Metallgesllschaft and The Economics of Synthetic Storage

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History:

Metallgesekkschaft owns the world record for the biggest derivatives-related losses 1.3 Billion. Deutsche bank and many other major banks were backing MG, over 100 other banks. The parent of MG thought that MGRM was not hedging and just speculating. The board ordered MG to liquidate all there positions. By deciding to liquidate, the company turned paper losses in to realized ones. This made it very difficult for MG to trade in the OTC and ruined it trading strategy. The main point Culp and Miller want to discuss in this paper is synthetic storage. If MG would have kept on going with its original strategy, they would have been fine if they could still acquire funding, which they could, and if upper level management understood fully the program, which they didn't. Their key marketing strategy was to offer long term customers firm price guarantees for 5 and 10 years on oil of all refinements. The derivatives positions protected the firm and its creditors from principal risk, rising spot prices. The main purpose of their strategy was to use their comparative advantage in marketing and storing oil products. MG traded in very liquid contracts on the NYMEX, of maturities between one to three months. Having liquidity in these positions allowed MG to have lower its costs due to seasonality. MG's contracts included an option clause allowing the counterparty to exit the contract if market prices went above fixed.

Trading Strategy:

MG used short dated futures to hedge its long term delivery. They did this by buying "stack" of short dated futures equivalent to its remaining delivery obligations. "On the first delivery date, the firm buys in the spot market for delivery, offsets all its maturing futures contracts, and re-establishes a long position in the new front-month (i.e., one-month) futures contract—this time, though, with its long futures positions reduced by the amount delivered on its flow contracts. On the next settlement date, the hedger again decreases the size of its futures position by the amount delivered and rolls the rest forward to the next maturing one-month futures contract. And so on, month by month." Oil markets usually have a negative basis since the spot is greater than the futures price. This is due to the convenience yield being greater than the cost of physical storage plus interest costs of storage. With synthetic storage, the firm pays the marginal storage cost net of the convenience yield for the margin physical storer. MG rolled over costs, which is the difference between the price of the maturing futures contract and the price at which the new futures position is established multiplied by the size of the stack. MG used the basic law of one price since, "As long as the rollovers are in front-month contracts and occur near the maturity date, the price of the expiring futures contract is essentially the spot price because the two must converge at maturity."

It seems like the why MG failed was that the supervisory board did not understand what MG's strategy truly was. It was not speculating it was hedging.