An Analysis of Risk Adjusted Returns For UD Flyer Fund Stocks, 2007-2011
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- Purpose of Study: Determine if risk adjusted returns are useful predictors of future stock returns.
- Research Approach:
  - Data Requirement
    2. 5 year note rate (risk free rate), 2007-2010
  - Period of Analysis
    1. Derivation of Risk Adjusted Returns 2007-2010
    2. Forecasting Period 2011
- Risk Adjusted Measures
  - Sharpe Ratio
  - Modigliani Ratio
  - Information Ratio

Cross Sectional Regression Models
1. \( R_{i1} = a + b(SR_i) \)
2. \( R_{i1} = a + b(MR_i) \)
3. \( R_{i1} = a + b(IR_i) \)

where
\( R_{i1} = \) Return to \( i^{th} \) stock in 2011
\( a, b = \) regression parameters
\( SR_i = \) Sharpe Ratio for \( i^{th} \) stock
\( MR_i = \) Modigliani Ratio for \( i^{th} \) stock
\( IR_i = \) Information Ratio for \( i^{th} \) stock

Regression Results

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>( R^2 )</th>
<th>A (Intercept)</th>
<th>B (regression coefficient)</th>
<th>T Stat</th>
<th># Stocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharpe Ratio</td>
<td>.3236</td>
<td>.075</td>
<td>.5737</td>
<td>2.7665</td>
<td>18</td>
</tr>
<tr>
<td>Modigliani Ratio</td>
<td>.1426</td>
<td>.0022</td>
<td>.0164</td>
<td>1.6813</td>
<td>19</td>
</tr>
<tr>
<td>Information Ratio</td>
<td>.2179</td>
<td>.0094</td>
<td>.0371</td>
<td>2.0443</td>
<td>20</td>
</tr>
</tbody>
</table>

Conclusions
- R Squares are low; however, we do not expect all of the price returns for 2011 to be explained by these ratios alone
- At the 95% confidence level, B coefficients for Sharpe and Information Ratios are statistically significant
- At the 90% confidence level, B coefficient for Modigliani Ratio is statistically significant
- B coefficients are positive for all ratios: Returns increase as these ratios increase
- Sharpe and Information Ratios have predictive capability at a 95% confidence level
- Modigliani Ratio has predictive capability at a 90% confidence level