

## HEDGE ACCOUNTING MODELS

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### Abstract

In the context of the national economy, the financial risks they are exposed to economic entities have grown significantly, and the consequences are more harmful than the last 20 years. The hedge accounting models have become a necessity.

This research carried out and exposed in this article brings to the fore and proposes four models hedging.

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**JEL Classification:** M21, M41

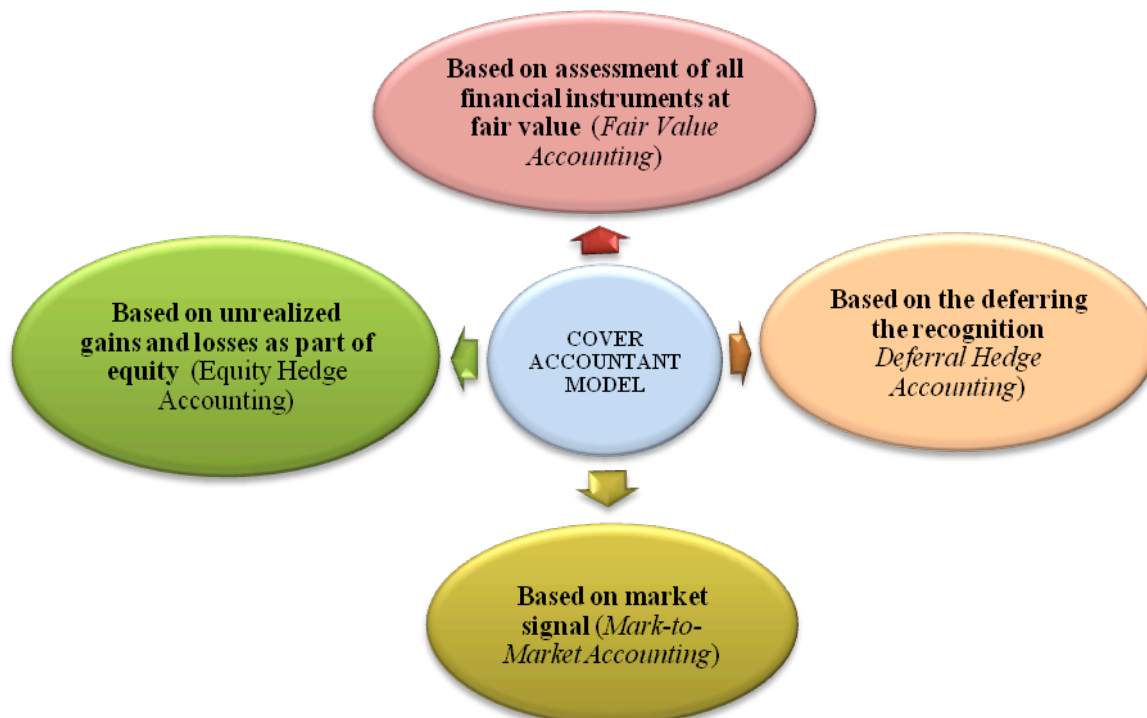
### 1. Introduction

Hedge accounting is treated in detail in the International Accounting Standards by IAS 32 "Financial Instruments: Presentation" and IAS 39 "Financial Instruments: Recognition and Measurement".

International Accounting Standard IAS 39 "Financial Instruments: Recognition and Measurement" defines fair value hedge as "the exposure to changes in fair value of assets or financial liabilities".

Hedge accounting is applied both for assets and for liabilities but also outright.

Hedge accounting models regulated or used in practice may have different starting points which allowed their delimitation in four categories, shown in **Figure 1**.



Source: own projection

**Figure 1. Hedge Accounting Models**

## **2. Hedge accounting based on evaluation of all financial instruments at fair value (Fair Value Accounting)**

In this model all gains and losses from financial instruments, including derivatives and hedging instruments, are stated at fair value, meaning at a decent, moderate, medium, adequate or correct value. The fair value became compulsory due to the liquidity and volatility of the capital markets. IAS 39 "Financial Instruments: Recognition and Measurement" complements IAS 32 "Financial Instruments: Presentation" precisely with issues regarding the use of fair value. A conceptual and practical problem is proposed: to use a single criterion for evaluating the fair value and not many criteria selected by choice (market value, stock exchange rate, last transaction value etc.).

We believe that this accounting model generates both advantages and disadvantages; we can include *accounting data's accuracy and fair view* among the benefits: economic effects of a change in market prices would be recorded to incomes when this occurs effectively, and the disadvantage of this solution is that it *focuses only on financial instruments*.

In our opinion, companies bring up the need to cover the risks related to non-financial assets (which are recorded at historical cost) as well and the multiple criteria measurement problem continues to exist in this situation. Moreover, this solution would not allow hedge accounting to expand over the risks of future earnings and payments, including also the forecasted transactions. The practical use of this model of fair value accounting for financial instruments fair value is considered by some as too drastic a change from the current model, based on the historical cost.

## **3. Mark-to-Market Accounting**

The model of mark-to-market could overcome the difficulties related to the problem of multiple criteria for measuring the fair value and selective accounting recognition by using a common criterion for measuring like *the market value*, for both financial hedging instruments and the risk to be hedged.

Using this model, a company would be able to select certain components of a transaction and to measure them at fair value. All changes that occur in their *market value* should be recognized in income or expenses immediately after they occur. Difficulties in a deferral recording of income and expenditure should be avoided; it is relatively simple and at the same time allows the adoption of a wide range of risk management.

