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Hedging Mitigates Energy Price Volatility

As consumers, most of us feel like hostages to rising energy prices. We can carpool, use public transportation or buy a hybrid vehicle to spend less on gasoline, and turn our thermostats down in the winter to save on heating oil or natural gas. But if we want to continue living as we do today, we have very little control over energy costs.

In contrast, in the corporate world, you don't have to feel powerless. Treasury managers can smooth out energy price volatility and regain some control over energy costs by hedging.

A Universal Challenge
Virtually every company is feeling the sting of rising energy costs. Transportation companies and logistics firms have been hit particularly hard. But manufacturers, which need lots of fuel to run their machines, also are reeling. Even companies you wouldn't think of as being major energy consumers are seeing their profits eaten into by direct and indirect energy expenses.

So just how volatile have energy prices become?

"Implied volatility" is a theoretical value that represents the market's best guess about an underlying commodity's volatility for a certain period of time. The value is expressed as a percentage. In July, the implied volatility of eurodollars was 12% for a year. At the same time, the 1-year implied volatility of most hydrocarbons — such as crude oil, natural gas and jet fuel — ranged from 30% to 40%.

In other words, the volatility of energy prices today far exceeds that of currency prices.

The numbers make a compelling case for corporations to consider hedging to mitigate energy-price volatility risk, and certainly in today's environment more companies are beginning to focus on energy risk management.

Hedging Goals
Companies typically hedge to achieve one of three goals:

• *Bring certainty to the costs of energy procurement to guarantee profit margins.*

This may be the goal that applies to the greatest number of organizations. Let's say you are a taxi cab company and you know if gasoline costs reach a certain level you will not achieve your desired profit margin. Hedging is a way to lock in your biggest variable cost

of doing business, avoid raising customer fares (which keeps you competitive), and ensure profit margins.

- *Stay within budget on energy expenditures.*

  This is why many public sector organizations hedge energy prices. For instance, school districts budget for bus gasoline costs. If gas prices skyrocket, they are in a bind, since they have no power to raise additional revenues to cover those costs; their only alternative may be to reduce spending. Hedging can help them control gas expenditures and avoid spending reductions such as teacher layoffs.

- *Maintain profit margins on energy sales.*

  In recent years most energy producers have not actively hedged, but they are beginning to due to the combination of extreme volatility and the global slowdown in economic growth.

Before You Get Started

Here's some basic information you should know about energy hedging before getting started:

- *The instruments for hedging energy prices are very similar to those organizations use to hedge interest rates or foreign currency movements.*

  The most basic instrument is a plain-vanilla *swap*, which allows you to lock in the cost of energy over a set period of time. It's akin to a forward contract in the foreign exchange market.

  You can also employ *caps* and *collars*. A *cap* (or call option) acts like an insurance policy to ensure you don't pay more than the contract price for the form of energy you are hedging. A *collar* provides similar insurance but combines a price cap with a price floor to ensure your energy costs remain within an established range.

- *In some cases you must hedge using the derivatives market for a commodity whose pricing movements closely correlate to your energy exposure.*

  For example, an airline might want to hedge its exposure to jet fuel. But since liquidity in the jet fuel market is poor, the hedge might be in heating or crude oil, which are in more liquid markets and closely correlate to jet fuel.

- *You never hedge 100% of your exposure.*

  Companies typically stagger their hedges over time. Say you're a paper manufacturer hedging your electricity and natural gas exposure out 24 months. You might lock in 50% to 80% of your cash flows for the next three months; 40% to 70% for months 4 to 6; 30% to 60% for months 7 to 9; and so on. The more certain your pricing forecast, the higher percentage you hedge.

- *A company can only take advantage of hedge accounting if it has direct exposure to the energy risk.*

> Many companies have an exposure to energy price volatility but it's not a *direct* exposure. Shipping costs might be a tremendous burden on a telecommunications company, for example. But if the company outsources its shipping, its exposure to rising gasoline costs is *indirect*. Any hedges aimed at mitigating that risk exposure would not be eligible for hedge accounting.

Companies faced with indirect energy exposure can try to negotiate long-term pricing with a shipping or other vendor as a way of mitigating price volatility without hedging. (The vendor could conceivably perform the hedge and receive hedge accounting because it has a direct exposure.) However, in the current economy, fewer vendors are willing to lock in long-term pricing.