

A stochastic model for price and spread dynamics in some liquidity regimens

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In this work we present our results of an empirical study, for which we use data order book. The objective of the empirical study is to determinate stylized facts to the markets in some liquidity regimens, especially focused in low liquidity markets. Besides that, based on stylized facts we propose a Markovian model for spread and prices dynamics in which we consider three liquidity regimens: high liquidity competitive, high liquidity non-competitive and low liquidity. For all this regimens are presented ergodicity properties for spread and convergence for price that, both, are consistent with the stylized facts mentioned above. At last, we present the simulation's results of the model for each liquidity regimen.

References

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