

MODERN METHODS OF FINANCING DERIVATIVES

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Abstract: Under 2020 IFRS 7, an entity assesses whether an embedded derivative should be separated from the host contract and recognized as a derivative when the entity first becomes a party to the contract. Subsequent reassessments are not permitted unless a change is made to the terms of the contract that significantly modifies the cash flows that would otherwise be required under the contract.

Keywords: finance, derivatives, work entities, enterprise.

1. Introduction

An enterprise, according to the definition of J. Altkorn and M. Strużycki, is "a set of people of material and financial resources established to carry out a specific economic activity and separated in terms of technical-service, technical-production, spatial, organizational, economic and legal" [Altkom, Strużycki, 1994, p. 13]. In Polish legislation, enterprise is included in three meanings: subjective, objective and functional.

The subjective meaning gives all entities rights and obligations arising from their activities. These entities participate in business, the legislator paid special attention to the civil-legal relations of the entities, that is, enterprises must take the appropriate formal-legal form. In the material sense, an enterprise is a set of tangible and intangible components, the purpose of which is to carry out a certain economic activity, together with signs that allow identification, business books kept, all fixed assets belonging to it, patents, licenses, etc., but also containing liabilities and various types of burdens related to the conducted economic activity [13]. On the

other hand, in functional terms, the enterprise is related to the professional activities carried out [9].

2. Modern methods of financing

Derivative financing instruments are not typical assets, because trading does not involve real assets, in a real way shares, bonds or other debt securities are not bought, nor are the rights to the securities held acquired. With the help of derivative financial instruments there is only a mapping of the valuation of the underlying assets. The investor can only forecast how the price may behave in the short term or in the long term, this can bring him the expected income or loss.

Not only on the regulated market are derivative financial instruments traded, also trading of these assets takes place on organized multilateral trading facilities (MTFs - multilateral trading facilities) - only to a very limited extent [9]. The centralization of trading and the widespread use of clearing houses are advantages of the exchange market, because this contributes to greater market transparency and the credit risk incurred by the counterparty is significantly reduced. The differences between the over-the-counter market and the organized market are gradually blurring, especially with regard to interest rate derivatives.

The standardization of derivatives and the ease with which opposite transactions can be made that are not subject to additional credit risk by the investor contribute to making the exchange market more liquid than the OTC market in terms of the volume of trading in these instruments. Globally, however, it is the OTC market that plays a more important role in the financial system, as it has many times the gross open positions of banks, that is, the total nominal value of derivatives sold and bought [11].

In the case of the Polish market, the OTC derivatives market is the more developed market due to the high value of trading and also the variety of assets offered. The NBP data show that there is a year-on-year increase in turnover in the derivatives market in Poland. The main group of financial derivatives are forward contracts. A forward is a contract that is entered into at the current time, which absolutely obligates (regardless of future circumstances) to buy or sell a quantity of a currency/other underlying at a designated date in the future, at a rate that was agreed upon by the parties at the time the contract was entered into [Dębski, 2010, p. 318-319].

The terms and conditions are tailored to the specific forward transaction, while the transaction is subject to settlement only at the end of the contract, and is used to hedge future

receivables or liabilities. Forward contracts are most often used in the over-the-counter market.

The characteristics of a forward contract are [5]:

- the amount of the underlying instrument that is subject to the forward purchase or sale transaction,
- a fixed price at which the transaction must be made, called the delivery price or contract price,
- the date on which the transaction must be made (a specific date), this date is called the expiration date, the completion date or the delivery date - there is a postponement of payments to the date fixed in the contract.

Parties entering into a forward contract are assured of a price and thus the risk of its change is eliminated, but the credit risk is not eliminated - it may happen that the customer does not have enough currency or other object of the transaction (the commodity agreed in advance will not be of sufficient quality).

