

**RISK MANAGEMENT POLICY OF  
MINERVA S.A.**

## **1. PURPOSE AND SCOPE**

1.1. This purpose of this Risk Management Policy ("Policy") is to establish the principles, guidelines and responsibilities to be observed in Minerva S.A.'s ("Minerva" or "Company") risk management process, in order to permit the identification, evaluation and treatment of risks for the continuity of the Company's business.

## **2. REFERENCES**

2.1. This Policy is based on (i) the corporate governance guidelines of the Company's by-laws, as amended; (ii) the provisions set forth in CVM Instruction no. 480 of December 7, 2009, as amended; (iii) the IBGC's (Brazilian Institute of Corporate Governance) Code of Best Corporate Governance Practices: the Brazilian Code of Corporate Governance; and (iv) the B3 S.A. - Brasil, Bolsa, Balcão ("B3") *Novo Mercado's* Listing Regulations.

## **3. APPLICATION OF THE POLICY**

3.1. This Policy applies to all of Minerva's employees, as well as those of its subsidiaries, including the members of Minerva's Board of Directors, Committees, Executive Board and Fiscal Council.

## **4. DEFINITIONS**

4.1. "Risk" means any threat of events or actions that may have an effect on the achievement of the Company's objectives. It is inherent in any activity and can affect the assets, results, image or continuity of the business.

## **5. IDENTIFICATION AND GUIDELINES OF THE RISKS**

5.1. The risks to which the Company is subject must be periodically identified, documented and formalized in a structured way so that they are recognized and dealt with. These risks must be categorized according to their nature and origin, as shown below:

5.1.1. Strategic Risks: are the risks associated with the strategic management decisions to achieve the Company's business objectives

5.1.2. Financial Risks: these are divided into three segments:

(i) *Market Risk*: arises from the possibility of losses that may be caused by changes in interest rates, exchange rates, share prices and commodity prices;

(ii) *Credit Risk*: is characterized by the possibility of loss resulting from uncertainty in relation to the receipt of amounts agreed with third parties as a result of their economic and financial incapacity;

(iii) *Liquidity Risk*: this consists of the possibility that the Company may not be able to effectively meet its obligations on the maturity date, or only do with high levels of losses.

5.1.3. Compliance Risks: are the risks of sanctions in connection with a failure to comply with the applicable legislation, agreements, regulations, codes of conduct and/or policies.

5.1.4. Operational Risks: are those that result from the Company's infrastructure, and which may affect its operational efficiency and its effective and efficient use of resources.

5.2. Minerva is committed to managing the risks that are inherent in its activities. The Company believes that the effective management of these risks helps in the preservation and development of its values and assets, as well as protecting its reputation. This management is based on maintaining the risks at acceptable levels, by means of:

- (i) identification of the main business risks, both internal as well as external, to which Minerva is exposed;
- (ii) quantification of the direct and indirect economic impact;
- (iii) continuous assessment of risk, particularly in relation to the likelihood of occurrence and financial impact on the business, in order to permit the prioritization and treatment of such risks;
- (iv) adoption of internal risk management procedures, with duties and hierarchical functions being attributed to the Company's different areas and departments;
- (v) analyses of the market risks to which the Company is exposed and which may have a negative impact on its business, financial condition and the results of its operations;
- (vi) monitoring of changes in the macroeconomic and sectoral scenario that may influence the Company's activities; and
- (vii) diffusion of a risk culture and the consequent quest for the best market practices.

## **6. RISK MANAGEMENT PROCESS**

6.1. According to best market practices, Minerva must maintain an organized structure responsible for the application of the risk management process described herein, at different levels of the organization, which includes the Board of Directors, the Executive Board, the Risk Committee and all of the Company's employees. Its purpose is to enable the Company's business to be carried out in a safe, appropriate and efficient way, and to allow the Company to issue reliable financial statements, in accordance with the legal provisions and the standards issued by the applicable regulatory bodies.

