



ANNOUNCING A NEW INDUSTRY GROUP AND INDEX RESEARCH SERVICE FOR PORTFOLIO MANAGERS AND INVESTORS

A NEW RESEARCH SERVICE: A subscription to QInsight's research newsletter will help investment managers identify industry sectors, asset classes or style indexes expected to outperform broad stock indexes.

INDUSTRY GROUP, ASSET CLASS AND STYLE INDEX RETURNS ARE PREDICTABLE: QInsight has developed several quantitative portfolio models that adapt to the changing business cycle. Clusters of macroeconomic variables are used to identify phases of the US business cycle (back to 1970) and historical analysis of those phases identifies industry groups, asset classes and style indexes that have outperformed during each phase of the business cycle.

WHY SHOULD I SUBSCRIBE TO THIS RESEARCH: QInsight's extensive research shows that changes in the US economy directly affect the relative returns of industry groups in the US stock market. Industry group relative performance is predictable for business cycle phases. QInsight has developed and rigorously tested a specific method for allocating portfolios among industry groups (and Dow Jones sectors). **Using this information QInsight created model portfolios for both industry groups and Dow Jones sectors that significantly outperform the benchmark S&P 500 index. See model portfolios in Section C and summary backtests in Appendix 3 of the enclosed sample newsletter.**

WHO CAN USE THIS RESEARCH: Any portfolio manager or investor (with a "top-down", "bottom-up," "capitalization," "value," or "growth" style) can earn additional portfolio returns by aligning his or her stock or index portfolios with QInsight's recommended model portfolios, and by analyzing QInsight's research and observations.

IMPORTANCE OF THE BUSINESS CYCLE IN PORTFOLIO PERFORMANCE: The attached bar chart shows the annual returns that could have been achieved in the period between 1980 and 1996 by investing in the top 20 industry groups during each phase of the US business cycle. The top 20 industry groups outperformed the S&P 500 index by more than 10% annually. The phase durations, however, are not periodic (see Section D, page 29 of enclosed QAdvisor sample newsletter).

HISTORICAL BACKTEST AND MODEL PORTFOLIOS: QInsight's subscription research includes a rigorous backtest (in-sample tests) and three model portfolios that will be updated on a quarterly basis:

- Industry group portfolio (using the S&P industry groups and soon, the new GICS classifications)

- Sector portfolio (using the Dow Jones US sectors and their corresponding iShares)
- Asset class portfolio (using standard indexes)

WHO WE ARE: The QInsight Group is a small asset management and financial consulting firm specializing in quantitative, cutting edge market research. QInsight's research links phases of the US business cycle to changes in the returns in the US equity markets (industry groups, asset classes and style indexes).

SUBSCRIPTION INFORMATION: Here is what you will receive with an annual subscription to the Q-Advisor newsletter.

- The most recent printed research report.
- Four quarterly printed research reports focused on portfolios that are expected to outperform broad based indexes in the current and next phases of the business cycle, including a current economic phase analysis, absolute- and risk-adjusted industry rankings, and three model portfolios including: 1) S&P industry groups, 2) iShares based on the Dow Jones US sectors, and 3) asset classes.
- A printed research report informing the subscriber of any real-time phase changes in the US business cycle, along with new phase-based industry group rankings and updated model portfolios. Note that the phase durations are not periodic (see Section D, page 29 of enclosed QAdvisor Sample Newsletter).
- Two additional research studies per year (available electronically) on topics such as tactical asset allocation, weighted and un-weighted industry sector performance, GICS vs. S&P industry sector performance, and industry sector valuations.
- Monthly web site updates of relevant tables and charts along with phone consultation.

The basic newsletter subscription includes the reports described above plus electronic updates available on the QInsight web site (www.qinsight.com). The cost for a single-user annual subscription to Q-Advisor is \$1500. Multi-user site licenses are also available. For further information on subscribing to Q-Advisor, contact Dan Bender at (619) 295-9292 or via e-mail at bender@qinsight.com.

NEW RESEARCH & DEVELOPMENT: The QInsight Group is committed to continuing research and development to improve its quantitative models. Two major R&D efforts planned for 2002 include:

- Global Industry Classification Standard (GICS) sub-industry group and sector classifications will replace the Standard & Poors (S&P) industry classifications that QInsight previously used to rank outperforming industry groups in each phase of the business cycle. QInsight is developing weighted and equal-weighted (based market capitalization) sub-industry indexes to more accurately analyze industry group performance

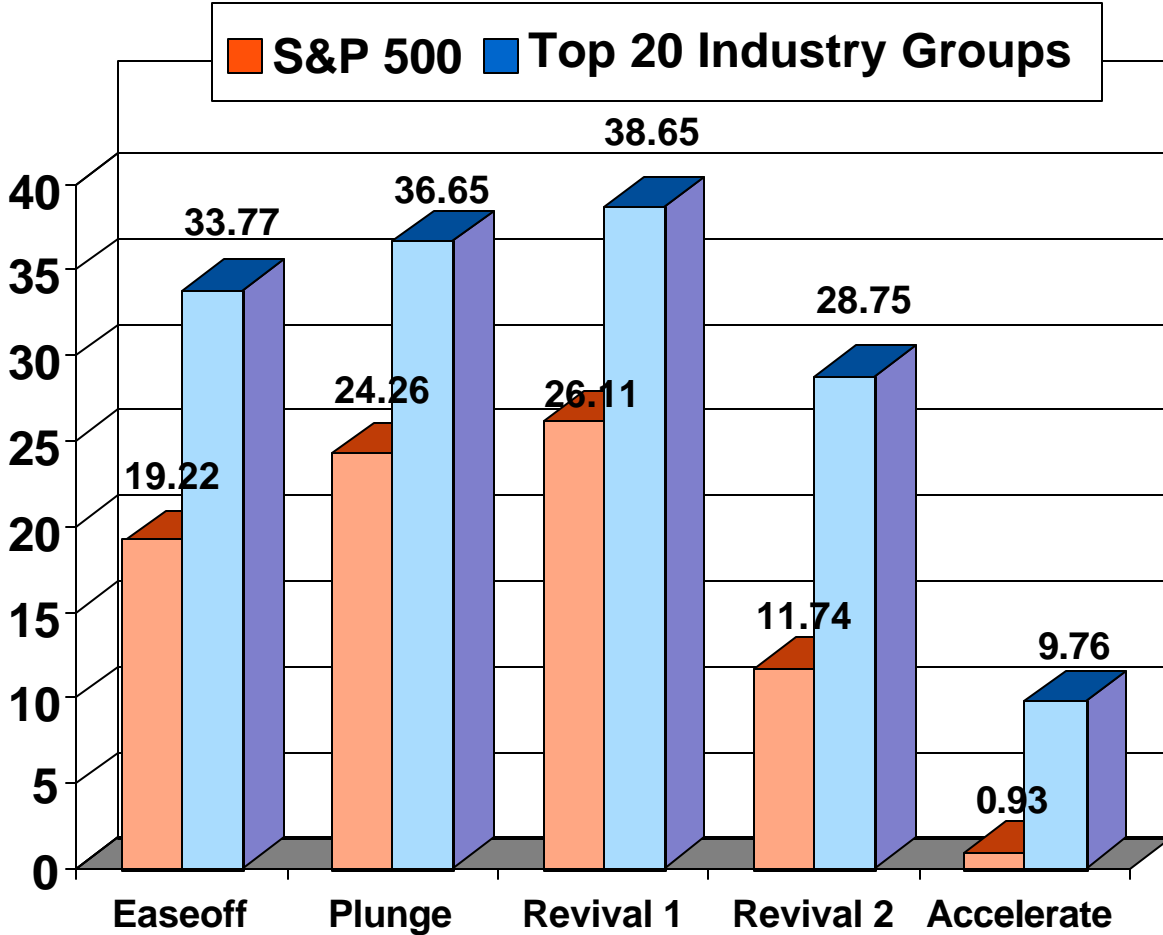
in each phase of the business cycle. The new classifications may significantly improve business cycle industry rankings.

- Historical analysis of fundamental data for the new GICS sub-industry indexes is being investigated. A third party contract is under consideration that would allow QInsight to incorporate relative industry valuation techniques into its model portfolio selection methodology.

For more information about The QInsight Group, please contact Dan Bender at (619) 295-9292, email him at bender@qinsight.com, or see our website at www.qinsight.com.

Potential Historical Outperformance

Returns that could have been achieved for the period 1980 to March, 1996, using the top 20 industry groups in each phase vs. returns of the S&P 500.



FIVE PHASES OF THE US BUSINESS CYCLE

PHASE	LEADING INDICATOR DESCRIPTION
Easeoff	The economy peaks and starts to decline. QInsight's macro-economic variables include industrial production, hours worked, non-farm payroll employment and initial unemployment claims.
Plunge	The economy continues to decline while interest rates peak. Federal Reserve policy turns stimulative. QInsight's macro-economic variables include interest rates and the adjusted monetary base.
Revival 1	The economy starts to recover while interest rates continue to decline. QInsight's macro-economic variables include hours worked, initial unemployment claims, non-farm payrolls and industrial production.
Revival 2	Economy continues to strengthen and inflation begins to slowly rise. QInsight's macro-economic variables include commodity price indexes, the consumer price index and capital spending.
Accelerate	The economy is growing so fast that the Federal Reserve will begin to tighten monetary and credit policies. QInsight's macro-economic variables include the federal funds interest rate, the consumer price index and the adjusted monetary base.

The Q-Advisor Newsletter

January 2002

A Quantitative and Disciplined Approach

to

Managing Market Risk and Return

using

The US Business Cycle

The QInsight Group



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** QInsight recommends that investors use a return-to-downside risk measure such as the “Return / Semi-Variance “ in schedule B-1 to rank industry groups.

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A. Economic & Business Cycle Assessment

Analysis of Leading Economic Indicators

QInsight believes that investors must understand the events leading up to the current Revival 1 phase in order to fully understand current events. This Revival 1 phase follows a Plunge phase that lasted virtually all of the year 2001. The seeds of that Plunge began in the 4th quarter of 1999 when the Federal Reserve sharply increased the adjusted monetary base, probably in anticipation of Y2K liquidity problems. NASDAQ stock market began a very rapid rise at approximately the same time. The Federal Reserve then began to rapidly reduce the adjusted monetary base in early 2000, and the NASDAQ subsequently declined approximately 66% from March 2000 to March 2001. See charts A-1 (Monetary Base) and A-2 (NASDAQ) on the following pages.

The year over year change in industrial production, which normally fluctuates between +4% and -4%, fell from +6% in June 2000 to -6% in September 2001. This abnormally large swing in industrial production resulted from the sharp decline in investment in technology goods from mid-2000 to September 2001. See chart A-3 (Industrial Production) on following pages. Many of the companies manufacturing or assembling those technology products had stocks trading on the NASDAQ, and technology goods manufacturing had become a large part of industrial production in the U.S. This large swing in industrial production is probably what led the Federal Reserve to make eleven cuts (starting in January 2001) in the interest rate on federal funds in the Plunge phase that lasted from mid-January 2001 to the end of December 2001.

According to the QInsight model, a Revival 1 phase began this first week of January 2002. Industrial production (as measured by the Institute for Supply Management index) has moved up sharply in the last two months, initial unemployment claims (measured on a four-week moving average basis) are declining and non-farm payrolls have started to rise. See the charts A-4 through A-6 (Institute for Supply Management, Non-Farm Payrolls, Unemployment Claims) on the following pages. These are all indicators for the beginning of a recovery in the US economy.

Current Economy and Trends

The downturn in the US economy, which the National Bureau of Economic Research (NBER) said started in March, 2001, but started six months earlier for the manufacturing sector, was precipitated by a sharp decline in investment. Therefore, it is significant that orders for durable goods (excluding defense and aircraft) have increased the last two months (October and November). Inventory liquidation in the fourth quarter of 2001 was also very significant, but it is increased demand and not inventory accumulation that leads to an economic recovery. Consumer spending held up very well in 2001 due in part to lower mortgage interest rates and lower energy costs. Consumer spending may also have been boosted by a housing “wealth effect” as housing prices continued to rise in 2001 in many areas of the country. QInsight believes that it is unlikely that the consumer will be able to give a big boost to the US economy in 2002 because it would

require reducing the level of household savings even more. This Revival 1 phase may closely resemble the one in May to November 1991, which also followed a recession and started very slowly.

Current Business Cycle Phase Analysis

There have been eight previous Revival 1 phases since 1970, and the last Revival 1 phase was in February to August, 1999. Based on its research, QInsight defines the Revival 1 period as lasting six months. The arithmetic, average return during the last eight Revival 1 phases was 11.60% (based the S&P 500 index). However, this average includes two Revival 1 phases in the 1980's with total returns over 25% each. The last three Revival 1 phases in the 1990's have averaged a total return of only 4.30%. The total return for the June - November 1991 Revival 1 phase was – 2.21%. QInsight believes a total return of 4 - 6% is a good working target return on the S&P 500 index for the next six months, but we point out that many of these prior Revival 1 phases followed Plunge phases with high stock market returns (Plunges are usually the best phase for stock market returns). Obviously, that is not the case this time, and portfolio structure is going to be very important over the next six months.

<u>Revival Months</u>	<u>S&P500 Total Return</u>
Jan. – June 1971	16.4%
June - Nov 1975	2.2%
Aug. 1980 – Jan. 1981	9.1%
Nov. 1982 – April 1983	25.9%
Nov. 1985 – April 1986	26.4%
June – Nov. 1991	-2.2%
April – Sept. 1996	7.7%
March – Aug. 1999	7.3%

