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The Performance of U.S. Equity Mutual Funds in The First Decade of 21st Century With Selected Indexes

by

Mohammed A. Al Hourani

A thesis
submitted in partial fulfillment of the requirements for the degree of
Masters of Business Administration
to the Faculty of Business Administration & Economics
at Haigazian University

Beirut, Lebanon
August 2010

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Mohammed A. Al Hourani

Approved by:

Dr. Samih Antoine Azar, **First Reader**

Associate Professor of Business Administration
Faculty of Business Administration & Economics

Dr. Akram Tannir, **Second Reader**

Lecturer in Business Administration
Faculty of Business Administration & Economics

Date of project presentation: August 23, 2010

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ACKNOWLEDGEMENTS

I would like to express my deepest gratitude and recognition to Dr. Samih A. Azar for his continuous support and guidance in this thesis.

I would also like to thank my family for their continuous encouragement.

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Abstract

Several studies stated that managers achieve superior returns while others stated they do not. This paper studies the performance of 200 U.S equity mutual funds in the first decade of 21st century using four Indexes S&P500, DJIA, Russell3000 and NASDAQ as benchmarks which give this study its importance. I found that mutual funds outperformed the market before and after expenses when compared to S&P500 and DJIA; outperformed the market before expenses but do not generate abnormal profit after expenses when compared to Russell 3000; do not generate abnormal profit before expenses and underperformed the market after expenses when compared to NASDAQ. I concluded that estimated beta and actual beta are equal only for S&P500

Introduction

U.S mutual fund business is a multi trillion industry with total net assets of 11,120.73 billion USD in 2009 where there were 4,659 equity funds with total net assets 4,957.58 billion in 2009. Also mutual funds manage about 20 percent of household financial assets where approximately 90 million investors currently own mutual fund shares. The investors in mutual funds are interested in their performance- taking into consideration its expense ratio.

Mutual fund performance means its return compared to the risk. The unsystematic risk can be diversified away because it gets "averaged out" as the number of securities gets larger, while the systematic risk cannot be diversified away and investors expect to be compensated for bearing it. This distinction between systematic and unsystematic risk is the foundation of the Capital Asset Pricing Model (CAPM) which I use in this paper.

During the past 30 years there were many studies opposing the belief that mutual fund managers are able to beat the market and outperform it by the amount of expenses they charge the investors. On the other hand, there were many studies that documented significantly positive risk adjusted net return of U.S. mutual funds which means that managers must display some skill.

Two important studies I considered in this paper: Jensen (1968) who believed that mutual fund managers do not appear to possess useful private information, and Grossman and Stiglitz (1980) who expect abnormal profits for mutual funds before expenses; however, they expect that these are wiped out after taking expenses. Research costs equal abnormal profits. This means that research is productive, but not productive enough to generate abnormal profits. This is contrary to the Efficient Market Hypothesis (EMH) which predicts that there's no abnormal return whatsoever.

In this paper I studied the performance of 200 U.S equity mutual funds for the period of 2000-2009 using Jensen's alpha as measurement of the performance. The importance of this study is measuring the performance of U.S equity funds in the first decade of 21st century using four indexes as benchmarks which are S&P500, Dow Jones Industrial Average, Russell 3000 and NASDAQ.

I estimated 800 regressions, finding estimated beta and Jensen's alpha for each fund. I studied relationships between systematic risk measured by beta and the total risk measured by standard deviation and variance. I studied the performance of mutual funds measured by Jensen's alpha with each index as benchmark. I found that mutual funds outperformed the market before and after the expenses when compared to S&P500 and DJIA, outperformed the market before expenses and do not generate abnormal profit after the expenses when compared to Russell 3000, do not generate abnormal profit before expenses and underperformed the market after expenses when compared to NASDAQ. Finally I studied the relation between estimated and actual beta, and I found that they are equal only for S&P500.

Chapter 1 gives an overview of the mutual fund industry, chapter 2 clarifies the Efficient Market Theory, chapter 3 gives an overview of the literature of mutual fund performance,

Chapter 1: Overview of the Mutual Fund Industry.

1.1 Size, service, and performance

U.S mutual fund industry showed huge progress with 68 funds of total net assets of 0.45 billion USD in 1940 to 7,691 funds of total net assets 11,120.73 billion US $ in 2009. Out of this, the share of equity funds increased from 323 funds in 1970 to 4,659 funds with total net assets 4,957.58 billion in 2009 (Investment Company Institute, 2010). Mutual funds manage about 20 percent of household financial assets where approximately 90 million investors - with a wide range of financial objectives and service needs - currently own mutual fund shares, and the main interest of shareholders who purchase funds is their performance.

Holders of mutual fund shares most likely expect that funds will show reasonable consistency over time with regard to the variability of returns and they are interested in performance measures over a three to five- year period (Kothari and Warner, 2001).

Investors are also investing in lower cost funds, where about 90 percent of the net "new cash" flowing into stock funds since 2003 went to funds with costs lower than the median fund compared to 75 percent of the flows to funds below the median in the mid-1990s (Kothari and Warner, 2001).

The large number of fund sponsors and the dynamic nature of the financial services market have kept the market concentration of the largest fund sponsors stable for the past 15 years. For example, in 1990, the 10 largest mutual fund sponsors managed 53 percent of mutual fund assets; in 2005, the 10 largest firms managed 48 percent of the assets. Competition and other market dynamics have also altered the rankings among fund companies. Many funds once ranked among the largest firms no longer exist. For example, from the 10 largest mutual fund sponsors in 1990, five were not ranked among the top 10 in 2005 (Reid, 2006).

If we are looking at the performance report, Standard and Poor's (S&P 2008) shows that the percentage of all domestic fund that outperformed the S&P Composite 1500 benchmark over the market cycle was 50.76% for the period of 1999-2003 and 66.21% for the period of 2004 to 2008. It also shows the average equally weighted U.S. equity fund performance[1] using S&P Composite 1500 benchmark for all domestic funds was -38.67 % for one year, -9.7 % for 3 years and -2.47 % for 5 years from 2004 to 2008. The average asset weighted U.S. equity fund performance[2] using S&P Composite 1500 benchmark for all domestic funds was -38.93 % for one year, -9.37 % for 3 years and -2.1 % for 5 years from 2004 to 2008. Despite the slowdown of net inflows into equity funds after the downturn on stocks market in 2000, net inflows over this period was a total US $ 2.3 trillion, which corresponds to US $ 136 billion per year (Karoui and Meier, 2008).

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[1] Equal-Weighted Fund Performance: Equal-weighted returns for a particular style category in a month are determined by calculating a simple average return of all active funds in that category in that particular month.

[2] Asset-Weighted Fund Performance: Asset-weighted returns for a particular style category in a month are determined by calculating a weighted average return of all funds in that category in that particular month; with each fund's return being weighted by its total net assets. Asset weighted returns are a better indicator of fund category performance measurement because they more accurately reflect the returns of the total money invested in that particular style category.

1.2 Expense ratio

The expense ratio is the fund's operating expense divided by the average dollar value of its assets under management, and it consists of management fees, Rule 12b-1 fees, but excludes expense that reduces portfolio return such as: sales loads, brokerage fees, bid-ask spreads and market impact costs (Baker et al., 2009) U.S. domestic funds present an average expense ratio of 1.3 % which is slightly higher than the ratio reported in other countries (Ferreira et al., 2009).

Various factors affect a mutual fund's expense ratio, including its investment objective, its level of assets, the average account balance of its investors, the range of services it offers, fees that investors may pay directly, and whether the fund is a "load" or "no-load" fund (Investment Company Institute, 2010).

Mutual fund fees and expenses have declined by half since 1990. In 1990, investors on average paid 198 basis points (or $1.98 for every $100 in assets) to invest in stock funds (Investment Company Institute, 2010).

During the stock market downturn that lasted from early 2000 to early 2003, the average expense ratio of stock funds temporarily increased several basis points. This largely reflected the sharp decline in the assets of stock funds during that downturn. Certain fund costs (transfer agency fees, accounting and audit fees, director's fees, and various other fees) tended to be relatively fixed in dollar terms. As the assets of stock funds fell, those relatively fixed dollar fees contributed proportionally more to the expense ratios of stock funds. When the stock market began to recover in early 2003, the assets of stock funds rebounded, and stock fund expense ratios resumed a downward trend.

From 2003 to 2008, the average expense ratio of stock funds fell each year. In 2009, however, the average expense ratio of stock funds increased 2 basis points to 86 basis points, but this increase was offset by the decline in load fees paid by stock fund investors by 2 basis points.

On average, fees and expenses incurred by investors in long-term mutual funds were unchanged in 2009. Stock fund investors on average paid 99 basis points (0.99 percent) in fees and expenses, the same as in 2008.

During the stock market downturn that began in October 2007 and lasted through early 2009, the assets of stock funds again declined markedly, the relatively fixed expense of funds contributed proportionally more to fund expense ratios increasing fund expense ratio.

This rise in fund expense ratios, as during the market downturn earlier in the decade, seems likely to be temporary. The stock market declined sharply in early 2009, then in March 2009 began a recovery that lasted through the end of the year. The assets of equity mutual funds recovered with the stock market rally, rising from $3.1 trillion in February 2009 to $5.0 trillion by December 2009 (Investment Company Institute, 2010). Even with that sharp recovery, however, the average assets of equity funds over calendar year 2009 measured $4.1 trillion, well below the average of $5.3 trillion over calendar year 2008. As a result, the average expense ratios of equity funds, measured over the entire calendar year of 2009, rose relative to 2008 (Investment Company Institute, 2010).

1.3 Risk measurement

The return on a mutual fund investment includes both income (in the form of dividends or interest payments) and capital gains or losses (the increase or decrease in the value of a security). The return is calculated by taking the change in a fund's net asset value, which is the market value of securities the fund holds, assuming the reinvestment of all income and capital-gain distributions, and dividing it by the original net asset value.

Investors are interested not only in funds' returns, but also in risks taken to achieve those returns, and they are not interested in the returns of a mutual fund in isolation, but in comparison to some alternative investment. A fund should at least generate a return that is referred to as the "risk free return" which is the return on a completely safe, liquid investment available at the time.

Standard deviation is sometimes criticized as being an inadequate measure of risk because investors do not dislike variability per se. They dislike losses but are quite happy to receive unexpected gains. One way to meet this objection is to calculate a measure of downside variability, which takes account of losses but not of gains. So a measure of average monthly underperformance could be calculated as follows (Simons, 1998):

1) Count the number of months when the fund lost money or underperformed Treasury bills, that is, when excess returns are negative. 2) Sum these negative excess returns. 3) Divide the sum by the total number of months in the measurement period.

While downside risk may be a better reflection of investors' attitudes towards risk, empirical evidence suggests that the distinction between downside risk and the standard deviation is not as important as it seems because the two measures are highly correlated. Sharpe (1997) analyzed monthly standard deviations of excess returns and average monthly underperformance in a sample of 1,286 diversified equity funds in the three-year period between 1994 and 1996. He found a close relationship between these two measures, with a correlation coefficient of 0.932, and it can be explained as the monthly stock returns generally follow a symmetrical bell-shaped distribution. Therefore, stocks with larger downside deviations will also have larger standard deviations.

Two risk measures, which are the standard deviation and the downside risk, have been used to adjust mutual fund returns to obtain measures of risk-adjusted performance. There are three measures of risk-adjusted performance. The first is Sharpe ratio, the second is Modigliani measure based on the standard deviation, and the third is Morningstar ratings, which are based on downside risk.

