CS395T Agent-Based Electronic Commerce Fall 2006

Peter Stone

Department of Computer Sciences
The University of Texas at Austin

Week 7b

Good Afternoon, Colleagues

Are there any questions?

Good Afternoon, Colleagues

Are there any questions?

- Would adaptation help?
- How limiting is it to have just one stock?
- Could the agents "read the news"?

• SOBI: place trade based on order books

- SOBI: place trade based on order books
 - Family of strategies, mainly for demonstration

- SOBI: place trade based on order books
 - Family of strategies, mainly for demonstration
- Trend following/contrarian don't use the order books
- Market Making use order books in a limited way

- SOBI: place trade based on order books
 - Family of strategies, mainly for demonstration
- Trend following/contrarian don't use the order books
- Market Making use order books in a limited way
- Reinforcement learning (done perfectly?)
- Combining many via GAs, qualitative reasoning (readjust?)

- SOBI: place trade based on order books
 - Family of strategies, mainly for demonstration
- Trend following/contrarian don't use the order books
- Market Making use order books in a limited way
- Reinforcement learning (done perfectly?)
- Combining many via GAs, qualitative reasoning (readjust?)
- Each good in various conditions
 - Would online adaptation help?

Evaluation

• Sharpe, Sortino ratio

Evaluation

- Sharpe, Sortino ratio
- Taken from real traders
- "Most widely used measure of risk-adjusted return"

Class Discussion

Achal on agents in the stock market



What's the purpose(s) of PLAT?

Platform for bidding agent development

- Platform for bidding agent development
- Environment for testing stock trading strategies

- Platform for bidding agent development
- Environment for testing stock trading strategies
 - Wall Street brokerage firms spend a lot of effort looking for successful trading strategies.

- Platform for bidding agent development
- Environment for testing stock trading strategies
 - Wall Street brokerage firms spend a lot of effort looking for successful trading strategies.
 - Testing: either risk money, or simulate.

- Platform for bidding agent development
- Environment for testing stock trading strategies
 - Wall Street brokerage firms spend a lot of effort looking for successful trading strategies.
 - Testing: either risk money, or simulate.
 - No simulator perfect, but PLAT takes a step forward.

- Platform for bidding agent development
- Environment for testing stock trading strategies
 - Wall Street brokerage firms spend a lot of effort looking for successful trading strategies.
 - Testing: either risk money, or simulate.
 - No simulator perfect, but PLAT takes a step forward.
- Example of CAT applicability? (multiple ECNs, specialists)

- Platform for bidding agent development
- Environment for testing stock trading strategies
 - Wall Street brokerage firms spend a lot of effort looking for successful trading strategies.
 - Testing: either risk money, or simulate.
 - No simulator perfect, but PLAT takes a step forward.
- Example of CAT applicability? (multiple ECNs, specialists)
- Much better with multiple stocks?

Stock strategy testbed vs. multiagent domain (game theory)

For which topic does PLAT have more value?

Stock strategy testbed vs. multiagent domain (game theory)

- For which topic does PLAT have more value?
- Is comparing multiple strategies "the thing to do?"

Stock strategy testbed vs. multiagent domain (game theory)

- For which topic does PLAT have more value?
- Is comparing multiple strategies "the thing to do?"
- Section 9 of Sherstov: no training in joint economy

Outside information

 Could an agent benefit by processing information external to PLAT as well?

Outside information

- Could an agent benefit by processing information external to PLAT as well?
- How would you design such an agent?

Outside information

- Could an agent benefit by processing information external to PLAT as well?
- How would you design such an agent?
- (Guru's thesis)

Project plans

- Who needs partners?
- What are your plans?