Foreign Currency Risk: Minimizing Transaction Exposure

by Michael P. Kelley

For both in-house and retained international counsel, a thorough knowledge of international risk exposure techniques can serve as an effective way to supplement legal strategies for clients involved in international business transactions. While creative and thorough legal drafting can go a long way to reduce some international transactions risks, many business risks can be obviated in whole or in part by the financial markets. One such area of particular risk is known as transaction risk and is associated with foreign exchange rates.

The Foreign Exchange Market

Future payments or distributions payable in a foreign currency carry the risk that the foreign currency will depreciate in value before the foreign currency payment is received and is exchanged into U.S. dollars. While there is a chance of profit from the currency exchange in the event the price of the foreign currency increases, most investors and lenders would give up the possibility of currency exchange profit if they could avoid the risk of currency exchange loss.

The foreign exchange market comprises the spot market and the forward or future market. The spot market is for foreign exchange delivered in two days or less. Transactions in the spot market quote rates of exchange prevalent at the time of the transactions. A bank will typically quote a bid and offer rate for the particular currency. The forward market is for foreign exchange to be delivered in three days or more. In quoting the forward rate of currency, a bank will use a rate at which it is willing to buy the currency (bid) and a rate at which it will sell a currency (offer) for delivery, typically one, two, three or six months after the transaction date.

Non-Hedging Techniques to Minimize Transactions Exposure

Two obvious ways in which transactions exposure can be minimized, short of using the hedging techniques described below, are transferring exposure and netting transaction exposure. The first of these is premised on transferring the transaction exposure to another company. For example, a U.S. exporter could quote the sales price of its product for sale in Germany in dollars. Then the German importer would face the transaction exposure resulting from uncertainty about the exchange rate. Another simple means of transferring exposure is to price the export in Deutsche Marks but demand immediate payment, in which case the current spot rate will determine the dollar value of the export.

A second way in which transaction risk can be minimized is by netting it out. This is especially important for larger companies that do frequent and sizeable amounts of foreign currency transactions. Unexpected exchange rate charges net out over many different transactions. A receivable of 100 million Deutsche Marks owed to a U.S. company in 45 days is much less risky if the U.S. company must pay a different German supplier 75 million Deutsche Marks

in 30 days. The risk is reduced further if the business has only receipts in Deutsche Marks on a continuing basis.

Transaction exposure is further reduced when payments and receipts are in many different currencies. Foreign currency values are never perfectly correlated. Therefore, an unexpected increase in the value of the French Franc may improve the profit margin on receipts from France. However, an unexpected decrease in the value of the Canadian Dollar may reduce profits on a receipt from Canada. Although transaction exposure cannot be completely netted away, it may be small enough that the company is better off accepting the exposure rather than incur the costs associated with the hedging techniques described below.

Reducing Short-Term Foreign Currency Risk

For the company that wants to eliminate short-term transaction exposure (exposure of less than one year), a variety of hedging instruments are available at varying costs to the company.

Forward Contracts

The most direct method of eliminating transaction exposure is to hedge the risk with a forward exchange contract. For example, suppose a U.S. exporter has sold 50 cases of wine to a Venezuelan company under a sales contract that specifies the payment of 15 million bolivares in 60 days. The U.S. exporter can eliminate its transaction exposure by selling 15 million bolivares to its bank at a 60-day forward rate of 750 bolivares per dollar. No matter what happens to the exchange rate over the next month, the company is assured of being able to convert the 15 million bolivares into U.S $20,000. If the U.S. business faced an account payable instead of a receivable, it could eliminate its transaction exposure by buying the bolivares at the forward rate.

However, the transaction exposure is eliminated only if the Venezuelan buyer pays its 15 million bolivares obligation. A default by the Venezuelan buyer would not relieve the U.S. producer of its obligation to deliver 15 million bolivares to the bank in return for U.S.$20,000. The U.S. exporter would have to buy the 15 million bolivares at the spot rate two months later.

Forward rate contracts are often inaccessible for many small businesses. Banks often tend to quote unfavorable rates for smaller business because the bank bears the risk the company will not fulfill the forward rate contracts. Large spread in the forward rate quote suggests unfavorable offer terms. Banks will refuse to offer forward contracts at any rate to uncreditworthy companies. Companies that are not eligible for forward rate contracts have the option, however, of hedging transaction exposure with futures contracts.

Futures Contracts

In principle, no differences exist between a futures market hedge and a forward market hedge. For example, a U.S. business has an account payable for $50,000 Canadian, due on the third Wednesday in September. The company could buy one September Canadian Dollar futures contract. If the value of the Canadian dollar increased, the U.S. dollar value of the company's account payable would increase, resulting in a reduction in the company's value. However, the value of the futures contract would increase by an equal amount, leaving the net value of the company unchanged. If the value of the Canadian Dollar decreased, the U.S. dollar value of the payable account would increase, but the value of the futures contract would decrease by an equal amount.

