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# Hedge Accounting: An Auditor's Perspective

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## ABSTRACT

*Radical changes have been introduced in the hedge accounting framework by the new IFRS accounting standards. In particular, the hedge effectiveness regime has been completely overhauled and replaced by a strong principles-based charter. The relevance of qualitative assessment procedures has, accordingly, increased making the audit of such assignments immensely challenging. Pronouncements from regulatory bodies providing professional guidance on audit issues of hedge accounting and effectiveness testing have failed to keep pace with this rapid transition, enhancing the complexity of such audit exercises. In the present article, after providing a brief analysis of the contemporary hedge accounting and effectiveness testing provisions, we dwell upon the salient issues connected with the auditor's predicament and highlight the way forward in the changed environment.*

**Keywords:** IFRS 9, audit, hedge accounting, risk management

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## 1. Introduction

Hedge accounting is an accounting procedure whereby the changes in the values of hedged items and hedging instruments (that would, under normal accounting, find their way into the income statements of different accounting periods) are presented in the income statement of the same accounting period. This enables the risk management strategies of hedging entities to be reported in tandem with the economic effects of the said strategies. If hedge accounting is not adopted, the hedged item and the hedging instrument are considered as unrelated objects and, therefore, accounted for on an item-by-item basis. Hedging instruments, usually being financial derivatives, are considered at fair value through profit or loss (FVTPL hereinafter) and the hedged item is classified on the basis of its intrinsic nature and measured and valued accordingly. This possible difference in the basis of measurement and valuation could result in distortion in the reporting of impacts of changes in the values of the hedged item and the hedging instrument in the income statement. The corresponding financials could transmit an impression of enhanced earnings volatility among user groups that is not warranted by economic reality. The provisions of hedge accounting are enacted to obviate this anomaly by enabling the entity, which takes recourse to hedge accounting, to match the measurement bases or value changes of the constituents of the hedging relationship. This is necessary to ensure the correct reporting of income volatility in the financials.

Hedge accounting is, however, allowed only on the precondition that the hedge is effective. It, thus, becomes necessary for auditors to take a call on hedge effectiveness in auditing the accounts of entities adopting hedge accounting.

A radically upgraded hedge accounting framework has been introduced by International Financial Reporting Standard (IFRS hereinafter) 9 (IASB, 2008, 2012). The new pronouncements are aimed at rationalizing the accounting and reporting for financial hedges in order to provide an accurate and synchronized portrayal of the risk management strategies of the entity in its reported financials (IFRS Foundation, 2013; Kablan, 2014; McCarroll and Khatri, 2014; Panaretou et. al 2013). A closer correlation between the economic implications of such strategies and the accounting and reporting thereof is intended (Chang et al, 2016).

In view of the nascent status of the new pronouncements, there exists little authoritative professional guidance for auditors in context of assessing effectiveness of derivative hedges. This issue assumes significance because of the huge variety of hedging situations encountered in practice, precipitated by the multifarious risk components desired to be hedged against by entities together with diversity of hedging instruments accessible for the purpose. As a corollary, a variety of procedures could be adopted by the auditor for effectiveness testing and a consensus regarding the hedge effectiveness assessment criteria among the fraternity is unlikely. In the absence of standardized pronouncements, individual perceptions could have a significant say in the overall audit assessments. For instance, whether a correlation measure is fully appropriate to be the ultimate determinant of effectiveness and, if so, the degree of correlation that can be construed to be adequate evidence therefor may be an issue of debate.

The paucity of structured pronouncements in this field result in personal experience and professional judgement constituting the cornerstones of audit decisions. In the pre-IFRS 9 realm, the overwhelming perception among users and auditors was that quantitative tests were both necessary and sufficient for establishing hedge effectiveness. Such tests could take the form of Dollar Offsetting, Correlation & Regression analysis or variants thereof (Althoff & Finnerty, 2001; Canabarro, 1999; Ederington, 1979; Finnerty & Dwight, 2002; Franckle, 1980; Kalotay and Abreo 2001; Kawaller & Koch, 2000; Royall, 2001).

