

MARKET FOCUS

Examining risk management

This month's *Market Focus*, provided by Chicago, Illinois-based commodities information integrator GlobalView Software, looks at strategies for competent risk management in the oil and gas industry

Is it time to re-assess your risk management programme? Does it have clear goals and objectives? What is it really trying to accomplish? Is it perplexing since what seemed to be a very solid programme when it was implemented isn't producing the expected results? Or does the programme's sophistication, or lack of it, seem to be constantly challenged by those who should understand and embrace it?

If these questions sound familiar, then you're the only one who thinks so. With very few exceptions, one risk manager after another has repeatedly echoed such sentiments. This is not to say that risk management is losing its favour or purpose. On the contrary, risk management, properly used, is a very powerful tool for any organisation.

It is essential that trading and hedging in the derivatives markets be used as tools to protect against substantial losses in today's volatile energy markets. Identifying risk and market trends is crucial to the success of energy producers and consumers.

A profitable programme requires the development and implementation of strategies for achieving success in uncertain and changing market conditions.

SUGGESTIONS

So what must be done to overcome the hurdles of internal skepticism? Here are three suggestions that might be helpful.

□ Agree when risk management is important

It is important to ensure that everyone monitoring a programme agrees

with the point at which risk management is important. Why? If this is not done and something goes wrong, there is an open invitation for everyone involved to second-guess based on hindsight. Take the long road and have others participate in the formulation of critical points.

For example, if you manage risk for an oil refiner and you've been told what crack spread (refined product values less crude cost) brings about an acceptable result, then it is at this level – or critical point – that reducing risk becomes important and should start.

This step is important for the obvious reasons – to protect profits – but more importantly, because there

is now multiple ownership for the level at which risk accrues to the organisation.

The company should establish a methodology based on a quantitative performance profile analysis, the foundation being the measurement of the risk inherent in the basic business or portfolio being managed.

□ Agree on relationships of price versus supply and demand

Everyone monitoring the programme should understand the current, intermediate and long-term relationships of price versus supply and demand. Why? Forecasts are generally wrong and only get worse with time. To counter this, use

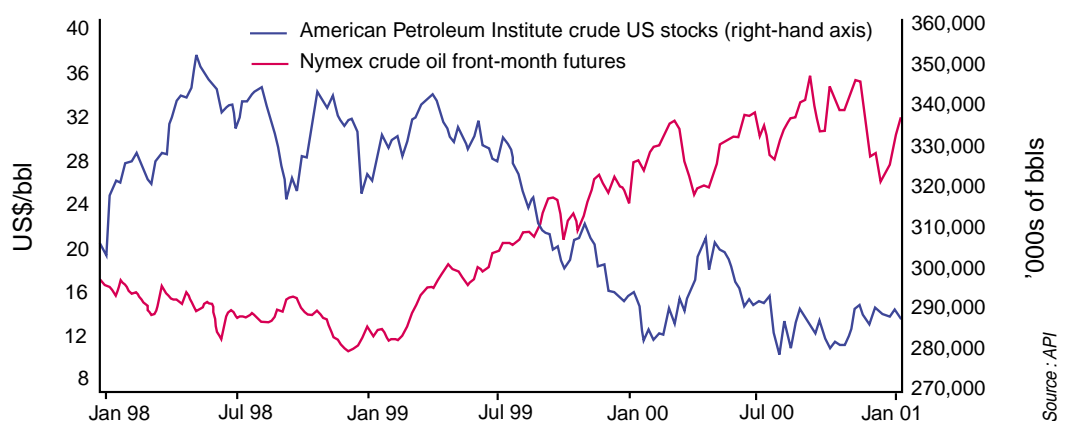
benchmarks signaling major shifts in the supply/demand balance so that those who monitor the programme won't be taken by surprise.

For example, crude oil prices increased from \$10 to \$35 a barrel (bbl) and over when the Organisation of the Petroleum Exporting Countries (Opec) initiated production cuts, and US inventories fell to their lowest levels in years (see figures 1 and 2).

Similarly, the US natural gas market saw record highs late last year when inventories were far below previous years (see figures 3 and 4).

Decisions can only be made with the best possible information at hand. Interpretation of market

Figure 1: Nymex front-month crude oil futures price v supply



Organisation of the Petroleum Exporting Countries production cuts and decreasing inventories led to increasing prices of New York Mercantile Exchange (Nymex) crude oil futures. Here we see the American Petroleum Institute reported US crude inventory plotted against the Nymex front-month crude oil future price. The correlation is easy to recognise in hindsight. Having an established threshold for the inventory would have alerted attention to the dramatic price increase.

information is central to determining market trends.

□ Understand management's definition of opportunity cost

Make sure you understand what your senior management's definition of opportunity cost really means. This is because, almost without fail, management has a benchmark threshold of acceptability that seems to be hidden until it is breached.

If the approximate level of opportunity cost they feel comfortable with is known in advance, the programme can be adjusted accordingly. Also, such knowledge opens the door to risk-to-reward tolerance conversations that can be very insightful for any modifications that may need to be made to the programme.

And last, but not least, a good understanding of management's expectations could very easily mean the difference between whether the programme survives or is scrapped.

RISK EXPOSURE

Identifying the inherent risk exposure enables three critical management procedures. First, the acceptability of the inherent risk exposure can be objectively evaluated and communicated.

Second, a decision can be made to either accept or alter the inherent risk exposure relative to established reference points.

Third, positions and strategies can be measured for suitability within the performance profiles and either pursued or eliminated.

