Auditing Derivatives and Hedge Contracts
Under ASC 815, 820 and Other Guidance
Mastering Key Challenges and Analysis Techniques for Swaps, Options and Other Financial Instruments

TUESDAY, FEBRUARY 25, 2014, 1:00-2:50 pm Eastern

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Auditing Derivatives and Hedge Contracts Under ASC 815, 820 and Other Guidance

Feb. 25, 2014

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Today’s Program

Basics of derivative instruments and hedge contracts
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Derivatives
[Elvis Candelario]  
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Hedges
[Michael Loritz]  
Slide 25 - Slide 46

Best practices
[Michael Loritz]  
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Auditing Derivatives and Hedge Contracts Under ASC 815, 820 and Other Guidance

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Accounting Guidance

• ASC 815 – Derivatives and Hedging
  • Definition of a derivative instrument
  • Hedging vs Non-Hedging
  • Presentation in statement of financial position and operations
  • Disclosure requirements under ASC 815-10-50
• ASC 820 – Fair Value Measurement
• ASC 210-20-50 – Offsetting of Derivatives, Financial Assets, and Financial Liabilities
Derivative instruments

– Characteristics:
  • Financial instrument with an underlying or notional reference
  • No initial investment required
  • Payment provisions through netting of payments or delivery of asset

– Examples:
  • Futures, Forwards, Options, Warrants, Total Return Swaps, Credit Default Swaps, Interest Rate Swaps,
Hedging vs Speculation

• Hedging activity:
  – Risk management
    • Locking in interest rates
    • Foreign currency

• Speculation:
  – Getting exposure in a position without directly investing in the underlying
  – Leveraged exposure to positions
Financial Statement Presentation

– Required to be measured at fair value
  • Net equity in the position recorded as asset or liability
  • Balance sheet offsetting
– Disclosure requirements
  • Additional transparency into exposure and risks
  • Additional transparency to net exposure by instrument or counterparty
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Fair value measurement & techniques

• 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.

  – Level 1 – Exchange traded instruments:
    • Options & Futures contracts
  – Level 2 – Observable inputs in widely accepted models:
    • OTC Options, Interest Rate Swaps, Total Return Swaps, Credit Default Swaps.
  – Level 3 – Unobservable inputs used:
    • OTC Options, Warrants, Credit Default Swaps
Valuation techniques

• Options/Warrants – Strike price, Underlying price, Exercise date, Volatility

• Credit Default Swaps – Likelihood of a credit event of underlying debt.
  – Prepayment rates, Default rate, Recovery Rate, and Spread

• Interest Rate Swaps:
  – Present value of Fixed and Variable legs

• Total Return Swaps:
  – Change in fair value of underlying asset at measurement date and fair value of underlying at previous measurement date.
Balance sheet offsetting

• According to ASC 210-20:
  – Assets and liabilities are should not be presented on a net basis unless a right of setoff exists.

• Right of setoff:
  – a. Each of two parties owes the other determinable amounts.
  – b. The reporting party has the right to set off the amount owed with the amount owed by the other party.
  – c. The reporting party intends to set off.
  – d. The right of setoff is enforceable at law.
Additional disclosure requirements

• In March 2008 the FASB issued ASC 815-10-50 (formerly SFAS 161):
  – Provides enhanced disclosures about an entity’s derivative activities.
    • Objectives and strategies for use of derivative activities
    • Exposure to market, interest rate, currency, credit, and other risks
    • Impact to balance sheet and income statement
    • Volume of derivative activities
    • Off-balance sheet risk from the use of leverage
    • Contingencies from credit events which can lead to termination of contracts or additional posting of collateral
Qualitative disclosures

• Objectives and strategies:
  – Entities need are required to describe the objectives for derivative instruments.
  – Distinguish between risk management or other reasons
  – Entities are required to disclose the primary underlying risks of the derivative instruments
  – Descriptions of derivative instruments to achieve certain objectives
Qualitative disclosures

- Volume of derivative trading:
  - An entity is required to describe the volume of its derivative activities
  - Factors to consider in determining volume:
    - Directional risk exposure
    - Notional value
    - Number of contracts
  - An entity should disclose how volume is calculated
    - Based on derivatives held at balance sheet date
    - Based on average held throughout the year
Qualitative disclosures

• Impact of derivatives to the financial statements:
  – An entity should describe the location of derivatives in the statements of financial positions and statement of operations
  • Assets and liabilities by instrument type and primary underlying risk
  • Gains and losses by instrument type and primary underlying risks
Quantitative disclosures

