GETTING THE BENCHMARKS RIGHT

IN THE FIRST OF TWO ARTICLES, **DIDIER HIRIGOYEN** OF CITIGROUP SAYS CURRENCY RISKS ARE OFTEN UNDERESTIMATED, BUT WITH THE RIGHT APPROACH FIRMS CAN LEARN TO MANAGE THEM MORE EFFECTIVELY.

Throughout the gamut of risks that multinational corporations face in the course of their regular business, there is one that is often underestimated: the currency risk. Foreign exchange (FX) is present in all aspects of these companies' activities, from revenues and expenses that arise abroad to cross-border investments, tenders in foreign countries, or even consolidation of results in the parent's reporting currency. In this article, we attempt to provide a methodology to tackle most, if not all, currency risks depending on their nature and corporations' general objectives and constraints. It is inspired by some of the best practices observed in the market throughout a wide spectrum of industries and businesses.

Hedging FX cannot be done in a vacuum. Not all companies, even within the same industry, can have the same approach and be equally efficient in managing their risks. Many company-specific parameters, such as the nature and predictability of a firm's business, the competitive environment in which it operates or its dependency on future cashflows, should be taken into consideration. Furthermore, the correct definition of a risk management policy requires answering two key questions:

- what is the broad framework of the programme, in terms of risk tolerance, cost and expected return profile (which will not be developed here but certainly deserves much consideration by itself); and
- what is the ultimate objective of the programme (reduction of performance volatility, predictability of cashflows and the like), which will determine what benchmarks must be protected?

To answer this second question, we believe that segmenting currency risks into the traditional categories (transactional versus translational, economic versus accounting) would be counterproductive. While different currency risks may have common characteristics that allow them to be grouped under generic categories and some hedging steps can be aggregated once the various risks have been clearly identified and understood, it is critical to first classify exposures in function of their respective benchmarks. This approach provides the foundation necessary to build the correct hedging programme and prevents any confusion between methodologies. It also helps to understand that risk management can be composed of several layers and that bundling all risks together when defining a hedging strategy may translate into some substantial basis risks. Following this methodology, we classify currency risks into three broad segments, which we then further refine:

- Accounting risks, which arise either: from the deviation between a specific accounting rate and the rate at which the actual conversion of the foreign currency flow takes place; or from the impact of the change in that accounting rate from one period to the next.
- Pricing risks, which arise from the potential deviation between the exchange rate embedded in, or implied from, the company's business pricing practices and the rate at which the underlying exposure will eventually be converted.
- Strategic risks, which arise from the potential divergence between the firm's endogenous or exogenous hurdle rates (plan rates or industrial benchmarks, for example) and future market developments

Let's look at the accounting risks individually.

ACCOUNTING RISKS.

BALANCE SHEET-RELATED ACCOUNTING RISKS.

Transaction booking and settlement risk. To comprehend the booking part of this risk, one must first understand balance sheet booking mechanisms. Following accounting standards, foreign currency transactions that materialise must be accounted for at a specific exchange rate. This rate may be the exchange rate on the day the transaction is booked or any other rate as agreed between the firm and its external auditors (for example, the exchange rate on the last business day of the previous period or the weighted average exchange rate of that period). When the rate on the booking date is used there is no basis risk. When any other rate is used, a basis risk naturally occurs between the accounting rate and the market rate that will be available, on the booking date, for the company to hedge the settlement risk. Consequently, while they think they are simplifying a process, companies in fact inadvertently

create incremental risk. To palliate this problem, one must resort to hedging the forecasted balance sheet for the period, an exercise that offers its own challenges.

The settlement part of this risk arises from the difference between the transaction's booking rate and the rate at which the foreign currency payment/receipt is effectively converted. For reference, a 90-day gap between booking and settlement, for a currency with a volatility of 10%, implies a 95% confidence level Value at Risk equal to roughly 8.25% of the exposure, a substantial number.

