

RATE-MODIFIED CASH-SETTLED FOREIGN CURRENCY OPTIONS

A rate-modified currency option is a type of foreign currency option that may be thought of as an option on an underlying exchange rate between two currencies. The holder of a rate-modified currency option receives in U.S. dollars the difference between the modified rate and the exercise price multiplied by a multiplier (e.g., USD \$100). In this respect, rate-modified currency options resemble cash-settled index options where the index is an exchange rate between two currencies. Exchange rates in the spot market are expressed as the number of units of one currency ("currency 1") required to purchase a single unit of a second currency ("currency 2"), and for each pairing of the world's major currencies, there is a convention as to which currency is currency 1 and which is currency 2. You should be aware that the exchange rates underlying rate-modified currency options may or may not be stated in the same way that they are conventionally quoted in the spot market. For example, exchange rates between the U.S. dollar and the euro are generally quoted as the number of dollars required to purchase a single euro; but the rate underlying a rate-modified currency option could be stated as the number of euros required to purchase a single dollar. You should therefore be certain that you understand the meaning of an underlying exchange rate.

In the case of rate-modified currency options, the underlying exchange rate may be multiplied by a "rate-modifier," such as 1, 10 or 100, to create an underlying value that more closely resembles a conventional index value. Exercise prices would, of course, also be expressed in terms of the rate-modified values.

EXAMPLE: A rate-modifier of 100 may be applied to the exchange rate between U.S. dollars ("USD") and Swiss francs ("CHF") in order to obtain the underlying exchange rate for USD/CHF rate-modified currency options. If the current exchange rate in the USD/CHF spot market is 1.24 Swiss francs per dollar, the current rate-modified exchange rate would be stated as $(1.24 \times 100) = 124$. For example, an exercise price of 1.25 Swiss francs per dollar would be expressed as 125.

As in the case of an index option, the premiums and exercise settlement values of rate-modified currency options are determined using a multiplier, e.g., USD \$100.

EXAMPLE: A rate-modified USD/CHF call option has an exercise price of 125. The USD/CHF exchange rate in the spot market at the time the exercise settlement value is fixed is 1.27 Swiss francs per dollar, meaning that the