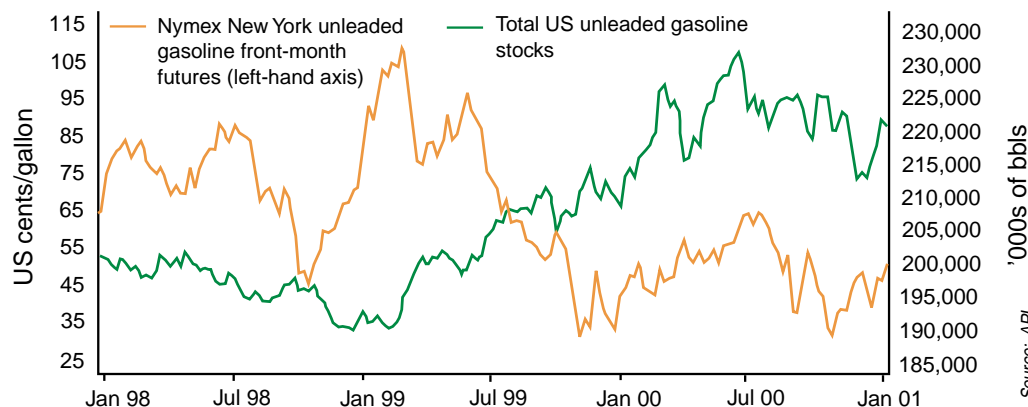
While these suggestions may seem more appropriate for large organisations and have been demonstrated with oil industry examples, they are also applicable to small companies and other commodities.

So, no matter if your role is in a small firm that views risk management as a function of cash availability or a large company whose primary concern is cash-flow impact, ensure other key players are involved in the decision-making process and that they assume responsibility for the programme. ■

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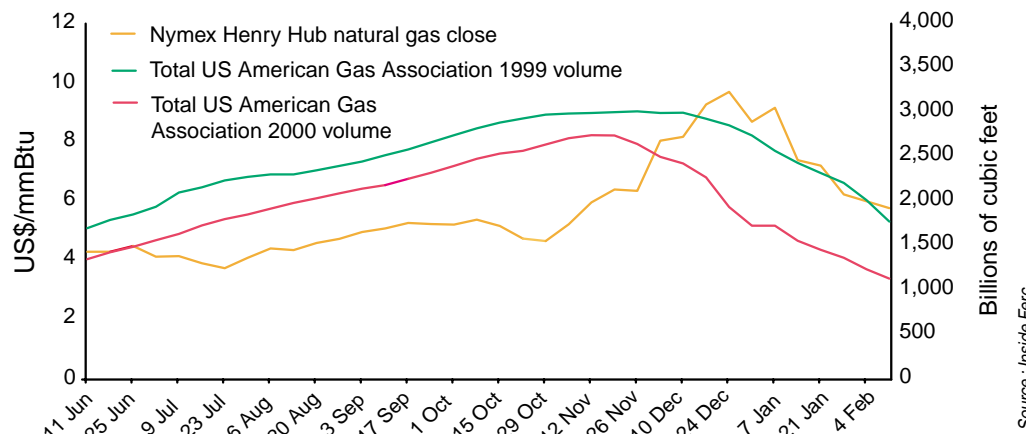
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Figure 2: Nymex New York Harbor front-month unleaded gasoline futures v supply



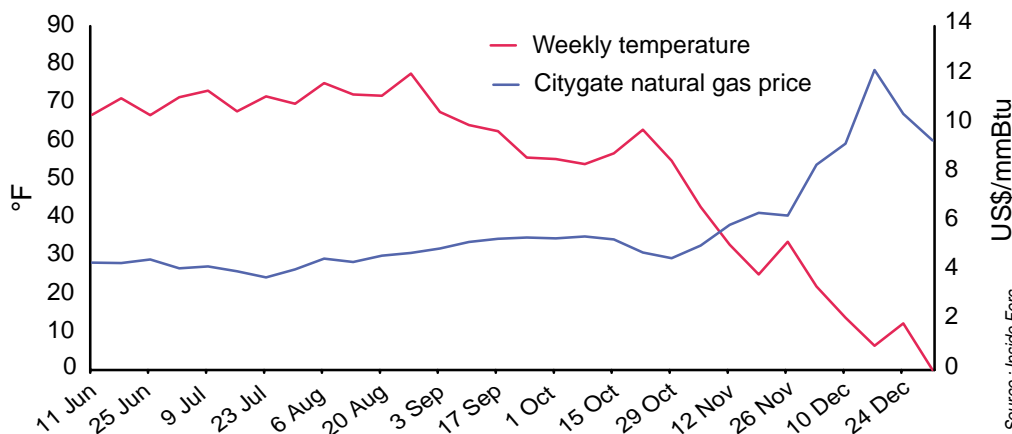
The same pattern as in figure 1 emerges when comparing the American Petroleum Institute reported gasoline inventory to the New York Mercantile Exchange front-month unleaded gasoline futures. The importance of diligence in the risk management plan is underscored.

Figure 3: Nymex Henry Hub natural gas futures v supply



The US natural gas market experienced extreme price movements in the latter part of 2000 due to decreased inventory, higher industrial demand and some unseasonably cold weather. Comparison of inventory to the previous year and established signals for warning provides risk triggers.

Figure 4: Chicago Citygate natural gas spot price v temperature



Natural gas delivery prices are directly correlated to the temperature at the Chicago Citygate when inventories are below normal. Seasonal price changes are expected due to weather, but 2000 saw extreme price increases due to market conditions.