1.3.1 The Sharpe Ratio

One of the most commonly used measure of risk-adjusted performance is the Sharpe ratio (Sharpe 1966), which measures the fund's excess return per unit of its risk. The Sharpe ratio can be expressed as follows:

Sharpe ratio = fund's average excess return /standard deviation of fund's excess return.

The Sharpe ratio is based on the trade-off between risk and return. A high Sharpe ratio means that the fund delivers a lot of return for its level of volatility. The Sharpe ratio allows a direct comparison of the risk-adjusted performance of any two mutual funds, regardless of their volatilities and their correlations with a benchmark.

1.3.2. Modigliani Measure

The view that the Sharpe ratio may be too difficult for the average investor to understand is shared by Modigliani and Modigliani (1997), who proposed a somewhat different measure of risk-adjusted performance. Their measure expresses a fund's performance relative to the market in percentage terms and they believe that the average investor would find the measure easier to understand. The Modigliani measure can be expressed as follows (Coleman and Siegal, 1999):

$$M^2 = \left(\sigma_M / \sigma_i \right) (R_i - R_f) + R_f$$

Where σ_M is the reference or benchmark standard deviation, for example the standard deviation of returns on the market portfolio or benchmark being used to evaluate portfolio. σ_i is the standard deviation of returns on portfolio, R_i is the arithmetic mean rate of return on portfolio, R_f is the risk free return or benchmark rate of return

1.3.3 Morningstar Ratings

Morningstar calculates its own measures of risk-adjusted performance that form the basis of its popular star ratings. Star ratings are well known among individual investors. One study found that 90 percent of new money invested in equity funds in 1995 flowed to funds rated 4 or 5 stars by Morningstar.

Morningstar return= load-adjusted fund excess return/average excess return for asset class

Morningstar risk= fund's average underperformance/average underperformance of its asset class

Morningstar calculates its raw rating by subtracting the Morningstar risk score from the Morningstar return score asset class.

Comparing a fund's return to a risk-free investment is not the only relevant comparison. Domestic equity funds are often compared to the S&P 500 index, which is the most widely used benchmark for diversified domestic equity funds. However, other benchmarks may be more appropriate for some types of funds, such as Russell, NASDAQ and Dow Jones Industrial Average which I will elaborate in this paper.

For mutual funds, researchers are most often interested in the standard deviation of excess returns over the risk-free rate. Mutual fund companies are sometimes interested in how well their fund managers are able to track the returns on some benchmark index related to the fund's announced purpose. This can be measured as the standard deviation of the difference in returns between the fund and the appropriate benchmark index. The latter is sometimes referred to as "tracking error."

Chapter 2: Efficient Market Theory.

2.1 Portfolio analysis, efficient market and Random walk theories (Fama, 1965, 1970, 1991).

The theory of portfolio analysis is essentially normative. It describes efficient techniques for selecting portfolios on the basis of predictions about the performance of individual securities. The portfolio analyst's tasks are 1) translating predictions about security performance, and 2) selecting from among the large number of possible portfolios those that are efficient (Sharpe 2001). This theory per se makes no assumptions about the pattern of security prices or the skill of investment managers.

The concept of portfolio "performance" has at least two distinct dimensions:

1) The ability of portfolio manager or security analyst to increase returns on the portfolio through successful prediction of future security prices

2) The ability of the portfolio manager to minimize (through "efficient" diversification) the amount of "insurable risk"born by the holders of the portfolio.

But in the perfect capital market, no securities would be incorrectly priced which eliminate one task of mutual fund and leave the task of diversification. One measurement of return is Reward to Volatility ratio. It measures the investment return to an individual in relation to the variance of return expected in the chosen portfolio. In contrast to market measures of risk, such as beta, the RTV ratio can be specific to each investor, which means that the market will not reward the investors who choose not to diversify.

Treynor , on the other side, who studied the advantage of relationship of the return of truly diversified portfolio and the overall market, used the volatility of a fund as a measure of its risk instead of the total variability used in RTV ratio and invented the Treynor Index (TI). But this index cannot capture the portion of variability that is due to lack of diversification.

The Efficient Market Theory (EMT) simply means that securities prices already include all available information, implying that returns across active and passive portfolios are equal before subtracting trading and investment expenses. Hence that active trading is wasteful. Within the framework of EMT, mutual funds through research and trading cannot improve by this information and thus are destined to lose money as they expend resources with no possibility of beating a fully efficient market. The efficient market hypothesis concludes that outperformance occurs by chance and is unpredictable.

The theory of Random Walks asserts that the past behavior of a security's price is of no value in predicting its future price (Sharpe, 2001) which means it is very difficult and very expensive to detect securities that are incorrectly prices. This theory says (Fischer and Ronald, 1983) that successive price changes are independent. It only focus on the phenomenon of short-run price independence and says nothing about trends on the long run or how price levels are determined.

Fama (1965) argue that it is best to regard the random walk model as an extension of the general expected return of " fair game "efficient markets model in the sense of making a more detailed statement about the economic environment. The 'fair game' model just says that the conditions of market equilibrium can be stated in terms of expected returns, and thus it says little about the details of the stochastic process generating returns.

A random walk arises within the context of a model when the environment is such that the evolution of the investor tastes and the process generating new information combine to produce equilibrium in which return distributions repeat themselves.

The empirical work (Fama, 1965, Fischer and Ronald, 1983) can be divided into three categories depending on the nature of the information subset of interest:

1) Strong –form tests are concerned with whether individual investors or groups have monopolistic access to any information relevant for price formation. This test can be viewed as a benchmark against which the importance of deviations from market efficiency can be judged. Many of the tests of strong form of efficient market hypothesis deal with test of mutual fund performance.

2) In the less restrictive semi –strong –form tests the information subset of interest includes all publicly available information. It says that current prices of stocks not only reflect all informational content of historical prices, but also reflect all publicly available knowledge about the corporations being studied.

3) The weak form tests. The information subset is just historical price or return sequences. It says that the current prices of stocks already fully reflect all the information that is contained in the historical sequence of prices. Therefore, there is no benefit in examining the historical sequence of prices. This weak form of the efficient market hypothesis is also popularly known as the "Random Walk Theory".

The main concern of empirical research on the random-walk model has been to test the hypothesis that successive price changes are independent. Two different approaches have been followed. First, there is the approach that relies primarily on common statistical tools such as serial correlation coefficients and analyses of runs of consecutive price changes of the same sign. If the statistical tests tend to support the assumption of independence, one then infers that there are probably no mechanical trading rules or chartist techniques based solely on patterns in the past history of price changes which would make the expected profits of the investor greater than they would be with a simple buy-and-hold policy. The second approach to testing independence proceeds by testing directly different mechanical trading rules to see whether or not they provide profits greater than a buy-and-hold policy.

In particular the Efficient Market Hypothesis (EMH) says that economic profits cannot be generated from stock picking. The conclusion is that most investors would be better off buying a cheap index fund.

2.2 The issue of information (Grossman and Stiglitz, 1980)

Going back to Efficient Market Theory, we have two issues to address. First, if information is costly to collect, then it is efficient for trade by informed investors to occur at prices sufficiently different from full-information prices to compensate. But if the information is free, then market efficiency implies that security prices incorporate all available information (Fama, 1970). If trades are made at prices that reflect full information, the market is over efficient (Ippolito, 1989) Second if market is efficient, then mutual funds should make trades and therefore hold portfolios that earn risk-adjusted returns sufficiently higher than index funds to pay for extra expenses. If mutual funds managers are essentially uniformed investors, then their returns adjusted for risk and expenses will be lower than returns available in a passive index fund; and funds with higher fees and turnover will perform systematically worse compared with mutual funds that charge lower fees and do less trading.

Grossman and Stiglitz (1980) argued that because information is costly, prices cannot perfectly reflect the information which is available, because if it did, those who spend resources to obtain it would receive no compensation, leading to the conclusion that an informationally efficient market is impossible.

They argued that the only way informed traders can earn a return on their activity of information gathering is if they use their information to take position in the market which are "better" than the positions of uniformed traders.

They showed that when the efficient market hypothesis is true and information is costly, competitive markets break down. When this happens, each informed trader, because he is in a competitive market, feels that he could stop paying for information and do as a trader who pays nothing for information.

Also they stated that perfect efficiency is an unrealistic benchmark that is unlikely to hold in practice. Even in theory, as Grossman and Stiglitz (1980) have shown, abnormal returns will exist if there are costs of gathering and processing information. These returns are necessary to compensate investors for their information-gathering and information-processing expenses, and are no longer abnormal when these expenses are properly accounted for. In a large and liquid market, information costs are likely to justify only small abnormal returns, but it is difficult to say how small, even if such costs could be measured precisely.

Grossman (1976) and Grossman and Stiglitz (1980) go even further. They argue that perfectly informationally efficient markets are an impossibility, for if markets are perfectly efficient, the return to gathering information is nil, in which case there would be little reason to trade and markets would eventually collapse. Alternatively, the degree of market inefficiency determines the effort investors are willing to expend to gather and trade on information. Hence, non-degenerate market equilibrium will arise only when there are sufficient profit opportunities, i.e., inefficiencies, to compensate investors for the costs of trading and information-gathering. The profits earned by these investors may be viewed as economic rents that accrue to those willing to engage in such activities.

The most important conclusion that can be drawn is that Grossman and Stiglitz expected abnormal profits for mutual funds before expenses. But they expected that these are wiped out after taking expenses. This means that research on stocks is rewarded but not enough to produce abnormal profits after expenses. Research costs equal abnormal profits. This also means that research is productive, but not productive enough to generate abnormal profits. This is contrary to the Efficient Market Hypothesis (EMH) which predicts no abnormal returns whatsoever. Hence active management is not rewarded under EMH but is rewarded under Grossman and Stiglitz.

2.3 1st anomaly: persistence

Predictability and persistence are slightly different concepts. Persistence implies funds ranked as 'past winners' (losers), tend to stay winners (losers) in the future. So there is a positive correlation between past and future performance as funds maintain their relative positions. Predictability allows for the latter but also for past winners to become future losers (i.e. reversals, implying negative correlation) (Cuthbertson et al., 2006)

Hypothesis of persistence or Hot Hand effect (Bams and Otten, 2002) states that mutual fund with an above average return in this period will also have an above average return in the following period. This topic has been documented by many researchers such as Hendrick et al. (1993) and Brown and Goetzmann (1995) who found evidence in mutual fund performance over short time horizons. Grinblatt and Titman (1992), Elton et al. (1996) documented mutual fund return predictability over longer horizons. Malkiel (1995) also found that the expense ratios that vary over the universe of funds will tend to produce some persistence in return, and most important result that persistence results are influenced by survivorship bias (Malkiel, 1995). Carhart (1997) shows that this "hot hands" effect is mainly due to persistence in expense ratios and the pursing of momentum strategies[3]. Hendricks et al. (1993) suggest that risk –adjusted excess returns of 5 %per year can be achieved following a persistency strategy (see also Malkiel, 1995).

If persistence is driven by consistent poor performance, investors would not be able to earn excess returns unless they could sell a fund short. Moreover, if positive persistence is influenced by survivorship bias, selection of funds by past superior performance will not necessarily produce superior results. Superior performing funds in one period may have taken simple very risky bets and won. If the bets fail in the next period, the fund may go out of business and, thus, leave the sample. If the bets continue to be successful,

[3] This strategy looks to capture gains by riding "hot" stocks and selling "cold" ones. To participate in momentum investing, a trader will take a long position in an asset, which has shown an upward trending price, or short sell a security that has been in a downtrend. The basic idea is that once a trend is established, it is more likely to continue in that direction than to move against the trend.

the fund will survive. So the investor does not know which fund will survive. (Malkiel, 1995). Also, according to Jensen (1968), past performance appears to provide a basis for predicting future performance, but this does not necessarily imply that differences in performance are due to differences in management skill. This could be due to differences in the ability of management to find incorrectly priced securities or to differences in expense ratios. If the market is very efficient, the fund spending the least should show the best net performance. If not, funds devoting more resources to management may gain enough to more than offset the increased expenditure and thus show better net performance.

