Abstract

We develop a genetic algorithm that is able to find the optimal sequence of exchange rates that maximizes arbitrage profits with more than three currencies, being both the triangular arbitrage and the direct exchange rate two special cases of the proposed algorithm. Applying the algorithm to the most traded currencies, we find average profits ranking from 4.5083% to 0.3162% for changing 1 USD for EUR with respect to the direct exchange rate, for different transaction costs, during the period October 2000-April 2012. Our results also suggest that the arbitrage profits increased just after the subprime crisis in summer of 2007 and that they are higher when the market is less liquid.