However, the new pronouncements on hedge accounting have introduced sweeping and far-reaching changes. The well-entrenched "80/125" bright line quantitative requirement has been done away with and replaced by a set of principle-based criteria. No numerical range of effectiveness is prescribed. The revised standard requires the presence of an economic relationship between the hedging instrument and the hedged item, with credit risk not dominating this relationship and an opposite hedge ratio designating the hedge for establishing hedge effectiveness. Nevertheless, if ineffectiveness is persistently reflected in a hedge, the continuance / sustenance of the economic relationship and the veracity of the hedge ratio needs to be unequivocally established by the entity.

It is pertinent to mention that the IAS 39 (that preceded IFRS 9) did not contain any explicit provision regarding prescribing a numerical bright line for high hedge effectiveness of hedging relationships. The “80/125” bright line benchmark owed its origin to the perceived link between “high effectiveness” and “high correlation” with the latter being generally interpreted as the 80/125 rule in the social sciences (Swad, 1995; Lipe, 1996).

## 2. The new hedge effectiveness framework: a summary

Several fundamental amendments have been introduced by the new standards in the hedge accounting framework, in general and effectiveness testing, in particular. The cardinal features of these standards in the present context include (Althoff et. al, 2014; BDO, 2014; Deloitte, 2013; Du Plooy et. al, 2014; KPMG, 2013; PwC, 2013):

- (a) the adoption of a principle-based hedge effectiveness assessment in lieu of the 80/125 percent “bright line” offset prescription;
- (b) replacement of the requirement of prospective and retrospective assessment of effectiveness by assessment on a prospective basis at the commencement of each hedge period; and
- (c) greater autonomy to the entity in demonstrating hedge effectiveness.

The following three-pronged hedge effectiveness assessment criteria is pronounced in context of a hedging relationship:

- (i) the constituents of the hedging relationship should have an underlying economic relationship that may be asserted either through qualitative or quantitative testing or both;
- (ii) the value changes emanating from the economic relationship among the hedge constituents should not be dominated by the effects of credit risk (Zoltan, 2016);
- (iii) the hedge ratio that is used for designating and describing the hedging relationship in context of hedge accounting shall be the same as the ratio based on the physical volume actually adopted by the reporting entity of the constituents of the hedge.

## 3. Hedge effectiveness assessment: some salient features

The opposite directional movements of the price processes of the constituents of the hedging relationship as a response to a causal economic impact of the underlying risk stimulus would be strong testimony of the existence of an economic relationship. Existence of a statistical relationship may, unilaterally, not be conclusive of the existence of such causal relationship. However, strong inverse correlation would categorically substantiate such a causal connection.

The regulators have retained the earlier paradigm of not prescribing any specific methodology for establishing a causal economic association, making the auditors' role especially precarious. The auditors', in exercise of their judgement and skill, need to ensure that the method captures the essence of the hedging relationship. Appropriate quantitative outcomes would invariably corroborate qualitative inferences in borderline cases (Deloitte, 2012; Ernst & Young, 2011, 2014 a, b, c).

If the critical terms of the constituents of the hedging relationship are matched and the derivative has a zero nil fair value at the point of hedge creation, a prime facie inference of an economic relationship would seem vindicated with a hedge ratio of 1:1. Nevertheless, a review of the factors contributing to hedge ineffectiveness, if any, needs to be conducted. It would be sufficient, in general, to perform a qualitative assessment. On the other hand, if the critical terms are not entirely matched but nearly so, it may be appropriate to corroborate the qualitative results by numerical or statistical tests. In such situations, professional judgement would dictate the need for and extent of quantitative validation actually required. In particular, quantitative outputs may be valuable in demonstrating that an adequate underlying economic relationship subsists despite the critical terms mismatch. Numerical and/or statistical test results may also provide evidence of the appropriateness of the hedge ratio adopted in the hedging relationship.