- Example of tabular disclosures:
  - Effects of derivatives on statement of financial position and operations

<table>
<thead>
<tr>
<th></th>
<th>Assets</th>
<th>Liabilities</th>
<th>Gains(losses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity price risk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Options</td>
<td>5,000</td>
<td>(3,000)</td>
<td>42,000</td>
</tr>
<tr>
<td>Total return swaps</td>
<td>10,000</td>
<td>(30,000)</td>
<td>23,500</td>
</tr>
<tr>
<td>Commodity price risk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Futures contracts</td>
<td>200,000</td>
<td>(20,500)</td>
<td>(50,000)</td>
</tr>
<tr>
<td>Interest rate risk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest rate swaps</td>
<td>50,000</td>
<td>(7,000)</td>
<td>12,000</td>
</tr>
<tr>
<td></td>
<td>265,000</td>
<td>(60,500)</td>
<td>27,500</td>
</tr>
</tbody>
</table>
Quantitative disclosures

- Example of tabular disclosures:
  - Volume of derivative activities

<table>
<thead>
<tr>
<th>Risk Type</th>
<th>Long Exposure</th>
<th>Short Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Notional</td>
<td>Number of contracts</td>
</tr>
<tr>
<td><strong>Equity price risk</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Options</td>
<td>50,000,000</td>
<td>500</td>
</tr>
<tr>
<td>Total return swaps</td>
<td>2,500,000</td>
<td>2</td>
</tr>
<tr>
<td><strong>Commodity price risk</strong></td>
<td></td>
<td></td>
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<tr>
<td>Futures contracts</td>
<td>32,000,000</td>
<td>90</td>
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<tr>
<td><strong>Interest rate risk</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest rate swaps</td>
<td>10,000,000</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>94,500,000</td>
<td>597</td>
</tr>
</tbody>
</table>
Credit-risk-related contingent features

• Existence and nature of credit-risk-related contingent features and circumstances in which those features can be triggered
• Aggregate fair value of derivatives in net liability position containing credit-risk-related contingent features
• Collateral already posted and collateral that would be required to be posted as additional collateral if those features can be triggered
ASU-No. 2013-01 – Disclosures of offsetting assets and liabilities

- Additional qualitative and quantitative disclosures became effective for derivatives and other instruments.
  - An entity is required to provide information to enable the users of its financial statements to evaluate the effect or potential effects of netting arrangements on its financial position for recognized assets and liabilities governed by a legal right of setoff or similar arrangement.

- Factors to consider and required disclosures:
  - Gross amount of assets and liabilities subject to a right of setoff
  - The amounts offset or amounts not offset in the statement of financial position
  - Collateral attributable to assets and liabilities except the amount determined to be over collateralized
  - Net amounts by counterparty or instrument type
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Feb. 25, 2014

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What is Hedging?

- From an **economic standpoint**, hedging is using derivative instruments to offset risks (or volatility) that are present in a company’s business model in order to maintain a predictable outcome.
  - Fair value: maintain the fair value of an item
  - Cash flow: achieve predictable cash flows
- From an **accounting standpoint**, there are specific criteria that must be met prior to a company’s implementation of hedge accounting.
What is Hedging?

- Derivatives that are accounted for as **freestanding** are recorded at fair value at each reporting date **with the change recorded in earnings**.

- Derivatives that are accounted for as **hedging instruments** are also recorded at fair value; however, **the accounting for the impact to earnings is based upon the type of hedge that has been implemented**.

- Regardless of whether hedge accounting is utilized, **ALL** derivatives are recorded on the balance sheet at their **estimated fair value**.
What is Hedging?

**Fair value hedge** - Economic purpose is to enter into a derivative instrument whose changes in fair value directly offset the changes in fair value of the hedged item (*i.e.* item has fixed cash flows).

**Cash flow hedge** - Economic purpose is to enter into a derivative instrument whose gains and losses on settlement directly offset the losses and gains incurred upon settlement of the transaction being hedged.

**Foreign currency hedge** - If the hedged item is denominated in a foreign currency, then an entity may designate the hedge as either of the above or a net investment hedge.
**Types of Hedging**

**Fair value hedge**

In a fair value hedge the gain or loss on a derivative instrument designated and qualifying as a fair value hedging instrument *as well as the offsetting loss or gain on the hedged item attributable to the hedged risk* are recognized currently in earnings in the same accounting period.

