

Ticking Dollar

It's time to update your FX risk model

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Companies need to identify
FX exposure before they can
determine their hedging policy.

Currency pairing is one
strategy to consider, but beware
of the risks.



Global companies no longer use carbon paper or depend on the Commodore 64 for record-keeping, yet some are still assessing foreign exchange risk through antiquated models. Updating your FX risk procedure takes a few simple steps: analyze risk, understand exposures and determine tolerance.

Historically, FX risk has been identified by measuring the total value of international exposure and determining hedging strategies and policies accordingly. Some company policies may also cast a casual glance at the currency pair and tenor and, commonly, there is language that requires hedging action when exposures breach preset amounts. These policies can mandate a treasury group to hedge unless the exposure exists in a stable currency pair. It is thought that in stable currency pairs, such as the Hong Kong dollar vs. the U.S. dollar or the Canadian dollar vs. the U.S. dollar, exchange rate fluctuations may not be materially volatile against each other. While well intentioned, these guidelines may be erroneous. Rather than directing a company's hedging focus on absolute numbers, attention should be given to the amount of risk associated with each individual FX exposure.

It is true that certain currency pairs are at times relatively stable against each other; it is also true that a \$10 million exposure for 30 days between the U.S. dollar and Hong Kong dollar does not share the same risk profile as a \$10 million exposure for 30 days between the U.S. dollar and the Canadian dollar. There is a relatively high possibility that a \$10 million exposure between the U.S. dollar and the Canadian dollar will fluctuate by more than 3% or 4% over a 30-day period. Conversely, the market feels that the relationship of the U.S. dollar to the Hong Kong dollar will hardly vary over the next 30 days.

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The currency market prices and trades on predictions of future currency fluctuation. As this article is being written, the market is pricing the notion that this currency pair, the U.S. dollar and the Canadian dollar, could fluctuate by as much as 18% over the next 30 days. This means that the market feels that a \$10 million USD/CAD exposure could gain or lose as much as \$1.8 million 30 days from today. Using the same risk models, the market is similarly confident that the Hong Kong dollar will not fluctuate more than .50% against the U.S. dollar over a similar 30-day period. Thus, a \$10 million 30-day exposure could translate into a \$50,000 risk if it is denominated in U.S. vs. Hong Kong dollars, compared to \$1.8 million if it is denominated in U.S. dollars vs. the Canadian dollar. Clearly, the market realizes that the Canadian dollar vs. the U.S. dollar is a significantly more volatile currency pair than the Hong Kong dollar vs. the U.S. dollar.

This type of data has valuable implications for a company's hedging policy. Rather than addressing exposure at a notional level or total value of currency exposure, companies can focus on how the market is assessing overall risk. Exposure can be identified as an absolute number, and risk boiled down to a gain or loss associated with the volatility of the underlying exposure. Admittedly, few models accurately

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A typical hedging policy may dictate that a company hedge all FX-related risk in excess of \$10 million. The spirit of this decision may be to protect the company from losses in excess of \$1 million (using an assessment of risk such as 10% of \$10 million). A better approach is simply to hedge all risk over \$1 million. Risk factors can then be applied to various currency pairs and tenors or time horizons that will identify what exposures should be hedged to protect \$1 million risk.

Since the market is valuing the risk factor for the Hong Kong dollar so low, a risk-adjusted threshold of \$1 million allows the Hong Kong dollar position to grow to \$200 million before hedging is required. Regardless of whether 30-day risk is created from \$10 million exposure in Canadian dollars or from \$200 million exposure in Hong Kong dollars, the market currently assesses both risks to be similarly valued at \$1 million. While there are many black boxes to assess risk, looking at how volatility is actually trading in the market is a fairly straightforward proposition.

Let's assume the market is currently valuing 30-day risk for the U.S. dollar at 50% vs. the Hong Kong dollar, and 10% vs. the Canadian dollar. Exposures less than these amounts would be deemed acceptable and remain unhedged. Our risk tolerance of \$1 million would be applied to these volatility factors to determine what exposure would need to be hedged. The internal risk tolerance of \$1 million divided by a market-driven volatility factor of .50% for the Hong Kong dollar equals \$200 million in exposure. The same calculation applied to Canadian dollars equals exposure of \$10 million. Our \$1 million risk policy

would dictate that 30-day exposure greater than \$200 million vs. the Hong Kong dollar or \$10 million vs. the Canadian dollar be hedged. Companies can turn to their financial partners for help in understanding what volatility or risk factors they want to use in their internal analysis. While no model is infallible, most financial institutions can provide a solid methodology for how the market is currently valuing or assessing FX risk.

One of the first steps in building this type of model is for a company to get a handle on how FX exposure is created. In order to perform a complete assessment, data need to be collected throughout an organization. As exposures are identified, companies should look at ways to net offsetting currency positions internally. In many instances, Canadian dollar payables and Canadian dollar receivables can be at least partially offset internally. For the most part, the timing of payments and receipts is secondary to a high-level understanding of the net exposures. The market has developed many tools to help companies finance timing mismatches of payables and receivables.

Once a company has developed tools to identify net FX exposure, it can begin the process of deciding what to hedge. As outlined earlier, an internal tolerance for risk should be established. Because each company is unique, there is no perfect formula for determining just how much risk a particular culture can tolerate.

After going through the exercise of identifying risk and defining a risk tolerance, the hedging process begins to take on other dimensions. For instance, some companies choose to hedge these exposures as they are created. Others hedge systematically (every Monday, for example) and accept some slippage between the day the exposure is created and when the risk is actually offset in the market. Some companies look at

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forecasted exposures, and others choose to only address booked or known risks. Consistency is more important than the approach taken; the most successful hedging plans employ a consistent and thoughtful approach.

There are commonly two primary goals in risk management. First, a strategy should enable a company to realize more predictable and stable financial performance. Removing or reducing currency impacts from the equation eliminates a key variable. The second goal is to ensure that no FX-related shocks occur. When a company has an unexpected gain from a currency movement, there may be an expectation for that gain to be repeated or even increased in subsequent periods. Conversely, there is no joy when there is an unexpected loss. Either scenario could result in negative consequences or unachievable expectations. Prudent treasury groups simply try to offset FX risk and focus outcomes on core business results.

Details such as who is authorized to enter into hedging transactions, what will be hedged and when trades are executed are but a few of the considerations that a good plan should contain. Hedging instruments also vary greatly. Certain factors may lead a company to utilize an instrument that offers participation in favorable currency moves, while other factors may drive the strategic focus solely

on offsetting risk. Companies need to also consider acceptable levels of counterparty risk. A hedge may be rendered useless if the counterparty is not able to honor its side of a commitment. Appropriate levels of internal management oversights and approvals should not be overlooked.

Prudent risk management should be thought of as a journey rather than a pre-packaged trip. Once a process is established, results should be reviewed and scrutinized. Although it would be unwise to modify investment actions to suit the strategy of the day, periodic assessment and modifications should be considered and implemented.

Modernizing your FX risk management model takes a few simple steps. Start by identifying risk priorities and understanding all currency-related exposures. From there, carve out the netting opportunities and assign potential risk levels to the remaining exposures, taking into account both currency pairs and tenor. Look to your company's risk tolerance philosophy or policy to decide which risks should be hedged. Once hedging plans are firmly in place, periodically review and revise plans as necessary. Be careful not to use the same guidelines today that were put in place when the company may have had a materially different profile.

With a little time, effort and dedication, any company can develop an up-to-date, comprehensive FX risk management strategy. It is time to put away the carbon paper and the Commodore 64.

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