If there is considerable incongruity between the critical terms of the components of the hedging relationship but the derivative has the same or related underlying, it may be necessary to substantiate qualitative justification of an underlying economic relationship and the hedge ratio

by a thorough numerical and/or statistical testimony. The auditor's professional skill, astuteness and judgement are called into scrutiny in such situations.

Nevertheless, the "80/125" offset bright line adherence is no longer mandated. With sufficient underlying rationale, a smaller offset may be accepted as conclusive evidence of high effectiveness. It is cardinal to analyze actual and potential hedge ineffectiveness and identify factors contributing thereto e.g. credit risk, basis risk with complete and proper documentation.

The second condition for hedge effectiveness is that the value changes in the constituents of the hedge causally emanating from the underlying economic relationship must not be dominated by the price changes that are a consequence of the impact of credit risk. The credit risk for this purpose would include the credit risk of (i) either of the hedge components or both and (ii) of the hedging entity as well as the counterparty.

In context of this provision, the auditor needs to exercise discretion on two counts. Firstly, he is required to identify and authenticate the changes in value of the hedge constituents due to market factors (hedged risks) and those due to the impact of credit risk. Thereafter, he must gauge whether or not the value changes due to the influence of credit risk "dominate" the value changes due to the hedged risk.

The assessment of the effect of credit risk, generally, takes the form of a qualitative appraisal. Entities usually have risk management policies in place that elaborately describe the risk limits for counterparties, together with procedures to be implemented for the periodic monitoring of the creditworthiness of these parties. If the credit standing of a party declines significantly, provision would be made for the initiation of appropriate corrective measures. Recourse is, sometimes, had to numerical simulation and/or statistical approaches e.g. for isolating factors contributing to low offset in certain hedges and assessing their degree of influence.

The ratio of the physical quantities of the hedge constituents is termed as *the hedge ratio*. The optimal hedge ratio corresponds to the minima of the variance of the portfolio comprising of the hedge components i.e. the hedged item and the hedging instrument. The ratio takes the value 1:1 in the event of the hedged risk and the underlying of the hedging instrument being perfectly correlated. In general, the

hedge ratio depends on the covariance of the price processes of the hedge constituents.

The third prescription for hedge effectiveness mandates that the hedge ratio implicit in hedge accounting construct adopted by the entity must be the same as that actually applied for construction of the hedge. However, it is emphasized that the standard insists on the equality of the "hedge ratio" only, but does not require that:

- (a) the "extent of hedging" be identical in both contexts;
- (b) the hedge ratio be so chosen as to minimize effectiveness; and
- (c) any prescribed methodology or template be used for hedge ratio computation.

It follows that the standard recognizes that there may subsist no 'right' answer and, as such, the regulators feel that the entity's management and auditors are best placed in the matter.

The standard does not envision a "perfect hedge". If imbalances in hedging are likely to arise due to the standardized contract sizes of the derivative used for hedging, the hedging would very much qualify this mandate in the absence of other evidence precipitating a contrary inference.

Retrospective testing of hedge effectiveness has been dispensed with. The assessment of hedge effectiveness needs to be performed at the inception of the hedge and, thereafter for each immediately following reporting period at the beginning of such period.

However, measurement and recognition of hedge ineffectiveness by entities adopting hedge accounting is required as earlier. In this context, the measurement of hedge effectiveness is different from hedge effectiveness testing. Whilst the effectiveness assessment pertains to the determining the admissibility for hedge accounting of the hedging relationship, the latter relates to its subsequent accounting. That is, in the event of the hedging relationship being eligible for and the reporting entity choosing to adopt hedge accounting, the entity must measure and recognize hedge ineffectiveness to the income statement forthwith (except for a cash flow under-hedge). The provisions in relation to eligibility criteria have undergone radical changes while those on subsequent measurement and recognition of hedge ineffectiveness are substantively unchanged.