Two key issues on fund performance have been central to recent academic and policy debates. The first is whether active funds have an (ex-post) abnormal fund performance in terms of gross returns (but after adjustments for risk) which is positive and whether any outperformance accrues to fund managers or to investors. A second major issue is whether abnormal fund performance can be identified ex-ante and for how long it persists in the future. If fund returns persist then it may be possible for investors to re-allocate their savings towards 'winner funds' and enhance their long term abnormal returns (relative to a passive index strategy) – in short, "money may be smart" (Cuthbertson, et al., 2006).

The Elton et al.(1996) study was one of the first studies to examine the economic significance of persistence in a survivorship bias free sample of US funds (188 funds, during 1977-1993) using a 3 factor model plus a bond return. For the top decile funds and either 1-year or 3-year rebalancing, they find evidence of a small positive forward looking alpha of around 0.5 % p.a., and for the bottom decile a forward looking alpha of between - 2.4 % and - 5.4% p.a. (depending on the ranking and rebalancing periods used) . None of the top and bottom decile forward looking alphas are statistically significant taken individually, but their difference is statistically significant at the 5 % significance level or above. Similar results are reported by Brown and Goetzmann (1995)

Using 855 funds (during 1972-1995) for five sectors (they are equity growth, equity income, general equity, smaller companies and a balanced sector) Blake and Timmermann (1998) form (equally weighted) recursive quartile portfolios based on alphas estimated over the previous 24 months and hold these portfolios for only one month. They find statistically significant positive and negative persistence in alpha-performance particularly for smaller company funds but results vary depending on the risk adjustment model used and to exploit this persistence may require significant transactions costs due to monthly rebalancing (Cuthbertson, et al., 2006).

2.4 2nd anomaly: survivorship bias

Several authors documented an overestimation of average returns if only funds that survived throughout the entire period were included. This derives from the fact that funds with bad performance are frequently being shut down or merged into other funds. This kills bad track records and gives an overestimation of the average performance if only surviving funds are evaluated (Bams and Otten, 2004).An explanation of this fact is that some mutual funds fail to survive and cease operating each year due to poor performance or merger. The derivative effect of this altered landscape is that the performance histories of these unsuccessful and poorly managed funds are removed from databases, distorting average total return calculations of actively managed funds. As a consequence of the omission of these records, aggregate total return data for each mutual fund category inflate the average performance of actively managed funds and only those funds that continue in operation are included in the average (Kjetsaa, 2004).

In the literature, there are two different definitions of survivorship. The first definition is known as end-of-sample conditioning. Here all funds operating at the end of the sample period are defined as survivors (e.g., Carhart et al., 2000). This approach is followed by, Carhart et al. (2000), Bams and Otten (2004), and Deaves (2004). Some studies define-this is the second definition- only funds that were operational throughout the whole sample period, henceforth full-data, as survivors. These are a subset of the end-of-sample survivors (Rohleder et al., 2007).

The full-data definition is used in studies by, e.g., Brown and Goetzmann (1995), Grinblatt and Titman (1989), and Elton et al. (1996). But Malkiel (1995) uses both definitions.

There are two different weighting schemes to be found in the literature used for the aggregated portfolio performance: equal weighting and value weighting of individual funds. Despite many studies showing that non-surviving funds show smaller total net assets than surviving funds (e.g. Carhart, 1997), most studies only compute equally weighted estimates for survivorship bias. The few studies using value weighted performance are Brown and Goetzmann (1995), Malkiel (1995), and Deveas (2004).

In his study, Malkiel (1995) compared the mean yearly return of funds that survived from 1982 to 1992 with mean yearly returns of funds which did not survive. He found that the differences are substantial. The mean return of the surviving funds is statistically significantly greater than the mean of the non survivors. He concluded that analyses that systematically exclude non surviving funds will significantly overstate the returns received by mutual fund investors. He found survivorship bias of 1.4 % p.a. (value weighted fund returns) and a survivor premium[4] of 6.5 %p.a.

Elton et al. (1996) found survivorship bias of 90 BP and this inflates average alpha performance measures by between 40 and 100 BP over the 1977-93 period. They also found that survivorship bias is more concentrated in small funds and in growth funds. With average alphas of US funds measured at around minus 70 BP p.a. the survivorship bias is quantitatively important and particularly so for data prior to 1983 (Elton et al., 2001)

Carhart (1997) found that non surviving mutual funds exhibit higher total risk than survivors and disappear primarily because of multiple –year performance rather than a single poor annual return.

Also Bams and Otten (2004) found in their paper that using survivor portfolios alphas are overestimated in the range between 0.28 %and 0.64 %.

A study by Rohleder et al. (2007) of 10,930 mutual funds from January 1993 to December 2006, showed that there was significant survivorship bias when closed funds

[4] Survivor premium is the difference between the annual compound raw returns of portfolios of surviving and non surviving funds. Survivor bias is the difference between the annual compound returns of the surviving funds and the full set of both surviving and non surviving funds. In addition, 'incubation bias' arises if funds only begin to report to a database after a period of successful performance – this problem is more prevalent for hedge funds than mutual funds

were ignored, and that the choice of methods and definitions was crucial for the magnitude of the survivorship bias estimates. They also found that closed funds clearly underperform surviving funds years before they are actually closed. Fund size is a key characteristic for closing decisions. The larger a fund, the lower the likelihood that funds are closed, even if the returns are temporarily relatively low.

Chapter 3: Survey of the Literature

3.1 The CAPM, the SML, and Jensen's alpha

3.1.1 CAPM Model

It is easy enough to find the efficient portfolio of funds when one has a choice of a few funds, but it is not so easy to do with a choice of thousands of funds. One way around this problem was provided by modern portfolio theory first developed by Markowitz (1952). It introduces the concept of the "market portfolio," that is, the portfolio consisting of every security traded in the market held in proportion to its current market value. Moreover, modern portfolio theory divides the risk of each security into two parts: systematic and unsystematic. Systematic risk (or market risk) is the risk associated with the correlation between the return on the security and the return on the market portfolio. Unsystematic risk (also known as specific risk) is the "leftover" risk, which is associated with the variability of returns of that security alone. The distinction between the two components of risk is important because they behave differently as one increases the number of securities in the portfolio. The unsystematic component of risk can be diversified away because it gets "averaged out" as the number of securities gets larger, and so it can be ignored in a well-diversified portfolio. Systematic risk, on the other hand, cannot be diversified away and investors expect to be compensated for bearing it. The distinction between systematic and unsystematic risk is the foundation of the Capital Asset Pricing Model (CAPM) (Simon, 1998)

The Capital Asset Pricing Model (CAPM) is a relationship explaining how assets should be priced in the capital market. The model was introduced by Treynor (1961, 1962), Sharpe (1964), Lintner (1965) and Mossin (1966) independently, building on the earlier work by Markowitz on diversification and modern portfolio theory (French, 2003)

$R_i = R_F + \beta_i (R_M - R_F)$

Where:

1) R_i expected return on a portfolio or security
2) R_F free risk return
3) β_i beta measures the part of the asset's statistical variance that cannot be mitigated by the diversification provided by the portfolio of many risky assets. It is the price of systematic risk
4) R_M expected return on risky portfolio. $(R_M - R_F)$ is the market premium or market excess return

The CAPM is based on the following assumptions: 1) all investors are averse to risk and are single period expected utility of terminal wealth maximizers, 2) all investors have identical decision horizons and homogenous expectations regarding investment opportunities, 3) all investors are able to choose among portfolios solely on the basis of expected returns and variance of returns, 4) all transactions costs and taxes are zero, 5) all assets are infinitely divisible (Jensen, 1969)

Roll (1977) has argued that the use of CAPM as a benchmark is logically inconsistent since the model assumes all investors have common beliefs and information and hence, any abnormal performance can only occur when the market proxy is inefficient. This led the researchers to explore alternative asset pricing theories like Arbitrage Pricing Theory (APT) developed by Ross (1976) -who said that systematic risk need not be adequately represented by a single common factor such as the return on the market but instead presumed that there are K common sources of co-variation (risk) affecting returns. These K factors constitute anther potential benchmark with which to measure normal performance. However, Stambaugh (1982) found that the choice of a market proxy made a little difference in CAPM test.

Lehmann and Modest (1987) found that mutual fund rankings were very sensitive to the asset-pricing model chosen to measure normal performances. Similarly, alternative APT implementations often suggested substantially different absolute and relative mutual fund rankings. They found that there are considerable differences between the performance measures yielded by the standard CAPM benchmarks and those produced with the APT benchmarks, which suggests the importance of knowing the appropriate model for risk and appropriate expected return in this context

3.1.2 Jensen alpha

The way used in estimation of beta is a linear regression of the excess return of the given portfolio on the excess return of the market portfolio, where beta is the slope of the regression line

Alpha is the intercept of that regression and can be interpreted as the "extra" return for the fund's level of systematic risk, or the "value added" by the fund's manager. However, it is important to be careful in the way one interprets this measure in the CAPM framework. In theory, any alpha other than zero is inconsistent with the CAPM because, if the market portfolio is efficient, then the expected return on every security or portfolio of securities is completely determined by its relationship to the market portfolio, as measured by beta. Thus, it is logically inconsistent to apply the CAPM to measure a mutual fund's return over and above the return required to compensate investors for the fund's systematic risk, since according to the CAPM it is impossible to earn such extra return.

The pioneering work in risk-adjusted mutual fund performance measurement is the seminal paper of Jensen (1968). Jensen uses a Capital Asset Pricing Model (CAPM) approach to measure mutual fund manager performance. Following this method, the regression intercept, alpha, is designed to capture the risk-adjusted net return of a mutual fund.

Jensen's alpha (or Jensen's Performance Index, ex-post alpha) is used to determine the abnormal return of a security or portfolio of securities over the theoretical expected return.

In the context of CAPM, calculating alpha requires the following inputs:

1) The realized return[5] (on the portfolio),
2) The market return,
3) The risk-free rate of return, and
4) The beta of the portfolio.

Jensen's alpha = Portfolio Return − [Risk Free Rate + Portfolio Beta * (Market Return − Risk Free Rate)]

$$\alpha_J = R_i - [Rf + \beta_{iM} . (R_M - R_F)]$$ [6]

In estimating α, the measure of performance, Jensen is explicitly allowing for the effects of risk on return as implied by the asset pricing model, and he stated if the model is valid, the particular nature of general economic conditions or the particular market conditions over the sample he studied between 1945 and 1964 or evaluation period has no effect whatsoever on the measure of performance, thus his measure of performance can be legitimately compared across funds of different risk levels and across differing time periods irrespective of general economic and market conditions (Jensen, 1968).

If the portfolio manager has an ability to forecast security prices, the intercept alpha will be positive, and this represent the average incremental rate of return on the portfolio per

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[5] The annual return for a fund is based on the sum of dividend payments, capital gains distributions, and changes in net asset value

[6] The single beta CAPM Jensen alpha measure is the intercept from the regression of portfolio excess return on the market portfolio excess return

unit time which is due solely to the manager's ability to forecast future security prices, which means that the naïve random selection buy and hold policy can be expected to yield zero intercept (Jensen, 1968).