Monetary Base

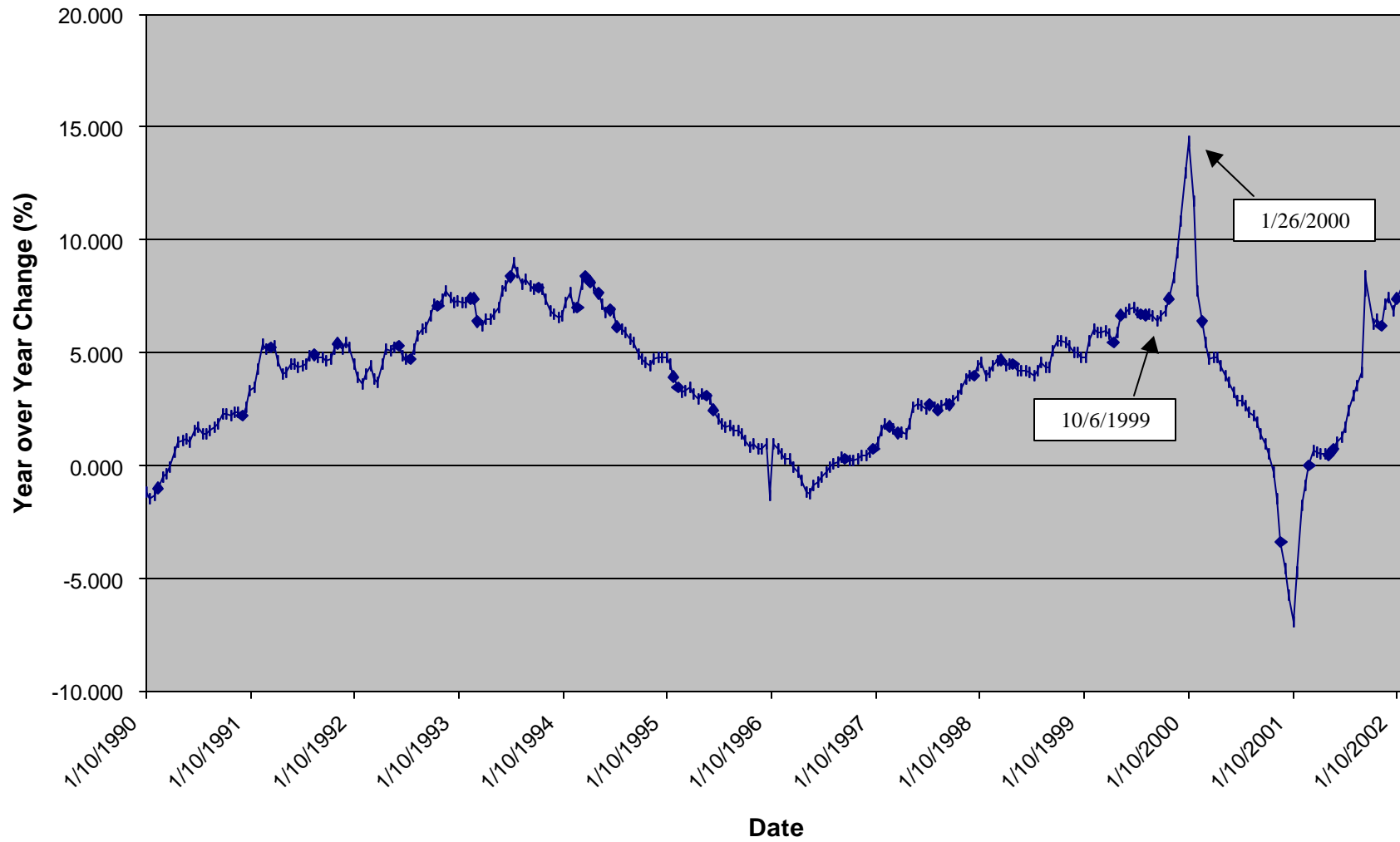


Figure A-1: Monetary Base

Capital Market – Nasdaq Crash

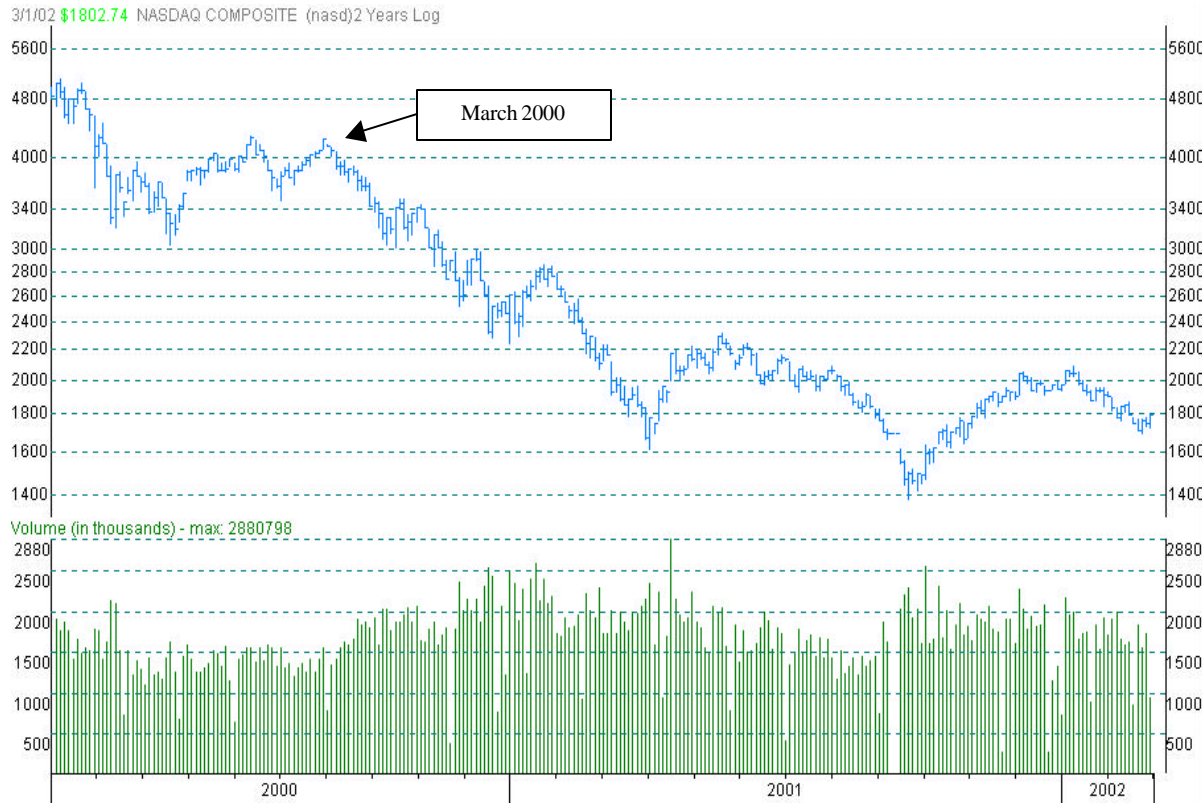


Figure A-2: Capital Market - NASDAQ Crash

Industrial Production

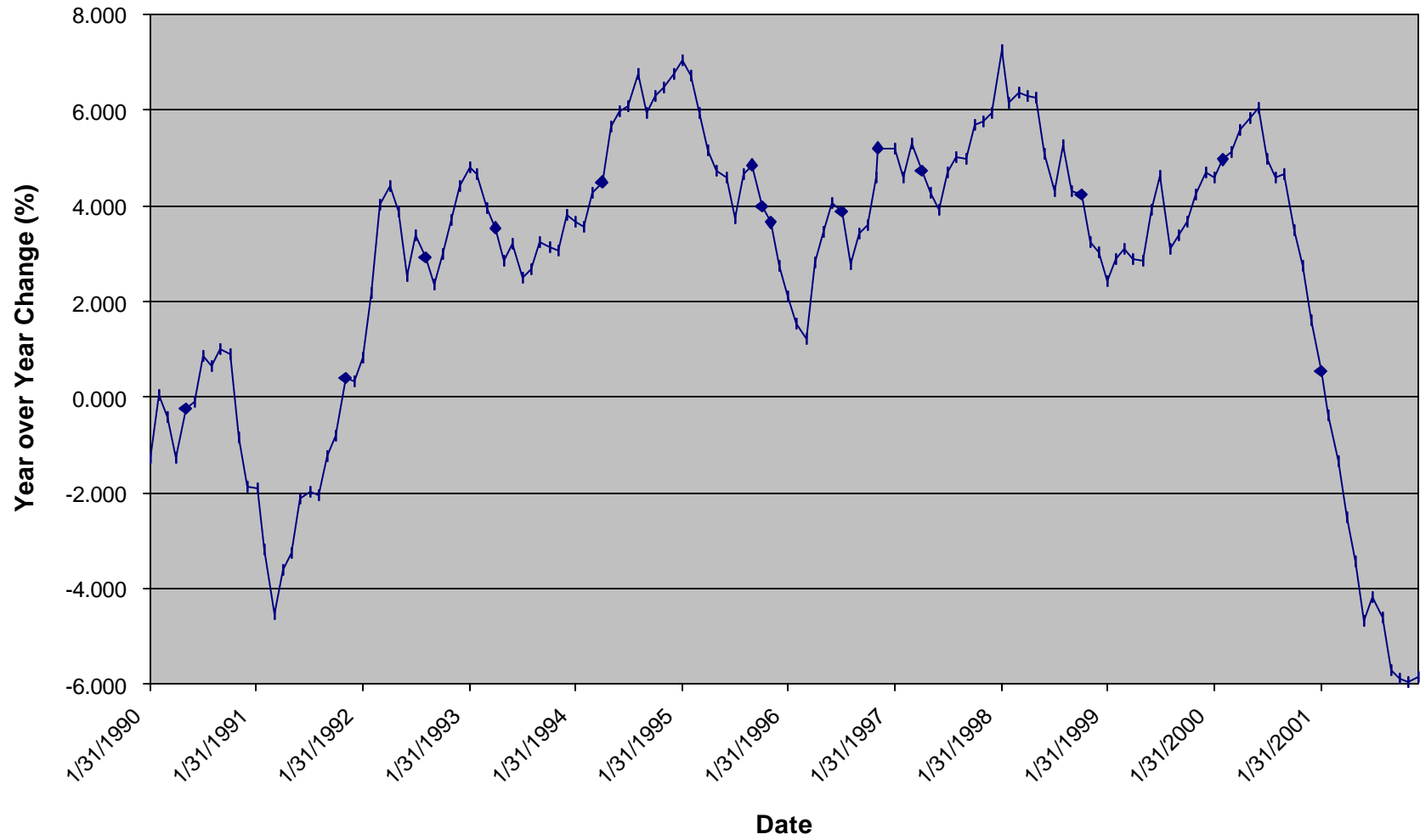


Figure A-3: Industrial Production

Institute for Supply Management

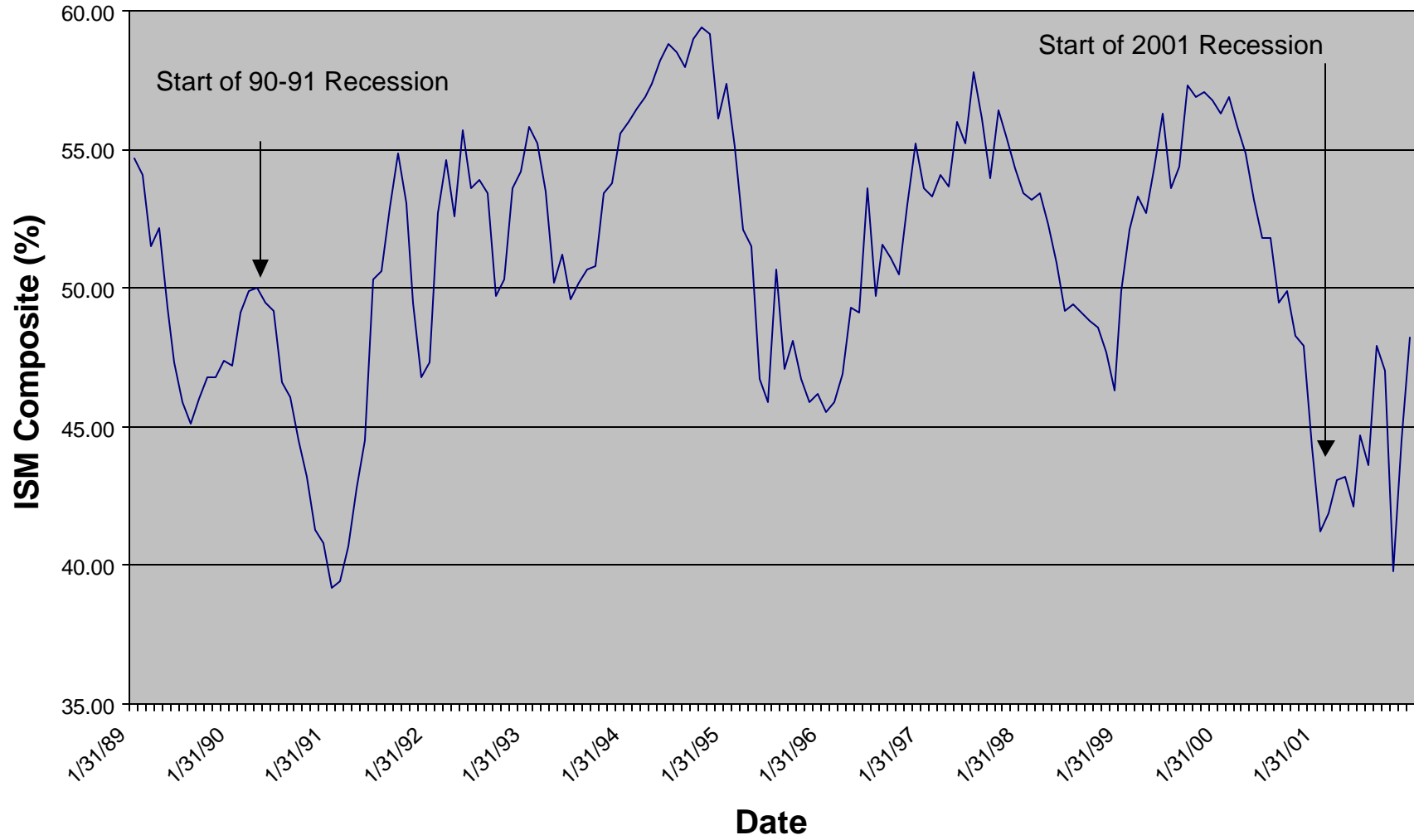


Figure A-4: Institute for Supply Management

Additions to Non-Farm Payrolls

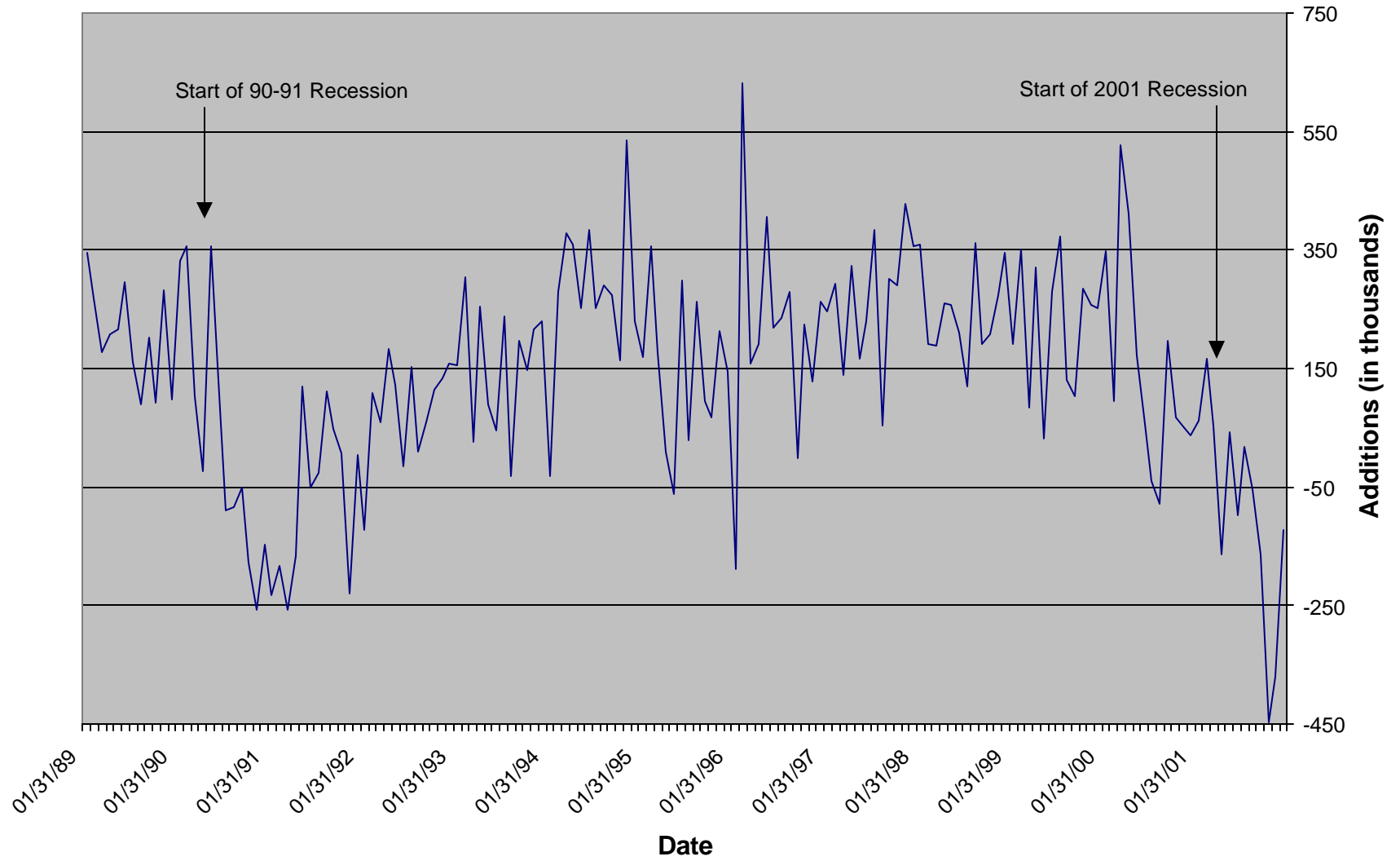


Figure A-5: Additions to Non-Farm Payrolls

Initial Unemployment Claims

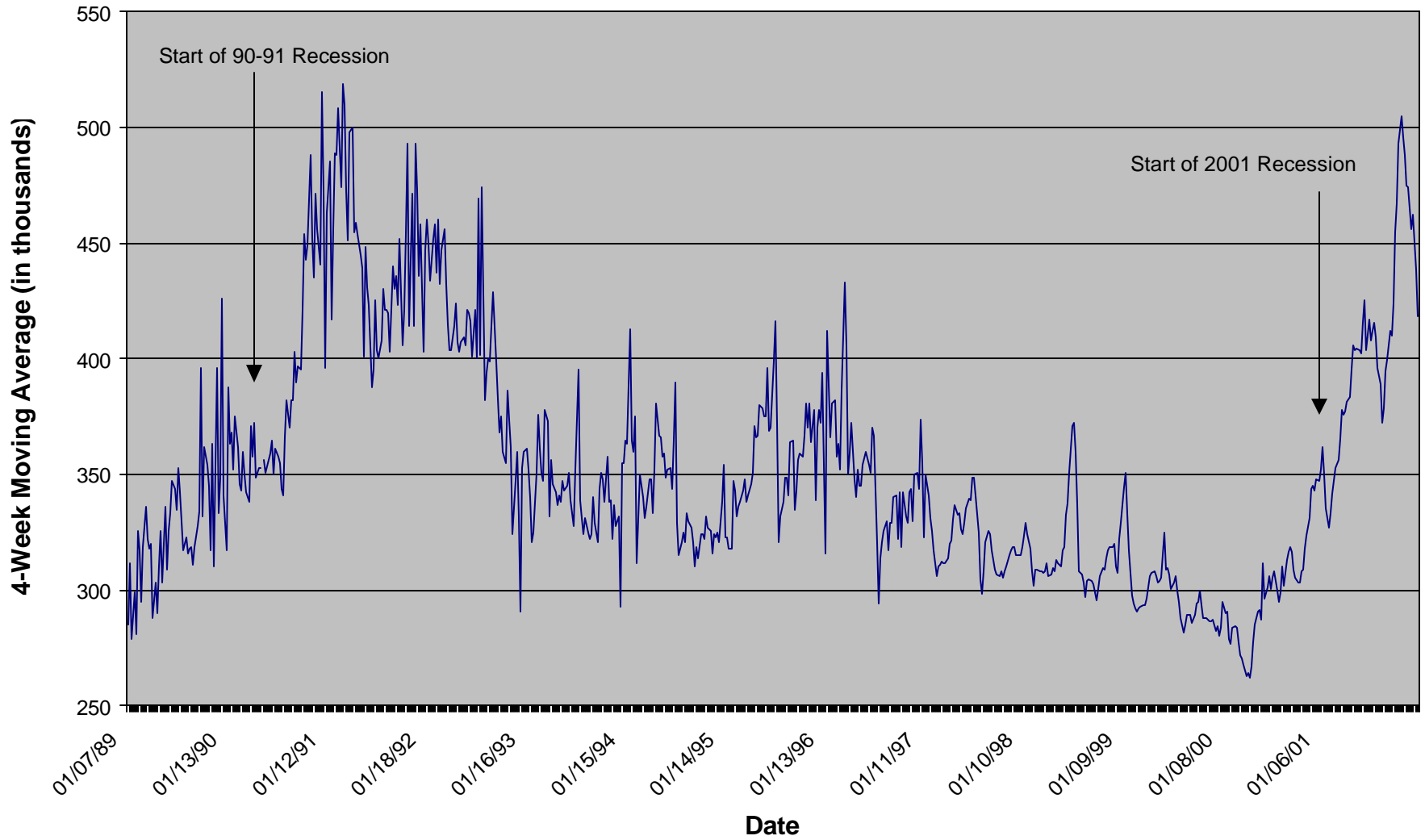


Figure A-6: Initial Unemployment Claims

B. Industry Group Performance Rankings

Discussion of Recent Industry Group Rankings

Schedules B-1 and B-2 are a ranking of the industry groups that have historically outperformed the S&P 500 index during the prior Revival 1 phases. These rankings use data from only the last four Revival 1 periods as the industry group data is not as complete prior to 1982, and QInsight believes the more current data is more relevant to use in a forecast. On Schedule B-1, the industry groups are ranked using a return-to-risk ratio (return-to-semivariance is defined in the appendix) that is recommended by QInsight. On Schedule B-2, the industry groups are ranked by annualized return only. An investor who is trying to outperform the broad stock indexes on a risk-adjusted basis should concentrate on Schedule B-1, and an investor who wants to outperform the broad stock indexes on an absolute basis and is not concerned about downside risk should use Schedule B-2. QInsight recommends that investors concentrate their portfolios in the top ranked 20 – 25 industry groups on either of these schedules for the Revival 1 phase (ignoring the composite indexes such as Oil Composite which are listed for information purposes only).

Comparing the highly ranked industry groups in prior Revival 1 phases to Schedule B-3 which ranks the industry groups using the return-to-risk ratio for the last 26 weeks (6 months) reveals the following points:

1. The following industry groups, Shoes, Retail – General Merchandise, Medical Products & Supplies, Healthcare – Diversified, Beverages – Alcoholic, and Electronic – Defense, have historically done well in Revival 1 phases and have been performing very well in the last 26 weeks' list. These industry groups should continue to do well in the next 6 months.
2. The energy industry groups, Oil – International Integrated, Oil – Domestic Integrated, Natural Gas and Oil – Exploration and Production, (on Schedule B-1) have traditionally been leading industries in Revival 1 phases. However, these industry groups have had returns of –12.51%, –8.89%, –47.08% and –12.59% for the last twenty-six weeks (6 months) respectively. QInsight does not know when the oil and natural gas stocks may begin a price recovery, but portfolio managers should be aware that these stocks have historically started back up as soon as the economy began to recover.
3. The Electric Companies (electric utilities) industry group has been a leading group in past Revival 1 phases, but it still seems to be suffering from the Enron bankruptcy and over-capacity problems. The Dow Jones Utility Average appears to have recently broken its price downtrend that started in May 2001, but the electric utilities may be slow to recover in this Revival 1 phase. The Electric Companies have had a –8.88% return in the last twenty-six weeks.

4. The following industry groups have historically been leading groups in Revival 1 phases but have had negative returns in the prior twenty-six weeks and have significantly underperformed the S&P 500 index:

<u>Industry Group</u>	<u>26-Week Return</u>
Aerospace/Defense	-20.38%
Investment Banking/Brokers	-15.83%
Computer Software & Services	-13.12%
Metals Miscellaneous	-18.04%

5. QInsight believes that the Electronics Semiconductor industry groups will be leading industry groups in this Revival 1. The semiconductor stocks have historically been leaders in the Plunge phase, but the very sharp decline in all the technology groups in 2001 will result in the semiconductor companies outperforming in the Revival 1 rather than the Plunge phase.
6. The financial industry groups, Banks – Money Center, Banks – Major Regional and Insurance – Multi Line move up the rankings in both lists (see Schedules B-1 and B-2) in Revival 1 phases.

