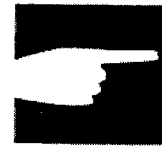


# Financial Trading 101

## Locking In Storage Profits Through Hedging

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### EXAMPLE 1

Selling Surplus  
Gas at a  
Guaranteed Profit

The futures market can be used to lock-in profit relating to storage economics, either by guaranteeing that surplus gas can be sold at a premium to replacement gas, or by guaranteeing that putting gas into storage early will be less expensive than waiting until the time at which it would normally be purchased. Now with the introduction August 1 of the KCBOT western gas contract, which correlates well with Canadian gas, these opportunities will be more available to those involved in west of the Rockies gas.

To lock-in profit with excess gas, the best method is to sell the gas and replace it with future gas at a lower price, which is hedged or locked-in using futures, as well as freeing up storage which may bring in additional revenues. Gas can be purchased early by buying physical gas and then selling it forward in the futures market at a higher price.

The following two examples will demonstrate this strategy, neglecting any changes in basis (note: basis is the difference between the physical pipeline index and the futures price).

Looking at the February to May spread, we can see that it historically averaged approximately 25 cents. In no year has the average been less than eight cents. The historical spread charts, and the yearly spread charts for Feb./May, with their associated statistics, appear in Table 1.

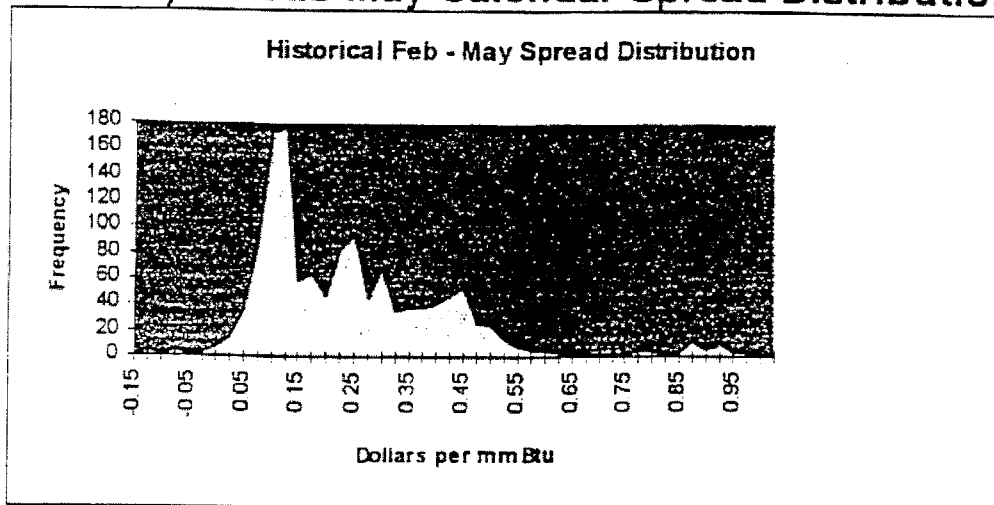
Let's say that Feb. physical gas is selling for \$2.10, and May gas (on the futures market) is selling for \$1.80. We are surplus Feb. gas, as it is the end of the winter season, but need to buy gas in May for next season's storage fill activities.

Sell Feb. physical gas at \$2.10, and simultaneously buy May futures at \$1.80. We have "locked-in" a 30 cent gain by the transaction regardless of future market direction.

TABLE 1

...Continued on pg. 3

### February versus May Calendar Spread Distribution



Average Spread	0.250
Median	0.215
Minimum	-0.145
Maximum	0.990
StdDev	0.192
Skew	1.330

..Continued from pg. 2

• In late April, prior to the expiration of the May contract, May futures are now selling for \$1.70. We sell May futures at \$1.70 for a 10 cent loss, and simultaneously buy May gas for \$1.70.

• Our net position = Cash sale at \$2.10, Cash purchase at \$1.70 (for a 40 cent gain), 10 cent hedge loss = 30 cent gain.

In addition to the 30 cent gain, we would add any profit realized due to capacity release.

**EXAMPLE 2****Buying Gas Early at a Guaranteed Margin**

April gas has, since the inception of the futures contracts, averaged below August, with an average discount of 4 cents.

• Let's take the case of a regulated utility which has "sunk costs" in storage, and would normally buy gas on a prorated basis from May through August.

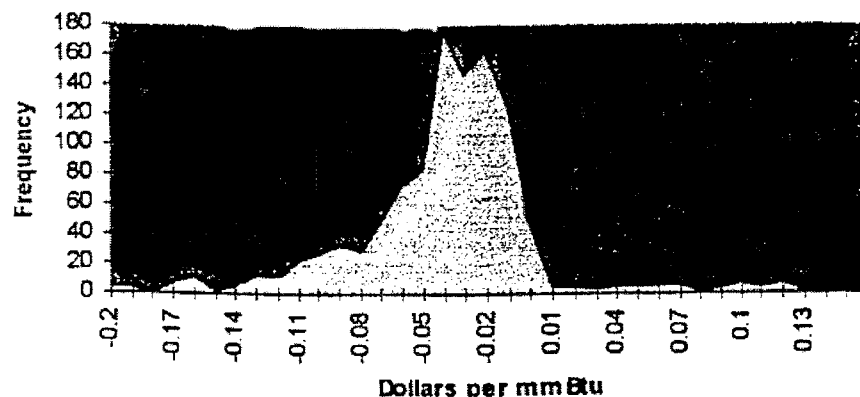
• In late March, April gas is selling for \$1.70, and August gas (futures), which we would normally wait to buy in August, is selling for \$1.83. Our incremental storage cost is five cents per MMBtu.

• We buy April gas at \$1.70, and sell August futures at \$1.83. We have locked in an eight cent gain versus waiting to buy in August regardless of futures market direction.

• In August, cash gas is selling for \$1.53, thus we buy August futures for a 30 cent gain.

• The net price we paid for gas is \$1.40, 13 cents better than the "do nothing" case.

*Kase and Company, Inc., based in Albuquerque, New Mexico, offers comprehensive energy trading and hedging advisory services as risk management policies and implementation plans. Kase's client base includes many Western and Canadian firms.*

**TABLE 2****April versus August Calendar Spread Distribution****Historical Apr - Aug Spread Distribution**

Average Spread	-0.040
Median	-0.040
Minimum	-0.223
Maximum	0.317
StdDev	0.054
Skew	1.255