Considerations Regarding the Substantiation of Financial Instruments' Accounting

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Abstract

The purpose of this work consists in the schematic scoring of the reflection in the accounting of the options for instrumenting the financing systems. The rapid progress of electronic processing systems, in real time, of accounting data opens new opportunities in the accounting implementation of financial instruments in the exploitation activities of various entities. The use of tools - computer applications of artificial intelligence allows a diversified exploitation of financing systems in the accounting of entities from various fields. Decentralized systems for processing accounting data regarding the financing of entities allow a superior use of new options for financing economic activities. The use of financial instruments in the accounting of entities opens new ways of instrumentalization in accounting of these types of operations. Current developments allow new developments in the accounting system to capture the variety of financial instruments available to entities.

Key words: financial solutions, accounting, technologies
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1. Introduction

There are a multitude of financial instruments to suit the needs of an investor or speculator, depending on one's goals. For example, some investors prefer to settle for lower but safer returns and invest in government bonds. (Nicolae, 2010)

Bonds will usually yield lower returns than equity investments. The advantage here is that bonds are less risky and safer. Most of the time they have government guarantees.

Investing in equity markets may seem more interesting from the point of view of an investor with a higher appetite for risk. For taking this risk, the investor will be rewarded with higher returns, but there are no guarantees. (Nicolae, 2010)

The decision to invest in equity or debt markets has a lot to do with managing the risks associated with a portfolio. (Nicolae, 2010)

When it comes to the forex markets, again it all comes down to the choice and purpose of the investor or speculator. An exporting company will be more interested in investing in the foreign exchange market to cover its risks related to the currencies in which it operates, rather than investing in the stock market, for example. (Nicolae, 2010)

In other words, a person interested in saving for retirement will probably be more interested in bonds and stocks than investing in the foreign exchange markets.

When you intend to invest in financial instruments, you should evaluate those financial instruments in terms of the following parameters: (Nicolae, 2010)

• yield – the ratio between the result obtained and the effort made to obtain that result

• net profit – the difference between the amount of money received from the transaction and the amount of money spent to carry it out

• risk – financial instruments can present different degrees of risk, from losing all or part of the invested amount to obtaining profits below expectations

• liquidity – is the ability of a financial instrument to be converted into liquid money without losing its value.

As a result, each investor can choose the financial instruments that suit him according to his appetite for risk:

• bank financial instruments such as bank deposit correspond to very low-risk investments with very low returns and are preferred by defensive investors with a very low risk appetite,

• bonds and government securities are financial instruments with a slightly higher risk and with a corresponding potential return. They are preferred by conservative investors who prefer fixed, guaranteed income and low risk.

• stocks and mutual funds are preferred by balanced investors who are comfortable with a higher degree of risk and commensurate potential gain,

• financial derivatives and speculation on the Forex market are the preference of aggressive investors, who prefer high gains also associated with high risks.

It is essential for the investor to know as many types of financial instruments as possible and how they work in order to maximize the efficiency of your investments.

Diversification is the foundation of a balanced portfolio that aims to minimize risks while maintaining the potential for profits as high as possible. So, it is recommended to invest in a varied range of financial instruments, depending on the risk profile of the investor.

Market participants must invest in financial instruments with which they are familiar and whose operation they understand. This is essential for the long-term profitability of capital market participants' investments. (Nicolae, 2010)

2. Theoretical background

Year-end reporting is a good time for entities that prepare financial statements in accordance with International Financial Reporting Standards (IFRS) to review their accounting policies and disclosures about financial instruments in their financial statements. (IASB, 2018)

Accounting policies sometimes include non-discounted categories of financial instruments such as loans and receivables, available-for-sale assets or held-to-maturity assets. There are also situations where the categories in the statement of financial position are in accordance with IFRS 9, while other parts of the financial statements still refer to the categories in IAS 39, for example in the fair value note or in the explanatory notes to individual elements of the global result statement. It is worth noting that the term loans and receivables can still be seen. Some entities explain that it is not a category in IAS 39, but a class of financial instruments that entities can define. Such an approach may be justified in some cases, but is difficult to justify when the entity has no outstanding loans – so it is simply a policy left over from IAS 39 that needs to be changed.

