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THE BASICS OF ACCOUNTING FOR DERIVATIVES AND HEDGE ACCOUNTING

This is the first paper in an ongoing series that outlines the principles of hedge accounting under current and expected International and U.S. accounting standards, including the practical challenges typically faced by organizations.

Prepared by KPMG

In the regular course of business operations, organizations are exposed to market risks such as interest rate risk, foreign exchange risk, commodity price risk, etc., that give rise to income volatility. As a result, organizations often will take some action to mitigate or economically hedge against such exposures using derivative financial instruments. In addition some organizations may enter into derivative contracts for speculative or trading purposes.

ACCOUNTING FOR DERIVATIVE INSTRUMENTS

Under current U.S. and International accounting standards, an entity is required to measure derivative instruments at fair value, or mark-to-market (MTM), with changes in fair value or MTM to be recognized through the income statement.

Fair value is defined under U.S. accounting standards as "the price that would be received to sell an asset, or paid to transfer a liability in an orderly transaction between market participants at the measurement date." International accounting standards define fair value slightly differently as "the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction." Non-performance risk or the risk that an obligation will not be fulfilled (also known as credit risk) is also required to be incorporated into the fair value measurement. While the definitions differ, the principle is generally the same in the U.S. and internationally.

HEDGE ACCOUNTING

The accounting for derivative instruments at fair value creates a common issue for organizations that hedge risks using such instruments. Specifically, such organizations may face an accounting mismatch between the derivative instrument which is measured at fair value, and the underlying exposure being hedged, as typically underlying exposures are recognized assets or liabilities that are accounted for on a cost or an amortized cost basis, or future transactions that have yet to be recognized. This accounting mismatch results in volatility in the financial statements as there is no offset to the change in the fair value of the derivative instrument.

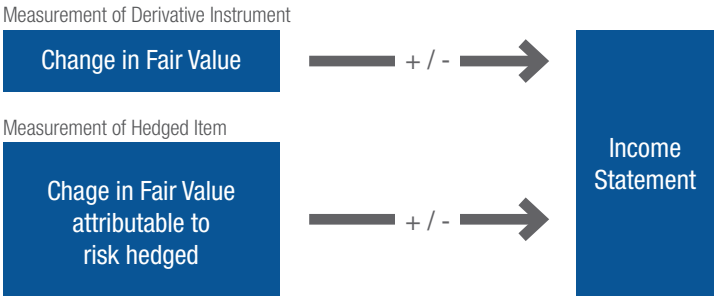
Hedge accounting provides this offset by effectively eliminating/reducing the accounting mismatch through one of three ways:

1. through a *Fair Value Hedge*, which is achieved by accounting for the underlying exposure, asset or liability (typically referred to as the hedged item) by adjusting the carrying value for changes in the hedged risk, which would then offset, to the extent effective, the change in the fair value of the derivative instrument, or
2. through a *Cash Flow Hedge* where changes in the fair value of the derivative instrument are deferred in shareholders equity, to the extent effective, until the underlying exposure impacts the income statement in the future, or
3. through a *Net Investment Hedge*, which is a variation on a cash flow hedge, used to hedge foreign exchange risk associated with net investments in foreign currency denominated operations.

1. FAIR VALUE HEDGE

A Fair Value Hedge is used when an entity is looking to eliminate or reduce the exposure that arises from changes in the fair value of a financial asset or liability (or other eligible exposure) due to changes in a particular risk, such as interest rate risk on a fixed rate debt instrument. The hedged item is permitted to be measured at fair value each period in respect of the hedged risk (not for all risks), even if the hedged item is normally measured at amortized cost. Any resulting adjustment to the carrying amount of the hedged item related to the hedged risk is recognized in profit or loss, even if such a change normally would be recognized in Other Comprehensive Income (OCI) - for example in the case of an instrument classified as available for sale.