While this basic FX risk could be easily handled if only one transaction occurred at a time, managing a portfolio of transactions is more demanding. To handle this challenge, one must evaluate the weighted average settlement period in each currency as accurately as possible. Such a task is obviously more manageable when a specific business segment dominates the company's overall activity, but this is not always the case. Furthermore, one must remember that 'macro' hedging will generate some day-to-day cash management activity as the maturity of the hedge and the various settlements occur at different intervals.

In summary, any hedge instrument should be implemented at the time the accounting rate is set. Its goal must be to protect the functional currency value of the forecasted exposure at the accounting rate for the period. The hedge tenor should therefore reflect the weighted average expected settlement period.

Risk-related to the re-measurement of a loan or debt denominated in a foreign currency. Because of the size of the exposures involved, this risk can have a substantial impact on the firm's performance, as these items are re-measured at fair value from one period to the next with the mark-to-market flowing through P/L. The hedging methodology must therefore be separate from the rest of the balance sheet items' hedging programme. The goal here is to eliminate as much as possible the effect of the ongoing revaluation process on the income statement. However, the company's management team must weigh the benefits of hedging this risk versus the interest income/expense benefits if left unprotected. This trade-off is particularly important to evaluate when the cost of the matched funding approach is high, as is often the case in emerging markets.

To summarise, hedges should be implemented in function of the re-measurement date and be rolled over as needed. The objective should be to protect the company against changes in the accounting re-measurement rate of the prevailing period (most likely the exchange rate on the last business day of the accounting period). Note that, since there is no cashflow implication that arises from this risk, there is no absolute necessity to hedge precisely out to the next re-measurement date. A company may decide to have a longer hedge tenor, either because of embedded hedging costs (adverse interest differential when using forward contracts, for example) or to postpone negative cashflow outcomes as long as possible.

TRANSLATION-RELATED ACCOUNTING RISK. The translation-related currency risk arises from the re-measurement, in each accounting period, of the foreign currency financial statements of a consolidated group in one reporting currency. The translation procedure will therefore depend on the foreign subsidiary's functional currency, which can be the local currency, the same functional currency as the parent's, or even another foreign currency (which is rare). For the purpose of this article, we focus on the case where the subsidiary is local currency functional; in this situation, the risk impacts the company at two levels:

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Cumulative translation. The first level is the cumulative translation adjustment account, which is part of the stockholders' equity section of the balance sheet, where adjustments from translation of net foreign investments are reported. There are many arguments for and against hedging this type of a risk. Most companies will typically not hedge it for the following reasons:

- Firms are generally invested in foreign countries for the 'long haul', meaning that they are not concerned by the currency related depreciation of foreign assets' value as it has no immediate P/L or cashflow implication.
- As mentioned above, the mark-to-market of the net asset does not flow through the consolidated statement of income, but affects the equity section of the balance sheet. Therefore, there is no direct impact on the earnings results delivered by the firm to the shareholders.
- Cost and potential negative cashflow implications of hedging are also viewed as a major drawback to hedging.
- According to general market theory, currencies are mean-reverting.

While all these arguments are defendable, most of them are also highly questionable in a variety of circumstances. For example, the first argument does not take into consideration whether the company is invested for re-exporting purposes or to service the local market. This is an important distinction to make, as an economic crisis can jeopardise any operation whose only venue is the local market. Over the past 10 years, many companies were forced out of emerging markets because of the collapse of their business in country. Without generalising, one should truly weigh the probability of such an event occurring before deciding not to hedge.

Although argument two cannot be contested, we believe a company value should not just be assessed by looking at earnings. If one considers, for example, that the value of the company is truly the net present value of its expected future cashflows added to its expected terminal value (in a way, comparable to a bond), then depreciation of the equity section of the balance sheet as a result of the deterioration of the value of net assets held abroad does impact shareholders directly, particularly if some debt covenants could be triggered.

Argument three is actually a very valuable argument. Companies must be wary of hedging methods that create a possible mismatch in cashflows (as with the Metallgesellshaft AG case in 1993). There are, however, various techniques that help either eliminate this problem altogether or limit it to a well-known level. Cost may also be an issue, specifically and unfortunately in countries where hedging would be warranted the most.

Finally, while there is some truth to argument four, at least for major currencies and on an inflation-adjusted basis, it does not hold for most emerging market currencies.

