Technical Analysis and S&P 500 Sector Returns, 2010-2016

Follow this and additional works at: https://ecommons.udayton.edu/stander_posters

Recommended Citation

This Book is brought to you for free and open access by the Stander Symposium at eCommons. It has been accepted for inclusion in Stander Symposium Posters by an authorized administrator of eCommons. For more information, please contact frice1@udayton.edu, mschlangen1@udayton.edu.
Technical Analysis and SPDR Sector Returns 2010-2016

John Gizzie

Dr. Robert Dean & Dr. Tony Caporale

• Study Purpose
  • A large number of Hedge Funds use technical analysis (TA) to produce portfolio alpha. In this study I test two intermediate/long horizon TA metrics to determine if they generate portfolio alpha

• Period of Analysis: 2010-2016

• Test Universe
  • Consumer Discretionary (XLY)
  • Information Technology (XLK)
  • Health Care (XLV)
  • Top 10 stocks by market value

• TA Factor: 200 Day Moving Average

• Factor Decision Rule
  1.) Higher weights to stocks, P>MA 200
  2.) Higher weights to stocks, P<MA200

• Factor Model: P>MA 200
  • \( W_i(t) = \frac{P_i(t)}{P_i(t)_{MA200}} \)
  • \( D_i(t) = W_i(t) \times 1,000,000 \)
  • \( SHR_i(t) = \frac{D_i(t)}{P_i(t)} \)

• Terms
  • \( W_i = \) stock weight
  • \( D_i = \) Dollars Invested
  • \( SHR_i = \) Shares Held
  • \( MV = \) Market Value
  • \( PV = \) Portfolio Value
  • \( I = \) ith Stock
  • \( t = \) time 2010-2016

Conclusion

• Both MA 200 and MA 200 I models outperformed SPY for all sectors
• The XLY sector has the highest alpha
• The MA 200 I outperforms the MA 200 model

<table>
<thead>
<tr>
<th>Sectors</th>
<th>Model</th>
<th>SPY</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>XLY</td>
<td>462.46</td>
<td>100.58</td>
<td>361.88</td>
</tr>
<tr>
<td>XLK</td>
<td>107.93</td>
<td>100.58</td>
<td>7.35</td>
</tr>
<tr>
<td>XLV</td>
<td>105.76</td>
<td>100.58</td>
<td>5.18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sectors</th>
<th>Model</th>
<th>SPY</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>XLY</td>
<td>612.1</td>
<td>100.58</td>
<td>511.52</td>
</tr>
<tr>
<td>XLK</td>
<td>125.87</td>
<td>100.58</td>
<td>25.29</td>
</tr>
<tr>
<td>XLV</td>
<td>109.98</td>
<td>100.58</td>
<td>9.4</td>
</tr>
</tbody>
</table>

Table 3

<table>
<thead>
<tr>
<th>Sectors</th>
<th>MA 200</th>
<th>MA 200 I</th>
</tr>
</thead>
<tbody>
<tr>
<td>XLY</td>
<td>462.1</td>
<td>612.1</td>
</tr>
<tr>
<td>XLK</td>
<td>107.93</td>
<td>125.87</td>
</tr>
<tr>
<td>XLV</td>
<td>105.76</td>
<td>109.98</td>
</tr>
</tbody>
</table>