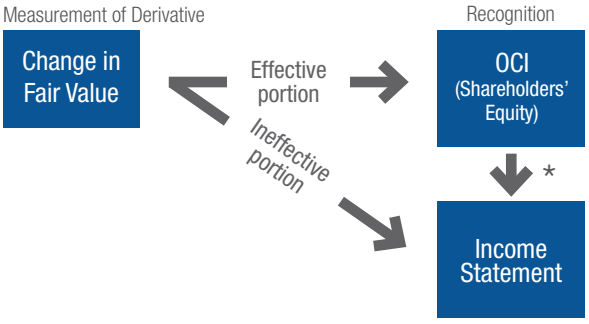
The Fair Value Hedge



2. CASH FLOW HEDGE

A Cash Flow Hedge is used when an entity is looking to eliminate or reduce the exposure that arises from changes in the cash flows of a financial asset or liability (or other eligible exposure) due to changes in a particular risk, such as interest rate risk on a floating rate debt instrument. The hedged item is accounted for under normal principles. The hedging derivative instrument is measured at fair value each period however the effective portion of the change in fair value is deferred in OCI and presented within equity (normally in a hedging reserve). The difference between the effective portion of the change in the fair value of the derivative hedging instrument and the full change in the fair value (the ineffective portion) is recognized immediately in profit or loss. A Cash Flow Hedge only has measured ineffectiveness where the change in the fair value of the derivative instrument exceeds the change in the present value of the future cash flows of the hedged item/exposure (referred to as an "over hedge"). The change in fair value of the hedging instrument that is deferred in OCI is reclassified to profit or loss at a future date when the hedged item affects profit or loss (for example, when the interest payment on a floating rate debt instrument is made or when the payment associated with an anticipated transaction occurs).

The Cash Flow Hedge

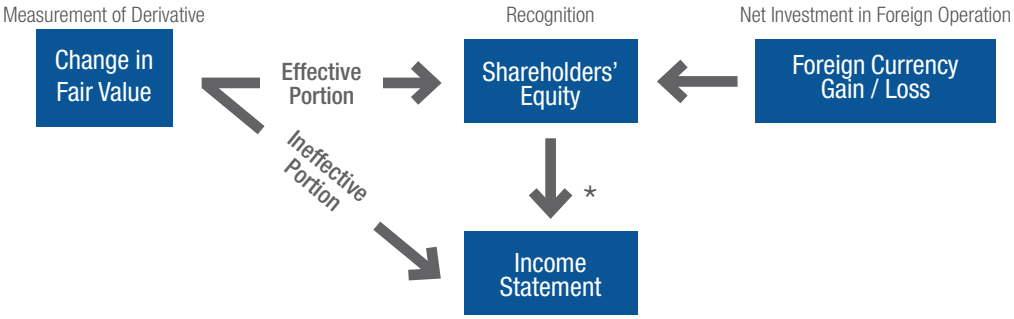


* Amounts are subsequently transferred out of OCI based on the same timing as the hedged item impacts income (interest income, interest expense, etc.)

3. NET INVESTMENT HEDGE

A Net Investment Hedge is a specific type of foreign currency cash flow hedge that is used to eliminate or reduce the foreign currency exposure that arises from an entity's Net Investment in a Foreign Operation (NIFO). Upon consolidation each period of the NIFO into the parent financial statements, a foreign currency gain or loss is recognized in shareholders' equity (part of the cumulative translation account). A Net Investment Hedge can be used to eliminate or reduce this volatility in shareholders' equity. The hedging instrument in a Net Investment Hedge can either be a derivative instrument (such as a foreign exchange forward contract) or a non-derivative instrument (such as a foreign currency denominated debt instrument), or a combination of a derivative and non-derivative under international accounting principles. When a derivative hedging instrument is used, the effective portion of the change in the fair value of the instrument is recognized in equity. The ineffective portion is recognized immediately in profit or loss. Similarly, when a non-derivative instrument is used, the foreign currency translation gain or loss is recognized in equity (as opposed to profit or loss).

The Net Investment Hedge



* Amounts are subsequently transferred out of Shareholders' Equity in the same period during which corresponding exchange gains or losses arising from the translation of the financial statements of the foreign operation are recognized in net income.

QUALIFYING FOR HEDGE ACCOUNTING

DOCUMENTATION

There are three basic requirements that must be satisfied in order for hedge accounting to be applied to any eligible hedge relationship:

1. formal documentation of the hedge relationship should exist at the time of designation;
2. at inception and each period thereafter an entity must demonstrate that the relationship is expected to be highly effective on a go-forward basis (prospectively) and has actually been effective since the date of designation (retrospectively);
3. each period an entity must recognize any ineffectiveness in profit or loss.

Formal documentation of the hedge relationship needs to exist at the date of designation that details:

1. the entity's risk management objective and strategy for undertaking the hedge;
2. the nature of the risk being hedged;
3. clear identification of the hedged item and hedging derivative including the key terms; and
4. the methods through which the effectiveness of the relationship will be assessed on both a prospective and retrospective basis, and how any ineffectiveness will be measured.