We consider that this model has limitations because it applies only to specifically designated positions being hedged and identical positions of the balance sheet would be evaluated differently just because they were not chosen as part of the hedging process. Such a model would provide control over partial hedging of some positions or the hedging of just one element exposed to risk. Although this model would eliminate criticism related to the model of multiple evaluation criteria, like in case of the model previously presented, it could not be extended to forecasted transactions and future cash flows.

## **4. Deferral Hedge Accounting**

Hedged accounting model currently used in the United States is based on delaying the accounting recognition of changes in value and focuses in particular on accounting hedging instruments. This model combines the changes in value of these instruments with the changes in value (or cash flows) of the hedging positions.

In our opinion, if the company is hedging against risk on its financial assets or liabilities, the profit / loss resulting from the hedging instrument used for this is recorded as an increase / decrease of the respective balance sheet position. If the company is instead hedging against a risk arising from a commitment not yet materialized, the profit / loss from the used financial instrument is kept pending as a distinct credit / debit until that transaction materializes.

Similar to the fair value model, deferral model comes with a mechanism to correct the volatility of any earnings attributable to this accounting model based on historical cost. However, if a company qualifies to apply hedge accounting to the risks arising from a lower value on the market and cash flow variation, emanating from the existing balance sheet and anticipated operations, the reduction of risks becomes problematic because the cash-flow hedging instruments in many cases increase the risk for the company when the market value declines. In other words, the actions for reduction of cash-flow and payment risks generally have an inverse effect on the risk of decline in market value. For example, a contracted loan with variable rate (recognized as a financial liability) may expose the company to a market risk, but the cash-flow of this loan will increase or decrease depending on the interest rate. If the company purchases a financial instrument, like a swap, to "fix" the loan's interest rate, the company will increase its risk in terms of lowering the market value of the loan if the interest rate falls.

We consider that the conflicting goals of reducing the risk of cash flow and market value could be solved by limiting the risks taking into consideration by the hedge accounting only to those related to a decrease in the market value. In order to make functional this model of hedge accounting, an explicit relationship between hedging

instruments and the risk exposure that must be hedged is necessary. If the components that enter into this relationship extend beyond this "one-to-one" relationship then this model becomes more complex.

## 5. Equity Hedge Accounting

The explanation given by the *Dictionary of International Finance*, G. Bannock and W. Manser for equity - equity: the residual value of assets a company, after having first been deducted all debt - other than to holders voting shares of the company. The equity of a company is owned by ordinary shareholders, which is why these actions are called equities.

A fourth model that could be used for hedge accounting provides two elements to designate the hedging instruments:

- + commerce
- + management risk.

All changes in the market value of commercial items are included in income. For items qualified with risk management, changes unrealized in value are recorded as part of equity, and only actual changes would be recognized in income. Like the mark-to-market model, this is suitable for a wide range of management strategies and does not require a "one-on-one" hedging relationship. Also, this approach does not raise the question whether the gains / losses deferred from registration (pending) qualify as goods (financial assets) and liabilities (financial debts).

However, a major drawback of the "realized-unrealized" model is that it can not solve the problem of multiple criteria for measuring fair value, which is actually one of the main reasons for the emergence of hedge accounting. For example, if a company invests in a loan with a fixed interest rate (known as a financial asset) recorded at amortized cost and wants to protect it by using a number of financial instruments, the gain / loss achieved through different instruments in this strategy would be recorded at incomes whenever such instruments expire. Therefore, until the loan was repaid or sold, any unrealized gains / losses from these instruments would remain unrecognized gains and these gains would appear more volatile than if they would have been recognized together with the hedged item. The "realized-unrealized" model and deferral model can not be applied simultaneously by a single company.

Another criticism of the "realized-unrealized" model is that separation between realized losses / gains and unrealized ones is becoming less and less relevant. However, the current accounting model almost makes a distinction between these two and the only approach that would not expose to this criticism would be that where all financial assets and liabilities would be measured at fair value with recognition of all gains / losses at income and, respectively, expenditure. Furthermore, the "realized-unrealized" model distinguishes between realized gain / loss and unrealized one to provide the basis of action of hedge accounting, by retaining unrealized transactions as a component of equity.

The FASB Concepts Statement No. 6 in the US, *Elements of Financial Statements*, completely defines **income** as **changes occurring in net assets of a company during a period from transactions and other events and circumstances that do not depend on the owner**. It includes all changes in net assets during a period except those resulting from investments by owners and distributions to owners.

Some experts disagree with their highlighting in equity and their inclusion afterwards in the results; they argue that this distinction is only acceptable in a model that allows the reporting of net revenue in financial statements. This view is expanded in the sense that what is essential about the net income is that gain/ loss must be reported only once in the complete income, in the year in which it occurs. England is one of the few countries that have introduced a mandatory complete income statement, while in other countries it is under debate.

## 6. Conclusions

In our opinion, the issues raised by hedging and implementation of hedge accounting are not simple nor few. Among other things, we must criticize the lack of comparability induced by the fact that managers can choose between two accounting models. If all hedge accounting models are established on an optional, voluntary base, incompatibility may occur in the accounts of different companies for the same accounting positions.

In conclusion, the development of special hedge accounting standards can adopt two alternative solutions:

- + Either has to be imposed by standards or to specify which the risk exposure is designated to receive special accounting treatment;
- + Or companies must declare which is the risk that is intended to be hedged.

This should not pose problems if the economic and financial aspects of risk to be hedged are agreed upon previously or the targets of hedge accounting are determined. Risks to be hedged may vary from company to company and even within the same company. As mentioned previously, some companies only deal with the risk of loss, other with variation of revenues and payments' cash-flow and there are companies which do not strive to reduce exposure to risk in any of the two directions, but only consider the reduction of exposure of a secured objective.

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