Jensen (1968) said that the performance measure α will be positive for two reasons: 1) the extra returns actually earned on the portfolio due to the manager's ability, and 2) the positive bias in the estimate of α resulting from the negative bias in estimate of average risk β

But this model assumes a fund's investment behavior can be approximated using a single market index (Bams and Otten , 2004)

There are at least two problems with estimating the Jensen's equation both involving the risk parameter, beta (Ippolito, 1989):

1) Even if the mutual fund manager strives to attain a target alpha, if some managers can forecast overall market returns accurately, they may adjust risk upwards or downwards to take advantage of these movements. Taking into consideration if this ability exists, it will tend to show itself in positive alphas, albeit at the cost of higher standard errors on the coefficient.

2) Some mutual fund managers systematically change the target beta for the fund, especially over long periods of time, thereby violating the integrity of the estimating equation. Calculating average alpha using a fixed beta estimate for the entire performance period consequently leads to unreliable results if expected returns and risks vary over time. If beta is dynamic, alphas may also be dynamic, so it is possible to examine whether managerial performance is indeed constant or

whether it varies over time as a function of the conditional information (Bams and Otten, 2004)

According to Lehmann and Modest (1987) the Jensen measure will indicate abnormal performance, but it can not be used to evaluate managers since α could be positive even if the managers were an unsuccessful stock picker and a perverse market timer and conversely could be negative if the managers were both a successful stock picker and a successful market timer.

This model was elaborated by adding new factors such as the ones added by:

1) Fama and French (1993) SMB: the difference in return between a small cap portfolio and a large cap portfolio at time t, and 2) HML: the difference in return between a portfolio of high book-to market stocks and a portfolio of low book-to-market stocks at time t, 3) PR1YR1: the difference in return between a portfolio of past winner and a portfolio of past loser at time t (Carhart, 1997), 4) Bond index R_b the return on government bond index at time t

$$R_i - R_f = \alpha + \beta_1 (R_M - R_F) + \beta_2\, SMB + \beta_3\, HML + \beta 4\, PR1YR + \beta_5 (R_b - R_F)$$

3.2 Evidence on superior performance

During the past 30 years there were many studies opposing the belief that the mutual fund managers were able to beat the market and outperform it by the amount of expenses they charge the investors. On the other side, there were also many studies that documented significantly positive risk adjusted net return[7] of U.S. mutual funds which means that managers display some skill. We have to mention also that passive mutual fund investing ensures competitive total return over time, but index funds cannot outperform the market, they are fully invested even in bear markets, and they purchase stocks in a programmed no investment –shifting conformity to their benchmark (defined by criteria such as market capitalization, investment style, or market sector). Their appeal is that their long term results are likely to be very competitive despite their inability to dominate the market. While actively managed mutual fund management teams devise proprietary financial screening models that purge the population of investment candidates by striving to differentiate high-quality stocks from low quality stocks in an attempt to outperform the market.

Trenyor and Mazuy (1966) studied 57 mutual funds over the period 1953-1962 introducing a nonlinear version of CAPM. They said that there was no market timing (changing risk position) in their sample. That means if funds could anticipate swings in the market, they could increase their portfolio risk on the upside and decrease it on the downside, thereby altering the linear security line in CAPM to nonlinear function.

Friend et al. (1970) studied 136 mutual funds from January 1960 to June 1968, when they used CPAM model with value weighted NYSE as a benchmark. They estimated average alpha of + 217 BP, and when they used the same benchmark but equally weighted NYSE model, the average alpha dropped to + 22. Carlson (1970) who studied 82 common stock funds over the period 1948-1967 estimated an average alpha of positive 60 b. p. for his

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[7] A mutual funds total return is the sum of its capital return plus its income return and implicitly assumes that all investment distributions are reinvested by shareholders

sample. Also MacDonald (1974) studied 123 funds over period 1960-1969 using CAPM model and an equally weighted NYSE Index and found the average alpha is + 62 b.p. When Kon and Jen (1979) used the sample version used by Treynor and Mazu (1966) and equally weighted CRSP index as a benchmark, they said that on average, the mutual fund sample is able to predict security prices well enough to outperform the naïve policy (combination riskless asset and market portfolio) given their selected levels of systematic risk to recoup all management fees and brokerage commissions.

Alexander and Strove (1980) studied 49 mutual funds from 1966 to 1970, using non linear CAPM model and a value weighed CRSP benchmark. They estimated average alpha of +120BP. Grossman and Stiglitz (1980) model where they used the revised model of Efficient Market Theory stated that mutual funds meet the market after all expenses which is consistent with a fully efficient capital market.

Veit and Cheney (1982) studied 74 mutual funds from 1944 to 1978 using CAPM model and S&P 500 as benchmark. They estimated average alpha of + 103 BP. While Kon (1983) estimated average alpha of + 739[8] for 37 mutual funds from 1960 to June 1976 using non linear CAPM model and value weighted CRSP

Henriksson (1984) and Chang and Lewellen (1984) found that during the 1970s, net returns to fund investors before load fees lie among Security Market Line (SML) which imply that fund managers have access to enough private information to offset their expenses. Chang and Lewllen (1984) studied 67 mutual funds from 1971 to 1979 using

[8] Kon did not report an average alpha and t-value but did report all 37 alphas for his funds, holding constant market-timing effect. Ippolito (1993) calculated the average alpha and its standard deviation from these data

value weighted CRSP as a benchmark, when they used CAPM model they estimated average alpha + 58 and + 139 when used non linear CAPM model .

Berkowits, et al. (1988) studied 325 funds using CAPM equation with S&P 500 market portfolio where they found an average alpha of + 68 basis points.

Grinblatt and Titman (1989) studied 157 funds over the period of 1975 -1984 and searched a large number of benchmarks; they found an average alpha of + 60 basis points and they could not reject that net of all expenses mutual funds earned a return equal to an indexed market portfolio. They also found evidence of excess gross returns among mutual fund managers.

Ippolito (1989), who reproduced the methods and data used in Jensen's 1968 paper, studied 143 funds over the period 1965-1984, found average alpha of + 81 points with 127 funds were characterized by alphas that were insignificantly different form zero, 12 by significantly positive alphas and 4 by significantly negative alphas. This meant that mutual funds on average are sufficiently successful in their trades to offset their expenses. Also he found no statistically significant relation between performance, net expenses, turn over and investment fees.

The results based on similar methodology and data during the same period (1965-1984), but under assumption that beta is stable over this period, give the opposite impression. Of the 143 funds evaluated, 127 were characterized by alphas that were insignificantly different from zero, 4 by significantly negative alphas, and 12 by significantly positive alphas. Ippolito also found that there is no evidence that alphas are related to beta. The test showed a beta less than unity and low betas tend to be affiliated with positive alphas.

But Ippolito argued that his results were mainly driven by non- S&P 500 holdings in mutual fund portfolio (Bams and Otten, 2004).

Lee and Rahman (1990) studied 93 mutual fund from 1977 to 1984 and found that, when they used a CAPM model and a value weighted CRSP benchmark, average alpha is – 60 b.p and + 72 when they used a CAPM nonlinear model.

On the other hand Grinblatt and Titman (1992), Hendricks, et al. (1993), Goetzmann and Ibbotson (1994), present strong evidence in favor of "Hot Hand" phenomenon, that is, mutual funds that achieved above average returns continue to enjoy superior performance: winning followed by winning (Lehman and Modest, 1987). However Carhart (1997) said that this effect is attributable to simple momentum strategies and not to superior fund management. This result is inconsistent with the earlier findings of Jensen (1968) and suggests that investors could earn significant excess (risk – adjusted) returns by purchasing recently good –performing funds

While Jegadeesh and Titman (1993) said that strategies of buy stocks that have performed well in the past and sell stocks that performed poorly in the past, generate significantly positive returns over 3 to 12-month holding periods

Chevalier and Ellison (1996) found that younger fund managers tend to perform better than older managers.

Wermers (1999) said that funds tend to select stocks that outperform both a broad market index and passive benchmarks of stocks with similar characteristics. Also, he argued (2003) that because winning funds have correlated holdings, they appear to push up stock prices through their flow-related purchases of the same stocks. On the other hand, losing managers are reluctant to sell their low return stocks and replace them with new momentum stocks. Thus momentum works against them because they hold on to losers that continue to be losers. As a result, the persistence in fund returns is not entirely explained by the momentum factor.

Chen, et al. (1999) study is a key study which uses stock trades data to investigate stock picking skill. Chen, et al. said- using raw returns-that stocks purchased by funds outperform stocks sold by funds (over the next year) which provides evidence that active funds have some skill in picking stocks (before expenses and trading costs).

Kothari and Warner (2001) constructed 75- stock mutual fund portfolio each month from January 1966 through December 1994 that mimic the actual characteristics (e.g., size, book-to market, number of securities, turnover) of funds covered by Morningstar. They tracked 348 stimulated mutual fund portfolio's performance over three periods. They reported two results. First, performance measures typically used in mutual fund research have little ability to detect economically large magnitudes of abnormal fund performance, particularly if a fund's style characteristics differ from those of the value-weighted market portfolio. Second under specific conditions which is the short –lived abnormal return, the trade-based event study approach can be quite powerful (the abnormal return is concentrated in the quarters immediately following the trades).

Baks, Metrick and Wachter (2001) concluded that some skeptical prior beliefs about portfolio manager skill can nonetheless lead to economically significant investments in actively managed funds.

Karoui and Meier (2008) studied the performance and portfolio characteristic of 828 newly launched U.S equity mutual funds over the period of 1991-2005 and they found that these funds starts initially earn-on average- higher excess returns and higher abnormal returns. They outperform their peers by 0.12 % per month for the first three years. Their risk –adjusted performance is also superior to existing funds. These results suggest that the initially favorable performance to some extent is due to risk taking and not necessarily to superior manager skill. Also the portfolios of new funds are typically less diversified in terms of number of stocks and industry concentration and are invested in smaller and less liquid stocks. They considered the superior initial performance and the risk taking behavior they found to be consistent with the argument that large (older) funds suffer from diseconomies of scale, younger managers perform better due to effort and career concerns, favorable treatment of young funds by their fund families, e.g. by allocating under priced IPOs, or an incubation bias inherent in the track records of mutual funds.

3.3 Evidence on no or inferior performance

Friend et al. (1962) was the first widespread and systematic study of mutual funds that considered 152 US mutual funds for the period from 1953 to 1958 which built a benchmark composed of five securities for S&P 500 index. They found that mutual funds earned average annual return of 12.4 % with 0.2 % below the benchmark of 12.6 %. That means – 20 basis points.

One of the most well known studies was Sharpe (1966). Sharpe calculated the reward-to volatility ratios for sample of 34 mutual funds from 1954 to 1963.He found that ratio for the sample was 40 basis points lower the ratio calculated for the Dow Jones index for the same period; Sharpe also found that better performing funds tend to be those with lower expenses. A study by Friend, et al. (1970) concluded that there is a negative correlation between fund performance and management expense ratios.

Jensen (1968), who did the most well known researches on mutual funds, has confirmed the results. He used the market equation to calculate alphas for 115 funds he studied between 1945 and 1964. He found the average alpha in his funds to be minus 110 basis points, and 98 funds were characterized by alphas that were insignificantly different form zero, 3 by significantly positive alphas and 14 by significantly negative alphas .Before expenses he found that mutual funds scatter randomly about the market line of the capital asset pricing model and concluded that mutual fund managers do not appear to possess useful private information. Mains (1977) replicated Jensen's study using monthly data that he believed was more accurate to yield more efficient estimates of beta and reduce the impact of allocating expenses and capital gains. He found an average alpha of -62 basis points for the annual data and + 9 basis points for the monthly data.