In the end, what can be done to mitigate this risk, while also taking into consideration the reality of a business' constraints and objectives? First of all, whenever possible, companies should match foreign currency liabilities with foreign currency assets in the first place. This solution offers the benefit of creating a structural offset to the net asset position without cashflow implications (except for the service of the debt). Debt also gets hedge accounting treatment under both FAS 133 and IAS 39 as hedge of net investment in a foreign operation. As such, its mark-to-market flows through cumulative translation adjustment, not earnings, therefore negating the impact of the underlying risk on the equity section of the balance sheet. Of course, there are some specific limitations to using such a tool. One of them has to do with liquidity and tenor availability.

Cost can also be a major drawback, especially when the investment's expected future cashflows have been discounted using the firm's weighted average cost of capital unadjusted for environmental parameters such as country risk. Financing a project or an operation at a much higher interest rate than the one used to discount expected cashflows may dramatically raise the business' profitability hurdle. In this kind of situation, one may consider using more tactical tools to mitigate the risk and have a more opportunistic approach to the problem.

To summarise, it is preferable to hedge this risk from the inception of the investment on or in an opportunistic manner. The targeted risk does not need to be the whole net foreign investment but at least the retained earnings when those are held abroad. The hedge tenor should aim at minimising the frequency of cashflow implications and take into account divestiture expectation.

Consolidated statement of income. The second level on which a firm can experience translation risk is the consolidated statement of income, as foreign net income's translation impact flows through P/L. This issue is obviously substantial for companies with sizable earnings abroad, as anticipated earnings cannot be designated as hedged items under either FAS 133 or IAS 39, except for declared dividends. Here, we must look at the problem in two ways:

- If earnings are likely to be retained at the subsidiary level for short-term reinvestment purposes, then one could consider this risk to be purely accounting related. In this case, one may choose to hedge it as part of a net investment hedge programme once the exposure has hit the books. This will not, however, solve the translation impact to the income statement.
- If earnings are likely to be repatriated, a true economic risk exists that warrants some thorough hedging considerations. Although, in this instance, it makes perfect sense to hedge, accounting regulation, especially in the US, makes the task arduous. While opportunities may exist to net some cashflows between the parent and the subsidiary and mitigate that risk, it is not always the case. For example, one can imagine a situation where a US parent, year after year, repatriates dividends from a French subsidiary whose production costs and revenues are predominantly in euros. In this case, the risk in question is purely at the earnings level and cannot be offset by an efficient netting process. It must therefore be handled independently with an appropriate hedging programme.

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There are two issues here however:

- The first one is the volatility that would be induced by the mark-to-market of the hedge should this one not get hedge accounting treatment. This can be resolved, in most cases, by using hedging techniques structured around specific investment vehicles; such an approach, however, may have tax implications that may not suit all companies.
- The second issue regards the optimal hedge tenor. Here, one must realise that most hedging methodologies only postpone the impact of FX on earnings per share (EPS) by the hedge tenor. Therefore, it is critical for a company to adequately answer two key questions:

– If hedging allows one to buy time, how much time does one need and for what purpose? This question implies investigating such issues as business pricing practices, production relocation capability, sourcing opportunities.
– Should the programme aim at reducing EPS volatility in general or just negative volatility? This will help the treasury department determine the optimal instruments mix they should use to achieve the pre-defined goal.

In any case, any year-on-year hedging programme should be implemented at least one year prior to the beginning of the current EPS period for no less than the portion of foreign earnings the parent expects to repatriate. The benchmark rate should be the translation rate used for the same period of the previous year (usually the average daily exchange rate of that same period). The tenor should be at least one year, with the knowledge that in a multi-year adverse trend this approach will only postpone the FX impact by one year. A staggered approach (various hedge ratios out to multiple tenors) will provide an averaging venue that will smooth the effective exchange rate over time.

The second part of my article, dealing with pricing risks and strategic risks, will be published in the March issue of *The Treasurer*.

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This article will also appear in full in the new 2004 edition of *The Treasurer's Handbook*, due to be published in mid-February. All members of the ACT will receive this copy free of charge.

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