

Monte Carlo simulation for risk approach

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Foreign exchange is a risk factor that is often overlooked by enterprises that wish to enter, grow, and succeed in the global marketplace. The currency rate depends on factors that affect the economy such as trade, inflation, employment, interest rates, growth rate and others. One of the best predictions of losses could be done by using the time series of daily exchange rates for some period and make financial forecasts for the near futures, taking in the view the parameters that have influences to the exchange rates. We also could apply some statistical simulation. At present, a widely used method is the value-at-risk (VaR) model. To calculate the VaR, there exists a variety of models. Among them, the more widely-used are: the historical simulation, the variance-covariance model, and Monte Carlo simulation, which assumes that future currency returns will be randomly distributed. Monte Carlo Methods are used for portfolio evaluation. A similar approach is used in calculating value at risk.