Shawky (1982) studied 255 funds from 1973 to 1977 using CAPM equation with an equally market portfolio. He said that the returns of the mutual fund industry as a whole conformed almost exactly to the equally weighted NYSE returns.

Lehman and Modest (1987) who studied 130 mutual funds from January 1968 to December 1982, said that there is a question of how to evaluate portfolio performance which stems from two reasons: 1) the first stems from disagreement on the appropriate way to qualify risk and what constitutes normal performance, 2) the second problem concerns errors in inference that may arise when portfolio managers can in fact outperform the market.

Malkiel (1995), who studied all equity mutual funds from 1982 to 1991, found that when returns from all funds are annualized, mutual funds tend to underperform the market not only after management expenses have been deducted, but also gross of all reported expenses except load fees. When he used the Wilshire 5000 as benchmark, which include small companies, the average alpha of 239 funds was -0.93 % for net expenses and + 0.18 % for gross, but when he used S&P500 index as benchmark, which include large companies, the average alpha was -3.25 % for net and -2.03 % for gross returns. He also documented the persistence phenomenon but found no evidence that investors could earn extraordinary return following a strategy based on persistence, and the persistence results are influenced by survivorship bias. He also found that beta is stable over study period and there is no relationship between beta and total returns. This means that there is no evidence that investors seeking higher returns will find the purchase of high beta mutual funds a strategy that will dependably satisfy their objectives.

Chevalier and Ellison (1996) studied 2029 mutual funds and found their average alpha is – 50.2 b.p. Gruber (1996) said that the average actively managed fund has a negative risk-adjusted manager performance. Also Carhart (1997) said that the average active fund does not outperform its benchmarks after expenses. He also found that funds prefer smaller stocks and stocks with low book-to-market ratio (growth).

Bams and Otten (2002) studied 506 open-ended equity mutual funds with monthly logarithmic returns from January 1991 to December 1998. They said that European mutual funds deliver positive risk-adjusted performance to their investors and have advantage of easy diversification and lower transaction costs. Contrary to most US evidence, the majority of European funds seem to be able to find and implement new information to offset their expenses, and therefore add value to the investors. This could be the smaller importance of the European versus the US industry. Bams and Otten (2004) also studied 2,436 open ended equity mutual funds with monthly logarithmic returns from January 1962 through December 2000. They said: 1)excluding dead funds has a severe impact on mutual fund performance measurement, 2) within an unconditional setting, four- factor model including market beta, SMB, HML, and PR1YR momentum is best able to explain mutual fund returns, 3) conditioning betas on publicly available information proves to be a considerable improvement in mutual fund performance measurement, 4) very little evidence of time variation in fund alphas, 5) at the aggregate level all fund portfolio have an alpha estimate does not change that much when going from an unconditional CAPM to conditional Carhart Model, 6) the more elaborate multifactor conditional models are superior to the unconditional models.

Kjetsaa (2004), who studied Morningstar mutual funds dated as of April 2002, said that historical performance is a guide not a guarantee blueprint for the future, and excellent portfolios can be constructed by owning shares in index funds plus actively managed funds. He also found that before expenses the total return performance of actively managed mutual funds was equal to the average market return, and after expenses their performance lags the market by roughly the amount of investment expenses.

Adjustment for risk is always contentious issues for actively managed funds, so Elton et al. (2004) focus their attention on 52 US, S&P500 index funds (January 1996- December 2001) - they use the CAPM-alpha or simply the fund's differential (net) return over the market index as measures of abnormal performance. The (equally weighted) average index fund's differential return is - 0.485 %p.a. and the CAPM-alpha performance is - 0.410 % p.a. These figures provide a useful yardstick with which to assess the relative performance of index funds versus the average active fund. These average underperformance figures for index funds closely match the average annual total expense ratio (TER) of 0.444 %, implying that underperformance arises because they incur advertising, rebalancing, cash flow and management fees in order to closely track the index. But given the widespread in TERs for index funds of 0.06 % to 1.35 % p.a., it is also worth noting that it may be possible to find an index fund at near zero cost.

Baker, et al. (2009) who studied 1,118 U.S. actively managed equity fund in the Morningstar database as of December 31, 2006 using three-year Sharpe ratios, Jensen's alphas, Miller's active alphas as well as annualized Russell Index- adjusted returns, found that the average actively managed institutional equity fund can not beat a representative benchmark after expenses. Their results are in consistence with Dellva and Olson (1998).

Fama and French (2008), who examined US common stocks -mutual fund sample from Center for Research and Security Prices- CRSP a covering period from January 1962 to September 2006where they found that the value –weight (VW) portfolio of mutual funds that invest primarily in U.S. equities is close to the market portfolio, and estimated before fees and expenses its alpha is close to zero, and the alpha estimated on the net returns to investors is negative by about the fees and expenses. Their tests confirm the results that are sensitive to how funds are ranked. They also found that persistence is stronger when we sort four-factor α or three-factor α estimates from the model of Fama and French (1993). These α sorts suggest that the loser decile contains some funds with bad information that lowers the expected returns and the winner decile contains some funds with good information that enhances them. The persistence results from sorts of α estimates are stronger for smaller funds which are weak after 1992.

Ferreira, et al. (2009), who studied 16,316 open- end actively managed domestic and international equity funds in 27 countries found that domestic and international funds underperform the market by 16 and 74 basis points per quarter after fees and expenses. But the performance persists on a short-term basis. They found that fund performance worsens with lagged fund size for domestic U.S funds, and it is economically significant as a one standard deviation increase in fund size yields a 12 basis point decline in the next quarter's fund return, but not for non U.S. funds and international funds. Fund age and fees are negatively related to performance, domestic funds located countries especially those with liquid stock markets and strong legal institutions display better performance. Ferreira, et al. also said that large organizations with complicated hierarchies are particularly inefficient in processing information, which is particularly essential in the case of mutual funds, as managers may have hard time convincing others to implement their ideas. And there is strong evidence that solo managed funds perform better than team managed funds.

Hujj and Verbeek (2009) who studied 7,852 funds over the period 1963-2003, said that funds that follow a value- oriented style have a substantially lower market beta than do funds with growth style but earn higher excess returns, and the funds that hold stocks that did well over the past year can earn abnormal positive returns in the near future and the funds that hold stocks that did poorly earn abnormal negative returns. Hujj and Verbeek also said that funds of value stocks have higher alphas than do funds of growth stocks, and funds that hold winners have higher alphas than that of losers.

Their concern was that factor proxies in the standard multifactor approaches are based on hypothetical stock portfolios that do not incorporate transaction costs, trade impact and trading restrictions. Therefore, the factor premiums are likely to be over or under-estimated, so the resulting performance estimates for funds with significant exposure to these factors may be biased, miscalculation of the factor proxies might lead to false inferences not only in fund performance but also in market efficiency as a whole. They argue that there are good reasons to believe that the resulting biases are more important for multifactor approaches, because the transaction costs of tracking the market index are as low as 30 basis points per year; it is unlikely that the resulting biases in capital asset pricing model CAPM performance estimates are economically significant. Their other reason that the factor premiums earned by fund managers are different from the ones implied by the factor proxies is that mutual fund managers may have a restricted universe of stocks that are accessible to them or they may be faced with other trading restrictions. For example, large fund might not even attempt to buy stocks below a certain level of liquidity or a certain market capitalization. They also found that alphas resulting form the Fama and French three -factor model and Carhart four- factor model for value funds are systematically biased downward, and those for growth fund are biased upward. Further the Carhart four- factor model underestimated the performance of past loser funds and over estimated that of winner funds.

3.4 Updated to the present summary table of studies

Table 1

Study	Year	Period Covered	No of Funds	Type of fund	Model	Survivor Bias	Market Index	Average alpha (base points/year)	t-value
Friend, Brown, Herman and Vickers	1962	1953-1958	152	All	Index	Yes	S&P Comp	-20	not reported
Treynor and Mazuy	1966	1953-1962	57	All	Non linear CAPM	Yes	S&P 500	not reported	Not reported
Sharpe	1966	1954-1963	34	All	CAPM using Reward to Volatility ratio	Yes	Dow Jones	-40	2.42
Jensen	1968	1945-1964	115	All	CAPM	Yes	S&P 500	-110	5.63
Friend et al.	1970	Jan 1960-June1968	136	All	CAPM	Yes	Value weighted NYSE	217	not reported
					Equally Weighted - NYSE			22	
Carlson	1970	1948-1967	82	Stock	CAPM	Yes	S&P 500	60	not reported
					CAPM using Reward to Volatility ratio		Dow Jones	14	11.38
McDonald	1974	1960-1969	123	All	CAPM	Yes	Equally Weighted - NYSE	62	not reported
Mains	1977	1955-1964	70	All	CAPM	Yes	S&P 500	+9 for monthly data and – 62 for annual data	not reported
Kon and Jen	1979	1960-1971	49	All	Non linear CAPM	Yes	Equally Weighted - CRSP	6	not reported
					CAPM- Black version			-67	
Shawky	1982	1973-1977	255	All	CAPM	Yes	Equally Weighted - NYSE	-43	1.16

Alexander & Strove	1980	1966-1971	49	All	Non linear CAPM	Yes	Value Weighted -CRSP	120	1.75
Veit and Cheney	1982	1944-1978	74	All	CAPM	Yes	S&P 500	103	not reported
Kon	1983	1960-June 1976	37	All	Non linear CAPM	Yes	Value Weighted -CRSP	739	2.87
Chang and Lewellen	1984	1971-1979	67	All	CAPM	Yes	Value Weighted -CRSP	58	0.75
Chang and Lewellen	1984	1971-1979	67	All	Non linear CAPM	Yes	Value Weighted -CRSP	139	2.14
Henriksson	1984	Feb 1968-June 1980	116	All	CAPM	Yes	Value Weighted -NYSE	-24	0.8
Henriksson	1984	Feb 1968-June 1980	116	All	Non linear CAPM	Yes	Value Weighted -NYSE	84	1.89
Lehman and Modest	1987	1968-1972	130	all	Non linear CAPM	Yes	Value Weighted -CRSP	-141	3.68
Lehman and Modest	1987	1973-1977	130	all	Non linear CAPM	Yes	Value Weighted -CRSP	-79	1.98
Lehman and Modest	1987	1978-1982	130	all	Non linear CAPM	Yes	Value Weighted -CRSP	140	4.01
Lehman and Modest	1987	1968-1972	130	all	APT	Yes	Value Weighted -CRSP	-485	14.34
Lehman and Modest	1987	1973-1977	130	all	APT	Yes	Value Weighted -CRSP	-545	17.3
Lehman and Modest	1987	1978-1982	130	all	APT	Yes	Value Weighted -CRSP	-385	13.32
Berkowits, Finney and Logue	1988	1971Q1-1983Q3	325	All	CAPM	No	S&P 500	68	not reported
Grinballt and Titman	1989	1975-1984	157	Stock	CAPM	No	Value Weighted -CRSP	-60	0.76
Grinballt and Titman	1989	1975-1984	157	Stock	CAPM	No	P8 PORT	60	0.61
Ippolito	1989	1965-1984	143	All	CAPM	No	S&P 500	81	4.01
Ippolito	1989	1965-1984	143	All	CAPM	No	Value Weighted -NYSE	87	4.2
Ippolito revised	1989	1965-1984	143	All	CAPM	No	S&P 500	40	2.19
Ippolito revised	1989	1965-1984	143	All	CAPM	No	Value Weighted -NYSE	51	2.75
Lee and Rahman	1990	Jan 1977-Mar 1984	93	All	CAPM	Yes	Value Weighted -CRSP	-60	not reported
Lee and Rahman	1990	Jan 1977-Mar 1984	93	All	Non linear CAPM	Yes	Value Weighted -CRSP	72	not reported
Malkiel	1995	1982-1991	239	All	CAPM	No	Wilshire 5000	- 0.93% for net expenses and + 0.18 % for gross	N/A
Malkiel	1995	1982-1991	239	All	CAPM	No	S&P500	- 3.25 % for net and -2.03 % for gross returns	N/A