Schedule B-1: Historical Industry Group Ranking by Return/Semi-Variance for Revival 1 Phase **

Industry Group Rankings for Revival 1 Phase
Ranked by Return/Semi-Variance

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Data: Monthly

File Name: rev1.dat

File Description: Revival 1 - S&P Industry Indexes

Industry Group	Annualized Return	Return/Semivar.	Weekly Return	Stand. Deviat'n	Semi-Deviat'n	Beta	Terminal Wealth	Skew-ness	Kur-tosis	Pr(R<0)	Pr(R<Rf)	Return/Variance	Return/Beta	JensenA Alpha	T-Test Jensen	Sharpe Utility	T-Test Alpha	T-Test Alpha	T-Test Beta	R-Squared Squared	Stand. Error	Mkt. Corr.
Oil - International Integ.	32.65	1.354	2.38	4.56	1.58	0.92	1.979	0.99	4.10	0.30	0.32	0.47	2.33	0.01	1.78	2.17	1.17	1.76	5.04	0.40	3.32	0.66
Oil Composite	30.84	1.100	2.27	4.73	1.84	0.97	1.915	0.84	4.16	0.32	0.33	0.43	2.09	0.01	1.48	2.04	0.99	1.45	5.17	0.43	3.41	0.67
Beverages - Alcoholic	23.81	0.999	1.80	3.66	1.55	0.42	1.676	0.27	2.43	0.31	0.34	0.42	3.70	0.01	1.65	1.66	1.24	1.82	2.26	0.13	3.39	0.37
Healthcare - Diversified	26.79	0.998	2.00	3.75	1.76	0.85	1.775	-0.18	2.34	0.30	0.32	0.47	2.05	0.01	1.69	1.86	0.88	1.72	6.13	0.49	2.54	0.73
Aerospace/Defense	27.85	0.872	2.07	4.90	2.09	0.85	1.811	0.71	3.64	0.34	0.36	0.37	2.16	0.01	1.18	1.83	0.96	1.20	3.88	0.32	3.97	0.57
Shoes	49.98	0.743	3.44	7.98	4.29	1.25	2.663	-0.44	3.52	0.33	0.34	0.40	2.55	0.02	1.34	2.80	1.77	1.26	3.27	0.25	6.98	0.50
Oil - Domestic Integrated	33.47	0.742	2.43	6.94	2.95	1.25	2.009	1.43	7.85	0.36	0.38	0.32	1.75	0.01	0.83	1.95	0.80	0.75	4.30	0.38	5.29	0.58
Insurance - Multi Line	24.29	0.709	1.83	4.80	2.23	0.82	1.691	0.16	1.79	0.35	0.37	0.33	1.94	0.01	0.91	1.60	0.76	0.95	3.73	0.31	4.00	0.55
Medical Products & Supplies	23.97	0.673	1.81	5.12	2.32	1.13	1.681	0.53	2.74	0.36	0.38	0.30	1.38	0.00	0.54	1.54	0.34	0.48	5.87	0.54	3.50	0.72
Utilities Composite	17.45	0.656	1.35	3.11	1.68	0.27	1.475	-0.12	3.46	0.33	0.36	0.35	4.04	0.01	1.38	1.25	0.99	1.64	1.66	0.08	3.01	0.27
S&P 500	16.73	0.628	1.30	3.23	1.67	1.00	1.453	0.01	2.10	0.34	0.37	0.33	1.05	0.00	0.00	1.19	1.30	10.00	10.00	1.00	0.10	1.00
Chemicals	25.45	0.586	1.91	6.83	2.83	1.12	1.730	1.75	7.98	0.39	0.40	0.24	1.48	0.00	0.45	1.44	0.44	0.41	3.79	0.34	5.40	0.54
Electronic – Defense	22.14	0.542	1.68	6.23	2.64	1.34	1.622	1.09	3.82	0.39	0.41	0.23	1.07	0.00	0.02	1.29	-0.07	-0.08	5.81	0.56	4.22	0.71
Investment Banking/Brokers	36.07	0.537	2.60	9.83	4.38	1.98	2.105	0.89	3.66	0.40	0.41	0.24	1.19	0.00	0.19	1.63	0.02	0.02	5.16	0.50	6.99	0.68
Financial Composite	21.61	0.516	1.64	4.99	2.71	1.33	1.605	-0.03	1.98	0.37	0.39	0.28	1.05	0.00	-0.01	1.40	-0.09	-0.18	9.66	0.79	2.52	0.87
Metals Miscellaneous	36.90	0.514	2.65	10.32	4.68	1.67	2.136	1.11	5.00	0.40	0.41	0.23	1.44	0.01	0.39	1.59	0.47	0.28	3.68	0.33	8.25	0.54
Natural Gas	22.57	0.507	1.71	5.59	2.89	0.50	1.635	0.54	4.73	0.38	0.40	0.26	2.92	0.01	0.89	1.40	1.05	0.98	1.72	0.09	5.31	0.28
Newspapers	23.39	0.494	1.77	6.10	3.08	1.41	1.662	0.42	2.64	0.39	0.40	0.25	1.08	0.00	0.05	1.40	-0.06	-0.08	6.49	0.61	3.96	0.76
Banks - Money Center	25.85	0.469	1.93	6.25	3.60	1.58	1.743	-0.15	2.55	0.38	0.39	0.27	1.07	0.00	0.03	1.54	-0.12	-0.16	7.88	0.71	3.66	0.82
Banks - Major Regional	19.80	0.457	1.52	5.70	2.78	1.30	1.547	0.55	2.59	0.40	0.41	0.22	0.98	0.00	-0.13	1.19	-0.17	-0.23	6.31	0.61	3.76	0.74
Textiles - Apparel Mfg.	21.67	0.454	1.65	6.77	3.09	1.24	1.606	0.92	3.13	0.40	0.42	0.21	1.13	0.00	0.09	1.19	0.03	0.03	4.33	0.41	5.24	0.62
Computer Software & Services	23.06	0.452	1.74	6.62	3.32	1.36	1.651	0.56	2.93	0.40	0.41	0.23	1.10	0.00	0.07	1.31	-0.02	-0.02	5.11	0.49	4.84	0.67
Electric Companies	16.57	0.444	1.29	3.81	2.34	0.10	1.449	-0.45	2.68	0.37	0.39	0.27	9.91	0.01	1.22	1.14	1.14	1.48	0.50	0.01	3.85	0.07
Foods	13.95	0.434	1.09	3.86	1.95	0.48	1.371	0.49	2.95	0.39	0.41	0.22	1.76	0.00	0.49	0.95	0.47	0.66	2.49	0.18	3.52	0.41
Retail - General Merchandise	21.29	0.404	1.62	6.64	3.41	1.60	1.594	0.35	2.28	0.40	0.42	0.21	0.86	0.00	-0.38	1.18	-0.45	-0.55	7.12	0.68	4.09	0.79
Energy Composite	13.10	0.400	1.03	4.48	1.96	0.69	1.347	1.62	6.92	0.41	0.43	0.17	1.14	0.00	0.09	0.83	0.14	0.19	3.32	0.29	3.77	0.49

Industry Group	Annualized Return	Return/Semivar.	Weekly Return	Stand. Deviat'n	Semi-Deviat'n	Beta	Terminal Wealth	Skewness	Kurtosis	Pr(R<0)	Pr(R<Rf)	Return/Variance	Return/Beta	JensenA Alpha	T-Test Jensen	Sharpe Utility	T-Test Alpha	T-Test Alpha	R-Squared Beta	R-Squared Squared	Stand. Error	Mkt. Corr.
Insurance - Property Casualty	17.89	0.387	1.38	5.28	2.93	0.70	1.488	0.08	1.99	0.40	0.41	0.21	1.61	0.00	0.42	1.10	0.46	0.48	2.69	0.20	4.79	0.43
Office Equipment & Supplies	19.82	0.375	1.52	6.23	3.39	1.42	1.548	0.28	2.24	0.40	0.42	0.20	0.89	0.00	-0.28	1.13	-0.33	-0.39	6.24	0.61	4.16	0.75
Housewares	16.23	0.368	1.26	5.79	2.76	0.93	1.438	0.82	3.01	0.41	0.43	0.18	1.09	0.00	0.04	0.93	0.06	0.06	3.49	0.31	4.86	0.52
Railroads	19.61	0.364	1.50	6.29	3.45	1.38	1.542	0.28	2.85	0.41	0.42	0.20	0.91	0.00	-0.22	1.11	-0.28	-0.32	5.69	0.56	4.42	0.71
Manufacturing - Diversified	14.46	0.353	1.13	5.46	2.51	1.03	1.386	1.23	4.62	0.42	0.44	0.16	0.86	0.00	-0.24	0.83	-0.21	-0.25	4.53	0.44	4.16	0.63
Beverages - Non Alcoholic	15.30	0.352	1.19	5.17	2.69	0.56	1.411	0.40	1.91	0.41	0.43	0.18	1.68	0.00	0.37	0.93	0.46	0.47	2.13	0.14	4.82	0.35
Retail Stores - Composite	15.52	0.336	1.21	5.52	2.86	1.36	1.417	0.51	2.32	0.41	0.43	0.17	0.71	0.00	-0.71	0.90	-0.55	-0.83	7.53	0.72	3.29	0.80
Paper & Forest Products	17.62	0.322	1.36	6.88	3.47	0.88	1.480	1.32	6.51	0.42	0.44	0.16	1.26	0.00	0.16	0.89	0.21	0.18	2.67	0.21	6.03	0.42
Insurance Brokers	13.09	0.321	1.03	4.76	2.44	0.53	1.346	0.80	3.58	0.41	0.43	0.16	1.49	0.00	0.27	0.80	0.35	0.39	2.17	0.14	4.41	0.35
Communication Equipment	20.64	0.311	1.58	7.78	4.28	1.53	1.574	0.33	2.40	0.42	0.43	0.17	0.87	0.00	-0.24	0.97	-0.41	-0.34	4.68	0.46	5.96	0.65
Restaurants	13.63	0.301	1.07	5.02	2.74	0.73	1.362	0.34	2.31	0.42	0.43	0.16	1.14	0.00	0.07	0.82	0.13	0.15	2.98	0.25	4.44	0.47
Household Products	13.81	0.297	1.08	4.78	2.82	0.48	1.367	-0.01	3.52	0.41	0.43	0.18	1.74	0.00	0.37	0.86	0.46	0.50	1.92	0.12	4.57	0.33
Healthcare - Drugs	16.46	0.296	1.28	5.13	3.49	0.65	1.445	-0.89	3.83	0.40	0.42	0.20	1.58	0.00	0.36	1.01	0.43	0.44	2.45	0.18	4.86	0.41
Broadcast Media	17.62	0.252	1.36	8.31	4.43	1.28	1.480	0.95	5.35	0.43	0.45	0.13	0.87	0.00	-0.17	0.67	-0.30	-0.21	3.34	0.30	7.01	0.48
Containers - Paper	13.84	0.248	1.09	5.89	3.38	0.99	1.368	0.32	2.64	0.43	0.44	0.14	0.85	0.00	-0.20	0.74	-0.19	-0.19	3.62	0.33	4.96	0.53
Household Furn. & Appliances	13.15	0.246	1.03	6.16	3.21	1.24	1.348	0.81	3.24	0.43	0.45	0.13	0.64	-0.01	-0.56	0.66	-0.56	-0.61	4.92	0.49	4.58	0.65
Oil-Exploration & Production	17.65	0.244	1.36	8.63	4.57	1.36	1.481	1.09	5.25	0.44	0.45	0.13	0.82	0.00	-0.22	0.62	-0.40	-0.28	3.47	0.32	7.15	0.52
Machinery - Diversified	13.75	0.242	1.08	7.23	3.44	1.17	1.365	1.94	9.24	0.44	0.45	0.12	0.71	0.00	-0.34	0.56	-0.43	-0.37	3.69	0.34	5.77	0.52
Computer Systems	14.85	0.227	1.16	6.12	4.02	1.22	1.397	-0.44	3.09	0.42	0.44	0.15	0.75	0.00	-0.39	0.79	-0.42	-0.43	4.60	0.45	4.86	0.64
Capital Goods	9.90	0.217	0.79	4.37	2.50	1.20	1.256	0.35	2.38	0.43	0.45	0.12	0.45	-0.01	-1.77	0.60	-0.76	-1.84	10.67	0.89	2.05	0.89
Electronics - Semiconductors	18.08	0.203	1.39	9.90	5.67	1.28	1.494	0.33	2.08	0.44	0.45	0.12	0.89	0.00	-0.11	0.41	-0.27	-0.15	2.61	0.21	8.97	0.41
Containers - Metal & Glass	12.66	0.201	1.00	6.00	3.74	1.08	1.334	-0.02	3.51	0.43	0.45	0.13	0.70	0.00	-0.38	0.64	-0.39	-0.39	3.94	0.38	4.99	0.57
Chemicals - Miscellaneous	10.43	0.199	0.83	5.09	2.93	1.10	1.271	0.30	2.61	0.44	0.45	0.11	0.53	-0.01	-0.80	0.57	-0.60	-0.81	5.52	0.56	3.65	0.70
Insurance - Life	9.58	0.192	0.77	4.08	2.70	0.74	1.248	-0.61	4.39	0.43	0.45	0.13	0.70	0.00	-0.38	0.60	-0.19	-0.28	3.94	0.37	3.43	0.58
Electronic Instruments	11.53	0.179	0.91	6.56	3.72	0.86	1.302	0.43	1.86	0.44	0.46	0.10	0.77	0.00	-0.21	0.48	-0.20	-0.17	2.66	0.21	5.92	0.43
Consumer Staples	6.84	0.163	0.55	3.42	1.88	0.84	1.174	0.67	2.67	0.44	0.46	0.09	0.37	-0.01	-1.40	0.44	-0.53	-1.27	7.37	0.72	2.08	0.80
Publishing	9.84	0.157	0.79	5.43	3.43	1.16	1.255	0.02	2.88	0.44	0.46	0.10	0.47	-0.01	-0.85	0.49	-0.71	-0.88	5.27	0.54	4.01	0.68
Oil Well Equipment & Services	12.58	0.151	0.99	8.74	4.94	1.57	1.332	0.99	5.03	0.45	0.47	0.09	0.48	-0.01	-0.66	0.23	-1.03	-0.74	4.14	0.41	6.90	0.58
Technology	8.63	0.149	0.69	4.98	3.00	0.96	1.221	0.22	3.72	0.44	0.46	0.09	0.47	-0.01	-0.71	0.44	-0.54	-0.68	4.40	0.44	3.96	0.61
Electrical Equipment	7.45	0.135	0.60	4.82	2.63	0.99	1.190	0.75	2.59	0.45	0.47	0.07	0.36	-0.01	-0.97	0.37	-0.68	-0.94	5.05	0.51	3.57	0.67
Retail - Dept. Stores	9.51	0.131	0.76	6.27	3.92	1.17	1.246	0.21	2.62	0.45	0.47	0.08	0.44	-0.01	-0.72	0.37	-0.75	-0.74	4.22	0.42	5.06	0.60
Heavy Duty Trucks	10.45	0.122	0.83	10.54	4.79	1.11	1.271	1.83	6.59	0.47	0.48	0.06	0.53	-0.01	-0.32	-0.28	-0.60	-0.33	2.20	0.16	9.20	0.38
Hardware & Tools	8.54	0.115	0.69	5.81	3.80	1.36	1.219	-0.04	2.06	0.45	0.47	0.08	0.32	-0.01	-1.27	0.35	-1.06	-1.35	6.29	0.64	3.93	0.75
Healthcare Composite	6.13	0.112	0.50	3.58	2.24	0.57	1.155	0.22	2.72	0.44	0.47	0.07	0.44	0.00	-0.56	0.37	-0.24	-0.38	3.33	0.30	3.11	0.51
Transportation	7.89	0.108	0.64	5.61	3.60	1.25	1.202	0.16	2.65	0.45	0.47	0.07	0.31	-0.01	-1.19	0.32	-0.98	-1.24	5.79	0.60	3.95	0.71

Industry Group	Annualized Return	Return/Semivar.	Weekly Return	Stand. Deviat'n	Semi-Deviat'n	Beta	Terminal Wealth	Skewness	Kurtosis	Pr(R<0)	Pr(R<Rf)	Return/Variance	Return/Beta	Jensen Alpha	T-Test Jensen	Sharpe Utility	T-Test Alpha	T-Test Alpha	T-Test Beta	R-Squared Squared	Stand. Error	Mkt. Corr.
Entertainment	7.89	0.108	0.63	5.93	3.60	1.36	1.201	0.49	3.60	0.46	0.47	0.07	0.29	-0.01	-1.32	0.28	-1.12	-1.40	6.22	0.64	3.99	0.74
Chemicals - Specialty	6.67	0.100	0.54	5.79	2.95	1.00	1.169	1.47	5.64	0.46	0.48	0.05	0.29	-0.01	-0.82	0.20	-0.75	-0.80	3.91	0.38	4.64	0.56
Personal Loans	9.72	0.088	0.78	8.43	6.05	1.81	1.251	-0.42	1.88	0.46	0.48	0.06	0.29	-0.01	-1.07	0.06	-1.55	-1.20	5.09	0.53	6.47	0.68
Leisure Time	6.79	0.076	0.55	5.92	3.99	1.32	1.172	-0.07	2.13	0.46	0.48	0.05	0.23	-0.01	-1.31	0.20	-1.16	-1.37	5.72	0.59	4.22	0.71
Auto Parts - After Market	5.35	0.059	0.44	5.42	3.20	0.65	1.134	0.61	2.36	0.47	0.49	0.03	0.29	0.00	-0.50	0.14	-0.40	-0.40	2.36	0.17	5.00	0.38
Telephone	5.14	0.057	0.42	4.70	3.04	0.55	1.129	0.42	4.19	0.46	0.49	0.04	0.31	0.00	-0.47	0.20	-0.30	-0.34	2.31	0.17	4.38	0.38
Aluminum	5.56	0.047	0.45	9.71	4.34	1.29	1.140	2.63	11.66	0.48	0.49	0.02	0.16	-0.01	-0.74	-0.49	-1.22	-0.77	3.00	0.26	7.86	0.44
Tobacco	2.17	-0.014	0.18	6.69	4.97	0.66	1.053	-0.45	2.58	0.49	0.50	-0.01	-0.10	-0.01	-0.58	-0.27	-0.67	-0.51	1.82	0.11	6.61	0.31
Bank - Composite	2.34	-0.017	0.19	4.59	3.21	0.92	1.058	-0.09	2.89	0.48	0.50	-0.01	-0.06	-0.01	-1.42	-0.02	-0.99	-1.36	4.61	0.47	3.62	0.63
Hotel/Motel/Inn	1.23	-0.032	0.10	6.47	4.58	1.47	1.030	-0.09	2.72	0.49	0.51	-0.02	-0.10	-0.02	-1.84	-0.32	-1.79	-1.92	5.77	0.60	4.63	0.72
Savings & Loans	0.37	-0.043	0.03	8.59	5.02	1.53	1.009	1.09	3.90	0.50	0.51	-0.03	-0.14	-0.02	-1.35	-0.71	-1.94	-1.41	4.08	0.41	6.82	0.59
Steel	0.50	-0.051	0.04	6.81	4.03	1.38	1.012	1.39	6.29	0.50	0.51	-0.03	-0.15	-0.02	-1.69	-0.42	-1.73	-1.74	5.07	0.53	4.96	0.65
Hospital Management	-2.69	-0.079	-0.23	9.82	6.03	1.61	0.936	0.98	4.12	0.51	0.52	-0.05	-0.29	-0.02	-1.35	-1.19	-2.31	-1.41	3.61	0.34	8.17	0.54
Gold Mining	-7.50	-0.111	-0.65	11.43	8.03	0.51	0.828	0.21	2.73	0.52	0.53	-0.08	-1.75	-0.01	-0.63	-1.95	-1.31	-0.56	0.80	0.02	11.67	0.15
Retail - Drug Stores	-4.67	-0.120	-0.40	7.43	5.35	1.29	0.891	0.04	3.03	0.52	0.53	-0.09	-0.50	-0.02	-1.58	-0.95	-2.05	-1.59	3.65	0.35	6.42	0.57
Retail - Specialty	-6.56	-0.137	-0.56	7.21	5.92	0.80	0.849	-1.21	5.84	0.53	0.54	-0.11	-1.01	-0.02	-1.14	-1.08	-1.60	-1.08	1.98	0.13	7.38	0.33
Building Materials	-6.37	-0.159	-0.55	6.39	5.01	1.49	0.853	-0.35	3.46	0.53	0.55	-0.12	-0.53	-0.02	-2.62	-0.95	-2.47	-2.68	5.93	0.61	4.58	0.73
Homebuilding	-8.90	-0.165	-0.77	8.91	6.20	1.59	0.798	0.48	2.33	0.53	0.55	-0.11	-0.64	-0.03	-1.85	-1.57	-2.83	-1.90	3.92	0.38	7.40	0.58
Retail - Food Chains	-4.39	-0.165	-0.37	4.79	3.75	0.63	0.897	-0.22	2.54	0.53	0.55	-0.13	-0.98	-0.01	-1.46	-0.60	-1.19	-1.32	2.57	0.20	4.49	0.42
Engineering & Construction	-7.18	-0.206	-0.62	6.53	4.20	1.20	0.835	1.14	4.94	0.54	0.55	-0.13	-0.72	-0.02	-2.09	-1.05	-2.17	-2.08	4.23	0.42	5.20	0.59
Pollution Control	-20.80	-0.220	-1.92	11.49	9.85	1.98	0.569	-1.25	6.81	0.57	0.57	-0.19	-1.10	-0.04	-1.83	-3.24	-4.49	-1.89	3.04	0.26	11.87	0.49
Truckers	-12.49	-0.243	-1.11	7.16	5.56	1.21	0.724	0.17	2.34	0.56	0.57	-0.19	-1.12	-0.03	-2.15	-1.62	-2.67	-2.13	3.54	0.33	6.24	0.52
Telecomm - Long Distance	-8.37	-0.252	-0.73	4.42	3.86	0.65	0.810	-0.89	4.50	0.57	0.59	-0.22	-1.50	-0.02	-2.04	-0.92	-1.57	-1.88	2.87	0.24	4.14	0.45
Airlines	-13.53	-0.288	-1.20	5.94	5.04	1.06	0.704	-0.14	2.34	0.58	0.60	-0.24	-1.37	-0.03	-2.55	-1.56	-2.58	-2.50	3.77	0.35	5.13	0.55
Automobiles	-17.94	-0.378	-1.63	6.75	4.98	1.09	0.620	1.32	4.98	0.60	0.61	-0.28	-1.73	-0.03	-2.71	-2.09	-3.05	-2.66	3.48	0.31	5.72	0.51

** QInsight recommends that investors use a return-to-downside risk measure such as the “Return / Semi-Variance “ in schedule B-1 to rank industry groups.

