Strategic Benefits of Hedging

Introduction

Most CFOs and Treasurers are familiar with the financial benefits of hedging FX exposures, and hedging FX is a widespread practice (93% of the Fortune 500 hedge FX[1]). However, not much thought is given to the strategic benefits of hedging. This paper will review some of the more important effects hedging has at a strategic level, and the high added value Treasury hedging activities can have on the corporation as a whole. These include increased pricing stability, corporate valuation, an enhanced ability to raise both debt and equity capital, reduced taxation, and reduced uncertainty when entering new markets. Let's examine each of these in turn.

Enhanced price stability

Creating price stability is an obvious advantage hedging cash flows offers. The benefits manifest in two ways. For goods that are imported for sale, it lowers volatility in the cost of goods sold (COGS). For goods that are sold in foreign markets, hedging offers the ability to maintain a stable price in local currency, increasing competiveness with local firms. Both can raise the present value of future earnings. These effects have two broader implications. First, the company's brand and reputation benefits from the ability of customers to rely on price stability. If it is a B2B business, this advantage can lead to enhanced long-term supplier relationships. Second, competitive advantages are experienced, especially if other players in the market do not hedge their sources and have to reprice more often.

When a company is operating in a regulated market, additional opportunities to enhance competitiveness may exist. For example, in the Philippines, where GDP growth is outstripping energy generating capacity, government regulations (i.e. Electric Power Industry Reform Act, EPIRA) control energy pricing. Because a large (45%) percentage of oil is imported, and oil is priced in USD, EPIRA allows the passing of exchange rate effects on to consumers. Because the local price is a combination of USDPHP and USD/bbl oil, price swings of up to 35% over a few months are possible. If the energy company hedges its fuel costs, it will be allowed to pass on fuel cost increases that it is not experiencing (but its competitors are!), enhancing profitability.

Higher corporate valuations

The positive impact of hedging on corporate valuation is a strongly-confirmed effect. The main reason is the salutary effects of earnings stability on multiple corporate measures. A 2001 paper[2] found that hedging increases Tobin's Q substantially. Tobin's Q value is defined as:

$$\frac{(\text{Equity Market Value} + \text{Liabilities Market Value})}{(\text{Equity Book Value} + \text{Liabilities Book Value})}$$

A value greater than 1.0 indicates the market value reflects unmeasured or unrecorded assets of the company. If a company's stock price (which is a measure of the company's capital market value) is $2 and the price of the capital in the current market is $1, the company can issue shares and profitably invest the capital. Other researchers have found a statistically significant hedging "premium" (added firm value due to hedging) of between 5-10%[3].

1 Numerix
2 Allayanis & Weston (21)
3 Carter, rogers & Simkins (2003)

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More subtle reasons for the added firm value are from the increase ability of the firm to borrow and invest, given more stable cash flows. A study on corporate hedging and value showed that derivative users have valuations that are 6.7-7.8% higher than non-user firms[4]. Finally, some research[5] has indicated that hedging firms usually are better able to meet or exceed analyst's expectations.

Higher valuations enhance a company's acquisitions, sales and divestitures capacity. Typically, an acquisition will be funded from multiple sources, including stock swaps. The acquiring company uses its own stock to pay for the acquired company. Each shareholder of the newly acquired company receives a certain number of shares of the acquiring company's stock for each share of stock they previously held in the acquired company. If the firm's valuation is higher because of hedging, then its ability to acquire other companies is enhanced. Additionally, if debt is also used in an acquisition, hedging enables higher leverage and lower credit spreads (see next section).

Enhanced ability to raise capital

The ability of a firm to raise capital for expansion and investment is increased with hedging. There are two main sources of funds to a company - the equity market, and the debt market. The equity market makes investment decisions based on many factors, but one of them is the well-known Sharpe Ratio. This ratio (*ex-ante*) is calculated as follows:

$$S_p = \frac{E[R_a - R_b]}{\sigma_p} = \frac{E[R_a - R_b]}{\sqrt{\mathrm{var}[R_a - R_b]}},$$

In English, this means take the expected value of the rate of return minus the risk free rate, and divide that result by the standard deviation of the return. It characterizes how well the return compensates the investor for the risk taken (standard deviation). Because reducing earnings variation will reduce the standard deviation, hedging raises the Sharpe ratio for any level of earnings, and thus the attractiveness to investors.