6.2. The mitigation measures and procedures for the risks to which the Company is exposed, as well as the analysis of the Brazilian and global economic scenario and their potential impact on the Company's financial position, are implemented by the Risk Committee.

6.3. The management of market risks is aimed at identifying and analyzing the risks to which the Company is exposed, in order to define limits and control them. The procedures for managing these risks are controlled and managed by the Finance Department, under the supervision of the Risk Committee.

6.4. This management is carried out by means of the application of the following models: (i) a statistical calculation system known as "VaR - Value at Risk" ("VaR"); and (ii) a system of impact calculation by means of the application of stress scenarios. In the case of VaR, the Parametric and Monte Carlo VaR models are used.

6.5. Once the risks have been identified, the Finance Department must take decisions in order to mitigate and/or neutralize the risks to the Company.

6.6. Risks are constantly monitored in order to correct any possible additional exposure, in addition to controlling margins and adjustments. The Finance Department's discretion in determining the limits necessary to minimize the Company's exposure to currencies, interest rates and cattle prices is limited solely to the VaR analysis parameters of the derivatives portfolio.

#### 6.5. Asset Protection Strategy - Use of Hedging

6.5.1. The use of derivative financial instruments (hedging) is designed to partially protect the Company's assets and its transactions against the risks of fluctuation in exchange rates, interest rates and the price of cattle.

**Currency Hedge:** the adoption of the currency hedge policy is aimed at protecting the Company from currency fluctuations. The policy is divided into: (i) cash flow hedge; and (ii) balance sheet hedge.

(i) The cash flow hedge takes advantage of market fluctuations to improve the Company's operating results and, at the same time, protect its currency flow (other than the *Real*) within a timeframe of up to one year. This hedging uses instruments such as USD futures trading on the B3, non-deliverable forwards ("NDFs"), foreign currency raisings, options and inflows of dollars; and

(ii) The balance sheet hedge is intended to protect the Company's indebtedness in foreign currency and is discussed at the meetings of Minerva's Board of Directors. The balance sheet exposure is the flow of debt in US dollars with a maturity of more than one year. In order to hedge these risks, instruments such as retention of cash in US dollars, repurchase of notes or bonds on the international market, NDFs, futures contracts on B3, swap transactions and options trading may be used. The following table will be used to guide the board

about hedging strategies and definitions. Company executives might be able to operate in a range of +10%/-10% of the stipulated level of hedging.

- **Debt Exposure below \$1bi**

		Hedging Cost		
		Less than 4.5% per year	Between 4.5% and 8.0% per year	Above 8.0% per year
LEVERAGE	Less than 2.5x	40%	30%	0%
	Between 2.5x and 4.0x	50%	45%	30%
	Above 4.0x	65%	55%	40%
	Above 5.0x	85%	75%	50%

- **Debt Exposure between \$1bi to \$2bi**

		Hedging Cost		
		Less than 4.5% per year	Between 4.5% and 8.0% per year	Above 8.0% per year
LEVERAGE	Less than 2.5x	50%	40%	10%
	Between 2.5x and 4.0x	60%	55%	40%
	Above 4.0x	75%	65%	50%
	Above 5.0x	95%	85%	60%

- **Debt Exposure above \$2bi**

		Hedging Cost		
		Less than 4.5% per year	Between 4.5% and 8.0% per year	Above 8.0% per year
LEVERAGE	Less than 2.5x	60%	50%	20%
	Between 2.5x and 4.0x	70%	65%	50%
	Above 4.0x	85%	75%	60%
	Above 5.0x	100%	95%	70%

**Interest Hedge:** this is designed to protect the Company from changes in the interest rate on financial investments, loans and financing, by means of the use of derivative financial instruments based on B3 futures contracts, Swaps, NDFs and options trading, among other transactions.

**Cattle price hedge:** is aimed at minimizing the impacts of fluctuations in beef prices on the Company's income. This policy is divided into the following segments: (i) cattle futures hedge; and (ii) carcass beef hedge.