The methodologies used to assess and measure effectiveness need to be described in sufficient detail that would allow a reasonably knowledgeable individual to be able to understand and consistently reproduce the results of the assessment. This effectiveness assessment and measurement aspect of the requirements can get particularly complicated requiring specialized resources in certain instances for the more complex types of relationships.

ASSESSMENT OF EFFECTIVENESS

A critical requirement before one can apply hedge accounting is the analysis that supports the assessment of hedge effectiveness by analyzing the relationship between the changes in fair value or cash flows of the hedging derivative instrument versus those of the hedged item. At the inception of each hedge, an organization is required to demonstrate that the hedge is expected to be highly effective throughout the designated term in achieving offsetting changes in the fair value or cash flows attributable to the hedge risk through a prospective test. At each subsequent period (at least quarterly under current U.S. standards, and at a minimum each time an entity prepares financial statements under international standards), the prospective test should be rerun to demonstrate that the relationship is still expected to be highly effective for the remainder of the term of the hedge. At each period end, a retrospective test also has to be conducted to demonstrate that the hedge has been highly effective since inception of the hedge. Hedge accounting must be discontinued prospectively from the current assessment date should there be a failure of the prospective test, or discontinued prospectively from the previous assessment date should there be a failure of the retrospective test.

MEASUREMENT OF INEFFECTIVENESS

When applying hedge accounting an entity is also required to measure any ineffectiveness that may exist in the relationship (that is, the extent to which the change in the fair value or cash flows of the derivative instrument does not offset the change in fair value or cash flows of the hedged item). For a Cash Flow Hedge, ineffectiveness is currently recognized in profit or loss only when there is an over hedge and accordingly entities require processes and information to calculate the ineffectiveness accurately and in the appropriate instances. For a Fair Value Hedge, ineffectiveness is naturally recognized in profit or loss as it is simply the extent to which a perfect offset does not exist and can occur in an over hedge or under hedge situation.

CONCLUSION

Hedge accounting is a useful financial reporting accommodation that is not as complex and mystifying as it may appear at first glance. It is particularly useful for organizations that experience financial statement volatility today as a result of using derivatives to hedge underlying financial and/or non-financial risks (or expect to do so in the future).

It does nevertheless require a level of expertise to ensure it is being applied appropriately and an investment of time and resources, both at inception of a hedge relationship and on an on-going basis, to maintain it. The consequences of not applying hedge accounting appropriately can be significant, resulting in financial restatements. However, when applied appropriately, hedge accounting can result in a better alignment of an organization's financial reporting and economic realities.

The next paper in the series is titled "The Basics of Hedge Effectiveness Testing and Measurement" and will provide further insight on how to assess effectiveness and measure ineffectiveness.

About KPMG

KPMG is a global network of professional firms providing Audit, Tax and Advisory services. KPMG operates in 150 countries and has 138,000 people working in member firms around the world. The independent member firms of the KPMG network are affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. Each KPMG firm is a legally distinct and separate entity and describes itself as such.

About FINCAD

Founded in 1990, FINCAD provides advanced modelling solutions built on award-winning, patent pending technology. With more than 4,000 clients in over 80 countries around the world, FINCAD is the leading provider of financial analytics technology, enabling global market participants to make informed hedging and investment decisions. FINCAD provides software and services supporting the valuation, reporting and risk management of derivatives and fixed income portfolios to banks, corporate treasuries, hedge funds, asset management firms, audit firms, and governments. FINCAD Analytics can be accessed through Excel, MATLAB, as a Software-as-a-Service or embedded into an existing system through software development kits. Now, over 70 FINCAD Alliance Partners embed FINCAD Analytics within their solutions. FINCAD provides sales and client services from Dublin, Ireland, and Vancouver, Canada.

Note: Entities should consult the appropriate financial accounting standards prior to applying hedge accounting. These include International Accounting Standard 39 – Financial Instruments: Recognition and Measurement, and in the U.S. Accounting Standards Codification 815 – Derivatives and Hedging. This article is for information purposes only and is not intended to prescribe in detail how to meet the requirements for hedge accounting under International or U.S. accounting principles. In addition, an entity's accountants should be involved in any assessment regarding the application of hedge accounting.

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