**A Quantitative Approach to Selecting Industry Groups for Investment: The Case for Relative Strength**

By: Rachel Kilbury and Christine Ferry

Advisors: Dr. Robert Dean and Dr. Elizabeth Gustafson

**Study Objectives:**
- Determine the alpha potential for relative strength analysis in industry group selection
- Develop a Relative Strength Portfolio weighting model that favors undervalued Industry groups

**Study Design:**
- Period of Analysis: 2008-2012
- Data- Monthly Prices
  - S&P
  - S&P Sectors
  - S&P Industry Groups
- Data Sets
  - Sectors
    - Healthcare
    - Consumer Discretionary
  - Industry Groups
    - Homebuilders- XHB
    - Pharmaceuticals- XPH
    - Retail- XRT
    - Biotechnology - XBI
  - Dollar Investment
    - $1,000,000

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<th>Returns of Industry Groups</th>
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<td>XHB</td>
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<th>Returns of Portfolio vs. S&amp;P</th>
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**Portfolio Weighting Model:**
- \( RS_i = \frac{P_i}{P_s} \)
- \( W_i = \frac{1}{RS_i} \)
- \( DV_i = W_i \times 1,000,000 \)

**Conclusions:**
For the time period 2008-2012:
- 1/RS model significantly outperformed the S&P 500 (99%) 
- XBI (Biotech) had the highest returns (202%)
- 1/RS portfolio weighting model worked well in the highly volatile market 2008-2012