Chevalier and Ellison	1996	1988-1994	2029	Growth and Income	CAPM	No	Value Weighted NYSE/AMEX/NASDAQ	-50.2	NA
Wermers	1999	From December 1974 to December 1994	2,739	All	The measurement of herding designed by Lakonishok, Sheleifer and Vishnney (1992)	Analyzed the trading activity of mutual fund industry			
Chen, Jegadeesh and Wermers	1999	January 1975 to January 1995	2,424	All	FracHoldings measure for stock The aggregate trades of stock during the quarter	Found that stocks widely held by funds do not outperform other stocks, stocks purchased by funds have significantly higher returns than stocks they sell, growth-oriented funds exhibit better stock-selection skills than income-oriented funds, weak evidence that funds with the best past performance have better stock-picking skills than funds with the worst past performance			
Kothari and Warner	2001	1966 - 1994	Constructed 348-stock mutual fund portfolio that mimic the actual characteristics		3 regression based measures, based on CAPM, 3F Fama French and 4F Carhart	N/A	NYSE and AMEX	The abnormal return is concentrated in the quarters immediately following the trades	
Bams and Otten	2002	1991-1998	506	Equity	4F Carhart	No	Worldscope	European mutual funds deliver positive risk-adjusted performance to their investors and have advantage of easy diversification and lower transaction costs	
	2004	1962-2000	2,436	Equity	7 different models (Conditional and Unconditional)	No	Conditioning betas on publicly available information proves to be a considerable improvement in mutual fund performance measurement, at the aggregate level all fund portfolio, the alpha estimate does not change that much when going from an unconditional CAPM to conditional Crahart Model, the more elaborate multifactor conditional models are superior to the unconditional models		
Kjetsaa	2004	Funds data as of April30, 2002				N/A	S&P500 and Russell	Before expenses the total return performance of actively managed mutual funds was equal to the average market return, and after expenses their performance lags the market by roughly the amount of investment expenses	

Elton, Gruber and Busse	2004	1996-2001	52	All	CAPM	N/A	S&P500	-41	
Fama and French	2008	January 1962 to September 2006	All	common stocks	3F Fama and French model + 4F Carhart model	No	alpha is close to zero, and the alpha estimated on the net returns to investors is negative by about the fees and expenses		
Karoui and Meier	2008	1991-2005	828 newly launched and 1,374 domestic equity	Equity	4F Carhart	N/A	The risk –adjusted performance of new funds is superior to existing funds		
Baker, Haslem and Smith	2009	Morningstar database as of December 31, 2006	1,118	Equity	Sharpe ratios, Jensen's alphas, Miller's active alphas, annualized Russell Index-adjusted returns	N/A	The average actively managed institutional equity fund can not beat a representative benchmark after expenses		
Ferreira, Miguel and Ramous	2009	1997-2007	16,316	Open –end actively managed domestic and international equity funds in 27 countries	6 models: Domestic and International market-adjusted returns models, Domestic and International market models, Domestic and International 4F Carhart models	N/A	Domestic and international funds under perform the market by 16 and 74 basis points per quarter after fees and expenses		
Hujj and Verbeek	2009	1962-2003	7,852	Small -cap growth, growth and income, income or sector	3F Fama and French model + 4F Carhart model	No	They found that funds that follow a value –oriented style have a substantially lower market beta than do funds with growth style but earn higher excess returns, and the funds that hold stocks that did well over the past year can earn abnormal positive returns in the near future and the funds that hold stocks that did poorly earn abnormal negative returns		

Chapter 4: Data & Methodology.

4.1 Vanguard mutual funds

With over $1.3 trillion in assets under management (as of December 31, 2009), Vanguard has grown to become one of the world's largest investment management companies. Vanguard's fund options include more than 200 stock, bond, mixed, and international offerings, as well as variable annuity portfolios; its Vanguard 500 Index Fund is one of the largest in the US.

It is through Fund Access Vanguard portal services that the investors can invest in a wide range of 247 mutual funds families of other fund companies than Vanguard which include 5,831 funds. All through the same Vanguard Brokerage Services account that investors use to buy Vanguard exchange-traded funds (ETFs), stocks, bonds, options, and ETFs from other companies. All information about each mutual fund in this portal is available as easy as for Vanguard mutual funds.

Other characteristics of Vanguard are that Vanguard fund expenses are among the lowest, which is 0.23 % (expenses as a percentage of 2009 average net assets) roughly one-fifth the industry average. Over the last ten years, 77 %of Vanguard mutual funds have outperformed their Lipper averages[9]. For the ten-year period ended December 31, 2009, 77 of 102 Vanguard funds outperformed their Lipper averages.

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[9] The Lipper average is the average level of performance for all mutual funds, as reported by Lipper, Inc. The measurements are commonly a benchmark for the success of financial service providers in predicting financial outcomes. Lipper is a wholly owned subsidiary of Reuters

Vanguard has received in the past few years some high honors:

1. Money (January 2010) named 23 Vanguard funds to its "Money 70" list of "Best funds through thick and thin" based on strong track records of putting shareholder interests first, style consistency, long-term performance, and low expenses
2. Forbes (February 8, 2010) listed 36 Vanguard funds among 135 stock, bond, and balanced funds in 23 categories as "Best Buys" based on risk-adjusted performance and costs during the five-year period ended December 31, 2009
3. Vanguard.com won top honors in Forbes' 2000 "Best of the Web" issue. Forbes chose our site as the "Best of the Best" in the mutual fund category.
4. Mutual Funds Magazine named Vanguard #1 in the "Best Service" category and as the favorite fund family overall.
5. A November 2000 Smart Money survey of 600 randomly selected readers named Vanguard as the "Best Fund Family."
6. Worth designated Vanguard the winner in both the "Best Fund Family" and "Best Discount Broker" categories for service and performance, based on a survey of 4,000 readers.

Vanguard website also is a reliable source of all needed data and information of all Vanguard funds and the 5,831 funds of other companies that investors can invest through Vanguard portal "Fund Access": fund overview, fund investment style, fee information, equity characteristics, equity sector diversification, ten largest holdings, risk attributes, monthly updated annual average returns for 1, 3, 5 and 10 years, yearly historical returns and price history. All these information are for free and accessible for every one and it is monthly updated.

4.2 Indexes

The two major issues that need to be addressed in any performance ranking are how to choose an appropriate benchmark for comparison and how to adjust a fund's return for risk (Simons, 1998).

All the major market indexes have been developed by long-established, well-respected providers. Investors generally assume that these indexes are equally fair, relevant and accurate representations of market performance. Applied correctly, the indexes are indeed valuable tools for judging investment returns. And the first decision for an investor deciding among index providers should be the degree of total desired coverage (Philips et al., 2010).

In evaluating equity index providers, it is important to understand that the way a provider weights an index's securities has a big influence on the index's returns. For market-cap-weighted indexes, the largest companies in the index will have the largest impact on returns. For price-weighted indexes, the securities with the highest prices will have the largest impact; and finally, in an equally weighted index, the index return will be the average return of all included securities.

But I have to mention that no single index is perfect for every performance evaluation situation. The differences in market coverage and index-construction methods mentioned can lead investment practitioners including those who oversee portfolio managers to varying and sometimes contrary conclusions

The potential impact of different index practices can be examined further by analyzing the rolling correlations across indexes. Correlations across large-cap indexes have been anchored between 0.96 and 1.0. And for the small-cap indexes, correlations across indexes have remained between about 0.93 and 1.0 (Philips et al., 2010). This suggests that the benchmarks' returns were most heavily influenced by systematic risk factors and not methodology differences. Given the changes in benchmark methodologies in the past few years, we would expect to see benchmarks perform even more similarly in the future, and to have even higher correlations. During periods of extreme market conditions, however, the differences in returns produced by various index methodologies may be magnified.

For the analysis of performance of the mutual funds from Vanguard family and other families through Vanguard FundaAccess portal services, I chose the four indices:

- Standard & Poor's 500: a free-float capitalization-weighted index. A basket of 500 stocks are considered to be wide held. The S&P 500 index is weighted by market value, and its performance is thought to be representative of the stock market as a whole. This index provides a broad snapshot of the overall U.S. equity market; in fact, over 70 % of all U.S. equity is tracked by the S&P 500. The index selects its companies based upon their market size, liquidity, and sector. Most of the companies in the index are solid mid cap or large cap corporations. Like the NASDAQ Composite Index, the S&P 500 is a market-weighted index. Most experts consider the S&P 500 one of the best benchmarks available to judge overall U.S. market performance. Several mutual fund managers also provide index funds that track the S&P 500, the first of which was the Vanguard Group's Vanguard 500 in 1976.

- The Dow Jones Industrial Average : It is an index that shows how 30 large publicly owned companies based in the United States have traded during a standard trading session in the stock market. The average is price-weighted, and to compensate for the effects of stock splits and other adjustments, it is currently a scaled average. The value of the Dow is not the actual average of the prices of its component stocks, rather the sum of the component prices divided by a divisor, which changes whenever one of the component stocks has a stock split or stock dividend, so as to generate a consistent value for the index. Along with the NASDAQ Composite, the S&P 500 Index, and the Russell 2000 Index, the Dow is among the most closely watched benchmark indices tracking targeted stock market activity. Although Dow compiled the index to gauge the performance of the industrial sector within the American economy, the index's performance continues to be influenced by not only corporate and economic reports, but also by domestic and foreign political events such as war and terrorism, as well as by natural disasters that could potentially lead to economic harm.

- The NASDAQ Stock Market: It is the largest electronic screen-based equity securities trading market in the United States and fourth largest by market capitalization in the world. With approximately 3,700 companies and corporations, it has more trading volume than any other stock exchange in the world.

- The Russell Indexes are a family of global equity indices that allow investors to track the performance of distinct market segments worldwide. Many investors use mutual funds or exchange-traded funds based on the Russell Indexes as a way of gaining exposure to certain portions of the U.S. stock market. Additionally, many investment managers use the Russell Indexes as benchmarks to measure their own performance. Russell's index design has led to more assets benchmarked to its U.S. index family than all other U.S. equity indexes combined. As of June 2008, Russell's indexes had $4.0 trillion in assets benchmarked to them and accounted for 63.3 % of assets benchmarked by institutional investors. Approximately 10,000 companies or 98 % of companies globally find their place in this benchmark. Russell rebalances its indices once each year in June, called "reconstitution". The reconstitution consists of updating the global list of investable stocks and assigning them to the appropriate indices

I choose in this paper Russell 3000 index because this index measures the performance of the largest 3,000 U.S. companies representing approximately 98% of the investable U.S. equity market. It is broad market index. The Russell 3000 Index is constructed to provide a comprehensive, unbiased, and stable barometer of the broad market and is completely reconstituted annually to ensure new and growing equities are reflected.

4.3 How where the funds selected?

I selected 26 equity mutual funds from 200 Vanguard mutual funds and 174 equity mutual funds from 5,831 funds of other companies, but these funds are also available through one of Vanguard services "Fund Access". The sample covers the period 2000 to 2009 and I based the analysis on logarithmic annual return using the equation: $\log(P_t) - \log(P_{t-1})$

These funds are of different categories: 1) From market capitalization: large, median small cap, 2) from stock styles: Value, Growth and Blend. But I focused on the domestic equity mutual funds only. I excluded the mutual fund that are of age less ten years, bond funds and international funds.