*Intent is to convert a fixed cash flow instrument with a variable fair value to a fixed fair value.*

**EXAMPLE: FIXED RATE DEBT**

Special treatment = Hedged Item
Types of Hedging

Cash Flow Hedge

In a cash flow hedge, the effective portion of the gain or loss on a derivative instrument designated and qualifying as a cash flow hedging instrument shall be reported as a component of other comprehensive income (outside of earnings) and reclassified into earnings in the same period or periods during which the hedged forecasted transaction affects earnings.

Any portion of the derivative instrument that is designated as a cash flow hedge that is determined to be ineffective should be recognized in earnings immediately.

Intent is to convert a variable cash flow instrument to a predictable set of cash flows.
Types of Hedging

Cash Flow Hedge

EXAMPLES: VARIABLE RATE DEBT, FORECASTED SALES & PURCHASES

Special Accounting Treatment:
The unrealized gain/loss on the hedging instrument
Types of Hedging

Foreign Currency Hedge

- Foreign currency hedges designated as either fair value hedges or cash-flow hedges are accounted for in the same manner as typical fair value and cash flow hedges.
  - Forward purchase/sale
- A derivative instrument or a non-derivative financial instrument that may give rise to a foreign currency transaction gain or loss can be designated as hedging the foreign currency exposure of a *net investment in a foreign operation*.
Types of Hedging

Foreign Currency Hedge

- The gain or loss on a hedging derivative instrument (or the foreign currency transaction gain or loss on the non-derivative hedging instrument) that is designated as, and is effective as, an economic hedge of the net investment in a foreign operation shall be reported in the same manner as a translation adjustment to the extent it is effective as a hedge.
Types of Hedging

Foreign Currency Hedge

Example: A US domiciled company with foreign operations wishes to decrease the potential volatility to equity as a result of the currency translation adjustment. The company could enter into a foreign currency derivative (i.e. option, currency swap, forward, etc.) to hedge the volatility. This is similar to a fair value hedge.

Special Accounting Treatment
The unrealized gain/loss on the hedging instrument is recorded as a component of the currency translation adjustment.
Contains explicit guidance regarding the application of hedge accounting models, including documentation and effectiveness assessment requirements. One of the fundamental requirements of ASC 815 is that **formal** documentation be prepared at inception of a hedging relationship.

Stresses the need for the documentation to be prepared contemporaneously with the designation of the hedging relationship.
Hedge Documentation

Documentation must include:

Hedging relationship

Entity’s risk management objective and strategy for undertaking the hedge

- Identification of the hedging instrument
- Identification of the hedged item or forecasted transaction(s)
- Identification of how the hedging instrument’s effectiveness in offsetting the exposure to changes in the hedged item’s fair value (fair value hedge) or the hedged transaction’s variability in cash flows (cash flow hedge) attributable to the hedged risk will be assessed.
- How ineffectiveness will be measured
Hedge Documentation – Effectiveness Assessment:

- Both at the inception of the hedge and **on an ongoing basis**, the hedging relationship is expected to be highly effective in achieving:
  - Offsetting changes in the fair value attributable to the hedged risk during the period that the hedge is designated (in the case of a fair value hedge) or
  - Offsetting cash flows attributable to the hedged risk during the term of the hedge (in the case of a cash flow hedge).
- An assessment of effectiveness is required whenever financial statements or earnings are reported; **at least every three months**.
“Long-haul” to many persons familiar with hedge accounting means performing involved calculations. Many of these

- **Shortcut**: A qualitative method for assessing the effectiveness of a **cash flow** or **fair value** hedge of an **existing asset or liability** for changes in the identified **benchmark interest rate**, when using an **interest rate swap** as the hedging instrument. Anything that is not shortcut is, by definition long-haul.

- **Critical terms match**: A qualitative method for assessing the effectiveness of both **cash flow** and **fair value** hedges. It is generally understood to apply to **forward contracts** of **existing items and forecasted transactions**, but has been more widely applied. Oftentimes, it is combined with limiting changes to only those due to spot rates. This and the items below are long-haul methods, as anything that is not shortcut is long-haul.