Options are traded on both organized and over-the-counter markets. There are two main types of options: (Nicolae, 2010)

- call options that give the holder the right to buy the underlying asset at maturity at a pre-determined price

-put options give the holder the right to sell the underlying asset at maturity at a predetermined price.

The price in the contract is known as the strike price or exercise price.

Also, options can be American, in which case they can be exercised at any time until the expiration of the contract, and European, if they can only be exercised at maturity.

Most traded options are of the American type, and in the case of the stock derivatives market, an options contract is generally a commitment to buy or sell 100 shares. (Nicolae, 2010)

It should be emphasized that an option gives the holder the right to exercise a certain action, he is not obliged to exercise it. This differentiates options from forward and futures contracts, contracts in which the holder is obliged to buy or sell the underlying asset at maturity. At the same time, if in the case of forward and futures contracts the costs of holding them are zero, in the case of options there is a cost to hold them. (IASB, 2018)

In fact, options trades are risk buy/sell operations.

The buyer of the option is cautious about the risk and sells it, and the seller of the option instead has a preference for risk and buys it. (Nicolae, 2010)

The buyer of the option cannot lose more than the premium, and the seller of the option cannot gain more than the premium. To protect themselves, stock exchange clearinghouses ask option sellers to open an initial deposit (also called margin) and, every day, a variable deposit.

The own values of the options are: the intrinsic value, the time value and the premium.

If the option to buy or sell the underlying asset is exercised at a price better than the market price, the option is said to have an intrinsic value. Instead, the premium includes a value over time, which decreases as the expiration date approaches. What is quoted on the stock exchange is the premium of the option. In parallel, the price of the underlying asset is quoted. It serves only as a comparison term for exercising the option. (IASB, 2018)

Trading the option will be more profitable than exercising it if the option has time value. A small percentage change in the asset price leads to a larger percentage change in the premium. This is the leverage, the gearing effect. The establishment of the premium is based on the previous performance of the price of the underlying asset. The more volatile the performance, the higher the premium level.

Options that are realized at a better price than the market price are sub-par or in-the-money options. If the price is less favorable than the market price, we have over-parity or out-of-the-money options, and if the price is identical to the market price, then we have at-parity or out-of-the-money options.

There are options for stocks, stock indices, bonds, currencies, interest rates and commodities and even combined options positions, so-called options strategies.

The types of options trades in the secondary market are:

• buying a call option;
• buying a put option;
• selling a call option;
• selling a put option.

3. Research methodology

The research methodology used in this article consists of the empirical research of a data set available on the Internet and the construction of models of accounting records.

The investment funds industry, especially funds with a focus on sustainability, can play an important role in financing the transition to a greener economy and avoiding the dangerous effects of climate change, according to analysis included in the latest edition of the International Monetary Fund's Financial Stability Report - IMF. (www.ziare.com) The positive role of investment funds results from their ability to influence the corporate sector. Through stewardship, which includes direct involvement within the firm and remote voting, investment funds can effect change in companies' sustainability practices. For example, earlier this year, activist investors won seats on oil company boards as part of their efforts to change the company's climate strategy. However, even if sustainability is at the forefront of investment strategies, sustainable investment funds still represent only a small part of the investment funds sector (7% of all investment funds). In this context, the IMF's recommendations include: strengthening the global climate information architecture, which includes data, information and classifications; establishing adequate oversight to prevent greenwashing; and developing tools to channel savings to investment funds that drive the green transition. (www.ziare.com)

4. Findings

4.1. Survey on the evolution of the use of financial instruments in the accounting of financing activities of national entities

IFRS 9 introduced the requirement to measure investments in equity instruments at fair value. According to IAS 39, these investments could be valued at cost. In IFRS 9, there is no longer any such exemption for holdings of unlisted equity instruments. (IASB, 2018)

The seller's reasoning in the sale of an option is as follows: (Nicolae, 2010)

- sells the right to buy or sell an asset on a specified date and at a predetermined price;
- sell calls when he appreciates a decrease in the price of the underlying asset;

- sell put when he appreciates an increase in the price of the underlying asset;
- assumes the obligation to deliver the asset on the date of exercise of the call option and to buy the asset on the date of exercise of the put option.

