

swap. This swap derives its value from the price of the NYMEX natural gas futures contract.

Henry Hub physical transactions strongly correlate with the NYMEX futures and the related OTC NYMEX look-alike swaps because the NYMEX futures directly settle based on the Henry Hub physical delivery price. The correlation between the NYMEX futures and next-day physical gas at Henry Hub is not perfect (although it is very high) because of various timing differences between the futures contract and the next-day physical contract. In particular, the futures contract represents delivery in the following month and the Henry Hub physical contract represents next-day delivery.<sup>8</sup> The volatility of Henry Hub should be greater to reflect the inherent volatility in the value of a next-day product (which reflects unanticipated demands) versus the volatility in a monthly futures contract (which reflects anticipated demand). This is reinforced by the mean reversion of commodity spot prices.

Many other financial derivative contracts relate in similar ways to underlying physical transactions of varying terms. The direct and indirect relationships between financial derivatives and physical transactions provide the linkage needed to exercise particular manipulation strategies. Generally, the dependence of financial derivative products on physical transaction values results in a strong correlation between changes in the value of the physical product and the financial derivatives. For example, if next-day physical gas (gas that will be delivered the next day) trades at a high level on a particular day, this affects the settlement of the portion of a *Gas Daily* financial swap that settles the next day. Looking forward, the increase in spot prices for gas indicates an increase in demand for gas (or a decrease in inventory) and may change expectations for prices of gas in the future as well. A change in expectations for future natural gas prices will affect the value of financial derivative transactions designed to settle on those future days. It is this interrelationship that provides an opportunity for manipulation.

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<sup>8</sup>Delivery under NYMEX contracts shall take place no earlier than the first calendar day of the delivery month and shall be completed no later than the last calendar day of the delivery month. All deliveries shall be made at an hourly and daily rate of flow that is as uniform as possible over the course of the delivery month. See [www.nymex.com](http://www.nymex.com).