(i) A cattle futures hedge ensures raw material, especially in the off-season. Fed cattle instruments traded on the B3 and options on futures contracts, which are also traded on B3, may be used; and

(ii) A carcass beef hedge is aimed at guaranteeing the cost of the raw material used in meat production, particularly in the off-season. In this way, the Company can buy cattle for future delivery and use the B3 to sell futures contracts, minimizing the directional risk of beef prices. In order to implement this policy, instruments that are available on the market, such as fed cattle futures contracts and options on futures contracts, both of which are traded on B3, may be used.

6.5.2. With regard to the transactions on the B3 fed cattle contracts futures market, the Company must be guided by the provisions listed in Exhibit I of this Policy.

## 7. TREATMENT OF RISKS

7.1. The risks to which the Company is subject must periodically be identified, documented and formalized in a structured way so that they are recognized and properly dealt with.

7.2. The Company sells its products on the domestic and international market, maintaining high standards of governance and transparency, managing its operations in such a way as to avoid, mitigate and manage the impacts and risks to which it is exposed. The Company seeks measures and procedures to monitor and mitigate the following risks:

- (i) credit risks;
- (ii) risks from international and export operations;
- (iii) risks of deterioration in the economic environment;
- (iv) risks resulting from the use of derivative financial instruments;
- (v) risks resulting from fluctuations in interest rates;
- (vi) risks resulting from fluctuations in the foreign exchange rate; and
- (vii) risk of volatility in the price of cattle.

7.3. The Company aims to treat and monitor the abovementioned risks in such a way as to maintain high standards of governance and transparency, as described below.

7.3.1. Credit risks: in order to mitigate these risks, the Company must limit its exposure to credit risk per customer and market by means of credit analysis and customer portfolio management by the Risk Committee. The aim is to reduce the financial exposure to any given customer and/or market that may represent significant losses to the Company in the event of default or the implementation of health and/or commercial barriers in countries to which the company exports. Therefore, the Company must comply with the credit limit of up to 30% of billing for customers with a relationship of at least one year. In addition, the Company must seek diversification of its clients, so that there is no concentration and so that no customer represents more than 5% of gross sales revenue. Credit risk must be monitored by (i) a detailed analysis of the customers' financial statements; (ii) an internal customer risk rating system; and (iii) checks with credit rating agencies.

7.3.2. Risks from international and export operations: given that the Company exports its products to more than a hundred countries, the risks related to its international operations are mitigated. Even with the occurrence of an event that may subject the Company to a risk in a given country, the aforementioned risk will not imply a significant alteration in the Company's total revenue, given that it may also be able to reallocate the volume to other markets.

7.3.3. Risks of deterioration in the economic environment: the Risk Committee must periodically analyze the Brazilian and global economic scenarios and their potential impact on the Company's financial position.

7.3.4. Risks resulting from the use of derivative financial instruments: as previously mentioned, the Company must only use financial instruments for the purpose of hedging protection and not for financial speculation. However, generally speaking the financial instruments that are available in the market produce an imperfect asset protection (hedge), and may potentially expose the Company to risk. In this case, it is

up to the Risk Committee to assess the Company's exposure, and to suggest what actions should be taken, in order to reduce Minerva's exposure to a minimum.

7.3.5. Risks resulting from fluctuations in interest rates: the Company must use parameters that take into account the materiality of its net exposure, based on amounts, terms and interest rates, by comparison with the CDI (Bank Deposit Certificate) rate. The internal controls for risk and hedge management use worksheets and systems for monitoring the transactions performed and calculating the VaR.

7.3.6. Risks arising from fluctuations in the foreign exchange rate: as a parameter for its protection, the Company must take the net mismatch in foreign currency, and reduce the excess exposure to foreign exchange variation risks by balancing its non-Real-denominated assets against its non-Real-denominated obligations, protecting the Company's balance sheet. The internal controls for risk and hedge management use worksheets and systems for monitoring the transactions performed and calculating the VaR.