The buyer's reasoning in an option purchase transaction is as follows: (Nicolae, 2010)

- buys the right to buy or sell an asset on a specified date and at a predetermined price;
- buy call when he appreciates an increase in the price of the underlying asset;
- buys a put when he appreciates a decrease in the price of the underlying asset and cedes the option premium to the seller who is also the issuer of the security;
- can choose to keep the option until maturity or can trade the option on the secondary market.

The component elements of an option are both contractual and non-contractual, i.e. external to the regulations specific to the optional contract.

These elements are: (Nicolae, 2010)

- the premium paid when buying an option is a contractual element. During the validity of the option, this premium represents the price of the option and may have a higher or lower market value, depending on the interest in holding the option. The price of the option changes during the validity period of the option as a result of the evolution of the price risk of the underlying asset and as a result of the offer-demand ratio of the option;
- the course (market price) of the underlying asset at the time of the optional contract and throughout its validity, including at maturity. This is obviously a non-contractual element;
- the variability of this rate (market price) defines a non-contractual element of the option, namely the risk of the underlying asset;
- the validity period of the optional contract, from the moment of signing the contract until its final maturity. It is a contractual element that is expressed in the form of fractions of a calendar year;
- the predetermined exercise price at the time of concluding the optional contract for the purchase/sale of the underlying asset. It is a contractual element;
- a non-contractual element is the risk-free interest rate at which it is assumed that an investor can borrow to buy options.

All these component elements highlight the complex determination of the value of an option as a function of the factors listed above. (Nicolae, 2010)

After the purchase, the option can be the subject of successive sales - purchase operations, depending on the investors' interest in owning it. This interest is linked to the perspective that the price of the underlying asset will evolve in the direction desired by the investor (increase in the stock price for calls and decrease in the stock price for puts). Hence the concern for the value of the option that depends on or is related to the price of the underlying asset. The multitude of elements determining the value of an option make it the most complex financial asset. These qualities recommend the option evaluation model for the evaluation of the company, of investment projects, for portfolio management, for explaining the term structure of interest rates, etc. The determining factors of the value of an option are of two categories: determining factors of their own contractual and non-contractual elements; and, factors determined by the characteristics of the underlying asset and the financial market. (Nicolae, 2010)

4.2. The observation of the accounting issues associated with financial instruments used in accounting for the financing sector of the entities

The financial assets and financial liabilities given by real and monetary flows, generated by the trading and exercise of call and put options through the clearing house, within a stock exchange1, are presented as follows: (Nicolae, 2010)

The buyer pays the clearing house the premium, in exchange for the purchased options, and the seller collects the premium from the clearing house in exchange for the underlying assets deposited. The option exercise order is addressed to the clearing house by the buyer, together with the amount of money for the purchase of the underlying assets, in the case of CALL, or with the underlying assets, in the case of PUT, of their sale. (Nicolae, 2010)

The clearinghouse transfers the underlying assets to the buyer at the predetermined exercise price, in the case of the CALL exercise, or the amount of money from the sale of the underlying assets, in the case of the PUT, without asking for the seller's consent (this is understood to be implicit).

At the same time, the clearing house transfers to the seller the amount of money, in the case of CALL exercise, or the amount of supporting assets, in the case of PUT exercise. In this way, financial assets and, respectively, financial liabilities are generated in the accounting of the buyer and the seller.

The problem that arises is whether the seller firmly commits to the delivery or purchase of the underlying asset, for which he wrote the option, or whether he does not commit until exercise.