A U.S. business with an account receivable for Canadian Dollars would hedge its position by selling short the Canadian Dollar futures contract. A short sale of a future contract puts the business in a position opposed to that of a business owning the futures contract. When the futures contract increases in value, the company loses that amount. When the futures contract decreases in value, it gains that amount.

Despite their advantages, futures contracts also contain some disadvantages. Because futures contract are *marked to market* on a daily basis, any losses must be made up in cash on a daily basis, while the offsetting gain on the currency transaction will be deferred until the transaction actually occurs. This imbalance can result in a severe liquidity crisis for small companies and for individuals.

Another disadvantage of using futures contracts for hedging is that they trade only in standardized amounts and maturities. Companies may not have the choice of timing their receivables and payables to coincide with standardized futures contracts. Consequently, the hedges are not perfect.

Hedges Using the Money Market

A company has the alternative of using a money market hedge if forward market hedges are not available or too expensive, and where a futures market hedge carries too much risk of insolvency. A money market hedge—called that way because it necessitates borrowing or lending in the short-term money market—enables a company with a future receivable or a future payable to make the required exchange of currencies at the current spot rate. For example, suppose a U.S. exporter expects to receive four million Brazilian reals in one month from a Brazilian customer. The business could eliminate uncertainty about the rate of currency exchange by borrowing reals in Brazil at an interest rate of 10 percent per month: The company can convert the reals into U.S. dollars at the spot rate. When the Brazilian customer pays the four

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million reals one month later, it is used to pay off the principle and interest accrued on the loan in Brazil.

The difference between the borrowing and the lending interest rates is the cost of a money market hedge. In general, companies must pay more to borrow funds than they can receive when they lend funds. In turn, banks lend funds at a higher interest rate than they pay for funds to earn a profit. The interest rate increases if default risk is present. Banks often require borrowers to pledge the receivable as collateral on the loan to guard against default risk. If the receivable presents a low risk, the bank will require a lower interest rate. If the business is borrowing for a future payable, it can pledge the reals deposit as collateral. When the bank's risk is low, the company's borrowing and lending rates are close to the risk-free rate. In this case, even if forward and futures contracts are available, a money market hedge may be the least costly hedging alternative.

Although cross hedging is certainly imperfect, it may be the only means available for reducing transaction exposure.

Options

Currency options give one party the right, but not the obligation, to buy or sell a specific amount of currency at a specified exchange rate on or before an agreed-upon date. If the exchange rate moves in favor of the option holder, the option can be exercised and the holder is protected from loss. On the other hand, if the rate moves against the holders, it can let the option expire, but profit, by selling the foreign currency in the spot market. Consequently, options are best characterized with potential for gain and no downside risk. Hedging in the options market enables businesses and individuals to reduce loses caused by unfavorable exchange rate changes, while preserving gains from favorable exchange rate changes. However, this flexibility has a cost.

For example, a U.S. importer must pay a Venezuelan company 150 million bolivares on the third Wednesday of December. The importer is concerned about large losses that would be incurred if the value of the bolivar increases before the obligation is paid. The current value of the bolivar is 710 bolivares per dollar, so the importer buys a December call option for 150 million bolivares at an exercise price of $0.00139 per bolivar. The importer must pay $0.00005 per bolivar plus a broker's commission of $40.00.

If by the third Wednesday in December the value of the bolivar falls to 725 bolivares per dollar, then the U.S. importer discards the option and buys the 150 million bolivares at the new spot rate for $206,897. The total cost to the company would be the commission plus premium, plus cost of exercise totaling $214,437.00 ($40 commission, plus $7500 commission, plus $206,897.00).

If the value of the bolivar rises above $.00139, the company exercises the call option and buys the 150 million bolivares at the exercise price of $0.00139 per bolivar and pays $208,500 to satisfy the account payable. Under this scenario, the total cost to the company never exceeds the total of the commission plus premium, plus cost of exercise totaling $216,040.00.

If the importer has a bolivar-denominated receivable account, it can purchase a bolivar put option. The put option gives the importer the right to sell the bolivar that it receives to the writer of the option at the exercise price specified in the option contract. Consequently, the company is guaranteed a minimum total dollar amount in the future that is equal to the exercise value of the option less the premium and commission paid for the put option. If the value of the bolivar rises, the firm discards the put option and receives the new dollar value of the bolivar receivable less the amount or premium and commission paid on the option.

While option hedges suggest a win-win situation for the company, the real benefits of the hedge are somewhat in question. Whether or not the option is exercised, the company always bears the option premium and commission costs. Nevertheless, the company replaces an unknown and potentially disastrous loss with a smaller, but certain, cost. If the option market is efficient, the net monetary benefit of an option hedge to the company is negligible or even slightly negative due to transaction costs. The company gains from the reduction in uncertainty.

The option market's efficiency is best understood from the seller's (writer's) vantage point. The option seller has no gain and all the risks of a loss. Consequently, the only way in which the option seller is induced to write an option is by the holder being willing to pay a premium. Consequently, option premiums reflect the equilibrium price at which an option buyer and option seller perceive their respective interests are protected. The premium is the compensation for differences in expected payoffs.

