A time series analysis of Service Consumption expenditures as determinants of the consumer discretionary and consumer staples sector price movements, 2004-2014.

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A Time Serves analysis of Service Consumption Expenditures as Determinants of Consumer Discretionary and Consumer Staples Sector Prices

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Advisor: Dr. Bob Dean & Dr. Trevor Collier

Study Objectives:

- Determine the Consumption Function For Service expenditures
- Determine the Functional relationship between Service expenditures and Consumer Discretionary and Staples Sector Prices

Research Approach:
- Univariate Regression Analysis
- Time Period 2004-2013
- Data Frequency-Quarterly not significant in 04-08 period
1. Persona Income (PI)
   - B Coefficient for XLY F(S)
2. Service Expenditures(S)
3. Consumer Discretionary Sector ETF
4. Consumer Staples Sector ETF

Model Specification
S=A+B(PI)
XLY=A+B(S)
XLP=A+B(S)

Hypothesis:
For F(PI), B>1, tstat>2
For XLY F(S), B>0
For XLY F(S), B>0

<table>
<thead>
<tr>
<th>Time Period</th>
<th>B Coefficient</th>
<th>Tstat</th>
<th>R Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-2008</td>
<td>0.55</td>
<td>31.92</td>
<td>0.98</td>
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<td>2008-2014</td>
<td>0.46</td>
<td>19.47</td>
<td>0.95</td>
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<td>2004-2014</td>
<td>0.54</td>
<td>52.97</td>
<td>0.99</td>
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Table 2
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<th>B Coefficient</th>
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<td>-1.03</td>
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<td>2008-2014</td>
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<td>2004-2014</td>
<td>44.77</td>
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Table 3
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<td>2004-2014</td>
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Findings
- S Co-varies with P, B Coefficient Stable over time
- B Coefficient for XLY F (S) not significant in 04-08 period
- B Coefficient for XLY F (S) significant for 08-14
- B Coefficient for XLP F (S) significant 04-08, 08-14

Conclusions:
- Consumption function positive
- Consumption function declines over time
- S predicts XLY price movements for 08-14
- S predicts XLP price movements for 04-08, 08-14