The objects of contact are most often: oil, agricultural products, currencies, stocks, bonds, precious metals. The parties to the transaction agree between themselves what the method of settlement of the transaction will be, i.e. it can be delivered to a designated place or there is a cash settlement - then the difference in price between the current price and the price agreed in the contract is paid. Since it is not possible to standardize forwards contracts, only the terms of the contract allow for fine-tuning, there is an impediment to trading caused by a lack of liquidity. Forwards contracts do not appear on exchanges.

When entering into a forward contract, no deposit is required, payment is made only when the good is delivered. The agreed price in a forward contract is called the delivery price - it is defined in such a way that the value of the contract for the buyer and seller are equal to zero [Debski, 2010, p. 320]. The passage of time causes the delivery price to change and deviate from the delivery price that was determined by the contract in question. Forward price - the price of a forward contract (forwards price) is subject to change over time, with its precise definition can be said to be the price determined by the delivery price of a given contract, the value of which would be zero [Dębski, p. 321].

With forward contracts, most often one of the parties is a bank. Then the bank gives the price of the forward contract, in practice the bid price and the ask price are determined [Jajuga, 2009, p. 10]. The parties agree between themselves on the terms of the contract, which include information on the quantity of the underlying instrument and the term of the contract. Settlement of the forward contract takes place only on the agreed execution date.

In addition to forward contracts, there are also futures contracts on the market, which occur on exchanges. Futures contracts are forward transactions with fixed settlement dates and with standardized contract sizes, so they can be concluded on an exchange [Fałat-Kilijańska a.o., 2014, p. 34]. These are contracts defined in the Decree of the Minister of Finance of December 12, 2001 on detailed rules for recognition, valuation methods, scope of disclosure and presentation of financial instruments. According to § 3, paragraph 6 of the Ordinance, a futures contract is "a contract with certain standard characteristics, traded on a regulated market, imposing an obligation on one party to deliver and on the other party to receive an asset of a certain quantity, at a certain date in the future and at a certain price, determined at the time the contract is concluded"[8]. A futures contract is an unrecognized contract that obligates two parties, during its conclusion it is not possible to determine who is the creditor and who is the debtor. Only the execution of the contract makes it possible to determine the parties. The conclusion of a futures contract does not mean that it must be executed, as the investor can liquidate the contract before the end of its term by entering into a counter transaction. With futures contracts, often the parties do not become owners of the asset, most often the price specified in them is a variable with the assumption that there will be an increase or decrease.

The most common futures contracts are financial futures, in which the underlying instrument is mainly currency, economic index or securities. Only the stock exchange is the market on which futures contracts operate, which means that the place and date of settlement, as well as the size of the contract and other elements are strictly defined. Formally, the party to the transaction is the exchange taking a commission for its service, the intermediary is the stock broker or brokerage firm. Daily profits and losses are determined on the exchange, which are the result of futures contracts entered into in advance. Changes in the prices of either bought or sold contracts are multiplied by the amount for which the contracts were concluded and their number, thus showing the gains or losses that result from the transactions concluded on a given day (marking to market)[Fałat-Kilijańska a.o., 2014, p. 35].

Associated with futures contracts is the concept of basis, which is the difference between the spot price and the futures price.

Forward and futures have many similarities, but also differences, as shown in Table 1.

Table 1 Differences and similarities between forward and futures contracts

Evaluation criterion	Forward contracts	Futures contracts
Contract size	Any	Standardized
Settlement term	Any	Standardized
Making transactions	OTC market on the exchange, by phone	Through a bank or broker
Costs No commissions; occurrence of spread	Fees to exchange and bank or broker	Opportunity costs
Supervision	Stand-alone supervision	Banking and stock exchange law
Security	Credit limits	Security deposits
Nature of the market	Non-speculative	Speculative
Execution of the transaction	Delivery on time, sometimes surcharges	Delivery or counter transaction

Source: own elaboration based on: I. Fałat-Kilijańska, J. Karwowski, R. Poskart, Instrumenty pochodne na międzynarodowych rynkach finansowych, ... op.cit. 40.