Schedule B-2: Historical Industry Group Ranking by Annualized Return for Revival 1 Phase

**Industry Group Rankings for Revival 1 Phase
Ranked by Annualized Return**

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Data: Monthly

File Name: rev1.dat

File Description: Revival 1 - S&P Industry Indexes

Industry Group	Annualized Return/Return	Return/Semivar.	Weekly Stand. Return	Stand. Deviat'n	Semi-Deviat'n	Beta	Terminal Wealth	Skew-ness	Kur-tosis	Pr(R<0)	Pr(R<Rf)	Return/Variance	Return/Beta	JensenA Alpha	T-Test Jensen	Sharpe Utility	T-Test Alpha	T-Test Alpha	R-Beta	R-Squared	Stand. Error	Mrkt. Corr.
Shoes	49.98	0.743	3.44	7.98	4.29	1.25	2.663	-0.44	3.52	0.33	0.34	0.40	2.55	0.02	1.34	2.80	1.77	1.26	3.27	0.25	6.98	0.50
Metals Miscellaneous	36.90	0.514	2.65	10.32	4.68	1.67	2.136	1.11	5.00	0.40	0.41	0.23	1.44	0.01	0.39	1.59	0.47	0.28	3.68	0.33	8.25	0.54
Investment Banking/Brokers	36.07	0.537	2.60	9.83	4.38	1.98	2.105	0.89	3.66	0.40	0.41	0.24	1.19	0.00	0.19	1.63	0.02	0.02	5.16	0.50	6.99	0.68
Oil - Domestic Integrated	33.47	0.742	2.43	6.94	2.95	1.25	2.009	1.43	7.85	0.36	0.38	0.32	1.75	0.01	0.83	1.95	0.80	0.75	4.30	0.38	5.29	0.58
Oil - International Integ.	32.65	1.354	2.38	4.56	1.58	0.92	1.979	0.99	4.10	0.30	0.32	0.47	2.33	0.01	1.78	2.17	1.17	1.76	5.04	0.40	3.32	0.66
Oil Composite	30.84	1.100	2.27	4.73	1.84	0.97	1.915	0.84	4.16	0.32	0.33	0.43	2.09	0.01	1.48	2.04	0.99	1.45	5.17	0.43	3.41	0.67
Aerospace/Defense	27.85	0.872	2.07	4.90	2.09	0.85	1.811	0.71	3.64	0.34	0.36	0.37	2.16	0.01	1.18	1.83	0.96	1.20	3.88	0.32	3.97	0.57
Healthcare - Diversified	26.79	0.998	2.00	3.75	1.76	0.85	1.775	-0.18	2.34	0.30	0.32	0.47	2.05	0.01	1.69	1.86	0.88	1.72	6.13	0.49	2.54	0.73
Banks - Money Center	25.85	0.469	1.93	6.25	3.60	1.58	1.743	-0.15	2.55	0.38	0.39	0.27	1.07	0.00	0.03	1.54	-0.12	-0.16	7.88	0.71	3.66	0.82
Chemicals	25.45	0.586	1.91	6.83	2.83	1.12	1.730	1.75	7.98	0.39	0.40	0.24	1.48	0.00	0.45	1.44	0.44	0.41	3.79	0.34	5.40	0.54
Insurance - Multi Line	24.29	0.709	1.83	4.80	2.23	0.82	1.691	0.16	1.79	0.35	0.37	0.33	1.94	0.01	0.91	1.60	0.76	0.95	3.73	0.31	4.00	0.55
Medical Products & Supplies	23.97	0.673	1.81	5.12	2.32	1.13	1.681	0.53	2.74	0.36	0.38	0.30	1.38	0.00	0.54	1.54	0.34	0.48	5.87	0.54	3.50	0.72
Beverages - Alcoholic	23.81	0.999	1.80	3.66	1.55	0.42	1.676	0.27	2.43	0.31	0.34	0.42	3.70	0.01	1.65	1.66	1.24	1.82	2.26	0.13	3.39	0.37
Newspapers	23.39	0.494	1.77	6.10	3.08	1.41	1.662	0.42	2.64	0.39	0.40	0.25	1.08	0.00	0.05	1.40	-0.06	-0.08	6.49	0.61	3.96	0.76
Computer Software & Services	23.06	0.452	1.74	6.62	3.32	1.36	1.651	0.56	2.93	0.40	0.41	0.23	1.10	0.00	0.07	1.31	-0.02	-0.02	5.11	0.49	4.84	0.67
Natural Gas	22.57	0.507	1.71	5.59	2.89	0.50	1.635	0.54	4.73	0.38	0.40	0.26	2.92	0.01	0.89	1.40	1.05	0.98	1.72	0.09	5.31	0.28
Electronic - Defense	22.14	0.542	1.68	6.23	2.64	1.34	1.622	1.09	3.82	0.39	0.41	0.23	1.07	0.00	0.02	1.29	-0.07	-0.08	5.81	0.56	4.22	0.71
Textiles - Apparel Mfg.	21.67	0.454	1.65	6.77	3.09	1.24	1.606	0.92	3.13	0.40	0.42	0.21	1.13	0.00	0.09	1.19	0.03	0.03	4.33	0.41	5.24	0.62
Financial Composite	21.61	0.516	1.64	4.99	2.71	1.33	1.605	-0.03	1.98	0.37	0.39	0.28	1.05	0.00	-0.01	1.40	-0.09	-0.18	9.66	0.79	2.52	0.87
Retail - General Merchandise	21.29	0.404	1.62	6.64	3.41	1.60	1.594	0.35	2.28	0.40	0.42	0.21	0.86	0.00	-0.38	1.18	-0.45	-0.55	7.12	0.68	4.09	0.79
Communication Equipment	20.64	0.311	1.58	7.78	4.28	1.53	1.574	0.33	2.40	0.42	0.43	0.17	0.87	0.00	-0.24	0.97	-0.41	-0.34	4.68	0.46	5.96	0.65
Office Equipment & Supplies	19.82	0.375	1.52	6.23	3.39	1.42	1.548	0.28	2.24	0.40	0.42	0.20	0.89	0.00	-0.28	1.13	-0.33	-0.39	6.24	0.61	4.16	0.75
Banks - Major Regional	19.80	0.457	1.52	5.70	2.78	1.30	1.547	0.55	2.59	0.40	0.41	0.22	0.98	0.00	-0.13	1.19	-0.17	-0.23	6.31	0.61	3.76	0.74
Railroads	19.61	0.364	1.50	6.29	3.45	1.38	1.542	0.28	2.85	0.41	0.42	0.20	0.91	0.00	-0.22	1.11	-0.28	-0.32	5.69	0.56	4.42	0.71
Electronics - Semiconductors	18.08	0.203	1.39	9.90	5.67	1.28	1.494	0.33	2.08	0.44	0.45	0.12	0.89	0.00	-0.11	0.41	-0.27	-0.15	2.61	0.21	8.97	0.41
Insurance - Property Casualty	17.89	0.387	1.38	5.28	2.93	0.70	1.488	0.08	1.99	0.40	0.41	0.21	1.61	0.00	0.42	1.10	0.46	0.48	2.69	0.20	4.79	0.43

Industry Group	Annualized Return/	Weekly Stand.	Semi-	Terminal	Skew-	Kur-	Return/	Return/	JensenA	T-Test	Sharpe	T-Test	T-Test R-	Stand. Mrkt.								
	Return	Return	Deviat'n	Wealth	ness	tosis	Variance	Beta	Alpha	Jensen	Utility	Alpha	Alpha	Beta	Squared	Error	Corr.					
	Semivar.	Deviat'n	Deviat'n	Beta	ness	tosis	Pr(R<0)	Pr(R<Rf)	Alpha	Utility	Alpha	Alpha	Beta	Squared	Error	Corr.						
Oil-Exploration & Production	17.65	0.244	1.36	8.63	4.57	1.36	1.481	1.09	5.25	0.44	0.45	0.13	0.82	0.00	-0.22	0.62	-0.40	-0.28	3.47	0.32	7.15	0.52
Paper & Forest Products	17.62	0.322	1.36	6.88	3.47	0.88	1.480	1.32	6.51	0.42	0.44	0.16	1.26	0.00	0.16	0.89	0.21	0.18	2.67	0.21	6.03	0.42
Broadcast Media	17.62	0.252	1.36	8.31	4.43	1.28	1.480	0.95	5.35	0.43	0.45	0.13	0.87	0.00	-0.17	0.67	-0.30	-0.21	3.34	0.30	7.01	0.48
Utilities Composite	17.45	0.656	1.35	3.11	1.68	0.27	1.475	-0.12	3.46	0.33	0.36	0.35	4.04	0.01	1.38	1.25	0.99	1.64	1.66	0.08	3.01	0.27
S&P 500	16.73	0.628	1.30	3.23	1.67	1.00	1.453	0.01	2.10	0.34	0.37	0.33	1.05	0.00	0.00	1.19	1.30	10.00	10.00	1.00	0.10	1.00
Electric Companies	16.57	0.444	1.29	3.81	2.34	0.10	1.449	-0.45	2.68	0.37	0.39	0.27	9.91	0.01	1.22	1.14	1.14	1.48	0.50	0.01	3.85	0.07
Healthcare - Drugs	16.46	0.296	1.28	5.13	3.49	0.65	1.445	-0.89	3.83	0.40	0.42	0.20	1.58	0.00	0.36	1.01	0.43	0.44	2.45	0.18	4.86	0.41
Housewares	16.23	0.368	1.26	5.79	2.76	0.93	1.438	0.82	3.01	0.41	0.43	0.18	1.09	0.00	0.04	0.93	0.06	0.06	3.49	0.31	4.86	0.52
Retail Stores - Composite	15.52	0.336	1.21	5.52	2.86	1.36	1.417	0.51	2.32	0.41	0.43	0.17	0.71	0.00	-0.71	0.90	-0.55	-0.83	7.53	0.72	3.29	0.80
Beverages - Non Alcoholic	15.30	0.352	1.19	5.17	2.69	0.56	1.411	0.40	1.91	0.41	0.43	0.18	1.68	0.00	0.37	0.93	0.46	0.47	2.13	0.14	4.82	0.35
Computer Systems	14.85	0.227	1.16	6.12	4.02	1.22	1.397	-0.44	3.09	0.42	0.44	0.15	0.75	0.00	-0.39	0.79	-0.42	-0.43	4.60	0.45	4.86	0.64
Manufacturing - Diversified	14.46	0.353	1.13	5.46	2.51	1.03	1.386	1.23	4.62	0.42	0.44	0.16	0.86	0.00	-0.24	0.83	-0.21	-0.25	4.53	0.44	4.16	0.63
Foods	13.95	0.434	1.09	3.86	1.95	0.48	1.371	0.49	2.95	0.39	0.41	0.22	1.76	0.00	0.49	0.95	0.47	0.66	2.49	0.18	3.52	0.41
Containers - Paper	13.84	0.248	1.09	5.89	3.38	0.99	1.368	0.32	2.64	0.43	0.44	0.14	0.85	0.00	-0.20	0.74	-0.19	-0.19	3.62	0.33	4.96	0.53
Household Products	13.81	0.297	1.08	4.78	2.82	0.48	1.367	-0.01	3.52	0.41	0.43	0.18	1.74	0.00	0.37	0.86	0.46	0.50	1.92	0.12	4.57	0.33
Machinery - Diversified	13.75	0.242	1.08	7.23	3.44	1.17	1.365	1.94	9.24	0.44	0.45	0.12	0.71	0.00	-0.34	0.56	-0.43	-0.37	3.69	0.34	5.77	0.52
Restaurants	13.63	0.301	1.07	5.02	2.74	0.73	1.362	0.34	2.31	0.42	0.43	0.16	1.14	0.00	0.07	0.82	0.13	0.15	2.98	0.25	4.44	0.47
Household Furn. & Appliances	13.15	0.246	1.03	6.16	3.21	1.24	1.348	0.81	3.24	0.43	0.45	0.13	0.64	-0.01	-0.56	0.66	-0.56	-0.61	4.92	0.49	4.58	0.65
Energy Composite	13.10	0.400	1.03	4.48	1.96	0.69	1.347	1.62	6.92	0.41	0.43	0.17	1.14	0.00	0.09	0.83	0.14	0.19	3.32	0.29	3.77	0.49
Insurance Brokers	13.09	0.321	1.03	4.76	2.44	0.53	1.346	0.80	3.58	0.41	0.43	0.16	1.49	0.00	0.27	0.80	0.35	0.39	2.17	0.14	4.41	0.35
Containers - Metal & Glass	12.66	0.201	1.00	6.00	3.74	1.08	1.334	-0.02	3.51	0.43	0.45	0.13	0.70	0.00	-0.38	0.64	-0.39	-0.39	3.94	0.38	4.99	0.57
Oil Well Equipment & Services	12.58	0.151	0.99	8.74	4.94	1.57	1.332	0.99	5.03	0.45	0.47	0.09	0.48	-0.01	-0.66	0.23	-1.03	-0.74	4.14	0.41	6.90	0.58
Electronic Instruments	11.53	0.179	0.91	6.56	3.72	0.86	1.302	0.43	1.86	0.44	0.46	0.10	0.77	0.00	-0.21	0.48	-0.20	-0.17	2.66	0.21	5.92	0.43
Heavy Duty Trucks	10.45	0.122	0.83	10.54	4.79	1.11	1.271	1.83	6.59	0.47	0.48	0.06	0.53	-0.01	-0.32	-0.28	-0.60	-0.33	2.20	0.16	9.20	0.38
Chemicals - Miscellaneous	10.43	0.199	0.83	5.09	2.93	1.10	1.271	0.30	2.61	0.44	0.45	0.11	0.53	-0.01	-0.80	0.57	-0.60	-0.81	5.52	0.56	3.65	0.70
Capital Goods	9.90	0.217	0.79	4.37	2.50	1.20	1.256	0.35	2.38	0.43	0.45	0.12	0.45	-0.01	-1.77	0.60	-0.76	-1.84	10.67	0.89	2.05	0.89
Publishing	9.84	0.157	0.79	5.43	3.43	1.16	1.255	0.02	2.88	0.44	0.46	0.10	0.47	-0.01	-0.85	0.49	-0.71	-0.88	5.27	0.54	4.01	0.68
Personal Loans	9.72	0.088	0.78	8.43	6.05	1.81	1.251	-0.42	1.88	0.46	0.48	0.06	0.29	-0.01	-1.07	0.06	-1.55	-1.20	5.09	0.53	6.47	0.68
Insurance - Life	9.58	0.192	0.77	4.08	2.70	0.74	1.248	-0.61	4.39	0.43	0.45	0.13	0.70	0.00	-0.38	0.60	-0.19	-0.28	3.94	0.37	3.43	0.58
Retail - Dept. Stores	9.51	0.131	0.76	6.27	3.92	1.17	1.246	0.21	2.62	0.45	0.47	0.08	0.44	-0.01	-0.72	0.37	-0.75	-0.74	4.22	0.42	5.06	0.60
Technology	8.63	0.149	0.69	4.98	3.00	0.96	1.221	0.22	3.72	0.44	0.46	0.09	0.47	-0.01	-0.71	0.44	-0.54	-0.68	4.40	0.44	3.96	0.61
Hardware & Tools	8.54	0.115	0.69	5.81	3.80	1.36	1.219	-0.04	2.06	0.45	0.47	0.08	0.32	-0.01	-1.27	0.35	-1.06	-1.35	6.29	0.64	3.93	0.75
Transportation	7.89	0.108	0.64	5.61	3.60	1.25	1.202	0.16	2.65	0.45	0.47	0.07	0.31	-0.01	-1.19	0.32	-0.98	-1.24	5.79	0.60	3.95	0.71
Entertainment	7.89	0.108	0.63	5.93	3.60	1.36	1.201	0.49	3.60	0.46	0.47	0.07	0.29	-0.01	-1.32	0.28	-1.12	-1.40	6.22	0.64	3.99	0.74
Electrical Equipment	7.45	0.135	0.60	4.82	2.63	0.99	1.190	0.75	2.59	0.45	0.47	0.07	0.36	-0.01	-0.97	0.37	-0.68	-0.94	5.05	0.51	3.57	0.67

Industry Group	Annualized Return/	Weekly Stand.	Semi-	Terminal	Skew-	Kur-	Return/	Return/	JensenA	T-Test	Sharpe	T-Test	T-Test R-	Stand. Mrkt.								
	Return	Return	Deviat'n	Wealth	ness	tosis	Variance	Beta	Alpha	Jensen	Utility	Alpha	Alpha	Beta	Squared	Error	Corr.					
Consumer Staples	6.84	0.163	0.55	3.42	1.88	0.84	1.174	0.67	2.67	0.44	0.46	0.09	0.37	-0.01	-1.40	0.44	-0.53	-1.27	7.37	0.72	2.08	0.80
Leisure Time	6.79	0.076	0.55	5.92	3.99	1.32	1.172	-0.07	2.13	0.46	0.48	0.05	0.23	-0.01	-1.31	0.20	-1.16	-1.37	5.72	0.59	4.22	0.71
Chemicals - Specialty	6.67	0.100	0.54	5.79	2.95	1.00	1.169	1.47	5.64	0.46	0.48	0.05	0.29	-0.01	-0.82	0.20	-0.75	-0.80	3.91	0.38	4.64	0.56
Healthcare Composite	6.13	0.112	0.50	3.58	2.24	0.57	1.155	0.22	2.72	0.44	0.47	0.07	0.44	0.00	-0.56	0.37	-0.24	-0.38	3.33	0.30	3.11	0.51
Aluminum	5.56	0.047	0.45	9.71	4.34	1.29	1.140	2.63	11.66	0.48	0.49	0.02	0.16	-0.01	-0.74	-0.49	-1.22	-0.77	3.00	0.26	7.86	0.44
Auto Parts - After Market	5.35	0.059	0.44	5.42	3.20	0.65	1.134	0.61	2.36	0.47	0.49	0.03	0.29	0.00	-0.50	0.14	-0.40	-0.40	2.36	0.17	5.00	0.38
Telephone	5.14	0.057	0.42	4.70	3.04	0.55	1.129	0.42	4.19	0.46	0.49	0.04	0.31	0.00	-0.47	0.20	-0.30	-0.34	2.31	0.17	4.38	0.38
Bank - Composite	2.34	-0.017	0.19	4.59	3.21	0.92	1.058	-0.09	2.89	0.48	0.50	-0.01	-0.06	-0.01	-1.42	-0.02	-0.99	-1.36	4.61	0.47	3.62	0.63
Tobacco	2.17	-0.014	0.18	6.69	4.97	0.66	1.053	-0.45	2.58	0.49	0.50	-0.01	-0.10	-0.01	-0.58	-0.27	-0.67	-0.51	1.82	0.11	6.61	0.31
Hotel/Motel/Inn	1.23	-0.032	0.10	6.47	4.58	1.47	1.030	-0.09	2.72	0.49	0.51	-0.02	-0.10	-0.02	-1.84	-0.32	-1.79	-1.92	5.77	0.60	4.63	0.72
Steel	0.50	-0.051	0.04	6.81	4.03	1.38	1.012	1.39	6.29	0.50	0.51	-0.03	-0.15	-0.02	-1.69	-0.42	-1.73	-1.74	5.07	0.53	4.96	0.65
Savings & Loans	0.37	-0.043	0.03	8.59	5.02	1.53	1.009	1.09	3.90	0.50	0.51	-0.03	-0.14	-0.02	-1.35	-0.71	-1.94	-1.41	4.08	0.41	6.82	0.59
Hospital Management	-2.69	-0.079	-0.23	9.82	6.03	1.61	0.936	0.98	4.12	0.51	0.52	-0.05	-0.29	-0.02	-1.35	-1.19	-2.31	-1.41	3.61	0.34	8.17	0.54
Retail - Food Chains	-4.39	-0.165	-0.37	4.79	3.75	0.63	0.897	-0.22	2.54	0.53	0.55	-0.13	-0.98	-0.01	-1.46	-0.60	-1.19	-1.32	2.57	0.20	4.49	0.42
Retail - Drug Stores	-4.67	-0.120	-0.40	7.43	5.35	1.29	0.891	0.04	3.03	0.52	0.53	-0.09	-0.50	-0.02	-1.58	-0.95	-2.05	-1.59	3.65	0.35	6.42	0.57
Building Materials	-6.37	-0.159	-0.55	6.39	5.01	1.49	0.853	-0.35	3.46	0.53	0.55	-0.12	-0.53	-0.02	-2.62	-0.95	-2.47	-2.68	5.93	0.61	4.58	0.73
Retail - Specialty	-6.56	-0.137	-0.56	7.21	5.92	0.80	0.849	-1.21	5.84	0.53	0.54	-0.11	-1.01	-0.02	-1.14	-1.08	-1.60	-1.08	1.98	0.13	7.38	0.33
Engineering & Construction	-7.18	-0.206	-0.62	6.53	4.20	1.20	0.835	1.14	4.94	0.54	0.55	-0.13	-0.72	-0.02	-2.09	-1.05	-2.17	-2.08	4.23	0.42	5.20	0.59
Gold Mining	-7.50	-0.111	-0.65	11.43	8.03	0.51	0.828	0.21	2.73	0.52	0.53	-0.08	-1.75	-0.01	-0.63	-1.95	-1.31	-0.56	0.80	0.02	11.67	0.15
Telecomm - Long Distance	-8.37	-0.252	-0.73	4.42	3.86	0.65	0.810	-0.89	4.50	0.57	0.59	-0.22	-1.50	-0.02	-2.04	-0.92	-1.57	-1.88	2.87	0.24	4.14	0.45
Homebuilding	-8.90	-0.165	-0.77	8.91	6.20	1.59	0.798	0.48	2.33	0.53	0.55	-0.11	-0.64	-0.03	-1.85	-1.57	-2.83	-1.90	3.92	0.38	7.40	0.58
Truckers	-12.49	-0.243	-1.11	7.16	5.56	1.21	0.724	0.17	2.34	0.56	0.57	-0.19	-1.12	-0.03	-2.15	-1.62	-2.67	-2.13	3.54	0.33	6.24	0.52
Airlines	-13.53	-0.288	-1.20	5.94	5.04	1.06	0.704	-0.14	2.34	0.58	0.60	-0.24	-1.37	-0.03	-2.55	-1.56	-2.58	-2.50	3.77	0.35	5.13	0.55
Automobiles	-17.94	-0.378	-1.63	6.75	4.98	1.09	0.620	1.32	4.98	0.60	0.61	-0.28	-1.73	-0.03	-2.71	-2.09	-3.05	-2.66	3.48	0.31	5.72	0.51
Pollution Control	-20.80	-0.220	-1.92	11.49	9.85	1.98	0.569	-1.25	6.81	0.57	0.57	-0.19	-1.10	-0.04	-1.83	-3.24	-4.49	-1.89	3.04	0.26	11.87	0.49