I selected all available 26 Vanguard equity mutual funds out of 200 Vanguard mutual funds, and 174 equity funds form 2,240 equity funds of other companies that are available through Fund Access I selected them alphabetically trying to have random sampling, but I focused only on equity funds because most of literature in the first decade of 21st century of mutual fund performance focus on equity fund like Bams and Ottens (2002, 2004) Baker, Haslem and Smith (2007), Fama and French (2008), Karoui and Meier (2008), Ferreira, Miguel and Ramous (2009).

4.4 Annual data (2000-2009): why?

It is important to understand that mutual funds do not offer a fixed rate of return, so, principal value will fluctuate, and the return on the investment will not be guaranteed. Mutual fund rates of return fluctuate with market conditions, changes in the valuation of the securities a fund invests in, or other factors. For that reason, it is helpful to examine performance over various time periods and keep in mind that performance is based on historical results and is not intended to project future performance of a fund.

There is no reason to believe that the fund will purchase a security the moment before information becomes public, or that it will sell a security the moment a capital gain is realized. If the sale occurs in the quarter following the capital gain and the purchase occurs in the quarter prior to the capital gain, the correlation between observed turnover and performance is lost with quarterly data (Ippolito, 1989).

We need a fairly lengthy observation periods, taking into consideration that the average fund generally turnover at least 50 % of its portfolio per year, it is reasonable to believe that a period of performance covering a full year is adequate to provide a fair measurement of the performance, with a more stable measure of empirical beta regressed over a long period. Also we will have less noise in the data.

4.5 Empirical methodology:

4.5.1 Evidence that the empirical SML is flatter than the theoretical

The version of the CAPM developed by Sharpe (1964) and Lintner (1965) has never been an empirical success. In the early empirical work, the Black et al. (1972) version of the model, which can accommodate a flatter tradeoff of average return for market beta, had some success. So the early tests of CAPM firmly reject the Sharpe – Lintner version of the CAPM. Empirical work, old and new, state that the relation between beta and average return is flatter than predicted by the Sharpe – Lintner version of the CAPM.

Fama and French (2004) said that there is a positive relation between beta and average return, but it is too "flat". Recall that, in cross section regressions, the Sharpe – Lintner model predicts that the intercept is the free risk rate and that the coefficient on beta is the expected *market return in excess of the free risk rate, E (RM) - Rf. The regressions* consistently find that the intercept is greater than the average free risk rate, and the coefficient on beta is less than the average excess market return. This is true in the early tests, such as Douglas (1968), Black, et al. (1972), Miller and Scholes (1972), Blume and Friend (1973), and Fama and MacBeth (1973), as well as in more recent cross-section regression tests, like Fama and French (1992). The evidence that the relation between beta and average return is too flat is also confirmed in time series tests, such as Friend and Blume (1970), Black, et al. (1972), and Stambaugh (1982). The intercepts in time series regressions of excess asset returns on the excess market return are positive for assets with low betas and negative for assets with high betas.

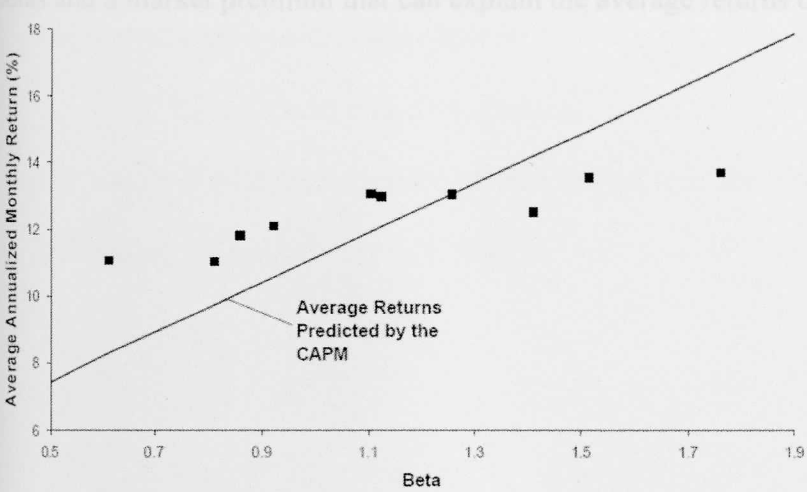
Fama and French (1992) also confirm the evidence that the relation between average return and beta for common stocks is even flatter after the sample periods used in the early empirical work on the CAPM. Kothari, et al. (1995) try to revive the Sharpe – Lintner CAPM by arguing that the weak relation between average return and beta is just a chance result. But the strong evidence that other variables capture variation in expected return missed by beta makes this argument irrelevant. If betas do not suffice to explain expected returns, the market portfolio is not efficient.

Figure 1 provides an updated example of the evidence. In December of each year, Fama and French (2004) estimate a pre-ranking beta for every NYSE (1928-2003), AMEX (1963-2003), and NASDAQ (1972-2003) stock in the CRSP database, using 2 to 5 years of prior monthly returns. Fama and French then form ten value-weight portfolios based on these pre-ranking betas, and compute their returns for the next twelve months. They repeat this process for each year from 1928 to 2003. The result is 912 monthly returns on ten beta-sorted portfolios. Figure 1 plots each portfolio's average return against its post-ranking beta, estimated by the regression of its monthly returns for 1928-2003 on the return on the CRSP value-weight portfolio of U.S. common stocks.

The Sharpe – Lintner CAPM predicts that the portfolios plot along a straight line, with an intercept equal to the risk free rate, Rf. and a slope equal to the expected excess return on the market, E (RM) - Rf. Fama and French use the average one-month Treasury bill rate and the average excess CRSP market return for 1928-2003 to estimate the predicted line in Figure 1. Confirming earlier evidence, the relation between beta and average return for the ten portfolios is much flatter than the Sharpe – Lintner CAPM predicts. The returns on the low beta portfolios are too high and the returns on the high beta portfolios are too low. For example, the predicted return on the portfolio with the lowest beta is 8.3 %per year; the actual return is 11.1 %. The predicted return on the portfolio with the highest beta is 16.8 % per year; the actual one is 13.7 %.

Average Annualized Monthly Return vs Beta for Value Weight Portfolios Formed on Prior Beta, 1928 -2003

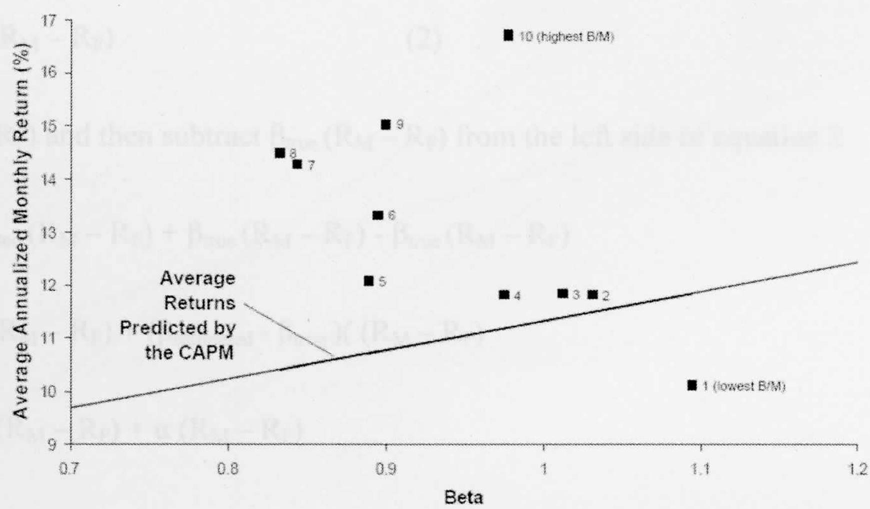
Figure 1



Average returns on the Book to Market (B/M) portfolios increase almost monotonically, from 10.1 % per year for the lowest B/M group (portfolio 1) to an impressive 16.7 % for the highest (portfolio 10). But the positive relation between beta and average return predicted by the CAPM is notably absent. For example, the portfolio with the lowest book-to- market ratio has the highest beta but the lowest average return. The estimated beta for the portfolio with the highest book-to-market ratio and the highest average return is only 0.98. With an average annualized value of the risk free interest rate, Rf., of 5.8 % and an average annualized market premium, RM – Rf. of 11.3 %, the Sharpe – Lintner CAPM predicts an average return of 11.8 % for the lowest B/M portfolio and 11.2 % for the highest, far from the observed values, 10.1 % and 16.7 %. For the Sharpe –Lintner model to “work” on these portfolios, their market betas must change dramatically, from 1.09 to 0.78 for the lowest B/M portfolio and from 0.98 to 1.98 for the highest. Fama and French judge it unlikely that alternative proxies for the market portfolio will produce betas and a market premium that can explain the average returns on these portfolios.

Average Annualized Monthly Return vs Beta for Value Weight Portfolios Formed on B/M, 1963 -2003

Figure 2



4.5.2 The market model that is used: $R_{it} = \text{constant} + \beta i\ RM_{t} + \text{residual}_{t}$

The market model used in this paper is

$$R_{it} = \text{constant} + \beta i\ RM_{t} + \text{residual}_{t}$$

This model is used for regression of each mutual fund that resulted in estimating betas and finding the constant for each fund.

4.5.3. Why market model?

In the analysis of mutual fund performance in this paper I used Jensen' alpha according to the following formula:

$R - R_f = \beta_{true}(R_M - R_F)$ (1)

$R - R_f = \beta_{estimated}(R_M - R_F)$ (2)

Add $\beta_{true}(R_M - R_F)$ and then subtract $\beta_{true}(R_M - R_F)$ from the left side of equation 2

$\rightarrow R - R_f = \beta_{estimated}(R_M - R_F) + \beta_{true}(R_M - R_F) - \beta_{true}(R_M - R_F)$

$\rightarrow R - R_f = \beta_{true}(R_M - R_F) + (\beta_{estimated} - \beta_{true})((R_M - R_F)$

$\rightarrow R - R_f = \beta_{true}(R_M - R_F) + \alpha(R_M - R_F)$

Therefore:

