A Financial Risk Management Primer

The financial risk management process is complex, requiring a keen understanding of one's exposure, the valuation of derivative securities, applicable accounting regulations and the internal controls necessary to ensure risk management activities are effectively performed.

www.CFOProject.com/20350

This primer should serve as a basic introduction to financial risks and summarize a framework necessary for managing them. It is not, however, a guide to hedging, but should provide a basic understanding of why organizations hedge. At the end of this overview, the reader should have a better understanding of what we mean by risk, choices regarding it, the value in managing it and what is entailed in setting up a risk management process.

RISK

Risk typically connotes a negative impact. In finance terms, however, it may be viewed more objectively as the variance in possible outcomes, or the "exposure to uncertainty," as defined in the August 1997 issue of *Financial Engineering News*. Without risk, the potential for investment returns would be minimal.

Managers face a wide variety of risks, many of which may be critical and included within some sort of enterprise risk management (ERM) framework, as in Figure 1.

TREASURER'S ROLE

While treasurers typically play an integral part within an ERM framework, their primary focus would likely be on managing various financial risks, as in Figure 2.

FIGURE 1 Managers face a wide variety of risks.

FIGURE 2 Financial Risks a Treasurer Focuses On

FINANCIAL RISK IMPACT

Risk is in the eye of the beholder. While finance theory would pose the premise that investors are risk-averse, not all boards or managers are. Risk is a relative, rather than an absolute term, and it is a function of two primary factors: volatility and impact; that is, how volatile is the item in question, and equally important, what is the financial impact of that volatility, i.e., to cash flow and/or earnings? The two factors taken together define a company's exposure, or risk. Whether or not the exposure is acceptable is dependent upon an organization's level of risk aversion, or risk appetite.

ALTERNATIVES FOR DEALING WITH RISK

An organization has four basic choices with respect to dealing with risk, according to *The Treasurer's Handbook 2005*:

- Accept;
- Transfer;
- Manage; and
- Avoid.

Accept

Depending on management's tolerance for risk, they may choose to absorb the volatility through earnings, assuming that the upside may eventually outweigh the downside. Management's risk preference notwithstanding, given the volatility and impact of the exposure in question, absorbing such risk may not be feasible or tolerable by stakeholders, which include equity investors, creditors and employees, among others. Absorbing risk may put earnings on a potential roller coaster ride: The good ones may be a blast, but the bad ones can make your stomach turn.

WRITTEN BY

David W. Stowe, Strategic Treasurer, LLC

David W. Stowe, CFA, is a risk management consultant with Strategic Treasurer, LLC. He works with clients on risk management issues related to hedging and FAS133 compliance. Mr. Stowe has experience with a wide array of treasury initiatives from implementing, forecasting, systems and processes used by clients in North American and international cash management structures. He holds degrees from Emory University's Goizueta Business School and Georgia State University.

Transfer

Transferring risk refers to the opportunity to push the risk back down the supply chain or pass the risk on to your customer. Your ability to alter your risk, however, either by passing it to your customers or by pressuring your vendors to absorb it, if applicable, depends on your market environment. In a highly competitive price environment in which you may be a price taker, passing cost variability through to your customer, e.g., in the form of price increases or a surcharge, may not be practicable. On the other hand, pressuring your vendor to absorb risk only transfers its cost. It's still a component cost that has to be managed. As such, one must consider who is better equipped or experienced to manage the risk at the optimal cost.

Manage

A third alternative may entail managing risk through a hedging program or through the purchase of insurance. The goal is the mitigation of risk, not necessarily its elimination, by bringing it within the organization's risk tolerance. "Risk management is a process by which a company alters the risk it faces to make it equal to the risk it desires."[1] The process of mitigating the risk is to acquire an offsetting exposure, which may be either a derivative instrument such as an option, future or swap, or an offsetting asset or liability, in order to limit the uncertain impact to value or cash flow.

Avoid

If all other attempts to deal with risk fail – it cannot be brought within the entity's risk appetite – a change in operating strategy may be warranted. Risk avoidance may involve a decision to exit a market, e.g., a country or region; elimination of a product line; or alteration of supply chain parameters.

THE ULTIMATE REASONS FOR HEDGING are to avoid financial distress and to allow better predictability for management to plan.

POSSIBLE REASONS FOR HEDGING

While organizations may cite several reasons for hedging, three primary motivators come up most often:

- Reduce volatility (in cash flow and/or earnings);
- Avoid financial distress; and
- Provide predictability.

Reduce Volatility

A frequently cited objective in most risk management policies is the reduction of volatility to cash flow and/or earnings. The goal is to reduce the variance in possible outcomes. But why reduce the volatility in cash flow? That leads to the ultimate reasons for hedging: to avoid financial distress and allow better predictability for management to plan.

Avoid Financial Distress

Financial distress may be a short-term liquidity crunch that impedes an entity's ability to satisfy its cash requirements, or it may be as severe as bankruptcy. Recall the dilemma of "gambler's ruin," wherein the gambler loses the last of his money and consequently is unable to continue gambling; the premise being, you might be right in the long term – have an advantage even – but with limited capital, you're out of money in the short term due to adverse events. An effective hedging program narrows the distribution of probable outcomes, i.e., it provides a tighter curve (see Figure 3), and therefore lowers the probability of financial distress, all else being equal.

Provide Predictability

A firm's expected cash flows, or its future value, is dependent on management's decisions and actions. As such, management needs the ability to plan without the uncertainty associated with events outside its control, especially events, or risks, that can be mitigated. Hedging not only creates the potential for a more controlled environment in which management can execute its plan and measure its results, but also makes management more accountable

FIGURE 3 An Effective Hedging Program

WEBLINK

More information and additional material can be found online at www.CFOProject.com/20350

for such results without the outside influence of financial risks. The ability to manage risk and thus reduce or even remove certain kinds of the risks enables companies to do what they do best.