Schedule B-3: Actual Industry Group Ranking by Return/Semi-Variance for Prior 26 Weeks

Industry Group Rankings for Prior 26 Weeks
Ranked By Return/Semivariance

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Data: Weekly

File Name: 01040226.dat

File Description: Weekly Data From Jan 3, 1996 To Dec 3, 2001

Industry Group	Annualized Return	Return/Semivar.	Weekly Return	Stand. Deviat'n	Semi-Deviat'n	Beta	Terminal Wealth	Skew-ness	Kur-tosis	Pr(R<0)	Pr(R<Rf)	Return/Variance	Return/Beta	JensenA Alpha	T-Test Jensen	Sharpe Utility	T-Test Alpha	T-Test Beta	R-Squared	Stand. Error	Mkt. Corr.	
Containers - Metal & Glass	101.96	0.78	1.36	3.90	1.67	0.34	1.421	0.50	2.24	0.36	0.37	0.33	3.86	0.01	2.15	1.21	1.43	2.21	3.05	0.25	3.30	0.55
Shoes	67.65	0.38	1.00	3.90	2.46	0.49	1.295	-0.76	5.62	0.40	0.40	0.24	1.94	0.01	2.04	0.85	1.11	2.09	5.36	0.51	2.71	0.71
Transportation-Miscellaneous	72.09	0.26	1.05	5.87	3.82	0.86	1.312	-0.79	4.54	0.43	0.43	0.17	1.16	0.01	2.01	0.71	1.25	2.02	8.13	0.71	3.16	0.84
Homebuilding	83.55	0.23	1.17	7.84	4.95	0.92	1.355	-0.16	4.04	0.44	0.44	0.14	1.22	0.01	1.22	0.56	1.39	1.22	4.73	0.47	5.80	0.67
Retail - General Merchandise	25.49	0.22	0.44	3.46	1.76	0.27	1.120	0.95	3.37	0.45	0.46	0.11	1.43	0.00	0.77	0.32	0.50	0.84	2.60	0.22	3.06	0.49
Retail - Specialty	55.44	0.21	0.85	5.87	3.75	0.72	1.247	-0.22	4.20	0.44	0.45	0.14	1.11	0.01	1.23	0.51	1.02	1.25	5.13	0.51	4.16	0.71
Cosmetics	28.75	0.21	0.49	3.09	2.09	0.31	1.135	-0.58	3.32	0.44	0.44	0.14	1.39	0.01	1.04	0.39	0.56	1.12	3.64	0.35	2.55	0.57
Medical Products & Supplies	26.11	0.19	0.45	3.18	2.04	0.18	1.123	-0.11	2.11	0.44	0.45	0.12	2.13	0.00	0.74	0.35	0.49	0.82	1.80	0.12	3.04	0.33
Household Products	27.49	0.18	0.47	3.35	2.26	0.42	1.129	-0.62	3.59	0.44	0.45	0.12	0.99	0.01	1.17	0.36	0.57	1.24	5.32	0.53	2.34	0.73
Retail - Computer & Electronics	64.02	0.17	0.96	7.27	5.15	1.14	1.281	-1.06	6.98	0.45	0.45	0.12	0.79	0.01	1.79	0.43	1.23	1.77	9.64	0.78	3.53	0.87
Heavy Duty Trucks	49.44	0.16	0.78	7.22	4.44	1.03	1.222	-0.04	4.42	0.46	0.46	0.10	0.70	0.01	1.31	0.25	1.02	1.31	7.72	0.71	3.97	0.83
Foods	18.01	0.14	0.32	2.74	1.85	0.31	1.086	-0.47	4.00	0.45	0.46	0.10	0.85	0.00	0.87	0.24	0.39	0.96	4.42	0.44	2.08	0.65
Containers - Paper	30.42	0.13	0.51	4.27	3.47	0.66	1.142	-2.51	11.36	0.45	0.46	0.11	0.69	0.01	1.47	0.33	0.67	1.51	8.68	0.75	2.26	0.85
Agricultural Products	25.31	0.12	0.43	5.00	3.14	0.54	1.119	0.12	4.89	0.47	0.47	0.08	0.70	0.01	0.70	0.18	0.56	0.74	4.10	0.41	3.91	0.61
Services - Data Processing	21.27	0.10	0.37	4.63	3.22	0.62	1.101	-0.64	5.15	0.47	0.47	0.07	0.50	0.01	0.87	0.16	0.52	0.91	6.36	0.62	2.93	0.78
Housewares	12.33	0.09	0.22	2.65	1.94	0.32	1.060	-0.95	5.56	0.47	0.47	0.06	0.52	0.00	0.71	0.15	0.30	0.81	5.06	0.51	1.90	0.70
Retail - Dept. Stores	21.36	0.08	0.37	5.45	3.74	0.66	1.102	-0.49	5.27	0.47	0.48	0.06	0.48	0.01	0.66	0.08	0.53	0.68	4.96	0.50	3.98	0.69
Beverages - Alcoholic	10.53	0.08	0.19	2.19	1.64	0.26	1.051	-1.07	5.14	0.47	0.48	0.06	0.53	0.00	0.67	0.14	0.26	0.80	4.75	0.48	1.62	0.67
Electronics - Components	15.79	0.07	0.28	4.10	3.03	0.48	1.076	-1.02	5.08	0.47	0.48	0.06	0.47	0.00	0.60	0.11	0.40	0.65	4.56	0.46	3.13	0.65
Healthcare - Diversified	10.24	0.07	0.19	2.57	1.83	0.22	1.050	-0.46	2.01	0.47	0.48	0.05	0.60	0.00	0.44	0.12	0.24	0.54	2.87	0.25	2.27	0.50
Electronic - Defense	18.48	0.06	0.33	6.61	4.18	-0.58	1.089	0.58	4.07	0.48	0.48	0.04	-0.47	0.00	0.09	-0.11	0.19	0.17	-3.05	0.28	5.65	-0.53
Beverages - Non Alcoholic	8.77	0.06	0.16	2.63	1.71	0.23	1.043	0.20	1.99	0.48	0.48	0.04	0.47	0.00	0.38	0.09	0.22	0.48	2.94	0.26	2.29	0.51
Leisure Time	15.09	0.06	0.27	4.99	3.76	0.68	1.073	-1.35	7.99	0.48	0.48	0.04	0.32	0.00	0.64	0.02	0.44	0.67	6.10	0.61	3.32	0.75
Retail - Apparel	17.27	0.05	0.31	6.85	4.63	0.88	1.083	-0.49	5.22	0.48	0.49	0.04	0.29	0.01	0.54	-0.16	0.52	0.55	5.43	0.55	4.81	0.71
Services - Computer Systems	11.95	0.05	0.22	4.25	3.08	0.57	1.058	-0.90	5.63	0.48	0.48	0.04	0.28	0.00	0.62	0.04	0.36	0.66	6.24	0.62	2.74	0.77
Hardware & Tools	15.84	0.05	0.28	5.84	4.50	0.78	1.076	-1.48	7.70	0.48	0.48	0.04	0.29	0.00	0.57	-0.06	0.47	0.59	5.70	0.57	4.10	0.72

Industry Group	Annualized Return	Return/Semivar.	Weekly Return	Stand. Deviat'n	Semi-Deviat'n	Beta	Terminal Wealth	Skew-ness	Kur-tosis	Pr(R<0)	Pr(R<Rf)	Return/Variance	Return/Beta	JensenA Alpha	T-Test Jensen	Sharpe Utility	T-Test Alpha	T-Test Beta	R-Squared	Stand. Error	Mkt. Corr.	
Hospital Management	7.89	0.05	0.15	2.85	1.97	0.08	1.039	-0.28	2.60	0.48	0.49	0.03	1.10	0.00	0.20	0.07	0.17	0.29	0.85	0.03	2.87	0.17
Pollution Control	14.39	0.04	0.26	5.83	4.70	0.68	1.070	-1.58	6.06	0.48	0.49	0.03	0.30	0.00	0.44	-0.08	0.42	0.46	4.28	0.43	4.72	0.64
Household Furn. & Appliances	11.65	0.03	0.21	5.82	4.58	0.91	1.057	-1.95	10.14	0.49	0.49	0.03	0.17	0.00	0.68	-0.13	0.43	0.69	8.46	0.75	3.19	0.84
Retail Stores - Composite	7.02	0.03	0.13	4.34	2.86	0.53	1.035	-0.06	3.99	0.49	0.49	0.02	0.14	0.00	0.38	-0.06	0.26	0.43	5.07	0.52	3.09	0.71
Consumer - Jewelry & Gifts	10.32	0.02	0.19	6.75	5.54	0.07	1.050	-2.03	8.59	0.49	0.49	0.02	1.77	0.00	0.11	-0.27	0.21	0.14	0.30	0.00	7.47	0.08
Consumer Cyclical	6.14	0.02	0.11	4.42	3.18	0.63	1.030	-0.93	6.46	0.49	0.49	0.01	0.09	0.00	0.49	-0.08	0.27	0.53	7.32	0.69	2.58	0.81
Oil & Gas - Refine & Market.	5.35	0.01	0.10	7.03	4.30	0.41	1.026	1.00	6.80	0.49	0.50	0.01	0.11	0.00	0.13	-0.39	0.20	0.16	1.86	0.13	6.56	0.34
Insurance Brokers	3.44	0.00	0.07	3.66	2.08	0.07	1.017	1.50	6.90	0.49	0.50	0.00	0.11	0.00	0.04	-0.07	0.08	0.12	0.61	0.02	3.62	0.16
Banks - Money Center	3.48	0.00	0.07	4.75	3.45	0.41	1.017	-0.36	3.48	0.49	0.50	0.00	0.02	0.00	0.16	-0.16	0.17	0.20	2.93	0.26	4.21	0.50
Specialized Services	3.26	0.00	0.06	4.99	3.95	0.67	1.016	-1.68	9.01	0.50	0.50	0.00	0.01	0.00	0.30	-0.19	0.22	0.33	5.76	0.58	3.48	0.73
Truckers	3.04	0.00	0.06	5.81	4.61	0.79	1.015	-1.46	6.28	0.50	0.50	0.00	0.00	0.00	0.30	-0.28	0.25	0.32	5.93	0.59	3.98	0.74
Building Materials	2.84	0.00	0.05	6.23	4.80	0.87	1.014	-1.42	8.09	0.50	0.50	0.00	0.00	0.00	0.31	-0.33	0.27	0.32	6.22	0.62	4.17	0.75
Gold Mining	2.83	0.00	0.05	5.04	3.40	-0.42	1.014	0.22	2.77	0.50	0.50	0.00	0.01	0.00	-0.15	-0.20	-0.05	-0.06	-2.83	0.25	4.45	-0.51
Newspapers	2.1	0.00	0.04	4.32	3.56	0.60	1.010	-1.97	8.59	0.50	0.50	0.00	-0.03	0.00	0.29	-0.15	0.18	0.33	6.23	0.62	2.86	0.76
Gaming/Lottery/Parimutual	-3.11	-0.02	-0.06	6.71	5.18	0.67	0.984	-0.88	4.22	0.50	0.51	-0.02	-0.18	0.00	0.07	-0.51	0.10	0.09	3.39	0.32	5.86	0.54
Bank - Composite	-11.08	-0.04	-0.23	12.15	6.89	0.17	0.943	1.84	12.06	0.51	0.51	-0.02	-1.64	0.00	-0.10	-1.70	-0.18	-0.08	0.44	0.01	11.81	0.07
Steel	-11.83	-0.05	-0.24	6.97	5.71	1.10	0.939	-1.82	8.70	0.51	0.52	-0.04	-0.27	0.00	0.04	-0.73	0.02	0.03	8.35	0.75	3.92	0.84
Electronics - Semiconductors	-12.81	-0.05	-0.26	8.11	6.12	1.14	0.934	-0.99	6.43	0.51	0.52	-0.04	-0.28	0.00	0.02	-0.92	0.01	0.01	6.20	0.62	5.48	0.74
Paper & Forest Products	-8.03	-0.05	-0.16	4.68	4.11	0.76	0.959	-2.67	11.58	0.51	0.52	-0.05	-0.29	0.00	0.02	-0.38	0.02	0.05	9.94	0.80	2.27	0.88
Restaurants	-6.53	-0.06	-0.13	4.28	3.25	0.47	0.967	-0.71	4.68	0.51	0.52	-0.04	-0.40	0.00	-0.07	-0.31	-0.02	-0.02	4.11	0.41	3.42	0.62
Hotel/Motel/Inn	-15.12	-0.06	-0.31	7.24	6.24	1.17	0.921	-2.64	12.17	0.52	0.52	-0.05	-0.32	0.00	-0.02	-0.84	-0.03	-0.04	8.02	0.73	4.37	0.83
Textiles - Apparel Mfg.	-9.71	-0.06	-0.20	5.40	4.22	0.73	0.950	-1.06	5.67	0.51	0.52	-0.05	-0.35	0.00	-0.05	-0.49	-0.02	-0.03	6.08	0.61	3.59	0.75
Machinery - Diversified	-7.69	-0.06	-0.15	4.51	3.40	0.58	0.961	-0.92	6.40	0.51	0.52	-0.05	-0.36	0.00	-0.06	-0.36	-0.01	-0.02	5.50	0.56	3.15	0.72
Healthcare - Special Services	-11.07	-0.06	-0.23	6.11	4.52	0.69	0.943	-0.37	3.52	0.51	0.52	-0.05	-0.41	0.00	-0.08	-0.60	-0.06	-0.06	4.32	0.44	4.77	0.64
Transportation	-11.87	-0.06	-0.24	5.59	4.65	1.00	0.939	-1.84	8.67	0.52	0.52	-0.05	-0.30	0.00	0.00	-0.55	-0.24	10.00	10.00	1.00	0.31	1.00
Auto Parts - After Market	-12.27	-0.07	-0.25	6.04	4.50	0.79	0.937	-0.59	7.41	0.52	0.52	-0.05	-0.39	0.00	-0.09	-0.62	-0.06	-0.07	5.64	0.57	4.19	0.71
Railroads	-14.34	-0.08	-0.30	5.29	4.41	0.87	0.926	-1.38	5.46	0.52	0.53	-0.07	-0.41	0.00	-0.25	-0.58	-0.09	-0.23	13.68	0.88	1.91	0.94
Manufacturing - Diversified	-13.41	-0.08	-0.28	4.88	4.09	0.74	0.931	-1.86	8.49	0.52	0.53	-0.07	-0.45	0.00	-0.21	-0.51	-0.10	-0.18	8.22	0.74	2.70	0.84
Chemicals - Miscellaneous	-14.76	-0.08	-0.31	5.21	4.43	0.85	0.923	-2.16	10.65	0.52	0.53	-0.07	-0.43	0.00	-0.23	-0.58	-0.10	-0.21	10.62	0.82	2.39	0.90
Office Equipment & Supplies	-10.99	-0.08	-0.22	4.15	3.30	0.41	0.943	-0.73	3.44	0.52	0.53	-0.07	-0.68	0.00	-0.23	-0.40	-0.12	-0.18	3.52	0.34	3.51	0.57
Healthcare Composite	-6.3	-0.09	-0.13	2.66	2.03	0.22	0.968	-0.32	2.70	0.52	0.53	-0.07	-0.82	0.00	-0.25	-0.20	-0.07	-0.15	2.80	0.25	2.37	0.49
Computers - Networking	-22.36	-0.09	-0.49	8.63	6.04	0.87	0.881	0.07	2.23	0.52	0.53	-0.06	-0.62	0.00	-0.20	-1.23	-0.28	-0.20	3.63	0.35	7.15	0.58
Insurance - Multi Line	-6.63	-0.09	-0.13	3.02	2.09	0.05	0.966	0.33	2.87	0.52	0.52	-0.06	-3.67	0.00	-0.29	-0.22	-0.12	-0.20	0.50	0.01	3.06	0.12
Manufacturing - Specialized	-12.44	-0.09	-0.26	5.22	3.42	0.51	0.936	0.54	3.36	0.52	0.52	-0.06	-0.61	0.00	-0.19	-0.53	-0.13	-0.16	3.55	0.34	4.29	0.58
Chemicals	-11.29	-0.09	-0.23	3.90	3.10	0.56	0.942	-1.11	6.54	0.52	0.53	-0.07	-0.51	0.00	-0.27	-0.38	-0.09	-0.21	7.30	0.69	2.28	0.82

