

Project Summary

Jeremy Barofsky

Boston University

Mentor: J. Doyne Farmer, McKinsey Research Professor, SFI

I will be contributing to a project in Doyne Farmer's finance group. They have already created a stock market simulation with the limit order book, a common trading mechanism, and random order flow to model certain stock-market properties. The group has found that this basic model creates a negative auto-correlation in prices. They have also compared their results to actual pricing data from the London Stock Exchange.

I will add a technical trading agent to this environment that invests to take advantage of this price pattern. Using the new price outputs, I will analyze the agent's affect on volatility, volume, market impact, and other variables. Other researchers are also developing agents with different investment strategies and as more strategic agents are added to the market, price behavior should move closer to the actual price data from the LSE.