7.3.7. Risk of volatility in cattle prices: the Company must hold periodic meetings with the market research team responsible for coordination and the operational and financial teams in order to identify all the risks, as well as to determine the appropriate decisions in each case, based on the Company's scale of slaughter, the beef price, the base differential (discount on the beef price outside São Paulo), the price of beef on the international market, the price of beef on the domestic market, and the availability of beef on the domestic market. These figures are calculated and published daily in the market. Based on this information, the Company makes decisions regarding which hedging policy to adopt, as mentioned in item 6.5. "Asset Protection Strategy - Use of Hedging".

## **8. INTERNAL CONTROLS AND RESPONSIBILITIES**

8.1. Minerva must structure support and advisory areas responsible for the monitoring and improvement of the Company's risk management, internal controls and corporate governance. The Board of Directors, the Executive Board, the Risk Committee and other advisory areas must coordinate the risk management process and attempt to identify, measure and monitor the associated risks, as well as those risks that may have a significant effect on the preparation of the Company's financial statements.

### **8.2. Responsibilities**

8.2.1. Board of Directors: the body responsible for approving this Policy. In addition, it is tasked with (i) analyzing and implementing measures to mitigate the risk factors to which Minerva is exposed; (ii) establishing the level of protection (hedge) of the Company's long-term debt; (iii) defining Minerva's level of risk appetite in the running of its business; and (iv) constantly monitoring changes in the macroeconomic and sectoral scenario that may influence the Company's activities.

8.2.2. Executive Board: adopts mechanisms for risk management (hedging), the control and management of which are the responsibility of the Finance Department, following the decisions taken by the members of the Company's Board of Directors, employees and external consultants, using control instruments by means of appropriate systems and professionals trained in the measurement, analysis and management of risks. Once the Company's exposure to market risks has been identified the Finance Department is responsible for consolidating all the parameters and seeking protection by means of operations on the securities market, in order to mitigate and/or neutralize the Company's risks. The Executive Board is also responsible for evaluating at least once a year the effectiveness of the policies and risk management systems and internal controls as well as of the integrity/compliance program and rendering a report of this assessment to the Board of Directors.

8.2.3. Risk Committee: made up of members of the Board of Directors, Executive Board, employees, it assists the Executive Board and the Company's Board of Directors with the implementation of measures designed to mitigate the risk factors to which the Company is exposed, as well as with the analysis of the Brazilian and global economic scenarios and their potential impact on the Company's financial position. The Risk Committee, together with Minerva's management, must constantly analyze the risks to which the Company is exposed and which may have a negative impact on its business, its financial condition and the results of its operations, monitoring changes in the macroeconomic and sectoral scenario that may influence its activities

## **9. VALIDITY**

**9.1.** This Policy was approved by the Company's Board of Directors at a meeting held on September 9<sup>th</sup>, 2019 and will remain in force as from this date for an indefinite period, pending a decision to the contrary.

## EXHIBIT I

### TRANSACTIONS ON THE B3 FED CATTLE CONTRACTS FUTURES MARKET

1. In the context of any operation carried out on the B3's fed cattle contracts futures market ("Operation"), it is essential that Minerva S.A. ("Minerva" or "Company") register: (i) strategies; (ii) contract volumes; and (iii) directions, to be observed throughout the entire period in which the Company holds any positions or carries out daily operations in the market.
  
2. Any change in the strategy or volume of contracts shall be accompanied by a record of the reasons that led to such changes.
  - 2.1. The records shall be kept for the prescribed periods of time.
  
3. The record must include the qualification of all those who took part in the decisions that defined strategies, volumes, directions and the respective changes.
  
4. Internal rules shall be created to be observed by the people responsible for transmitting orders to intermediaries for inputting offers into the trading systems ("Rules").
  - 4.1. These Rules shall be written in clear and objective language so as to avoid wrong interpretations.
  
5. Action that may involve the use of irregular practices in the conduct of the strategies is prohibited.
  
6. Internal procedures shall be established so as to verify that the Rules are being followed by those who are responsible for dealing with intermediaries.