Security Short-Term Trading

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Data Mining Group – December 4, 2009
Outline

1. Statement of the Problem
2. Fundamental vs Technical Analysis
3. Retrieving the Data
Prediction of Price
Prediction of Price

What are some ways to do this?

- Fundamental Analysis
- Technical Analysis
FUNDAMENTAL ANALYSIS
Predicting prices based on financial and news data

- Balance Sheet
- Income Statements
- Economic Indicators
  - Employment and Retail sales come out monthly
  - Oil Inventory Report 9:30am on Wednesday
- News
  - What is Fed Chairman, Ben Bernanke saying?
  - Is President Obama holding a conference somewhere?
  - Is the company releasing news?
  - What’s happening in Iraq?
- Difficult to actively trade off this data
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FUNDAMENTAL ANALYSIS

Jim Cramer – “The Cramer Effect”
FUNDAMENTAL ANALYSIS
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TECHNICAL ANALYSIS
Predicting prices based on past price and volume data

- Moving Averages (chart 1 on handout)
- Support and Resistance (chart 2 and 3 on handout)
- Head-and-Shoulders Pattern (chart 4 on handout)
- Correlations
- many, many, other techniques
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TECHNICAL ANALYSIS
GRMN’s 5 most correlated stocks over 200 days (normalized)
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INTER-DAY DATA RETRIEVAL

Can use Google Finance and Yahoo Finance to download day-by-day data
INTRA-DAY DATA RETRIEVAL
Can use WRDS (Wharton Research Data Services)
A. Author.
Handbook of Everything.

S. Someone.
On this and that.
Journal on This and That. 2(1):50–100, 2000.