Industry Group	Annualized Return	Return/Semivar.	Weekly Return	Stand. Deviat'n	Semi-Deviat'n	Beta	Terminal Wealth	Skew-ness	Kur-tosis	Pr(R<0)	Pr(R<Rf)	Return/Variance	Return/Beta	JensenA Alpha	T-Test Jensen	Sharpe Utility	T-Test Alpha	T-Test Alpha	R-Beta	R-Squared	Stand. Error	Mkt. Corr.
Chemical Composite	-12.19	-0.10	-0.25	3.89	3.17	0.58	0.937	-1.43	7.73	0.53	0.53	-0.08	-0.53	0.00	-0.32	-0.40	-0.11	-0.26	8.23	0.74	2.11	0.85
Oil - Domestic Integrated	-16.99	-0.10	-0.36	5.24	4.23	0.64	0.911	-1.44	7.24	0.53	0.53	-0.08	-0.64	0.00	-0.28	-0.63	-0.20	-0.25	4.77	0.48	4.03	0.65
Basic Materials	-14	-0.10	-0.29	4.03	3.46	0.64	0.927	-2.13	9.84	0.53	0.53	-0.09	-0.54	0.00	-0.42	-0.45	-0.13	-0.36	10.06	0.80	1.90	0.88
Telecomm - Cell & Wireless	-17.17	-0.11	-0.36	5.01	3.91	-0.03	0.910	-0.42	2.30	0.53	0.53	-0.08	14.73	0.00	-0.42	-0.61	-0.37	-0.36	-0.16	0.00	5.19	-0.02
Computer Systems	-16.55	-0.11	-0.35	5.20	3.75	0.58	0.914	-0.07	3.55	0.53	0.53	-0.08	-0.70	0.00	-0.29	-0.62	-0.21	-0.26	4.28	0.43	4.04	0.64
Electronic Instruments	-24.29	-0.11	-0.53	7.02	5.36	0.75	0.870	-0.39	3.01	0.53	0.53	-0.08	-0.79	0.00	-0.32	-1.03	-0.35	-0.31	3.90	0.39	5.76	0.60
Healthcare - Long Term	-19.49	-0.11	-0.42	5.84	4.25	0.13	0.897	-0.05	2.32	0.53	0.53	-0.08	-3.72	0.00	-0.37	-0.76	-0.39	-0.33	0.64	0.02	5.97	0.15
Biotechnology	-17.13	-0.12	-0.36	4.43	3.61	0.47	0.910	-0.90	3.97	0.53	0.54	-0.09	-0.89	0.00	-0.39	-0.56	-0.25	-0.34	3.80	0.37	3.67	0.60
Savings & Loans	-16.1	-0.12	-0.34	4.47	3.37	0.02	0.916	0.03	2.75	0.53	0.54	-0.09	-25.54	0.00	-0.43	-0.54	-0.33	-0.37	0.10	0.00	4.58	0.04
Financial - Miscellaneous	-13.85	-0.12	-0.29	3.84	2.82	0.45	0.928	-0.18	4.73	0.53	0.54	-0.09	-0.75	0.00	-0.37	-0.43	-0.18	-0.32	4.81	0.49	2.82	0.69
Oil-Exploration & Production	-23.6	-0.13	-0.52	6.35	4.57	0.60	0.874	-0.20	3.81	0.53	0.54	-0.09	-0.96	0.00	-0.36	-0.92	-0.37	-0.34	3.25	0.30	5.51	0.50
Services - Advertising/Mrkt	-27.7	-0.13	-0.62	6.93	5.31	0.92	0.850	-0.50	5.17	0.54	0.54	-0.10	-0.74	0.00	-0.44	-1.10	-0.40	-0.43	5.80	0.58	4.73	0.73
Banks - Major Regional	-14.87	-0.13	-0.31	3.58	2.82	0.34	0.923	-0.48	3.62	0.53	0.54	-0.10	-1.08	0.00	-0.44	-0.44	-0.23	-0.38	3.27	0.31	3.08	0.56
Telecomm - Long Distance	-19.17	-0.14	-0.41	4.88	3.41	0.35	0.899	0.68	5.04	0.53	0.54	-0.10	-1.33	0.00	-0.41	-0.65	-0.32	-0.37	2.33	0.18	4.47	0.47
Metals Miscellaneous	-32.82	-0.14	-0.76	6.89	5.93	1.00	0.820	-1.97	9.59	0.54	0.55	-0.12	-0.82	-0.01	-0.55	-1.24	-0.52	-0.55	6.16	0.61	4.82	0.73
Chemicals - Specialty	-16.34	-0.14	-0.34	3.35	2.89	0.48	0.915	-1.82	8.74	0.54	0.55	-0.12	-0.83	0.00	-0.65	-0.46	-0.23	-0.57	7.14	0.67	2.01	0.80
Retail - Food Chains	-26.78	-0.14	-0.60	5.28	4.68	0.46	0.856	-1.62	5.54	0.55	0.55	-0.12	-1.41	-0.01	-0.53	-0.88	-0.49	-0.50	2.80	0.24	4.94	0.49
Technology	-25.17	-0.14	-0.56	5.94	4.37	0.74	0.865	-0.20	3.89	0.54	0.54	-0.10	-0.83	0.00	-0.47	-0.91	-0.38	-0.45	5.18	0.52	4.24	0.71
Investment Banking/Brokers	-29.15	-0.14	-0.66	6.37	5.05	0.83	0.842	-0.91	6.10	0.54	0.54	-0.11	-0.86	0.00	-0.52	-1.07	-0.46	-0.51	5.44	0.55	4.57	0.71
Publishing	-16.19	-0.15	-0.34	3.54	2.67	0.10	0.916	-0.19	3.42	0.54	0.54	-0.11	-4.16	0.00	-0.52	-0.46	-0.32	-0.45	0.79	0.03	3.60	0.16
Computer Software & Services	-24.52	-0.15	-0.54	6.00	4.01	0.63	0.869	0.57	3.22	0.54	0.54	-0.10	-0.94	0.00	-0.44	-0.90	-0.39	-0.42	4.01	0.40	4.71	0.63
Airlines	-37.53	-0.15	-0.90	7.73	6.37	1.33	0.790	-1.60	8.85	0.55	0.55	-0.12	-0.72	-0.01	-0.90	-1.50	-0.58	-0.93	12.40	0.86	3.20	0.92
Semiconductor Equipment	-40.82	-0.15	-1.00	8.82	7.03	1.14	0.769	-0.98	6.29	0.55	0.55	-0.12	-0.93	-0.01	-0.54	-1.78	-0.73	-0.55	4.99	0.51	6.84	0.66
Tobacco	-13.65	-0.15	-0.28	3.00	2.22	0.23	0.929	0.10	2.21	0.54	0.54	-0.11	-1.50	0.00	-0.50	-0.37	-0.23	-0.42	2.46	0.20	2.75	0.46
Financial Composite	-15.13	-0.16	-0.32	3.27	2.36	0.36	0.921	0.26	4.00	0.54	0.55	-0.11	-1.03	0.00	-0.54	-0.42	-0.23	-0.46	4.28	0.43	2.52	0.65
Insurance - Composite	-12.15	-0.16	-0.25	2.74	1.90	0.15	0.937	0.72	3.98	0.54	0.54	-0.11	-2.04	0.00	-0.51	-0.32	-0.21	-0.41	1.70	0.11	2.62	0.35
Aluminum	-35.56	-0.16	-0.84	6.62	5.53	1.00	0.803	-1.24	5.97	0.55	0.55	-0.14	-0.90	-0.01	-0.79	-1.28	-0.60	-0.79	7.68	0.70	3.87	0.82
Oil Composite	-22.79	-0.17	-0.50	4.28	3.30	0.51	0.879	-0.66	6.51	0.55	0.55	-0.13	-1.08	0.00	-0.64	-0.68	-0.37	-0.59	4.76	0.48	3.21	0.67
Electric Companies	-16.98	-0.17	-0.36	2.95	2.38	0.33	0.911	-0.42	3.81	0.55	0.56	-0.14	-1.24	0.00	-0.71	-0.44	-0.28	-0.62	4.37	0.44	2.27	0.67
Capital Goods	-25.98	-0.18	-0.58	4.34	3.57	0.60	0.860	-1.25	7.30	0.55	0.56	-0.15	-1.06	0.00	-0.83	-0.77	-0.43	-0.78	6.36	0.62	2.81	0.77
Oil - International Integ.	-23.46	-0.18	-0.51	4.20	3.21	0.49	0.875	-0.47	6.31	0.55	0.55	-0.14	-1.15	0.00	-0.68	-0.69	-0.39	-0.63	4.64	0.47	3.18	0.66
Energy Composite	-26.13	-0.18	-0.58	4.65	3.58	0.53	0.860	-0.60	5.71	0.55	0.55	-0.14	-1.20	0.00	-0.67	-0.80	-0.45	-0.63	4.34	0.43	3.64	0.63
Broadcast Media	-27.55	-0.18	-0.62	4.91	3.71	0.59	0.851	-0.22	3.89	0.55	0.55	-0.14	-1.15	-0.01	-0.70	-0.86	-0.48	-0.67	4.83	0.48	3.63	0.68
Insurance - Life	-19.17	-0.19	-0.41	3.10	2.48	0.32	0.899	-0.25	3.49	0.55	0.56	-0.15	-1.46	0.00	-0.74	-0.50	-0.33	-0.66	3.74	0.36	2.54	0.60
Photo/Imaging	-43.19	-0.19	-1.08	6.68	5.94	0.91	0.754	-1.72	7.06	0.56	0.57	-0.17	-1.25	-0.01	-0.90	-1.53	-0.87	-0.90	5.50	0.55	4.93	0.71

Industry Group	Annualized Return	Return/Semivar.	Weekly Return	Stand. Deviat'n	Semi-Deviat'n	Beta	Terminal Wealth	Skew-ness	Kur-tosis	Pr(R<0)	Pr(R<Rf)	Return/Variance	Return/Beta	JensenA Alpha	T-Test Jensen	Sharpe Utility	T-Test Alpha	T-Test Alpha	R-Beta	R-Squared	Stand. Error	Mkt. Corr.
Consumer Staples	-17.88	-0.19	-0.38	2.72	2.24	0.38	0.906	-1.05	5.98	0.56	0.56	-0.16	-1.15	0.00	-0.99	-0.45	-0.29	-0.89	6.83	0.65	1.65	0.80
Insurance - Property Casualty	-19.57	-0.20	-0.42	3.60	2.39	0.25	0.897	1.26	5.97	0.55	0.55	-0.13	-1.92	0.00	-0.62	-0.55	-0.36	-0.56	2.24	0.17	3.29	0.43
Engineering & Construction	-45.46	-0.20	-1.16	7.36	6.04	0.78	0.739	-0.47	3.02	0.56	0.57	-0.17	-1.56	-0.01	-0.81	-1.70	-0.98	-0.80	3.75	0.36	6.20	0.59
Healthcare - Drugs	-22.67	-0.21	-0.49	3.22	2.65	0.20	0.879	-0.36	2.89	0.56	0.57	-0.17	-2.78	0.00	-0.81	-0.60	-0.45	-0.73	1.90	0.13	3.10	0.37
Oil Well Equipment & Services	-48.38	-0.22	-1.26	7.68	5.97	0.64	0.719	-0.15	3.05	0.57	0.57	-0.17	-2.06	-0.01	-0.82	-1.85	-1.12	-0.81	2.72	0.23	7.05	0.44
Electrical Equipment	-34.64	-0.23	-0.81	4.75	3.78	0.53	0.809	-0.45	4.54	0.57	0.57	-0.18	-1.64	-0.01	-0.97	-1.04	-0.69	-0.93	4.22	0.41	3.77	0.63
Communication Equipment	-55.38	-0.24	-1.54	7.90	6.60	0.59	0.668	-0.37	2.40	0.58	0.58	-0.20	-2.73	-0.01	-0.96	-2.16	-1.41	-0.95	2.30	0.18	7.59	0.44
Personal Loans	-41.82	-0.25	-1.04	6.02	4.41	0.60	0.763	0.61	2.87	0.57	0.57	-0.18	-1.83	-0.01	-0.95	-1.40	-0.90	-0.93	3.62	0.34	4.93	0.60
Automobiles	-47.25	-0.25	-1.22	5.55	5.05	0.81	0.726	-1.81	8.09	0.59	0.59	-0.23	-1.59	-0.01	-1.47	-1.53	-1.03	-1.46	6.65	0.62	3.62	0.78
Aerospace/Defense	-36.61	-0.26	-0.87	4.14	3.56	0.53	0.796	-0.88	5.41	0.58	0.59	-0.22	-1.75	-0.01	-1.35	-1.04	-0.75	-1.30	5.43	0.53	2.92	0.72
Retail - Drug Stores	-47.63	-0.26	-1.24	5.59	4.93	0.32	0.724	-1.04	4.88	0.59	0.59	-0.23	-4.03	-0.01	-1.08	-1.55	-1.17	-1.05	1.69	0.10	5.66	0.33
Communication Services	-26.18	-0.27	-0.58	3.02	2.40	-0.02	0.859	0.32	3.19	0.58	0.58	-0.21	26.88	-0.01	-1.07	-0.67	-0.59	-0.97	-0.23	0.00	3.09	-0.01
Telephone	-28.1	-0.29	-0.63	3.11	2.34	-0.13	0.848	0.82	3.99	0.58	0.59	-0.22	5.15	-0.01	-1.22	-0.73	-0.67	-1.11	-1.31	0.06	3.05	-0.23
Utilities Composite	-43.44	-0.30	-1.09	4.36	3.77	0.54	0.752	-0.42	4.83	0.60	0.60	-0.26	-2.14	-0.01	-1.59	-1.28	-0.97	-1.55	5.04	0.48	3.18	0.70
Entertainment	-56.02	-0.33	-1.57	5.83	4.93	0.70	0.663	-0.32	4.19	0.61	0.61	-0.28	-2.32	-0.01	-1.64	-1.91	-1.41	-1.62	4.72	0.45	4.43	0.67
Natural Gas	-72	-0.38	-2.42	7.69	6.52	0.75	0.529	0.20	4.33	0.62	0.63	-0.32	-3.31	-0.02	-1.74	-3.01	-2.27	-1.73	3.34	0.29	6.67	0.55
Conglomerates	-79.42	-0.40	-2.99	8.70	7.60	0.37	0.454	0.12	3.83	0.63	0.64	-0.35	-8.33	-0.03	-1.69	-3.75	-2.95	-1.67	1.22	0.05	8.98	0.27
Transportation Composite	-11.87	-0.06	-0.24	5.59	4.65	1.00	0.939	-1.84	8.67	0.52	0.52	-0.05	-0.30	0.00	0.00	-0.55	-0.24	10.00	10.00	1.00	0.31	1.00

C. Recommended Portfolios

Model Portfolio 1 – S&P Industry Groups

S&P Industry Group Model Portfolio Allocations

The current Revival 1 S&P Industry Group model portfolio is presented in the Table C-1 below. The portfolio consists of 20 industry groups selected from among approximately 100 total S&P industry groups. QInsight has chosen to use a 20-industry group portfolio instead of the more historically optimal 5- or 10-industry group portfolios (see Section on Performance Statistics below, and review the R/SV, returns-to-semivariance column in Table C-4 below). Note that the 5- or 10-industry group portfolios are not statistically different from each other, and the 15-, 20-, 25-, and 30-industry group portfolios are not statistically different from each other. The past is not always a perfect guide to the future. Therefore, QInsight recommends the use of a 20-industry group portfolio because it is more diversified.

Global Industry Classification Standard (GICS) sub-industry group and sector classifications will replace the Standard & Poors (S&P) industry classifications that QInsight currently uses to rank outperforming industry groups in each phase of the business cycle. QInsight is developing weighted and equal-weighted (based market capitalization) sub-industry indexes to more accurately analyze industry group performance in each phase of the business cycle. The new classifications may significantly improve business cycle industry rankings. The anticipated delivery date for the completed backtest and model portfolio is June 30, 2002.

S&P Industry Group Model Portfolio Performance Statistics

Out-of-sample performance statistics for the S&P Industry Group model portfolio are presented in Table C-4 below. The performance statistics are for the period November, 1997 to December, 2001, using a 3.00 degree lower partial moment for calculating the QInsight reward-to-risk ranking and allocation heuristic. The complete backtest results may be viewed in Appendix C of this newsletter.

Model Portfolio 2 – iShares (Dow Jones US Sectors)

iShare Model Portfolio Allocations

The current Revival 1 iShare model portfolio is presented in the Table C-2 below. The portfolio consists of three exchange traded funds selected from among a dozen iShare funds that track various Dow Jones US Sectors. Similar to the S&P Industry Group model portfolio assessment, a 3-fund portfolio is recommended (in contrast to a 2- or 4-fund portfolio) because it represents a good compromise in diversification, between the 2-fund portfolio's higher optimal historical

return-to-semivariance and the 4-fund portfolio's lower R/SV that provides a hedge against future uncertainty (see Table C-5 below).

iShare Model Portfolio Performance Statistics

Out-of-sample performance statistics for the iShare model portfolio are presented in Table C-4 below. The performance statistics are for the period October, 1996 to December, 2001, using a 3.00 degree lower partial moment for calculating the QInsight reward-to-risk ranking and allocation heuristic. The complete backtest results are available upon request.

Model Portfolio 3 – Asset Classes

QInsight is currently developing the database for an Asset Class model portfolio backtest. The model portfolio will consist of a mix of style-based domestic equity indexes, global regional equity indexes, and bond indexes. The anticipated delivery date for the completed backtest and model portfolio is June 30, 2002. QInsight has already developed a backtest for the Revival 1 phase of the business cycle using data from 1980 to 1996. Upon request, QInsight will provide a current Revival 1 Asset Class model portfolio for paid Q-Advisor newsletter subscribers.

Table C-1: Model Portfolio 1 – S&P Industry Group Portfolio Allocations

#	S&P 500 Industry Group	Allocation (%)
1	Metals - Miscellaneous	2.50
2	Investment Banking / Brokers	2.50
3	Beverages – Alcoholic	6.00
4	Newspapers	3.25
5	Chemicals	3.25
6	Health - Diversified	6.75
7	Medical Products	6.75
8	Electronic – Semiconductors	6.75
9	Integrated Oil – Domestic & International	11.00 (Note 1 below)
10	Housewares	6.50
11	Footware	7.75
12	Electronics – Defense	4.00
13	Aerospace / Defense	5.50
14	Electric Companies	3.50 (Note 2 below)
15	Natural Gas	7.75 (Note 2 below)
16	Banks – Money Center	2.75
17	Insurance – Multi Line	5.50
18	General Merchandise	4.00
19	Software & Services	4.00
20	* See Note 1 below.	
		Total = 100 %

Notes:

1. Domestic & International Oil have been combined, with a total allocation of 11%.
2. QInsight recommends that investors hold cash or money market funds equal to these amounts until the respective industry groups indexes begin to advance.

Table C-2 Model Portfolio 2 – iShares (Dow Jones US Sectors) Allocations

#	iShare Fund	Allocation (%)
1	Chemicals	25.50
2	Technology	30.00
3	Energy Sector	44.50
		Total = 100 %

Table C-3 Model Portfolio 3 – Asset Class allocation for Revival 1 is available upon request for paid subscribers. It will become a standard part of the Q-Advisor newsletter in June, 2002.

Table C-4: Summary Performance Statistics for Model Portfolio 1 – S&P Industry Group Portfolio

S&P Industry Groups / Inception: November, 1997

LPM Degree: 3.0000

Size	AMean	Std Dev	R/V Ratio	Semivariance	R/SV	Term Wealth	GMean	Risk Prem	Skewness	R/SV4	Annul Return
v 500	1.001505	.028345	v.002008	.000420	.002776	1.269381	1.001100	.000057	-.364307	.004780	v5.8825
# Indus	AMean	Std Dev	R/V Ratio	Semivariance	R/SV	Term Wealth	GMean	Risk Prem	Skewness	R/SV4	Annual Return
5	1.004904	.036311	.087889	.000638	.126372	2.501653	1.004235	.003191	-.576591	.261675	24.5743
10	1.004052	.031458	.079720	.000488	.113563	2.157992	1.003551	.002508	-.619425	.231906	20.2399
15	1.003642	.030513	.069720	.000467	.098414	1.987491	1.003170	.002127	-.662813	.201283	17.8920
v 20	1.003650	.030301	v.070672	.000460	.099892	1.993574	1.003184	.002141	-.661241	.204460	v17.9780
25	1.003652	.030284	.070811	.000459	.100092	1.994844	1.003187	.002144	-.661351	.204853	17.9962
30	1.003700	.030277	.072412	.000458	.102492	2.015657	1.003235	.002192	-.659634	.209871	18.2896

Quarterly Returns Period 9711 to 200112

Per	Begin	EndDate	#Sec	Hist	Algor	Phase	Sercor	TSerCr	Subset	θ	S&P500	5	10	15	θ	20	25	30	Skew	Kurt
1	9711	9809	30	52	Indust	1	.0645	.4521	12.17		9.62	33.34	24.71	19.31		20.44	20.18	20.26	5.4980	37.2583
2	9810	9901	29	52	Indust	2	.1652	1.1722	17.08		27.63	16.57	19.66	19.92		19.93	19.99	20.34	-.3794	2.3842
3	9902	9907	29	52	Indust	3	.0020	.0139	9.56		3.84	14.37	12.31	12.18		12.18	12.33	12.65	-.1003	2.9326
4	9908	0001	30	52	Indust	4	.1436	1.0155	-5.60		8.48	18.54	13.65	10.82		9.99	9.99	10.17	.1560	2.4258
5	0002	0005	1	52	Indust	5	.2778	2.0246	-16.10		2.49	2.00	2.00	2.00		2.00	2.00	2.00	-.1179	3.0352
6	0006	0101	30	52	Indust	1	.2670	1.9394	10.93		-8.65	2.87	3.93	3.95		3.95	3.95	3.98	-.3236	3.6248
7	0101	0112	29	52	Indust	2	.2634	1.9115	.98		-13.96	13.15	6.87	5.39		5.50	5.59	5.82	-.1780	4.8292

Notes

1. The 20-industry group QInsight portfolio significantly outperformed its benchmark, the S&P500 index, since its inception (17.98% annually for the QInsight portfolio versus 5.88% annually for the S&P500 index). However, the QInsight portfolio's downside risk (semivariance) is not significantly different than the S&P500 index. Risk-averse investors should note the performance of the QInsight portfolio in the periods June, 2000 to January, 2001 and February, 2001 to December, 2002 when the S&P500 index returns were negative.