- **Changes in variable cash flows method** (**CVCF**): A qualitative or quantitative method for **cash flow** hedges of **existing liabilities**, or assets or **forecasted asset or liability transactions**, for **interest rate risk** using **interest rate swaps** but applied by **analogy** to **commodity** hedges and combinations of **interest rates and currency**

- **Hypothetical derivative method**: Only for **cash flow** hedges; may be **qualitative or quantitative**, similar to CVCF method above but refers to selected **criteria** in **shortcut** to assert that the hedge will result in no ineffectiveness; used widely by **analogy** in **commodity** and **currency** hedges as well as for **options** under former DIG Issue G20
Perfectly Effective Hypothetical Derivative

The PEH has terms that identically match the critical terms of the floating-rate asset or liability:

- same notional amount,
- same re-pricing dates,
- the index on which the hypothetical swap's variable rate is based
  matching the index on which the asset or liability's variable rate is based,
- mirror image caps and floors,
- and a zero fair value at the inception of the hedging relationship.

The hypothetical swap would be expected to perfectly offset the hedged cash flows. The change in the fair value of the "perfect" hypothetical swap can be regarded as a proxy for the present value of the cumulative change in expected future cash flows on the hedged transaction.
Qualitative Vs. Quantitative Tests Of Interest Rates

<table>
<thead>
<tr>
<th></th>
<th>Fair Value Hedges</th>
<th>Cash Flow Hedges</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortcut method</td>
<td>Qualitative</td>
<td>Qualitative</td>
<td>Not as useful for cash flow hedges</td>
</tr>
<tr>
<td>Long-haul methods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes in variable cash flows method</td>
<td></td>
<td>Both</td>
<td>Fine when assessing qualitatively but difficult quantitatively</td>
</tr>
<tr>
<td>Hypothetical derivative method</td>
<td></td>
<td>Both</td>
<td>Most common, both qualitative and quantitative refers to shortcut criteria to define the hypo</td>
</tr>
<tr>
<td>Change in fair value method</td>
<td></td>
<td>Quantitative</td>
<td>Risk of “small numbers” phenomenon so paired with regression</td>
</tr>
<tr>
<td>Change in fair value method</td>
<td>Quantitative</td>
<td></td>
<td>Same, discount rate is often different for the derivative and hedged item</td>
</tr>
</tbody>
</table>
Measuring Effectiveness

- A confusing aspect of the literature is that all the methods described are technically measurements of ineffectiveness.

- Since many of these methods allow a possible conclusion of no ineffectiveness, one could only logically conclude that the hedge must be assessed as being effective.

- Ineffectiveness is always measured by the change in fair value of each item, as defined in the hedge documentation, subject to the OCI limitation for cash flow hedges on overhedges (or overperformance).

- Off-market derivatives contain a financing component that should be viewed as an embedded loan payable or receivable combined with a zero fair value derivative. View the embedded loan as being carried at fair value through earnings.

  - Receipts and payments on the financing are not contributors to ineffectiveness, but changes in the fair value of the unpaid receivable or payable do cause ineffectiveness in earnings subject to the OCI limitations on cash flow hedges.
Accounting for Certain Interest Rate Swaps

- In January 2014, the FASB issued ASU 2014-03 “Accounting for Certain Receive-Variable, Pay-Fixed Interest Rate Swaps—Simplified Hedge Accounting Approach”.
- Effective date is for periods beginning after December 15, 2014.
- Early adoption is permitted.
- If adopted the change is accounted for prospectively.

This alternative can not be elected by an entity that is a public business entity, financial institution or a not-for-profit entity.
Accounting for Certain Interest Rate Swaps

The alternative may be adopted for interest rate swaps that meet the following criteria:

1. Debt (hedged cash flows) and swap use the same index
2. “Plain-vanilla” swap
3. Re-pricing and settlement are the same time
4. Initial fair value of the swap is near zero
5. No forward starting swap
6. Swap notional is equal to or less then the related debt
7. Swap terms are equal to or less then the debt
Hedge accounting still applies, but:

- Documentation of the relationship can occur after the swap is entered into instead of concurrently.
- The hedge is assumed to have no ineffectiveness.
- The swap may be recorded at settlement value instead of fair value.
- Disclosures for the swap may be presented at settlement value instead of fair value.
- Exempts companies for which all of their derivatives qualify for the simplified short-cut method from fair value disclosures required by ASC 825.
- Adoption can be performed on a modified retrospective or retrospective basis.
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Most Common Question Received

Facts:

- Cash flow hedge of existing variable-rate debt
- Qualifies for critical terms (perfect hypothetical), so all amounts are deferred in AOCI
- Company decides to cancel the derivative (swap or cap), because:
  - It has decided to stop hedging, as it thinks rates are not going to go back up over the remaining life of the derivative;
  - Or, it has refinanced or modified the debt and can no longer qualify to assess qualitatively;
  - Or, its debt modification resulted in an accounting extinguishment

I stopped hedging, so I recognize all the AOCI in earnings, right?