VALUE OF RISK MANAGEMENT

Ultimately, an effective risk management program should enhance firm value. While the perceived internal value depends on management's risk preference, or level of risk aversion, the value to external stakeholders is impacted by three primary factors:

- Volatility and impact;
- Capital structure; and
- Liquidity reserves.

Volatility and Impact

The value of hedging, and thus firm value, is directly proportionate to the impact of the volatility on earnings. Moreover, volatility impacts two key areas that influence firm value: capital structure and liquidity reserves. Further, hedging impacts firm value if it can impact management's investment decisions.

Capital Structure

While it can be debated whether or how hedging affects a company's cost of capital, i.e., its risk premium, it is generally accepted that hedging provides flexibility with respect to a company's capital structure, all else being equal. The basic premise is that, as the volatility of cash earnings is reduced through hedging, the stability of the cash flows increases, which should increase the available debt capacity – a potentially cheaper source of capital. In and of itself, hedging benefits the debt holders through reduced cash flow risk. That's not to say there's no benefit to equity holders; it is generally less direct, however, and is derived in part from management's ability to execute its plan with confidence.

Liquidity Reserves

Liquidity reserves are the cash, or cash-like balances such as bank lines of credit, that companies maintain for working capital needs and minimum cap-ex requirements. The size of such reserves is influenced in part by the volatility in the company's cash flow as well as management's tolerance for such fluctuation. A higher level of risk aversion among management leads to higher cash balances, all else being equal. Large cash balances can be a drag on asset returns, and most important, may not be available for reinvestment. By managing volatility and, therefore, creating a more predictable cash flow stream, companies can free up liquidity capital held in reserve. This can impact a firm's value if it affects a firm's investment decisions, i.e., capital is more optimally deployed toward growth opportunities.

THE FINANCIAL RISK MANAGEMENT PROCESS

Financial risk management goes well beyond simply purchasing an offsetting derivative security. The process is complex, requiring at minimum a keen understanding of one's exposure, as well as knowledge of the valuation of derivative securities and applicable accounting regulations, as contained in the Financial Accounting Standards Board Statement No. 133 (FAS133) or in the International Accounting Standards Board Statement No. 39, the counterpart for European-listed companies (IAS39). Moreover, a company must ensure that it has proper internal controls in place to protect itself, including appropriate limits and checks and balances, and ensure that risk management activities are executed effectively.

A good risk management framework (see Figure 4) consists primarily of three interacting parts, and is supported by equal strength within each area, including: economics, controls and accounting.

FIGURE 4 Components of a Good Risk Management Framework

ECONOMICS

The economics of hedging defines the value in risk management. It begins with a thorough understanding of exposures and their impact, and follows through to the impact of hedging activity in offsetting the risks. As the saying goes, to manage it, you must be able to measure it. As part of the economic analysis a company must:

- Identify risk and probability of occurrence;
- Determine impact of risk;
- Determine corporate risk management philosophy/risk appetite;
- Develop risk management strategy/objective;
- Execute strategy;
- Monitor/evaluate performance; and
- Adapt/revise as needed.

SOME COMPANIES may simply misunderstand the rules, or more important, have an incomplete risk management process.

CONTROLS

Controls ensure that the objectives of risk management activities are being met by providing oversight and guidelines for the hedging activity. They represent the nuts and bolts of the process and capture the who, what, when and how. In very simple terms, this process details who has the authority to do what over a specified time

period and how it will be monitored and reported. Ultimately, organizations want to answer the question, "Do the right people have the right tools, and does management and the board have the right information in a timely manner to make decisions?" Within any control framework, four basic yet critical components should be represented:

- Oversight/delegation of authority;
- Policy/procedures;
- Information/reporting; and
- Monitoring/benchmarking.

ACCOUNTING

The last main area of focus within the process involves accounting for the hedging activity under the requirements of either FAS133 or IAS39. The primary requirements here relate to:

- Hedge designation;
- Accounting documentation;
- Valuation of hedge instrument and hedged item;
- Effectiveness assessment of hedge relationship;
- Financial statement impact of hedge relationship; and
- System requirements, i.e., for accounting and/or valuation.

It's eye-opening to note the number of large companies and the sophistication expected of them based on their size and history that have had such publicly disclosed issues and impact to their financial statements with respect to risk-management-related activity. A *CFO* magazine article ("Lost in the Maze," 5/08/06) exposed more than 55 well-known companies with capitalization of over $100 million that had to restate prior financial statements for misapplication of the rules for hedge accounting. This indicates that the potential for problems and public disclosure related to hedging activity and the accounting for it aren't simply cases of blatant fraud. In some instances, companies may simply misunderstand the rules, or more important, have an incomplete risk management process.

CONCLUSION

The takeaway from this simplified view of risk is that financial risk managqement is much more than the ability to trade derivative securities. The process is complex and requires the right personnel with the knowledge of derivatives, hedge accounting, strategy and controls. Most important, financial risk management requires at the forefront a complete understanding of the risks your company is exposed to and, equally important, management's risk preference. A complete risk management process cannot stand on its own without the strength of each leg. ■

© 2007 Strategic Treasurer, LLC. All rights reserved. This paper is reprinted here with permission.

ENDNOTE

1. Krissek, Greg, "Effective Risk Management Programs For Fuel Ethanol Plants – Charting an Unpredictable Future," American Coalition for Ethanol, 2006 annual meeting, August 9, 2006.