Similarly, there is the additional accounting requirement to recognize and measure the ineffectiveness arising out of the influence of credit risk to determine the amount of hedge ineffectiveness to be recognized in the income statement. Again, this ineffectiveness measurement is in addition and subsequent to the determination of the impact of credit risk changes for purposes of vetting the “dominance” test of hedge effectiveness, which is necessary for meeting the criteria for entitlement to use hedge accounting, in the first place.

#### **4. Hedge effectiveness assessment: the auditors’ perspective**

It needs to be emphasized here that auditing in hedge accounting environment is immensely intricate as such accounting procedures allow entities to defer recognition of gains and losses relating to the hedging relationship, thereby calling for enhanced due diligence. This is so because if, in subsequent years, it is found that the client had inappropriately deferred gains/losses under the guise of hedge accounting, material write-offs will result.

At the very outset, the classification of a set of transactions as constituting a hedging relationship involves exercise of prudence and judgement. It needs to be based on an objective assessment of several factors that would include, but not be limited to, (i) the motivation for and the intent underlying the transaction at the time of initiation; (ii) the uncertainty, if any, embedded in the exposure purported to be hedged; and (iii) the correlation between the hedge and the underlying exposure.

In the context of assessing hedge effectiveness, a seminal distinction in perspective must not be overlooked. While the entity’s management may be inclined to assign some weightage to the possibility of positive returns emerging as by-products of risk management strategies, the auditor’s analysis would be focused entirely on the risk mitigation effects thereof. Consequently, it may be appropriate in many instances for the auditor to undertake a hedge assessment independent of the management’s view thereon.

While high “hedge effectiveness” remains the cardinal pre-requisite for entities to avail hedge accounting, pronouncements on the auditing thereof are few leaving profound scope for exercise of professional judgement

and discretion by the auditor. While several quantitative tests of hedge effectiveness are available, the underlying philosophy of most of them is the negative relationship between the changes in value of the constituents of the hedge. However, to what extent these methods serve as reliable auditing procedures remains unclear in view of the differing vantage points. Besides, the standards remain silent on the choice of methods as well as the desired test results for inferring high effectiveness.

The auditor’s assessment exercise would invariably commence with review the client’s calculations, models and documentation. The outcome of such “review” exercises would enable him to formulate the future course of action towards taking a call on the effectiveness of the entity’s hedging strategies. It would be imperative for the auditor to thoroughly examine the relevant information and reporting systems in vogue in the client organization, experience and expertise of client’s staff in financial markets and in understanding and dealing with the various hedging instruments being employed.

A valuable strategy that is not only gradually finding acceptance among audit firms but also becoming advisable in view of the escalating complexity of business operations and the variety of hedging relationships is the hiring of specialists in specific areas of audit. The engagement of these specialists and judicious use of their expertise will, undoubtedly, enhance the quality of audits. Furthermore, auditors could take recourse to the US PCAOB pronouncements and practices of US audit firms for guidance, they being the most sensitized outfits in the profession.

While the paramount factor in assessing the eligibility for hedge accounting is, unquestionably, the effectiveness of the hedge, several factors would facilitate such an inference by the auditor e.g. the unambiguous identification of the position or item being hedged, the designation of hedge components as a hedge and also of the management’s intent in the hedge documentation, the expected continuance of the hedge to be effective etc.

As mentioned earlier, the standards do not envision a perfect hedge. As such, a specific one-to-one identification of the hedging instrument with the hedged item or position is neither envisaged nor to be insisted upon by the auditors. Furthermore, the existence of a high degree of inverse correlation would be strong

evidence, although there could be situations where qualitative assessments suffice. The situation, essentially, needs to be handled on a case to case basis with professional due diligence, particularly with the new subjective effectiveness criteria coming into play.