We consider that the appropriate accounting treatment is to register in the accounting of the two partners on the date of the transaction only the premium which, in fact, represents the price of the transaction. For the open commitment to buy with the buyer and the firm commitment to sell with the seller, as well as the open commitment to sell with the buyer and the firm commitment to buy with the seller (in the case of the PUT option), it is highlighted only on the settlement date (date of exercise of the option). buyer , the first one generates an expense, the seller generates an income. (Nicolae, 2010)

Another solution could be to register the premium on the transaction date for both the buyer and the seller, and the open commitment of the buyer as well as the firm commitment of the seller to be kept out of the financial position until exercise.

The accounting solution for these operations differs from one accounting concept to another, from one accounting model to another, depending on the accounting normalization. The differences appear due to the specificity of the buyer's open, non-firm commitment. (Nicolae, 2010)

Thus, according to the principles and rules required by IAS 32 and IAS 39, for derivative financial instruments, the recognition of options in accounting is carried out as follows:

- on the date of the transaction, only the premium is recognized, which is the price paid/collected for the option, thus

• at the company that buys options, the premium can be recorded as financial expenses in the debit of the Other financial expenses account, in relation to the affected treasury account, given that the speculative or hedging operation through the use of options, does not form the current activity of the company;

• for the company that sells options, the premium is recorded as financial income in the credit of the account Other financial income in relation to the affected treasury account, given that the speculative or hedging operation through the use of options, does not form the current activity of the company;

-on the date of exercise, options are recognized as financial assets purchased or sold as follows:

• at the company that bought CALL options, the options are recorded as financial assets (shares, bonds, other short-term financial investments), either held until maturity, in the debit of the Short-term financial investments - or Other short-term financial investments account and assimilated receivables, either held for trading in the debit of the Other securities account, through the credit of the treasury account affected by the settlement of the counter value of the purchased financial instruments;

• at the company that sold CALL options, the reduction from the management of the financial assets supporting the options is recorded, by crediting the Short-term financial investments - or Other short-term financial investments and assimilated receivables account, either if they were held for trading, in the credit of the Other securities account, through the debit of the treasury account affected by the collection of the consideration of the sold financial instruments;

• at the company that bought PUT options, the decrease from the management of the financial assets supporting the options is recorded, through the credit of the Short-term financial investments account - or Other short-term financial investments and assimilated receivables, either held for trading in the debit of the Other securities account of placement, through the credit of the treasury account affected by the settlement of the counter value of the financial instruments sold;

• at the company that sold PUT options, the options are recorded as financial assets (shares, bonds, other short-term financial investments) either held until maturity, in the debit of the Short-term financial investments - or Other short-term financial investments account and assimilated receivables, or held for trading, in the debit of the Other securities account, through the credit of the

treasury account affected by the settlement of the counter value of the purchased financial instruments. (Nicolae, 2010)

According to American practices, given that the accounting reporting standards for many hedging transactions are not sufficiently developed, and the fair value is not used instead of the historical cost, the technique of recording them outside the financial position is used. Since the increase in market value is only recognized when the asset is sold, the accounting balance sheet based on historical cost often undervalues the company's equity. Also, given that the historical cost accounting balance sheet recognizes the loss, but not the gain, of a hedging transaction, there is little reason for an on-balance sheet entry when there is an off-balance-sheet alternative.

5. A case study of the accounting records for financial instruments

Table no. 1 Table of transactions related to the case study for financial instruments

Transactions	Textual description of the transactions
January 1, 2022	The Special775 entity bought on 01.01.2022 a standardized package of call options on quoted shares, subscribed by the Vast445 entity as the seller. (Nicolae, 2010).
	The transaction is a hedging for the seller, where the hedged element is the market risk and the financial instrument designated for hedging is the options contract
	For the buyer, the transaction is only a speculation of the favorable price, whether he will decide to exercise or whether he will trade the option package as a security.
	The securities that constitute the underlying asset of the options are issued by a third company that does not intervene in this mechanism.
	The Special775 company hopes that the market price of the shares in question will increase, while the Vast445 company hopes that the market price of the shares in question will decrease. Each predicts a gain by preserving the share price, but only one of the parties will win. So each hopes to transfer the market risk to the partner, in case of exercise of the option by the buyer.
	The premium representing the right to buy the option package price is 20,000 monetary units (mu).
	The exercise price is 440,000 mu.
	The value of the shares held (8,000 titles) by the company Vast445 is 400,000 mu with a nominal value of 50 mu.
	The stock price of the shares on the exercise date is 70 mu.