The second most commonly used as an underlying instrument in derivative financial instruments are options. This is an asymmetric instrument that gives the buyer the right to buy (call option) or sell (put option) an asset at the price agreed upon at the time of the contract, no liability is created under the contract [9]. The price is called the exercise price of the option (option) or the underlying price of settlement, often used its English names trike price, exercise, while the term of the option is called the date of settlement or expiration (expiration date) [Debski, p. 400].

Among the most important features of an option contact are [Saunders, Cornett, 2012, p. 322-334]:

- the option seller undertakes to either sell the option (call) or buy the option (put) at the option price, in case the option buyer so desires. The option seller then receives the right to receive a payment (premium) at the time of the option transaction,

- the option price is fixed at the time the option contract is concluded,
- the buyer of the option has the right to exercise the option on a single specified date (European type option) or over a fixed period of time (American type options),
- the option can be settled either by the equation of the option and spot prices on the settlement date or by physical delivery of the asset,
- in the event that the buyer of the option finds it unprofitable to exercise the option, the buyer can let the option expire, then there is no purchase-sale transaction of the asset,
- the premium premium is not returned.

The most important features of options are [Fałat-Kilijańska a.o., p. 67-68]:

- separation of risk-taking from liquidity. Payment for the asset only if the buyer/holder finds the transaction profitable - at a later date;
- gains and losses are not symmetrical, because the buyer of a put option can gain large amounts when the price of the asset falls (then he can sell at a fixed option price, which is higher than the market price), he can only lose the premium. The seller, on the other hand, has earnings only in the form of a premium, and his losses are large;
- options are off-balance sheet in nature.

The exercise of options was based on principles such as [Jajuga, p. 29]:

- call options are exercised at the price of the underlying instrument to which the option is written is higher than their strike price,
- put options are exercised at the price of the underlying instrument to which the option is written is lower than their strike price.

To protect against the occurrence of risk in the use of options, one should apply principles such as: the purchase of an option is a hedge against an increase in the price of the basic instrument to which the option is written, the purchase of a put option is a hedge against a decrease in the price of the basic instrument to which the option is written.

The Polish OTC market offers mainly currency options and interest rate options. In the case of interest rate options, the underlying instrument is the interbank market WIBOR, i.e. the average lending rate on the Polish interbank market [Jajuga, p. 31].

3. Swap contracts

Swap contracts are gaining popularity in Poland, in which two parties agree to make payments to each other at fixed times in the future, that is, it is an agreement to swap future

payments on terms predetermined by the parties [9]. The main types of swap contracts include [Tarczynski, 2008, p. 25]:

- currency swap - FX swap - the initiation of the transaction involves the transfer to each other by the parties of certain equivalent sums expressed in two different currencies, they return them to each other during the term of the contract according to a predetermined plan, which details the rules and dates of interest payments, as well as amortization of principal [Mishkin, 2002, p. 450],
- Interest rate swap - IRS (interest rate swaps) is a single-currency interest payment swap in which both parties are obliged to exchange, in a single currency, periodic interest payments accruing on a specified notional amount for a contractually agreed period of time,
- Cross Currency Interest Rate Swap - CIRS (Cross Currency Interest Rate Swap) is a two-currency payment exchange transaction in which both parties are obligated to exchange periodic interest payments on a specified notional amount over a agreed period and the exchange of the nominal amount (at the previously agreed rate) on the date of termination of contact [Zabielski, 2002, p. 277].

4. Conclusion

Given the variety and level of complexity of financial instruments, it is difficult to determine without dispute what type of financial instrument is, or was intended by the parties to be, the subject of the contract and whether the name of the contract actually corresponded to its content. The rapid development of financial instruments has made the current legal provisions on the subject far from adequate. Whether this is the result of too rapid development of financial engineering or rather the result of long-standing omissions and negligence of legislators remains an open question. It is also impossible to predict a priori which of the ways of financial market sanitation - American or European - will prove to be more effective. The future will show whether the postulated changes will significantly increase the level of security of participants and trading in the various markets that make up the global financial market.

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