2. See Appendix C for the in-sample backtest of the QInsight industry group portfolio.

Table C-5: Summary Performance Statistics for Model Portfolio 2 – iShares (Dow Jones US Sectors)

DJ Sectors – iShares / Inception October, 1996

LPM Degree: 3.0000

Size	A Mean	Std Dev	R/V Ratio	Semivariance	R/SV	Term Wealth	G Mean	Risk Prem	Skewness	R/SV4	Annual Return
500	1.002278	.026632	.072141	.000332	.105472	1.692005	1.001921	.001921	-.346605	.186569	10.4963
# Indus	A Mean	Std Dev	R/V Ratio	Semivariance	R/SV	Term Wealth	G Mean	Risk Prem	Skewness	R/SV4	Annual Return
1	1.002081	.030848	.051998	.000456	.075156	1.551390	1.001604	.001604	-.132572	.143001	8.6917
2	1.003050	.026506	.101781	.000309	.153370	2.092162	1.002698	.002698	-.172027	.295337	15.0387
3	1.003227	.025071	.116153	.000281	.173745	2.218294	1.002912	.002912	-.309429	.346582	16.3237
4	1.003258	.024561	.120337	.000262	.182475	2.244837	1.002956	.002956	-.235108	.356242	16.5864
5	1.003086	.024450	.113940	.000262	.172054	2.143088	1.002786	.002786	-.230154	.335096	15.5647
6	1.003023	.024422	.111533	.000263	.168015	2.107137	1.002724	.002724	-.232169	.326261	15.1945

Quarterly Returns Period 9610 to 200112

Per	Begin	EndDate	#Sec	Hist	Algor	Phase	Sercor	TSerCr	Subset	Number of Industries						Skew	Kurt	
										θ	1	2	3	4	5			6
									S&P500									
1	9610	9710	6	52	Indust	4	.0679	.4761	29.77	33.29	32.03	40.48	35.40	34.15	31.78	31.91	.0917	2.7479
2	9711	9809	6	52	Indust	1	.1115	.7851	15.22	9.62	-3.22	14.99	19.39	20.60	18.29	14.78	.2838	2.5805
3	9810	9901	6	52	Indust	2	.1652	1.1722	14.43	27.63	37.68	38.37	38.37	38.37	37.82	38.37	-.3794	2.3848
4	9902	9907	6	52	Indust	3	.0020	.0139	1.61	3.84	6.42	1.62	.14	1.09	1.12	1.29	-.1002	2.9306
5	9908	0001	6	52	Indust	4	.1435	1.0147	-2.06	8.48	-1.08	-1.38	.64	-.43	-.58	-.38	.1559	2.4255
6	0002	0005	6	52	Indust	5	.2777	2.0236	-1.81	2.49	.00	.00	.00	.00	.00	.00	-.1181	3.0369
7	0006	0101	6	52	Indust	1	.2417	1.7434	3.19	-8.65	-8.90	1.10	6.30	7.61	7.55	7.68	-.3185	3.9498
8	0102	0112	6	52	Indust	2	.2634	1.9116	-3.60	-13.96	-8.05	-7.62	-7.42	-7.42	-7.74	-7.42	-.1782	4.8314

Notes

1. The 3-sector QInsight portfolio has significantly outperformed its benchmark, the S&P500 index, since its inception (16.32% annually for the QInsight portfolio versus 10.50% for the S&P500 index). Also, the QInsight portfolio's downside risk (semivariance) is less than the downside risk of the S&P500 index.

2. A backtest for the QInsight iShare portfolio is available upon request.

Table C-6: Summary Performance Statistics for Model Portfolio 3 – Asset Class will become a standard part of the Q-Advisor newsletter in June 2002.

D. Description of Methodology

Business Cycle Model

The QInsight Group has developed an adaptive portfolio model that uses changes in the phases of the US business cycle to allocate funds between industry groups, economic sectors, and asset classes.

The model begins by dividing the business cycle into 5 phases described on the next page. Each phase is defined by a cluster of macro-economic variables (determined by QInsight's research), and each is directly linked to significant statistical states in the US stock market (return distributions of the S&P 500 index). More importantly, QInsight research has identified each set of industry groups that historically have outperformed the broad market during each phase. The following statements form the core of QInsight's business cycle model:

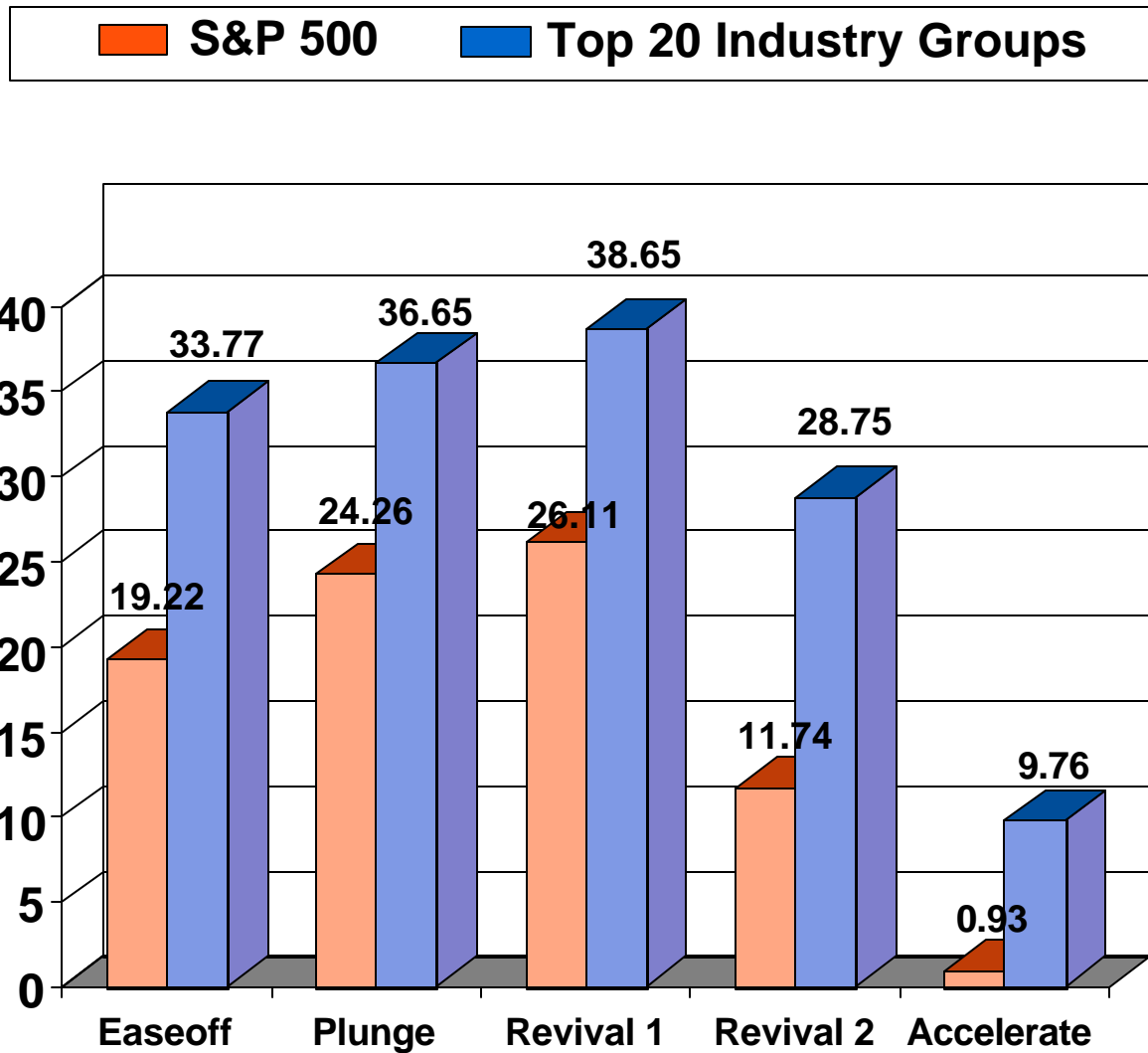
1. Business cycles represent non-periodic fluctuations from the aggregate trends in the US economic data. The business cycle is an inherent property of the complex system that is the US economy. Linear models fail to capture or adapt to this complex behavior.
2. Stock market return statistics show statistically significant changes in distributions, skewness, serial correlations and volatility during each phase of the business cycle. QInsight research shows that there are leading macro-economic variables that can be used to define each phase, which in turn are linked to changes in the return distribution of the US stock markets. QInsight has developed a non-linear model that uses a classification neural net technology to identify leading macro-economic variables and provide real-time phase change signals for the business cycle.
3. QInsight research has determined that there are consistent sets of industry groups that have historically outperformed broad market indexes during each of the 5 phases of the business cycle. These are shown in the "Industry Group Performance Ranking" section of Q-Advisor.
4. QInsight uses a ranking heuristic based on return per unit of downside risk to construct portfolios of the S&P industry groups, the Dow Jones sectors, and the standard asset class indexes. Their portfolios are shown in the "Recommended Model Portfolios" section and "Model Portfolio Backtests" appendix of Q-Advisor.
5. QInsight believes social and behavioral models of investor behavior (Vaga) are closely related to changes in the business cycle phases and different statistical states of the market. Therefore, QInsight presents a social model of the business cycle phases in the next section entitled "A Behavioral Model of the Business Cycle."

Based upon these hypotheses, QInsight has developed a non-linear model that uses a classification neural net technology to identify leading macro-economic variables and

provide real-time phase change signals for the business cycle. Statistical and investor behavioral models help characterize market performance during each phase. As part of this model, QInsight has also developed both absolute and risk-adjusted industry group and style-based performance rankings for each phase of the US business cycle, along with valuation models for equities within individual industry groups.

Potential Historical Outperformance

Returns that could have been achieved for the period 1980 to March, 1996, using the top 20 industry groups in each phase vs. returns of the S&P 500.



FIVE PHASES OF THE US BUSINESS CYCLE

Historical Phase Change Dates

Phases:	EASEOFF (1)		PLUNGE (2)		REVIVAL 1 (3)		REVIVAL 2 (4)		ACCELERATE (5)	
Historical Dates:			30-Apr-70	31-Dec-70	31-Dec-70	30-Jun-71	30-Jun-71	31-Oct-72	31-Oct-72	31-Mar-73
	31-Mar-73	31-Jul-74	31-Jul-74	31-May-75	31-May-75	30-Nov-75	30-Nov-75	28-Feb-77	28-Feb-77	31-Mar-79
	31-Mar-79	30-Apr-80	30-Apr-80	31-Jul-80	31-Jul-80	31-Jan-81	31-Jan-81	31-May-81	Did not occur	
	31-May-81	30-Jun-81	30-Jun-81	31-Oct-82	31-Oct-82	30-Apr-83	30-Apr-83	31-Oct-83	31-Oct-83	31-Mar-84
	31-Mar-84	31-Oct-84	31-Oct-84	31-Oct-85	31-Oct-85	30-Apr-86	30-Apr-86	28-Feb-87	28-Feb-87	30-Apr-88
	30-Apr-88	30-Nov-89	30-Nov-89	31-May-91	31-May-91	30-Nov-91	30-Nov-91	31-May-94	31-May-94	31-Dec-94
	31-Dec-94	31-Jan-96	31-Jan-96	31-Mar-96	31-Mar-96	30-Sep-96	30-Sep-96	31-Oct-97	Did not occur	
	31-Oct-97	30-Sep-98	30-Sep-98	31-Jan-99	31-Jan-99	31-Jul-99	31-Aug-99	31-Jan-00	31-Jan-00	31-May-00
	31-May-00	15-Jan-01	15-Jan-01	31-Dec-01	31-Dec-01					
Phase Statistics:										
Shortest Duration (Months)		1		2		6 **		4		4
Longest Duration (Months)		19		18		6		30		25
Average Duration (Months)		10.94		9.39		6		12.36		10
Economic Indicators:										
Ind Prod.(YTY)&NAPMComp	Turns Down				Turns up but not above 0		Goes above 0 and rising			
Initial Unemploy. Claims	Turns Up				Turns down					
Non Farm Payroll	Turns Down				Turns up					
Yield Curve Spread			Widens							
Federal Funds (YTY)-12mo			Goes through 0 down						Goes through 0 up.	
Monetary Base			Starts up quickly						Turns down	
Consumer Price Inflation									Turns up	
C.P.I. 6 month ROC									Goes above 0 and rising.	

** QInsight defines the Revival 1 phase as having a fixed duration of six months.

A Behavioral Model of the Business Cycle

Tonis Vaga (1) uses analogies to physical systems developed by Callen and Shapiro (2) to classify the return distributions into four categories: true random walk, unstable transition, coherent and chaotic. The state of the market is determined by investor sentiment (ranging from rational individual to group think to crowd behavior) and the prevailing bias in economic fundamentals. Therefore, the state of the return distribution is qualitatively linked to macroeconomic data.

A summary of Vaga’s market states is provided in the table below and the following 6 charts present the results of Vaga’s study of the 5 business cycle phases defined by QInsight. Vaga describes each phase in terms used in the study of nonlinear systems.

Vaga Market States

Market State	Skewness	Serial Correlation	Kurtosis	Return	Risk	Mode
Chaotic	Significant	Significant	Leptokurtic	Low	High	Bimodal
Coherent	Significant (+ or -)	Significant	Leptokurtic	High	Low	Unimodal
Transition	Symmetric	Not Significant	Platykurtic	Varies	Varies	Unimodal
Random	Symmetric	Not Significant	Mesokurtic	Average	Average	Unimodal

Below are definitions of terms used by Vaga to describe market states and their associated return time series distributions.

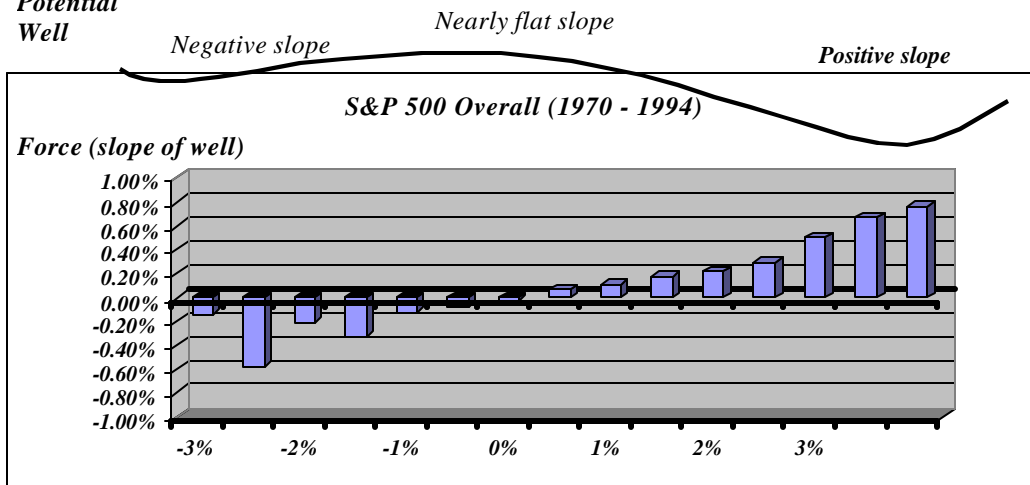
- **Market states** reflect the degree of organization and structure associated with the market time series return distributions. Random walks are stable linear periods. Coherent and chaotic periods are strongly nonlinear. Transitions occur between linear (random) and nonlinear (coherent and chaotic) periods. Transitions are periods where large return fluctuations are possible. Coherent bull markets are the safest and most rewarding periods to invest long (positive fundamentals and strong crowd behavior). Coherent bear markets are rare but are characterized by negative fundamentals and strong crowd behavior. Chaotic periods are when return distributions tend to follow a bimodal distribution. These periods are characterized by strong crowd behavior that switches abruptly from one state to its mirror state. These switches may be caused by very small changes in the underlying fundamentals.
- **Skewness** measures the degree of asymmetry of a distribution. If the distribution has a right tail declining more slowly than the left tail, the function has positive skewness. Otherwise, it has negative skewness. Investors favor a positive skewness.
- **Serial correlation** (or autocorrelation) is the correlation of a variable with itself over successive time intervals. Investors want to know, do prior returns impact future returns?

- **Kurtosis** measures the degree of “peakedness” for a distribution relative to a normal distribution. A distribution with a high peak is called leptokurtic, a flat-topped curve is called platykurtic, and a normal distribution is called mesokurtic. Investors want leptokurtic, positively skewed return distributions.
- **Return and risk** measure the relative investment return (profit) and risk (volatility) of the various market states. Investors favor high returns with low risk.
- **Mode** measures the number of peaks in a distribution. A unimodal distribution is finite sequence which first increases and then decreases. A bimodal distribution is a sequence having two separated peaks.

¹ Vaga T. (1990), “The Coherent Market Hypothesis,” Financial Analysis Journal, 46(6), 36-49.

² Callan, E. and D. Shapiro (1974), “A Theory of Social Imitation,” Physics Today, 27(7), 23-27.

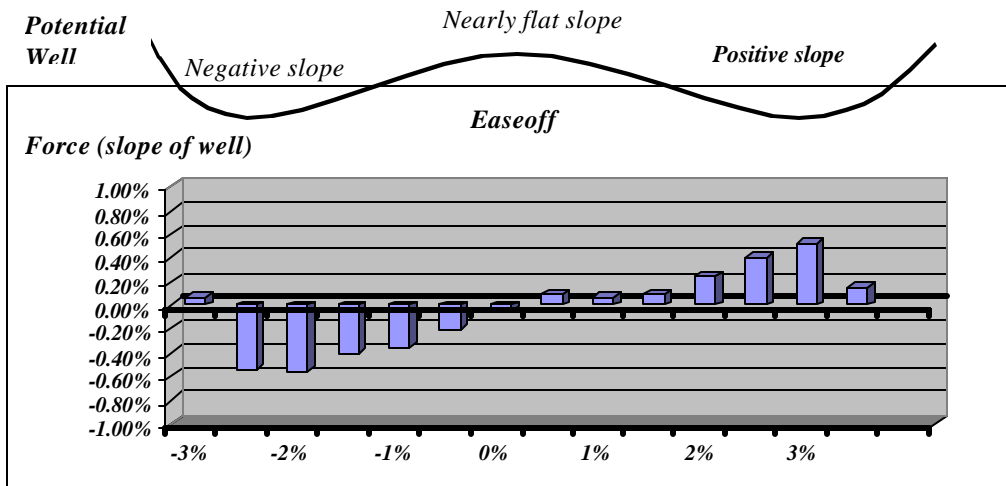
Potential Well



Return: +6.73%
Volatility: 0.89%
Strategy: Trade... classic nonlinear pattern with bullish bias

Highly Nonlinear, Attractor... positive returns strongly followed by positive returns, negative by negative. Looks like a blend of easeoff and plunge markets with returns watered down by other less profitable phases.

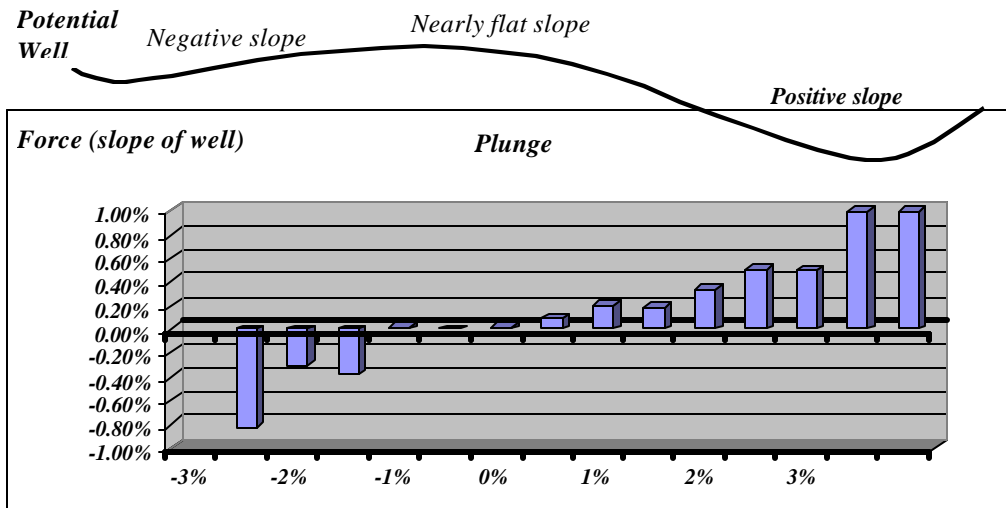
Potential Well



Return: -8.34%
Volatility: 0.96%
Strategy: Trade... classic nonlinear pattern with bearish bias

Highly Nonlinear, Attractor... positive returns strongly followed by positive returns, negative by negative. Prevailing fundamental bias (positive since mid-1980s) produced coherent bull markets... negative fundamentals in 1970s produced coherent bear markets. High degree of nonlinearity magnifies prevailing fundamental bias and makes for great short term trend following opportunities across all time scales.

