

A person is shown from the chest up, holding a globe with both hands. The globe is the central focus and features several large, golden 3D symbols: the letters 'F', 'R', 'I', 'D', 'M' are arranged in an arc across the top, and the currency symbols for the British pound (£), the US dollar (\$), and the Japanese yen (¥) are positioned below. The background is a vibrant red, and the person's face is partially visible behind the globe.

# Risk Management — Getting Started

**A firm that couples its understanding of internal risks with a competency in using derivative instruments will have a critical advantage over its competitors.**



enterprises the capacity to manage these exposures in an orderly, businesslike manner.

Either development, by itself, is a bit like one-handed clapping, but when combined, they offer the promise of an enhanced market share, consistent growth of income with less volatility and expanded multiples.

Many firms look to restructuring through mergers and acquisitions, buyouts and plant closings as ways to confront the changing landscape and remain competitive. These are bold moves — typically involving huge sums of money — often when business as usual is not a viable solution. Before such measures are taken, however, firms need to assess the prospective risks and rewards in a rigorous and disciplined way.

## **A Basic Input/Output Framework**

Measuring opportunities and risk exposures requires a commitment to collect the necessary data — both firm-specific and macroeconomic — such that the decision to proceed can be made using objective criteria. Getting to this point, however, requires that firms adopt a basic analytic model of their business.

**T**imes are tough. The longest peacetime expansion in the United States is over, and firms are facing the double-barreled pressures of shrinking markets and exaggerated price volatility for a myriad of commodities and raw materials essential to the production of goods and services.

Fortunately, for companies ready to meet adversity head-on, two significant developments give more innovative and resourceful firms the wherewithal to confront this environment. The first is the maturation of intranet-based analytic computer programs and data processing, which enables firms to measure risks and exposures in real time; the second is the evolution and expansion of risk management tools, which give commercial



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In this article, only non-financial firms involved in a production process are considered. Ultimately, such firms should be viewed as producers of sets of outputs, with each output requiring a complex of inputs. With this orientation, the firm starts by modeling the production process to determine the relevant timing and quantity of inputs required for each of the firm's outputs. The company then should be able to map its existing purchases, sales commitments and expectations. It also should be able to identify explicit sources of risk as a function of current and prospective customer/supplier relationships and obligations.

From this point, it is critical for management to appreciate that all of the current and prospective risks need not be maintained. As a first pass, the firm may be able to modify its traditional approach to its customers and suppliers to mitigate these exposures. For example, instead of transacting on the basis of fixed-price contracts, the firm might be able to reduce risk by engaging in variable-price deals, or vice versa.

This approach, however, requires counterparties to be willing to work cooperatively with the firm, ultimately agreeing to bear some of the unwanted risk (i.e., risk shared agreements). Unfortunately, this level of accommodation might not be reasonable to expect.

Alternatively, without relying on the complicity of the customers and suppliers, the firm may employ tools and techniques that shift these risks to willing third parties. In fact, this approach may be the more



advantageous, because it may allow the firm to be more aggressive in its pricing policy, thus enabling an expansion of market share.

## Derivatives as Hedging Tools

Derivative instruments provide the means to achieve this risk transfer. Precisely how derivatives are used is a matter of discretion that requires an assessment of an assortment of strategies available to the firm. The usual decision-making process will involve assessing costs of hedging — either direct costs or costs measured in terms of prospective loss of opportunity — versus benefits of either greater stability of earnings or assurance of some minimum or bounded level of profitability.

In many cases, the depth and liquidity of prospective derivative tools relating to the risks under consideration also

will be contributing factors to the hedging decision. In corporate treasuries, for instance, the risk manager may have the choice of forward contracts, swaps, caps and floors, or more exotic option contracts, generally permitting multi-year planning horizons.

On the raw materials side, available tools may be more limited, but the technology generally exists to replicate desired hedge structures if they are not directly available. Frequently, the firm must accept a “proxy” instrument — one that is designed to cover the risk being hedged, but where the coverage inevitably will involve some slippage. Determining just how good the hedge will be is critical, as hedge ineffectiveness likely will impact current earnings and contribute to income volatility.

This assessment of hedge effectiveness is especially important now, under the new accounting guidance that

applies to derivatives transactions (FAS 133). Generally, gains or losses of the derivative should be realized coincidentally with the profits or losses associated with the risk being hedged. Special hedge accounting — if appropriate — accomplishes this end.

Unfortunately, hedge accounting is not automatic, and if a company does not qualify to apply hedge accounting, the “right” economic hedge might end up exacerbating income volatility. Risk managers must thus be in a position to evaluate whether the failure to qualify for hedge accounting should justify an alternative risk management approach, such as a rethinking of the kinds of contractual arrangements that the firm enters and a reassessment of how such arrangements should be valued.

In essence, the well-run company has two choices: Either it can use derivatives in a manner that allows it to shift any unwanted risk to a willing third party; or, if derivatives are not viable for shifting risk, negotiated contracts should reflect the inherent risk involved in the transactions. Put another way, the firm should require a risk premium from its customers (or a risk discount from its suppliers) to compensate for bearing risks that have to be maintained.

This approach necessarily imposes a discipline on the price-determination process that would otherwise be lacking. That is, the assessment of risk should be central to the determination of the appropriate price, and with this perspective, it becomes a business



decision as to whether the company is appropriately compensated for bearing, sharing or not taking the risk.

## Proactive Use of Derivatives

Besides hedging, the availability of derivative instruments also permits firms to be more aggressive in expanding their profit opportunities. In the simplest case, a company may be able to use derivatives to fix both the cost of inputs and the price of outputs, thereby creating a predetermined profit. Clearly, if the pricing of the relevant derivatives ensures a generous markup, proactive position-taking with these tools would ensure generous profitability in coming periods. Such opportunities may not be persistent, however, so firms need a systematic way of monitoring and assessing these market opportunities, so that they will be able to capitalize on them when they do arise.

In this context, a company may view its “product” in somewhat of a different way. A product is not just the goods a company offers its customers, per se, it is the process by which customer needs are satisfied. Essentially, companies may decide to take on the risks that their customers want to avoid, and the resulting profit derives from being paid to take

these risks and managing these risks in a disciplined way. This business model works, and ultimately, it may be adopted on a more widespread basis.

## A Disciplined Approach

Risk management is not a panacea. The approach outlined in this article is based on the expectation that a firm that can couple an understanding of its risks with a competency in using derivative instruments may have a critical advantage over competitors lacking such capabilities. But a firm cannot expect to be successful if risk management decisions are made in an ad hoc manner. Rather, it takes a disciplined approach to assemble information in a way that enables management to compare alternative courses of action and then make judicious choices. ▀

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