

ON-LINE TRADING AS A RENEWAL PROCESS: WAITING TIME AND INSPECTION PARADOX

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We briefly review our recent studies on stochastic-process modelling internet on-line trading. We present a way to evaluate the average waiting time between the observation of the price in financial markets and the next price change, especially in an on-line foreign exchange trading service for individual customers via the Internet. The basic method of our approach depends on the so-called renewal-reward theorem. Assuming that the stochastic process that models the price change is a renewal process, we use the theorem to calculate the average waiting time of the process. The so-called “inspection paradox” is discussed, which, in general, means that the average durations is shorter than the average waiting time.