ACCOUNTING FOR OIL AND GAS HEDGES: THE GOOD, THE BAD, AND THE UGLY

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An increase in US domestic crude oil and natural gas production coupled with transportation infrastructure limitations have resulted in supply and demand imbalances across the country and increased market price volatilities. As a result, energy companies continue to enter into OTC and exchange traded energy derivative instruments to manage commodity price risk. While these energy derivatives can be effective economic hedges, they do present management with challenges springing from the complex rules that dictate how they should be recorded in financial statements. The following article discusses the complex accounting rules for these instruments as well as the accounting challenges specific to the energy industry.

What exactly is a derivative and why does it matter?

Common energy derivatives include futures contracts, over-the-counter swaps, options, and fixed price physical purchases or sales contracts. The accounting definition of a derivative is intentionally broad and includes many types of contracts. In economic terms, a derivative is a contract that

- derives its value from changes in the value of a commodity price, interest rate, currency, or other price index (or combination thereof),
- does not require a cash investment to control the right to those changes in changes in value,
- can be net settled as if the holder is economically indifferent between cash or physical settlement.

The identification of a contract as a derivative is important because US GAAP requires that these instruments be recorded at fair value each reporting period with changes in fair value recognized currently in earnings. This is commonly referred to as "mark-to-market" (MTM) accounting and can muddy a company's financial performance by introducing earnings volatility into it.

It should be noted that some physical energy contracts qualify for an exemption. The exemption is called the normal purchases and normal sales exemption (NPNS). For example, if a company routinely physically delivers its fixed price natural gas contracts, these contracts could qualify for the NPNS exemption. This means that any fluctuations in the underlying commodity price will not impact the company's balance sheet or income statement until the contract is settled. This exemption is not the default treatment and companies must document the election.

What is hedge accounting and why would a company consider using it?

Hedge accounting is a special accounting treatment that enables a company to dampen earnings volatility resulting from mark-to-market accounting. Current and potential shareholders may shy away from investments with volatile earnings, which in turn negatively impacts share prices and the cost of capital. Consequently, approximately 40% of all energy companies elect hedge accounting.

What can be designated as the hedged item?

For nonfinancial items, only market price risk of the entire item can be designated. This means that a company cannot split the risk of adverse movements in the underlying commodity price into its various components. The entire price movement must be designated.

To hedge these risks, US GAAP provides for two types of hedge designations - cash flow hedges and fair value hedges.

Cash flow hedge, as the name implies, hedges cash flow exposure from the possibility that a change in market prices will result in variability in expected future cash flows from a forecasted future transaction such as the sale of crude oil production. Essentially, a cash flow hedge converts a "floating" cash flow stream into a "fixed" stream by locking in that variable exposure. In an effective cash flow hedge, the derivative is carried at fair value with the effective portion of the unrealized gains or losses recorded in Other Comprehensive Income (OCI).

Fair value hedges protect against fair value exposure from the possibility that a change in a market price will result in a change in the fair value of a particular asset, liability, or firm commitment. The derivative in a fair value hedge "unlocks" the fixed price in a commodity contract. Both the derivative and the hedged item are carried at fair value on the balance sheet. Fair value hedges are typically applied to commodity inventories and are rare in the energy industry.

How does a company get hedge accounting?

Hedge accounting is a privilege and not a right. To qualify as either a fair value or a cash flow hedge, the hedge relationship must meet criteria relating both to the derivative instrument and the hedged item. This article will focus on criteria related to cash flow hedges including: documentation, assessments of hedge effectiveness, and ineffectiveness measurement.

Documentation: It is critical that the company formally designates and documents the hedge relationship at its inception to qualify for hedge accounting. The process should include determining how to define the risk being hedged and if any elements of the derivative should be excluded from the assessment of hedge effectiveness. A well written hedge document will maximize hedge effectiveness and minimize the amount of income statement volatility. Documentation should include:

- Date and type of hedge designation
- Risk management strategy and objective
- Nature of the hedged risk
- Hedging instrument identified
- Hedged item defined
- Effectiveness assessments and ineffectiveness measurement methods

The forecasted transaction that has been designated as the hedged item must be defined so it can be identified when it occurs. It must include the date on or period within which the forecasted transaction is expected to occur and the physical quantity being hedged. For example, it can be referred to as "the first 100,000 barrels of crude sold after December 1, 2013," but it cannot be defined as a percentage of sales such as in "15% of crude sales in December 2013."

Effectiveness Assessment Tests: Companies must perform prospective and retrospective effectiveness assessment tests to prove that a hedging relationship is "highly effective," and it will continue to be "highly effective". An effective hedging relationship is one where changes in the cash flows from the forecasted transaction are offset by the related changes in the fair value of the derivative instrument. These assessments must be performed at the inception of the hedge and, at a minimum, at each quarterly reporting period until the hedging relationship is terminated. Energy companies tend to use statistical analysis using regression for both prospective and retrospective assessments.

Ineffectiveness Measurements: Hedge ineffectiveness is the amount by which the change in fair value of the derivative does not exactly offset the change in fair value of the expected cash flows from the forecasted transaction. Potential sources of ineffectiveness include basis differences (location and grade) and timing differences.

What are the challenges for designating energy hedges?

Companies are advised to be cautious and understand the consequences of hedge accounting for commodities. There are four major pain points:

- 1. Hedging the entire cash flow. US GAAP requires companies to consider the entire change in the future cash flow of the hedged item, including the basis risk or the transportation risk. When effectiveness is assessed, the entire change in value is measured against the changes in the value of the hedge. This can cause ineffectiveness or even loss of hedge accounting.
- 2. **Timing of the forecasted transaction.** With some limitations, the hedged purchase or sale must occur as specifically forecasted. That's an impediment in any kind of cash flow hedge accounting relationship but more so in energy products where there are production uncertainties, transportation risks, or storage issues.
- 3. Lack of forward market data. Compared to foreign currencies and interest rates, there is a lack of forward market data for commodities in general. The company needs to provide data that proves the hedging relationship will be effective going forward and measure ineffectiveness. A considerable amount of time and resources can be spent on developing forward market data representing the hedged item.
- 4. **OCI Releases.** The gains and losses that were deferred in OCI have to eventually be recognized in earnings. This reclassification generally takes place in the same period that the hedged forecasted transaction affects earnings, such as when cost of sales is recognized. The cumulative tracking of amounts in OCI may present some unique challenges if the volumes and types of cash flow hedges utilized are significant.

In summary, OTC and exchange traded energy derivatives are useful tools to manage commodity price risk. The downside of using these instruments is that accounting rules require fair value recognition on the financial statements which creates earnings volatility. Companies desiring to remove that volatility from their earnings may elect hedge accounting. However, it requires overcoming challenges associated with the designation and frequently requires the engagement of specialists to meet the complex requirements.