Potential Well



Return: +24.27%
Volatility: 0.98%
Strategy: Trade... classic nonlinear pattern with bullish bias

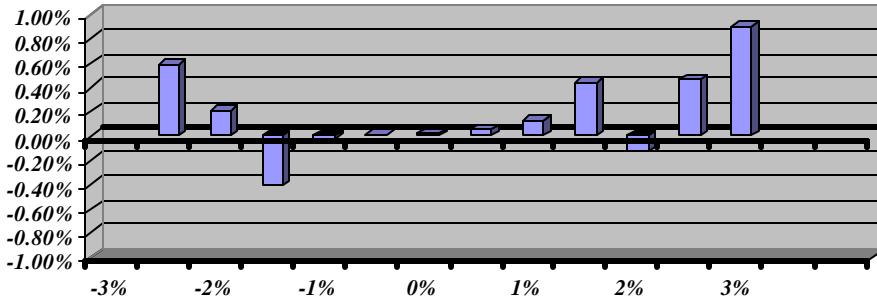
Highly Nonlinear, Attractor... positive returns strongly followed by positive returns, negative by negative. Prevailing fundamental bias (over period of sample) produced coherent bull markets... sharp bull market corrections still evident in data. High degree of nonlinearity magnifies prevailing fundamental bias and makes for great short term trend following opportunities across all time scales... or buy and hold through corrections.

Potential Well

Not Much Negative slope Nearly flat slope More Positive slope

Force (slope of well)

Revival 1



Return: +15.87%
Volatility: 0.90%
Strategy: Trade... Narrower nonlinear pattern with bullish bias

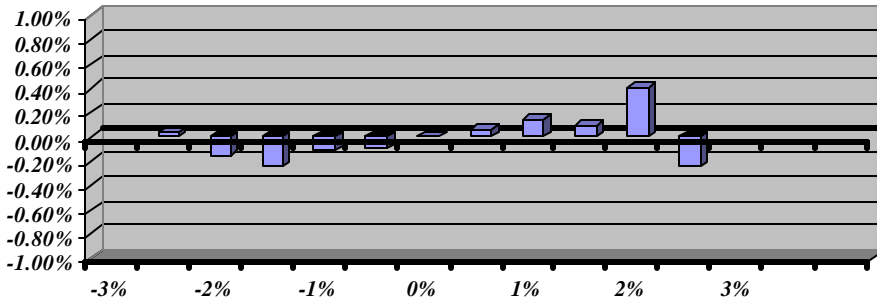
Nearly Flat Attractor... transition makes sense

Potential Well

Negative slope Nearly flat slope Positive slope

Force (slope of well)

Revival 2



Return: +7.90%
Volatility: 0.69%
Strategy: Trade... Narrower Nonlinear Pattern with Positive Bias

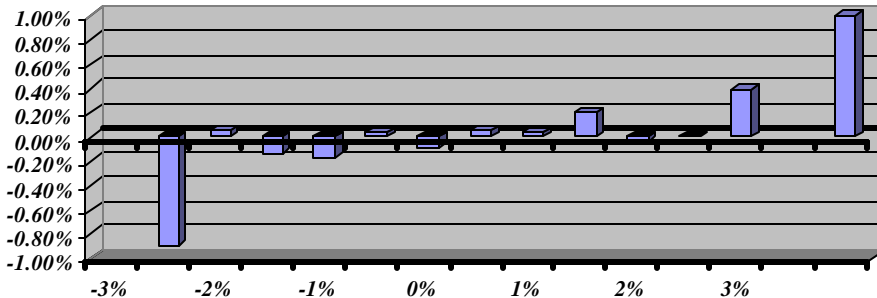
Baby Nonlinear Attractor... positive returns followed by positive returns, negative by negative. Looks like a downsized version of the Easeoff. Perhaps some random walk action mixed in?

Potential Wells

Positive slope Random Walk Negative slope
 Chaotic Market

Force (slope of well)

Accelerate



Return: -1.58%
Volatility: 1.1%
Strategy: Take a vacation... trading results not worth high risk?

Nearly Flat Very Wide Attractor... chaotic and random walk mixture...canceling out any structure?

Appendix 1. Performance Table Column Definitions

Annualized Return: Annualized geometric return for the market asset (industry sector) using weekly or monthly returns.

Alpha: Generally, Alpha is interpreted as an asset's core return without regard to the market index performance using the Capital Asset Pricing Model (CAPM). Mathematically, Alpha represents the estimate of the vertical intercept of the regression line between an asset (industry sector) and the total market. The formula is $R = \mathbf{Alpha} + \text{Beta}(\text{Market Return}) + \text{Error}$. (See Jensen Alpha below).

Beta: A volatility of the market asset (industry sector) measure relative to the market index using the Capital Asset Pricing Model (CAPM). A beta of 1.0 indicates that the security has the same volatility as the market. A beta less than 1.0 indicates that the security is less volatile than the market and a beta greater than 1.0 is more volatile than the market. The beta is calculated as a simple linear relationship between an asset (industry sector) and the general market index (S&P 500). Mathematically, Beta represents the slope of the regression line between a market component (industry sector) and the total market. The formula is $R = \text{Alpha} + \mathbf{Beta}(\text{Market Return}) + \text{Error}$.

Jensen Alpha: The Jensen measure uses the CAPM market line equilibrium to measure investment performance. It is computed from the following formula: $(\text{Return} - \text{Risk Free Rate}) = \mathbf{Alpha} + \text{Beta}(\text{Market Return} - \text{Risk Free Return}) + \text{Error}$. Generally, whenever the alpha of a portfolio is mentioned it is the Jensen Alpha. It starts from a base of zero. If it is positive, the portfolio outperformed the market. If it is negative, the portfolio underperformed the market.

Kurtosis: This measures the height of the distribution relative to a normal distribution. A normal distribution has a kurtosis value of 3.0. Kurtosis values greater than 3.0 indicate a peaked distribution while kurtosis values less than 3.0 represent a flatter distribution.

Market Correlation: Correlation between the individual asset and the market index.

Pr(R<0): Probability of industry sector return less than zero.

Pr(R<Rf): Probability of industry sector return less than the risk free return.

Return / Semivariance: Calculated as the $(\text{Return} - \text{Risk Free Rate}) / \text{Semi-Deviation}$

Return / Beta: Calculated as the $(\text{Return} - \text{Risk Free Rate}) / \text{Beta}$

R-Squared: Percentage of an asset's variation explained by the market.

Semi-Deviation: Square root of the Semivariance. The Semivariance is a measure of downside risk and one member of a family of downside risk measures. It essentially is the average variation below some target return and as such measures the downside risk of a return distribution.

Sharpe Utility: This performance measure does not compute a return-to-risk ratio. Instead, it uses an estimate of the investor's risk tolerance instead of the riskless rate of return as an indicator of the investor's utility function. The higher the investor's risk tolerance (ranging from 0 to 1), the higher the proportion of the portfolio is invested in risky assets. The formula is $(\text{Return} - (\text{Variance} / \text{Risk Tolerance}))$. Sharpe's suggestion is that the risk tolerance coefficient should vary between 0 and 100% and should correspond to the percentage of the portfolio being held in risky securities. The rest of the portfolio should be held in low risk fixed income securities. An investor with high risk tolerance may have 90% of the portfolio invested in risky assets (Risk tolerance = 0.90). An investor with low risk tolerance may only have 20% of the portfolio invested in risky assets (Risk tolerance = 0.20).

Skewness: This is a measure of symmetry of the distribution of security returns. A skewness value of zero indicates that the distribution is perfectly symmetric. A negative value indicates that the distribution is not symmetric and has larger negative losses than positive gains. A positive value indicates that the distribution is not symmetric and has larger positive gains than negative losses. Most risk averse investors will prefer positive skewness.

Standard Deviation: A measure of an asset's volatility, standard deviation is a statistical measure of the range of an asset's performance. The higher the number the greater the volatility. When an asset has a high standard deviation, its range of performance has been very wide, indicating that there is a greater potential for volatility. The standard deviation figure provided here is computed from weekly returns or monthly returns. The actual number reflects deviations in weekly or monthly returns and does not reflect annual returns.

Standard Error of Regression: Standard deviation around the regression line. This is the amount of an asset's variability that is not explained by the market.

Terminal Wealth: Terminal wealth answers the questions, "How much money did I make?" It is a ratio that shows how much money is in the investor's portfolio for each one dollar of initial investment.

T-Test Alpha: In the regression used previously to compute the alpha and beta, the parameters of the regression (alpha and beta) have to be tested to see if they are significantly different from zero. The t-test tells us if these parameters are nonzero. Generally, t-test greater than 2.0 indicate significant nonzero values. This t-test is test of the significance of the intercept or alpha of the regression.

T-Test Beta: See previous explanation for Alpha. This is the t-test that indicates whether the beta of the regression is significantly different from zero.

T-Test Jensen: See discussion of the Jensen Alpha above. This is the t-test that indicates whether the Jensen Alpha is significantly different from zero. This is an important test in this case as a positively significant Jensen Alpha indicates that the portfolio outperformed the market.

Weekly Return: Geometric average of weekly returns. Final result is a weekly return.

Appendix 2. Measuring Risk and Return

1. Statistical Measures

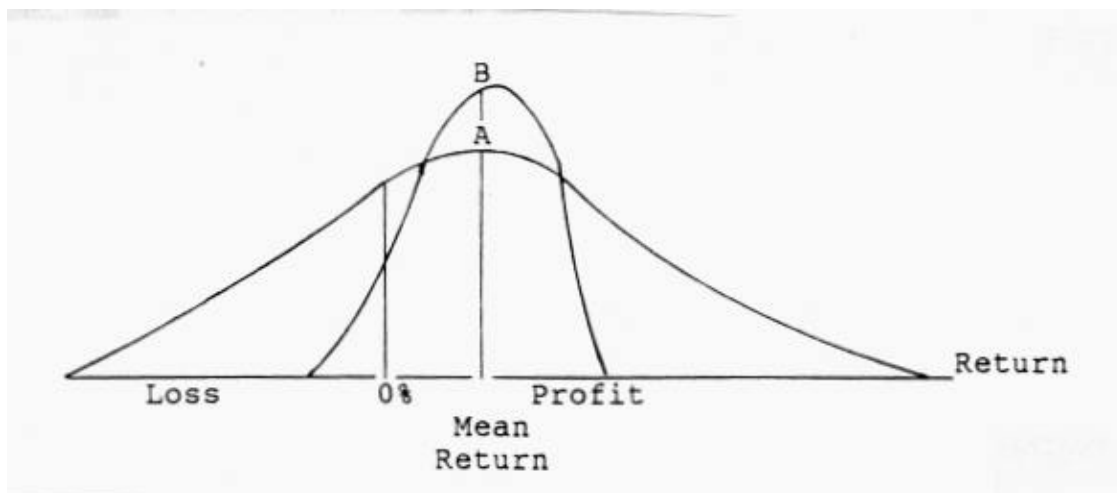
Statistical tools are used in conjunction with historic data to estimate future variability and return for an investment. Since the optimization techniques maximize return and minimize risk, the selection of the measurement tool is important. Flawed estimates of return and risk lead to flawed optimization.

2. Variance (Risk Measure)

The major source of perceived risk to the investor during the investment process is the variability of returns over time. Therefore, various statistical measures of variability of asset returns over time are used. Most of these are based on probability distributions with the most commonly used measure being the *variance*. It is calculated as follows:

$$V_i \text{ or } \sigma_i^2 = \frac{1}{k} \sum_{t=1}^k [R_{it} - E(R_i)]^2$$

where R_{it} is the return relative for asset i in period t and $E(R_i)$ is the expected geometric mean return for asset i . There are k observations. The *variance* measures the width or dispersion of a distribution. The greater the width of the distribution, the greater the perceived risk. Given two distributions with the same expected geometric mean rate of return, the investment with the smaller variance is the better investment. In the following example, investment B will be the preferred investment since it has the smaller variability.



Using the *variance* and the *mean return* to determine which investment is the best investment is called the *mean-variance criterion*. (It should be noted that Harry Markowitz was awarded the Nobel Prize in economics for his work in this area. See Markowitz, 1959.) The criterion is stated as follows:

Whenever two investments have *equal expected returns*, then the investment with the *smallest variance* should be chosen.

Whenever two investments have *equal variances*, then the investment with the *greater expected return* should be chosen.

The *advantage* of using the *variance* as a risk measure is that modern portfolio theory (MPT) is highly developed when using the *variance*.

The *disadvantages* include:

The *variance* works best with normally distributed asset returns. When return distributions are not normally distributed, estimation errors and other biases will result.

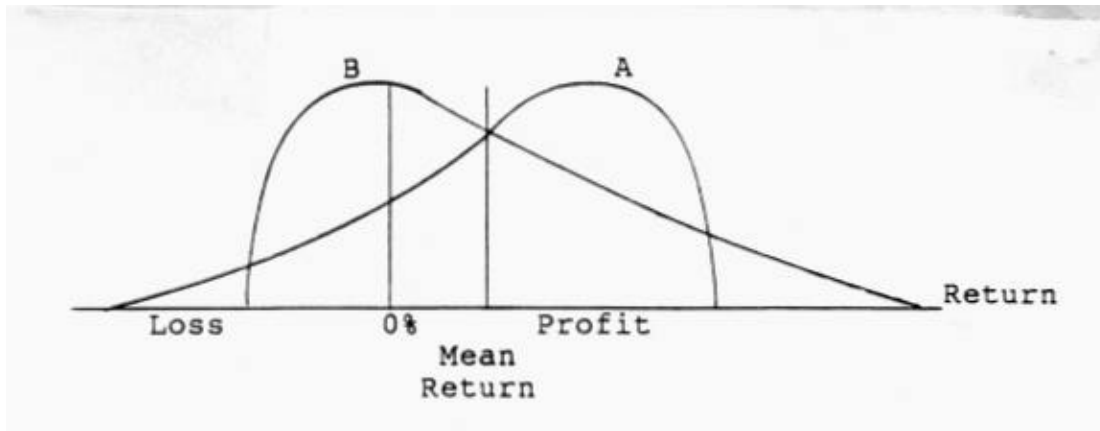
Using the *variance* to solve the portfolio problem (minimize risk and maximize return) is a very complex, computationally intense, process.

The *variance* does not provide a realistic description of investor behavior relative to risky investments.

3. Lower Partial Moment or LPM (Risk Measure)

Both the *beta* and the *variance* work best when the distribution of security returns is normally distributed. Both also make assumptions as to the specific type of the investor's utility function. In order to reduce estimation errors and avoid ranking errors, the *lower partial moment* was developed. The *lower partial moment* is also known as the *semivariance* and also as the *below-target variance*. The *lower partial moment* traces back to Markowitz(1959), who suggests that *semivariance* analysis be used to handle skewed security return distributions and investors who do not have quadratic utility functions. Bawa(1975) and Fishburn(1977) provide a proof that the *semivariance* is a special case of *lower partial moment* analysis. They derive the *n-degree LPM* where the *semivariance* is a special case ($n=2$) of the *LPM*. The variable n is the degree to which deviations below the target return are raised. In the case of the *semivariance*, the below-target deviations are squared. If $n=3$, then the below-target deviations are cubed.

The first problem encountered in measuring asset riskiness is the problem of nonnormal distributions as shown below. Given two distributions, B and A, one positively skewed (B) and the other negatively skewed (A). Both distributions can have the same mean and variance. Hopefully, it is clear that the positively skewed distribution B is the preferred investment, however, the *variance* measure will not make a differentiation between the two distributions.



The *n-degree lower partial moment* can handle nonnormal distributions and is mathematically defined by the following equation:

$$LPM_n(h) = \frac{1}{k} \sum_{t=1}^k \text{Max}[0, (h - R_t)]^n$$

where n is the degree of the *lower partial moment* ($n \geq 0$), h is the target return that the investor does not wish to go below, R_t is the return for a security for period t , and k is the number of periods used to calculate the *LPM*. Note that the above-target returns ($R_t > h$) provide negative numbers. Given the choice of a zero or a negative number, the maximization (Max) function will select the zero. Only below-target returns ($R_t < h$) will provide a positive deviation that is raised to the n power and added into the *LPM* calculation. *LPM* will only provide non-negative values. In the *n-degree LPM model*, $n = 1.0$ is the boundary line between risk averse behavior and risk seeking behavior. When $n > 1.0$, the investor is averse to risk and attempts to minimize it. When $n < 1.0$, the investor seeks to add additional risk to a portfolio. When $n = 2$, the *semivariance* results.

Appendix 3. Model Portfolio Backtest – Industry Groups

This is a backtest of the QInsight business cycle phase model using the S&P industry groups for the period from January 1988 to October 1997 (the date for the beginning of the industry group model portfolio). Investors should note that the annualized return for the S&P 500 index was 17.35% for this period, while the Industry Group Portfolio (using the top 30 industries) had an annual return of 24.09%. The industry group portfolio had a 35.5% excess return over the S&P 500 index, with additional downside risk (defined as Semi-variance) of 16.25%. Therefore, the return per unit of risk (R/SV or return to semi-variance) in the Industry Group Portfolio was 51.6% greater than the S&P 500 index for the period.

Backtest - Data Input

```
Phase of Economic Cycle Top 30 Industry Elimination
R/SV Ratio Calculated from Historic Database
Commission Rate:          .0025
Risk Free Rate:          1.0032740 Annualized:      1.0400
LPM Critical Value       1.0032740 Annualized:      1.0400
Length Historic Period:      24
Periods in One Year:        12
# Quarters Subset Stocks    0
# Degrees LPM Tested:       4
# of Revision Periods:     10
# of Assets in Total:       77 # of Obs.:          362
Market Index:              S&P 500
Unacceptable QV Ratings:    6
Stop Loss Threshold:        1.0000      100% Stop Loss
Evaluation of Market Portfolio (No Rebalance)
For Observations 217 To 334 Dates: 8801 To 9710
```

Summary Statistics

FINAL REPORT 100% Stop Loss - Variable T-Bill Rate - Simple Nonadaptive Risk/Return Heuristic

Size	AMean	Std Dev	R/V Ratio	Semivariance	R/SV	Term Wealth	GMean	Risk Prem	Skewness	R/SV4	AnnualReturn
■S&P500	1.013985	.033759	.221949	■.000363	.393057	4.821898	1.013421	.007493	-.062309	.721947	■ 17.35%

R/LPM Earnings Surprise Subset - LPM Degree: 3.0000

# Inds	AMean	Std Dev	R/V Ratio	Semivariance	R/SV	Term Wealth	GMean	Risk Prem	Skewness	R/SV4	AnnualReturn
5	1.019158	.042988	.287076	.000463	.573233	8.454457	1.018255	.012341	.297461	1.181522	24.25%
10	1.018956	.041118	.297102	.000437	.584385	8.329890	1.018127	.012216	.188837	1.241579	24.06%
15	1.018769	.040291	.299356	.000422	.586846	8.182578	1.017973	.012061	.164860	1.234880	23.83%
■20	1.018707	.040173	.298778	■.000420	.585646	8.128191	1.017916	.012003	.164827	1.228805	■ 23.75%
25	1.018850	.040406	.300352	.000424	.589247	8.254464	1.018049	.012136	.160962	1.230096	23.94%
30	1.018947	.040302	.303618	.000422	.596009	8.351566	1.018150	.012237	.149664	1.247358	24.09%

Quarterly Returns Period 8801 to 9710

Number of Industries in Portfolio

PeriodBegin	EndDate	#Sec	Hist	Algor	Phase	Sercor	TSerCr	Subset	θ	5	10	15	20	25	30	Skew	Kurt	
1	8801	8804	28	24	Indust	5	.0712	.3271	9.36	7.36	2.79	2.79	2.79	2.79	2.79	-1.8734	8.5915	
2	8805	8911	29	24	Indust	1	.0918	.4226	56.14	37.31	66.17	62.45	62.30	62.31	62.38	-1.8982	8.8227	
3	8912	9105	29	24	Indust	2	.3430	1.6735	31.34	17.33	37.63	34.24	33.21	32.56	33.64	33.74	-.0491	2.1855
4	9106	9111	29	24	Indust	3	.1757	.8180	-7.77	.03	-3.95	-3.30	-3.28	-3.26	-3.15	-2.83	-.4365	3.2619
5	9112	9405	30	24	Indust	4	.1143	.5275	64.94	28.51	43.84	43.87	43.88	43.88	43.88	43.72	-.2422	2.7726
6	9407	9412	28	24	Indust	5	.3209	1.5525	4.60	2.30	1.29	1.29	1.29	1.29	1.29	1.29	-.3641	2.3452
7	9501	9601	29	24	Indust	1	.3280	1.5913	51.78	42.26	72.77	68.35	65.97	65.96	66.03	66.42	-.3568	1.9539
8	9602	9603	28	24	Indust	2	.0497	.2281	5.03	1.90	2.20	1.69	2.21	2.13	2.27	2.47	-.7997	2.3453
9	9604	9609	29	24	Indust	3	.1961	.9167	6.85	7.72	13.56	12.66	11.29	11.27	11.00	11.09	-.9411	3.1024
10	9610	9710	30	24	Indust	4	.0088	.0404	42.06	35.76	28.16	36.73	38.37	38.23	39.10	39.19	-1.0841	4.2289

NREV: 10

Note: An iShare backtest is available upon request.