Cross Hedging

Thus far, a market for forward rates, futures contracts, credit or options in the foreign currency being hedged has been presumed to exist. But this may not be true in all cases, especially for small developing countries. In such cases, cross hedging may be the only hedging alternative available.

Cross hedging is a form of a hedge developed in a currency whose value is highly correlated with the value of the currency in which the receivable or payable is denominated. In some cases, it is relatively easy to find highly correlated currencies, because many smaller countries try to peg the exchange rate between their currency and some major currency such as the dollar, the franc or euro. However, these currencies may not be perfectly correlated because efforts to peg values frequently fail.

As an example, a company has a payable or a receivable denominated in the currency for a small nation for which there are no developed currency or credit markets. The company would explore the possibility that the currency is pegged to the value of a major currency. If not, the company would look at past changes

in the value of the currency to see if they are correlated with changes in the value of any major currency. The company would then undertake a forward market, futures market, money market, or options market hedge in the major currency that is most closely related to the small nation's currency.

Cross-hedging success depends upon the extent to which the major currency changes in value along with the minor currency. Although cross hedging is certainly imperfect, it may be the only means available for reducing transaction exposure.

Mitigating Long-Term Currency Risk Exposure

Theoretically, the same hedging instruments discussed above to alleviate short-term currency risk can be used to hedge long-term transaction exposure. However, at present, there is a limited market for currency futures options with maturities greater than one year. A few multinational banks offer long-term forward exchange contracts with maturities as long as seven years. Unfortunately, for smaller companies, only large, creditworthy corporate customers qualify for such contracts. Although individual companies can negotiate a currency option contract, there is no secondary market for the instrument. Consequently, a number of alternative hedging techniques have developed for reducing long-term transaction exposure.

Back-to-Back Loans

Multinational corporations can often reduce their respective long-term currency risk exposure by arranging parallel or back-to-back loans. For example, suppose a U.S. company wants to buy into a fertilizer project in Argentina that will repay the investment and earnings in pesos over the next seven years. The U.S. investor is confident of the rate of return in pesos, but wants to avoid the risk the value of the peso in dollars will decline, resulting in a negative return in dollars. If it can identify an Argentine company that wants to make a similarly sized investment in the U.S., it can arrange offsetting loans. The Argentine company will lend the U.S. company pesos and the U.S. company will lend the Argentine company dollars with which to make their respective investments. The U.S. company will repay the Argentine firm with its peso earnings, and the Argentine company will repay the U.S. firm with its dollar earnings.

Under this arrangement, the companies are entering into a purely bilateral arrangement outside the scope of the foreign exchange markets. Neither company is affected by exchange rate fluctuations. Nevertheless, both companies remain exposed to default risk because the obligation of one company is not avoided by the failure of the other company to repay its loan.

Currency Swaps/Credit Swaps

Swaps are like packages of forward contracts. Currency swaps can be used to avoid the credit risk associated with a parallel loan. In broad terms, a currency swap is an agreement by two companies to exchange specified amounts of currency now and to reverse the exchange at some point in the future. The lack of credit risk arises from the nature of a currency swap. Default on a currency swap means that the currencies are not exchanged in the future, while default on a parallel loan means that the loan is not repaid. Unlike a parallel loan, default on a currency swap entails no loss of investment or earnings. The only risk in a currency swap is that the companies must exchange the foreign currency in the foreign exchange market at the new exchange rate.

Frequently, multinational banks act as brokers to match partners in parallel loans and currency swaps. However, finding companies whose needs mutually offset one another is difficult, imperfect and only partially reduces currency exposure risk. If a company cannot find a match, a credit swap may be used. Credit swaps involve a deposit in one currency and a loan in another. The deposit is returned after the loan is repaid. For example, a U.S. business could deposit dollars in the San Francisco branch of an Asian bank, which would, in turn, lend the depositor yen for an investment in Japan. After the Asian bank loan is repaid in yen, the dollar deposit would be returned.

Summary

Effective legal drafting can minimize significant international transaction risk. However, the risk of currency exposure can be mitigated or even eliminated in its entirety by the techniques and instruments described in this article. How much currency risk exposure remains depends on the instrument selected. Many instruments do not hedge transaction exposure perfectly, but are more accessible to the individual and small to medium size companies. Instruments used to more completely hedge currency exposure, such as put and call options, may contain sizeable transaction costs. Nevertheless, most international businesses prefer the certainty of minimizing exposure, despite the increased transaction costs involved, in lieu of unquantifiable and potentially disastrous foreign exchange risk. ⚖

Michael P. Kelley, principal of The Law Offices of Michael P. Kelley, P.C., represents clients in the areas of private equity investments, mergers and acquisitions, privatizations and other forms of international financial and commercial transactions. Mr. Kelley is a certified arbitrator with the Chartered Institute of Arbitrators in London, England, and with the International and Commercial Panels of the American Arbitration Association. He previously served as general counsel for the Sural Group in Caracas, Venezuela, and taught international finance within George Mason University's Public Policy Institute. In addition to holding a J.D. degree, Mr. Kelley received his Ph.D. from the London School of Economics.