An Empirical Analysis of the Relationship Between S&P Sector Price Movements and Industrial Production

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An Empirical Analysis of the Relationship Between S&P Sector Price Movements and Industrial Production

2001-2012

Study Objective

Determine if S&P sector prices covary directly with Industrial Production

Research Approach

- Method of Analysis: Univariate Regression

Model Specification

\[ \text{SPY}_t = a + b \times (\text{IP}_t) \]
\[ S_{it} = a + b \times (\text{IP}_t) \]

Where:
- \( \text{SPY} = \) S&P 500 ETF
- \( S_{it} = \) Price of the \( i \)-th sector
- \( \text{IP}_t = \) U.S. Industrial Production
- \( a, b = \) Model Parameters
- \( t = \) Time period in Months

Time Periods Analyzed

- 2001-2012
- 2003-2007
- 2009-2012

Hypothesis

- Slope coefficient (b) is > 0 and statistically significant

Conclusions

- For the 2001-2012 period all slope coefficients have right sign and are significant (T > 2). R2’s range from .19 - .71.

- For the 2003-2007 period slope coefficients have right sign and are statistically significant. R2’s range from .17 - .91.

- For the 2009-2012 period slope coefficients were positive and statistically significant. R2’s range from .62 - .93.

Summary: Regressions support hypothesis that sector prices covary directly with U.S. Industrial Production

Regression Results

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