In the debt market, a firm's ability to borrow is increased when it hedges. This is because the firm's ability to repay the debt is more assured when its cash flows are more stable. This intuitive conclusion is borne out by research which shows hedging increases allowable debt ratio by 3.03%[6] *or more* (see citation in reduced taxation section). A key metric of *corporate credit* is net foreign exchange exposure to equity. When FX exposures are hedged, this metric improves. The FASB’s Conceptual Framework assists investors in making investment decisions, and includes predicting future earnings. Under this framework, *earnings quality* is defined as the ability of reported earnings to reflect the company’s true earnings, and to help predict future earnings. It considers earnings stability, persistence, and lack of variability to be key. Clearly, hedging will enhance this metric.

Companies nearly always hedge transactional risk, which includes translational risk of monetary assets. However, the decision to hedge non-monetary assets (e.g. FF&E of a foreign subsidiary) may hinge on additional factors. There is debate about whether non-monetary translational exposure is relevant from a risk management perspective, but it turns out to be important in a company's ability to raise debt. There is a significant effect hedging non-monetary assets can have on debt and reserves, and thus on gearing and, in turn, on compliance with covenants. Critical ratios such as <u>debt to equity</u> must be maintained to avoid triggering net worth covenants and paying higher credit spreads. Thus, hedging non-monetary foreign assets may enable lower credit spreads. It should be kept in mind that hedging non-monetary assets *creates* cash flow impacts. There is a trade-off between balance sheet and income statement effects that should be considered.

4 Berriospide, Purnandam, Rajan (2008)
5 Brown (201); DaDalt, Gay, Nam (2002)
6 Graham, Rogers

Reduced taxation

There are two benefits that hedging has on taxation. The first is tax convexity. The function that maps income into tax liability is convex for most companies. It can be shown (by Jensen's Inequality[7]) that firms can expect to reduce their tax liability[8] from reduced income volatility through hedging.

The second contribution is the effect of increased debt capacity and the tax deductibility of interest. This effect is much larger than convexity. Leverage has a positive influence on both IR and FX derivatives. For the average firm, hedging with currency derivatives increases the available debt ratio by 4.52%, with the capitalized value of the incremental tax shields resulting from this increased debt equaling 1.4% of firm value[9].

New market entry

Expansion into new markets, whether developed or emerging economies, carries with it increased exposure to foreign exchange volatility. While regions such as China, Brazil, India, Mexico and the Philippines offer large and growing populations, their respective currencies are usually quite volatile. To ensure that revenue forecasts and projections are not sunk by adverse currency moves, long-term hedging solutions are indicated.

A corporation should make use of natural hedging opportunities, which carry no premiums and are not limited in tenor. For example, when a company is exporting to a new market, natural hedges should create offsetting expenses. These include establishing local personnel, offices and warehousing, and local currency debt. To the extent that natural hedges are insufficient to hedge the exposure completely, derivative cash flow hedges can then be used. Many firms extend the horizon of their cash flow hedging programs as long as 18-24 months; as far as they believe they need to before being forced to reprice in the market.

Conclusions

We have briefly examined several areas in which Treasury hedging activities can have on the corporation as a whole. There has been much research (some cited in this paper) confirming the strategic impact hedging can have on corporate activities. These include increased pricing stability and its resulting increase in customer loyalty and competiveness; increased corporate valuation and its effects on M&A activities; enhanced ability to raise both debt and equity capital, and the effects on credit costs, reduced taxation, and the ability to enter new markets with reduced uncertainty.

7 http://en.wikipedia.org/wiki/Jensen%27s_inequality
8 Smith & Stulz (1985)
9 Graham, Rogers (2000)

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