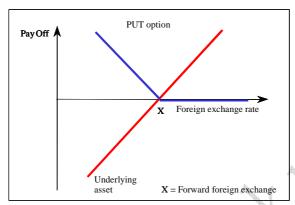


Based on the matters shown, it is essential to create hedging strategies that respect the objectives of the budget.

Therefore, it is essential to have financial assets that present a payoff profile that, while not linear, can neutralise the unfavourable portion of the risk, leaving intact the earnings opportunities arising from changes in the foreign exchange: this is why, hedges built using options are more efficient than hedges built using *forward* contracts.

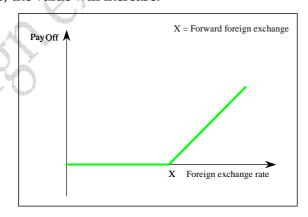
The advantage arising from option right is balanced by the payment of an initial premium. This premium is not included in the case of *forward* contracts. In selecting the instrument to use to create the hedge, it will be necessary to carefully evaluate the *trade off* between the initial cost of the instrument and the maximum loss which it is exposed to, in the future.

If the goal is to hedge an uncertain or probable financial asset with a *payoff* profile, such as the one presented earlier (for example, a receivable in US dollars), taking advantage of options, Biesse must buy a PUT option (on a US\$/Euro exchange) as shown in the figure:



In the specific case, the hedge is efficient since the losses reported by the unfavourable movements in the value of the underlying asset are exactly offset by the flows with an opposite sign, reported by the hedge derivative (option).

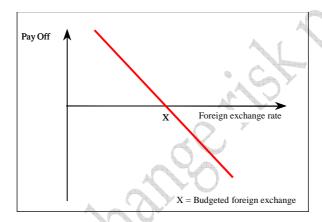
The brief *payoff* profile of the underlying asset and the respective hedge will be insensitive to unfavourable changes in the foreign exchange rate and will be positive if the exchange rate produces an extra profit; in this case, the option will have no effect and the higher value of the underlying asset will not be affected. The graph illustrates that, following construction of the hedge, the asset covered will not be subject to any loss in value if the foreign exchange fluctuates; on the contrary, if the exchange rate is lower than the *strike*, the value will increase.



The cost of the hedge is still represented by a premium commensurate with the *strike*, duration, and volatility of the underlying asset.

A2.4 Managing payments using Options

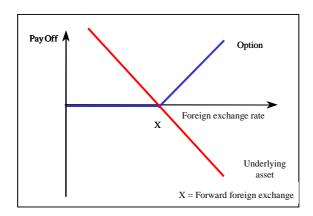
Financial liabilities in currency (payables in currency), classified as uncertain or expected, are subject to value changes due to the volatility of the foreign exchange rate and show an earnings and losses profile such that if the foreign exchange depreciates, the underlying liability depreciates in value, in turn generating a lower cost; otherwise, if the foreign exchange appreciates, the underlying liability reports an increase in the value that erodes the budgeted *mark up*. Liabilities in currency show the following linear *payoff*: if the foreign exchange expressed in foreign currency depreciates, the value of the liabilities in currency (payables) will report a decrease; the opposite is true for appreciation of the exchange rate in foreign currency.



Based on the matters shown, it is essential to build hedging strategies that can ensure respect for budget objectives. Therefore, it is essential to have financial liabilities that present a payoff profile that, while not linear, can neutralise the unfavourable portion of the risk, leaving unchanged the earnings opportunities arising from changes in the foreign exchange: this is why, hedges built using options are more efficient than hedges built using forward contracts.

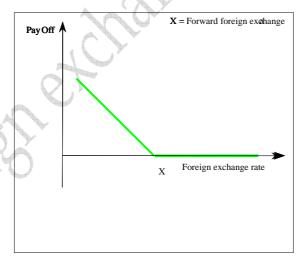
The advantage arising from the option right is balanced by the payment of initial premium. This premium is not set forth in the case of forward contracts. In selecting the instrument to use to build the hedge, it will be necessary to carefully evaluate the trade off between the initial cost of the instrument and the maximum loss which it is exposed to, at term.

If the goal is to cover a financial liability with a payoff profile, such as presented previously (for example, payables in US dollars), Biesse should buy a CALL option (on \$/€ foreign exchange), making use of options, as shown in the figure:



In the specific case, the hedge is efficient since the losses incurred by the unfavourable value changes in the underlying asset are exactly offset by flows of the opposite sign reported by the hedge derivative (option).

The brief *payoff* profile of the underlying liability and the respective hedge will be insensitive to unfavourable changes in the foreign exchange rate and will be positive if the exchange rate depreciates; in this case, the option will have no effect and the lower value of the underlying liability will not be affected. The graph illustrates that, following construction of the hedge, the liability hedged will not be subject to any increase in value if the foreign exchange fluctuates; on the contrary, if the exchange rate is higher than the *strike*, the value will decrease.



Like call options on currency, the cost-benefit analysis must include an assessment of the convenience of the premium of the option that will increase as the volatility, *strike*, and maturity of the negotiated contracts increase.

A prerequisite for the purpose of correct operation of the hedge realised by options is represented by the certain knowledge of:

- values in currency: the total value of the orders in currency that will be subject to hedging;
- date of occurrence of the cash flow, if European options are used;
- possible final date of occurrence of the cash flow, if American options are used⁷.

Hoteida excuance its holich

For European options, the date the financial event will occur must be known, while American options present an additional element of flexibility, since they can be exercised at any time during the life of the contract.