

### The Wisdom and Madness of Crowds

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### **Overview**

- Scientific Foundations
- Two Approaches to the Wisdom of Crowds
- Two Types of Madness of Crowds
- Harnessing the Crowd to Generate Alpha
- Proprietary Trading Results

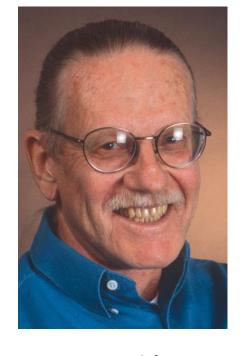
# **Nobel Prize Winning Science**



• Herbert A. Simon

- 1978 Nobel in Economics
- Bounded Rationality





Vernon Smith

- 2002 Nobel in Economics
- Experimental Markets

### Two Approaches to the Wisdom of Crowds

Jelly Beans in a Jar



#### **Needles in a Haystack**



# Jelly Beans in a Jar

- Popularized by James Surowiecki in "The Wisdom of Crowds"
- Familiar to Wall Street in the form of consensus estimates
- Experts vs. regular investors
- Prediction Markets (e.g., Iowa Electronic Markets, HP)
- Stock Market as information processing mechanism
  - Actual trades = votes
- Non-trade information also valuable, if processed
  - Predictions, Tweets, Blogs, NLP on news

# **Needles in a Haystack**

- Credentials, qualifications, can help screen
- Requires objective performance criteria
- Helpful to have long-term track record
- Challenges & pitfalls:
  - How to encourage sharing valuable info. (long term)
  - How to prevent/detect/correct gaming the system
  - Being fooled by randomness; enough monkeys...

#### The Madness of Crowds



# **Two Types of Madness**

- Blatant: Irrational Exuberance / Irrational Fear
  - Avoidance of pain > achievement of gain
  - Herd behavior
  - Hard-wired flight or fight behavior

- Subtle: Cognitive Biases
  - Satisficing, heuristics (e.g. Representativeness)
  - Framing, anchoring effects

## Harnessing the Crowd to Generate Alpha

#### 1. Contrarian trades based on madness.

Consensus of the masses can be contrarian.

#### 2. Directional trades based on wisdom.

- Consensus of experts can be directional.
- Identification and algorithmic weighting of knowledgeable individuals can be directional.

# iQTick Advisors' Methodology

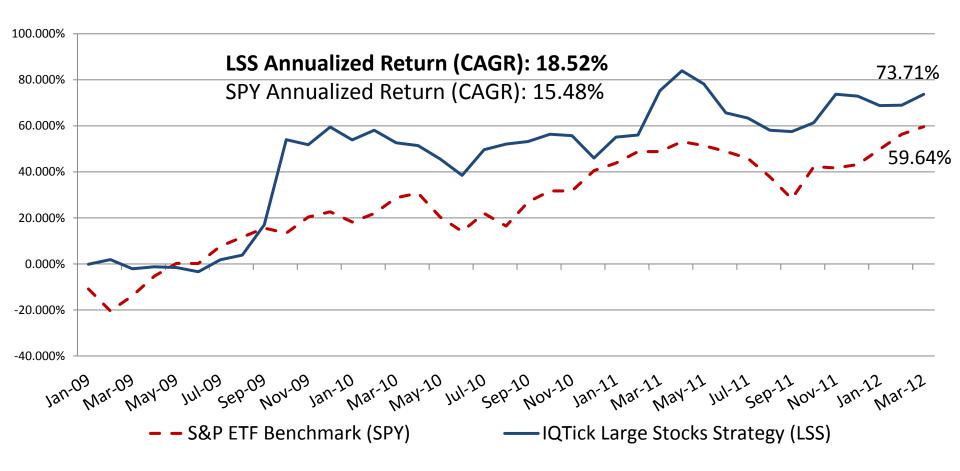
- Proprietary stock prediction "poll" data from sister company going back to 2005.
- 20 million stock predictions -- mainly from online retail investors.
- Processed real-time mass sentiment enables us to harness the madness of crowds.
- Track records of individuals' predictions enable us to harness the wisdom of crowds.
- Can also use other sources of sentiment data Twitter, Google, Blogs, etc.

## **Simple Proprietary Trading Approach**

- Several million of proprietary trading capital.
- 10,000 stock predictions/day power buy or sell signals on dozens of large cap. U.S. stocks and market indices.
- Take long or short position early in the day.
- Close out positions by end of the day.
- Leverage by signal strength, but average leverage close to 1X (no leverage).
- No holding overnight; no multi-day trades.
- Over \$3B worth of trades executed.

#### iQTick Advisors' Large Stock Strategy

Jan 2009 – March YTD (3/23/2012) Proprietary Trading Results\*



<sup>\*</sup>Returns are net of commissions but do NOT include any performance fees.

DISCLAIMER: PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RETURNS. The Strategy's performance may be volatile and the investment may involve a high degree of risk.

## Some Interesting Features of Strategy

- Beating the market all-time (prop. Trading, w/o fees)\*
  - Performs well in volatile markets
- Produces uncorrelated return
  - Monthly correlation with S&P ~ .05
  - Alpha of 17.63%
- Extremely liquid
  - 100% in cash overnight
  - Trades liquid stocks and ETFs (or futures)

<sup>\*</sup>Returns are net of commissions but do NOT include any performance fees.

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## Summary

- Scientific Foundations
  - Nobel prizes for bounded rationality & experimental markets
- Two Approaches to the Wisdom of Crowds
  - Jelly beans & needles in haystacks
- Two Types of Madness of Crowds
  - Blatant irrationality & subtle cognitive biases
- Harnessing the Crowd to Generate Alpha
  - Trade with the wisdom and contrarian to the madness
- Proprietary Trading Results
  - Possible to beat market with uncorrelated return (alpha) over 3+ yrs.

Field of collective intelligence, including applications to the stock market, is just in its infancy. Hard to overstate upside.