Source: Case study data proposed by the author

Accounting data
(Making entries by the author)

The following operations take place in the buyer's accounting:

If he intends and decides to hold the options package until maturity, then he will record only the premium paid on the transaction date, following that at maturity he will exercise the purchase option (obviously if the price of the shares on the market will increase).

Table no. 2 Registration of recognition of the premium on the date of the transaction, the buyer of the options will recognize the paid premium of 20,000 mu in financial expenses

Account - Debit	Account - Credit	Amount
Other financial expenses	*Bank accounts*	20,000

Source: Calculations and records made by the author

Table no. 3 On the exercise date, recognition of the options package as a security independent of the underlying asset, if the market price of the shares is favorable - higher than the contracted one - at the level of the exercise price of the call option

Account - Debit	Account - Credit	Amount
Quoted shares	*Bank accounts*	440,000

Source: Calculations and records made by the author

The gain appears indirectly, as an economy compared to the value of the shares at the stock exchange rate and is not highlighted in accounting.

Table no. 4 If the standardized package of options is traded, as a security, then the premium paid = entry cost of this security, on the date of the transaction we have the registration

Account - Debit	Account - Credit	Amount
Other investment securities	*Bank accounts*	20,000

Source: Calculations and records made by the author

Table no. 5 At the moment when the value of the standardized option package has intrinsic value (market price higher than the premium of 30,000 mu), the buyer will decide to sell the short-term financial investment at the level of the stock exchange rate, which is composed for the company of the value of the premium (20,000 mu) and the difference up to the stock exchange rate (1000 mu):

Account- Debit	Account - Credit	Amount
Bank accounts	*Other securities*	20,000
Bank accounts	*Income from short-term financial investments*	1,000

Source: Calculations and records made by the author

If the price of the shares on the market does not increase until maturity, the Special775 company will not exercise the call option to purchase the underlying asset, recording only a financial loss caused by the procurement of the options contract of 20,000 mu.

The following operations take place in the seller's accounting:

Table no. 6 The recording of the premium of 1000 mu collected for the issuance of the options and for the company Vast445 to firmly commit to deliver the underlying securities at maturity, in case the buyer decides to exercise the call option, a delivery commitment is highlighted outside the financial position statement:

Account - Debit	Account - Credit	Amount
Bank accounts	*Other financial revenues*	20,000

Source: Calculations and records made by the author

Table no. 7. In the situation in which the company Special775 decides to exercise the call option, then the seller is obliged to deliver the underlying securities at the predetermined exercise price and the corresponding collection of the difference:

Account- Debit	Account - Credit	Amount
Bank accounts	*Quoted shares*	400,000
Bank accounts	*Revenues from ceded financial investments*	400,000

Source: Calculations and records made by the author

Respecting the symmetry of the registrations made by the company Special775, the exercise means for the seller an indirect loss of 120,000 mu, equal to the unrealized gain, which is not shown in the accounting. It follows that the hedging operation initiated by the seller failed due to the evolution of the price of the underlying asset, contrary to expectations.

When implemented in practice, entities may also consider other accounting records alternatives as long as there is a fair presentation of the results in profit and loss statement.

6. Conclusions

In my opinion, there are multiple elements that allow a positive forecast on the development of the accounting instrumentation of financial instruments.

Consideration should be given to developing and implementing a complex and flexible legislative, fiscal framework that allows and stimulates at the same time the concrete applicability of the various embodiments of financial instruments for financing economic activities. The provisions of the legal acts must be issued in a context adapted to the European legislation, simultaneously with the establishment of the concrete modalities of implementation, adapted to Romania.

There is a significant impact of the changes in the financial markets globally, which puts its mark on the expansion of the use of financial instruments in the current and future activities of economic entities in Romania. It is noted, in the conditions of a tightening of the possibilities of access to the financing resources for the Romanian companies, the need for a flexibility of the opportunities for application of the financial instruments.

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