To start with, it would be appropriate for the auditors to look at the qualitative aspects of the hedging relationship, in particular, the characteristics of the products used for hedging against underlying exposures. The subsequent steps would largely be determined by the nature of the hedging relationship, the client's internal controls environment as well as the auditor's own professional skill set and experience. Valuable inputs can be obtained from the entity's technical experts on salient and complex operational aspects, although reliance thereon should be with extreme restraint, comprehensive corroboration and thorough due diligence.

Nevertheless, if the auditor does decide to accept the entity's use of a correlation based quantitative measure, two vital issues need to be assessed:

- (i) The appropriateness of the acceptable range of correlation adopted by the entity's management in context of the nature of hedged items. It is emphasized that acceptable range would depend on whether the hedged item is a portfolio of assets or liabilities or a specific transaction or interest rates or foreign exchange transactions.
- (ii) The suitability of the time periods that were considered when assessing correlation. Possible alternatives would be to cover future periods up until the expiry of the hedged contracts, the current financial year or somewhere in-between. It is for the auditor to assess that the time frame selected by the entity's management is in line with the envisaged objective of the hedging relationship.

The depth of the audit exercise shall, as usual, be dictated by issues of materiality/ significance of the hedging relationship in context of the overall business dimensions of the entity, the past relationship and experience of the auditor with the client and, perhaps most importantly, the internal controls that the client has in place.

The audit assignment would be essentially incomplete without a comprehensive review of the hedge documentation. This is absolutely necessary as complete, precise and comprehensive documentation is

a cardinal pre-requisite for availing hedge accounting. The auditor must ensure that this mandate is faithfully met.

Another issue of significance that calls for auditor's decision making is whether the (risk offsetting) influence of other instruments or positions taken within the entity needs to be assessed as part of the hedge effectiveness assessment. The level at which the reduction or mitigation of client risk is to be assessed by the auditor is also relevant to the audit exercise. In general, the risk considered would be at the entity level with emphasis on the specific transaction in context of which the hedging relationship is under review.

## Conclusion

It is unquestionable that the audit of hedge accounting relationships exposes the auditor to a greater audit risk relative to audit of situations wherein the hedge components are accurately recorded under mark-to-market accounting. The situation is further aggravated by the paucity of professional pronouncements on this issue, particularly, in context of the completely renovated hedge accounting framework. Under the circumstances, the auditor, really, has little choice but to rely upon his own professional skills, judgement and experience. Needless to say, the role of a meticulous due diligence can hardly be overemphasized in this situation. It is pertinent to underscore at this point that the new hedge effectiveness assessment framework enables a powerful principles based testing formulation which is significantly more amenable to qualitative assessment than its predecessor that had literally encapsulated to the "80/125" bright line test.

The audit exercise in context of hedge effectiveness testing would invariably proceed with a review of the qualitative aspects of the hedging relationship, the nature of the products used for hedging against underlying exposures and the client's internal controls environment. A comprehensive review of hedging documentation is imperative and indispensable. In case quantitative evidence is presented to the auditor to vindicate the hedge effectiveness, the underlying models, the input parameter values and periodicities and the calculations may need to be examined. There may also be situations in which the auditor may, *suo moto*, decide to adopt quantitative assessment procedures.

Most importantly, in course of the audit exercise, the auditor must never overlook that perspectives of hedging may vary across the client and the auditor. For the client, the hedging strategy may translate to a risk-return tradeoff, whereas the auditor will simply view it in context of mitigation or management of risk. Another caveat is that there may exist a number of hedging strategies like

portfolio hedging, dynamic hedging etc. that are not amenable to hedge accounting intrinsically. To conclude, it justifies reiterating that the auditor needs to be abundantly vigilant in discharging audit functions wherein a deferral of recognition of gains & losses have been affected through hedge accounting in view of the several added audit risk factors elaborated above.

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