Discussion:

Hedge was of variability in debt payments.
Debt payments remain probable or reasonably possible of occurring.

Answer:

No AOCI amounts are recognized immediately in earnings.
Recognize AOCI amounts as interest expense, as the future interest payments affect earnings
Use swaplet or yield adjustment method to recognize the frozen AOCI amounts

If the debt was refinanced to another lender, and hedge docs were of variability in debt payments to Lender A, only then release AOCI amounts and disclose.
Sample Company XX (Company) intends to enter into a transaction with Counterparty A (Counterparty) as part of the Company’s overall risk management policies and intends to designate an interest rate swap as a hedge of the exposure to changes in cash flows resulting from changes in interest rates associated with the Company’s variable rate debt.
Risk Management Objective

- The Company’s risk management objective is to reduce exposure to the variability in cash flows (interest payments) associated with changes in the 3 month LIBOR benchmark interest rate on $10 million of outstanding principal of the Company’s note payable to Bank A. The Company intends to hedge its exposure to changes in the benchmark interest rate by entering into a pay fixed, received variable (3 month LIBOR) interest rate swap. The variable leg of the swap is intended to offset changes in the cash flows attributable to changes in the 3 month LIBOR benchmark interest rate.
Hedged Item

- The Company is hedging the changes in cash flows, *associated with changes in the 3 month LIBOR rate only*, on the monthly variable rate interest payments beginning on January 1st, 2011 and the 1st of each month thereafter on the Company’s $10 million in outstanding debt with Bank A.

- Based on the Company’s internal evaluation, the future interest payments associated with the outstanding debt with Bank A are assessed as probable of occurring as the debt is not callable by the lender and the Company intends for the debt to remain outstanding throughout the hedged period (maturity). Additionally, we have assessed the counterparty credit risk and determined that the likelihood the counterparty would default on any payments due under the contractual terms of the hedging instrument is not probable (ASC 815-20-35-15).
Therefore, the Company has elected to ignore the impact of changes in the counterparty credit risk as well as the Company’s non-performance risk in the assessment of effectiveness and ineffectiveness. As a result, changes in the fair value of the hedging instrument related to counterparty credit risk and non-performance risk will be included as a component of accumulated other comprehensive income (AOCI) until the hedged cash flows impact earnings.

The hedging instrument is the pay fixed, received variable interest rate swap with Counterparty A.
Effectiveness Assessment:

- The Company will perform the initial and on-going effectiveness assessment through a regression analysis of the monthly change in the actual interest rate swap and a perfectly effective hypothetical (PEH) swap designed to entirely offset the changes in cash flows as a result of changes in the 3 month LIBOR. The regression analysis will use a minimum of 60 monthly data points (length of the hedging relationship) prior to the hedging relationship.

- When correlating the actual swap value to the perfectly effective hypothetical derivative instrument, the R2, or coefficient of determination, which is the R, or coefficient of correlation, squared, should be equal to or greater than 0.8. The R2 factor should be greater than (0.8) and less than or equal to 1.25 in order to be considered highly effective.
Effectiveness Assessment:

- Additionally, the Company will update the assessment of the probability of the hedged cash flows occurring and the assessment of counterparty and non-performance credit risk on a quarterly basis. To the extent the hedged cash flows remain probable of occurring, and counterparty default is not probable, the Company will exclude the impact of changes in counterparty credit risk from the valuation of the perfectly hypothetical derivative and actual derivative for purposes of the effectiveness and ineffectiveness testing.
Ineffectiveness Assessment:

- The Company will use the cumulative dollar-offset method to assess the ineffectiveness on a quarterly basis. The Company will compare the change in the value of the actual interest rate swap with the change in the fair value of the perfectly effective hypothetical swap (a swap assuming the same critical terms as the hedged item). The actual interest rate swap will be recorded at the credit adjusted fair value on the balance sheet with an offsetting entry to other comprehensive income.

- The amount of ineffectiveness to be recorded equals the lesser of the cumulative change in the fair value of the actual interest rate swap or the cumulative change in the fair value of the perfectly effective hypothetical swap.