If $\beta_{true} > 1 \rightarrow \beta_{estimated} < \beta_{true}$

If $\beta_{true} < 1 \rightarrow \beta_{estimated} > \beta_{true}$

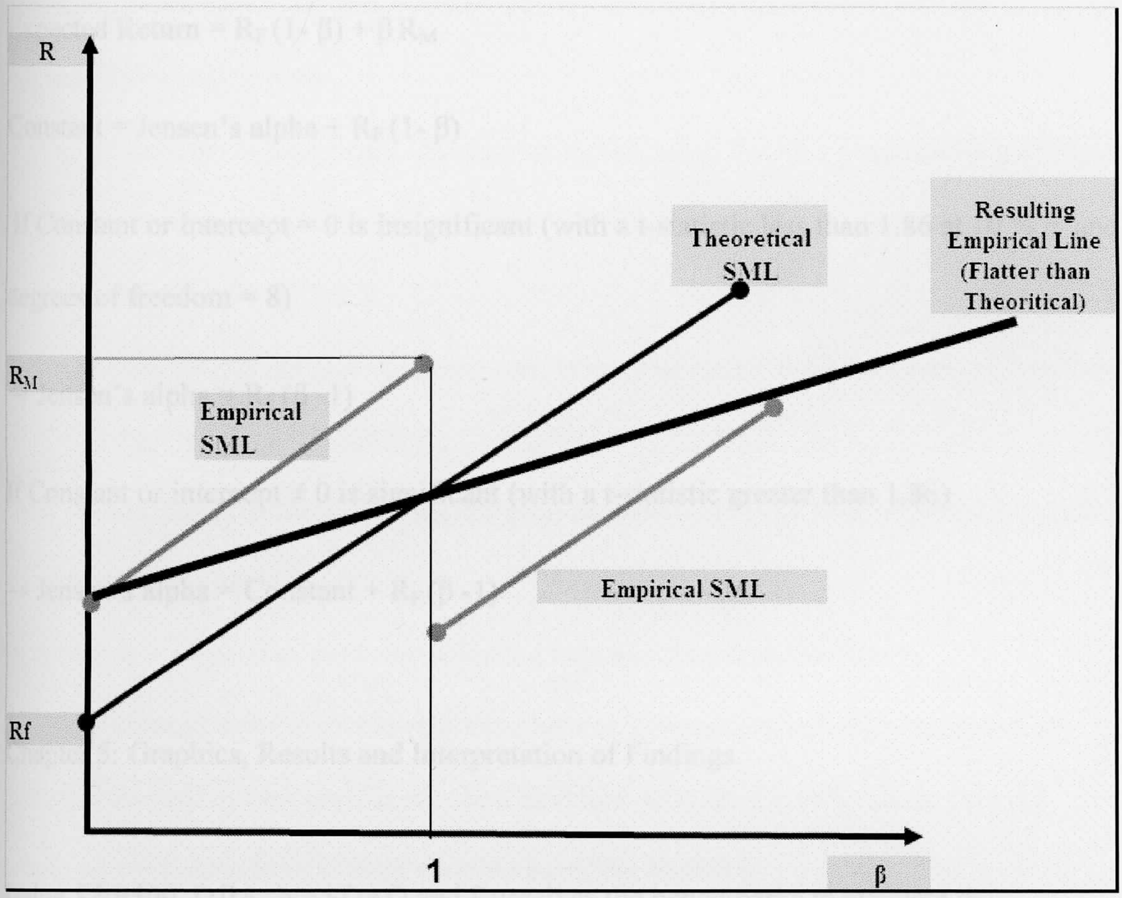
Because in both sides of the equations (1) and (2) there is the same term ($- R_f$)

$\alpha > 0$ if $(\beta_{estimated} - \beta_{true}) > 0$

$\alpha < 0$ if $(\beta_{estimated} - \beta_{true}) < 0$

This is what is expected in regression of excess return on market premium. $\beta_{estimated}$ will be biased to 1

Figure 3



4.5.4 How the Jensen's alpha is computed when the constant is significant or not.

Free risk rate is taken here is the T Bills rate from U.S. Federal Statistical Release

from 2000 to 2009 and assumed to be constant = 3.012%

To find the performance of each mutual fund studied, I calculated the Jensen's alpha starting from the following formula:

Expected Return = $R_F + \beta (R_M - R_F)$

Expected Return = $R_F + \beta R_M - \beta R_F$

Expected Return = $R_F (1- \beta) + \beta R_M$

Constant = Jensen's alpha + $R_F (1- \beta)$

If Constant or intercept = 0 is insignificant (with a t-statistic less than 1.86 at 10 % α and degrees of freedom = 8)

→ Jensen's alpha = $R_F (\beta -1)$

If Constant or intercept $\neq 0$ is significant (with a t-statistic greater than 1.86)

→ Jensen's alpha = Constant + $R_F (\beta -1)$

Chapter 5: Graphics, Results and Interpretation of Findings.

Using S&P500, DJIA, NASDAQ and Russell as the benchmarks to evaluate the performance of the 200 U.S equity mutual funds I picked, I found the log of the annual return of each fund and the log of annual return of each index from 2000 to 2009 the equation of log (P_t) – log (P_{t-1}). The regression of the log return of annual return with the log return of the market index uses the market model

$$R_{it} = \text{constant} + \beta_i RM_t + \text{residual}_t$$

I estimated 800 regressions (200 mutual funds regressed on 4 indexes) and found the estimated beta β and the constant of each fund. Then I found the following for each fund: 1) Adjusted R square, 2) Durbin Watson, 3) Standard deviation, 4) Variance, 5) Adjusted beta by multiplying beta β by each standard deviations of the four indexes respectively (S&P, DJIA, Russell 3000 and NASDAQ) , 6) square of the adjusted beta and 7) Jensen Alpha α following the rule:

- If constant is significant (constant is significant $\neq 0$ with a t-statistic of each fund regression is greater than 1.86[10]) → Alpha= regression constant-(1-beta) $R_{f.}$ where $R_{f.} = 0.03012$
- If constant is insignificant (constant is insignificant = 0 with a t-statistic less than 1.86) → Alpha= (beta-1) $R_{f.}$

I also studied the following relations for each analysis with each benchmark (S&P, DJIA, Russell 3000 and NASDAQ):

- Relation – regression between estimated beta and Standard Deviation:

  The regression is between the estimated beta as a dependent variable -because it is estimated with errors- and the standard deviation of each regression done for each mutual fund as an independent variable using the equation:

  Beta =f (standard deviation) = a + b (standard deviation)

- Relation – regression between estimated beta and Variance :

  The regression done between estimated beta as dependent variable and the variance of each regression done for each mutual fund as independent variable using the equation:

  Beta =f (variance) = a + b (variance)

[10] 90 % with degree of freedom 8

- Relation – regression between adjusted estimated beta and standard deviation:

  The regression done between adjusted estimated beta as dependent variable and the standard deviation as independent variable of each regression done for each mutual fund using the equation:

  Adjusted beta =f (standard deviation) = a + b (standard deviation)

- Relation – regression between square adjusted estimated beta and Variance :

  The regression done between adjusted estimated beta as dependent variable and the variance- as independent variable of each regression- done for each mutual fund using the equation:

  Adjusted beta =f (variance) = a + b (variance)

- Correlation between Actual beta and estimated beta

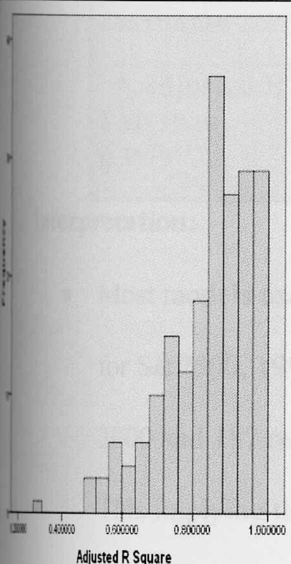
- Relation – regression between Actual beta and estimated beta with a constant and without a constant

5.1 Adjusted R square: First I found the adjusted R square of all regressions by index model as the best indicator of the goodness of fit quality

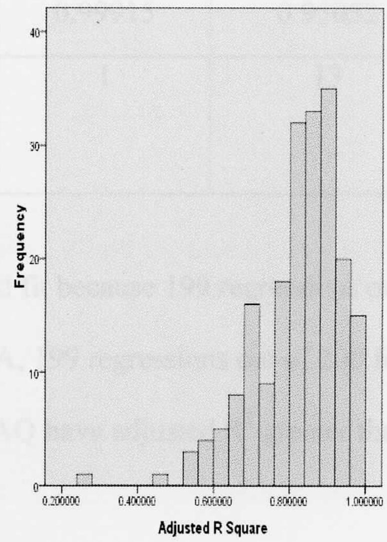
Histograms of adjusted R^2

Figure 4

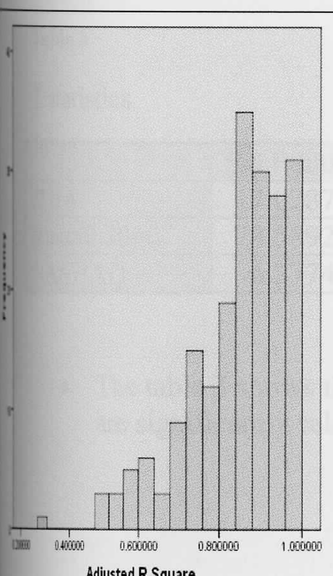
S&P500



DJIA



Russell 3000



NASDAQ

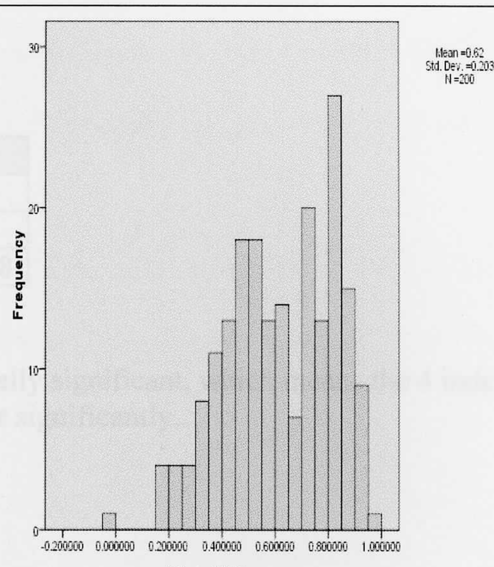


Table 2

	S&P500	DJIA	Russell 3000	NASDAQ
Mean of Adjusted R^2	0.83772	0.82176	0.84155	0.61538
Minimum	0.28342	0.27185	0.29629	-0.02806
Maximum	0.99923	0.98441	0.99915	0.95052
≠ Adjusted R^2 Less than 0.3019[11]	1	1	1	13

Interpretation:

- Most models used in the regressions have a good fit because 199 regressions out of 200 for S&P500, 199 regressions out of 200 for DJIA, 199 regressions out of 200 for Russell 3000 and 187 regressions out of 200 for NASDAQ have adjusted R^2 greater than 0.3019. This implying that beta estimates are reliable.

5.2 t statistics of correlation between indexes

Table 3

T statistics

	S&P500	DJIA	Russell 3000
DJIA	17.0287		
Russell 3000	78.5892	15.6264	
NASDAQ	6.2774	5.4618	6.3138

- The table 3 shows that correlations are statistically significant, which means the 4 indexes are significantly related, i.e. they move together significantly.

---

[11] I found this critical value by using the equation $t = (r\sqrt{n-2}) \div (\sqrt{1-rsq}) = 1.86$ and n=10, then I found $r^2 = 0.3019$

5.3 Durbin Watson: to test auto correlation in the residuals from a regression analysis[12].

Table 4

	S&P500	DJIA	Russell 3000	NASDAQ
Mean of Durbin Watson	1.3243	1.4149	1.3397	1.4131
Minimum	0.0845	0.1544	0.1447	0.1436
Maximum	3.1338	2.9663	3.1478	2.6381

5.3.1 To find the positive auto correlation in the residuals, I found the number of Durbin Watson tests less than 0.604 (1%) and 0.879 (5%)

Table 5

	S&P500	DJIA	Russell 3000	NASDAQ
≠ < 0.604 (1%)	26	6	1	3
≠ < 0.879 (5%)	55	25	48	9

Interpretation

- Since most actual Durbin Watson values are greater than 0.604 (1%) and 0.879 (5%), there is statistical evidence that the error terms are not positively auto correlated. This implies that beta estimates are reliable.
- There are positive autocorrelations in the residuals for some models as we can see form the number of regression whose Durbin Watson is less than 0.604 (1%) and 0.879 (5%), but the coefficient of slopes and intercepts remain unbiased.

[12] The lower level of Durbin Watson statistic for 10 observations is 0.604 and its upper level is 1.001 at level of significance 1 % and lower level is 0.879 and upper level is 1.320 at level of significance 5%

5.3.2 To find the negative auto correlation in the residuals, I found the number of Durbin Watson tests higher than 3.396(1%) and 3.121(5%)

Table 6

	S&P500	DJIA	Russell 3000	NASDAQ
≠ > 3.396 (1%)	0	0	0	0
≠ > 3.121 (5%)	2	0	1	0

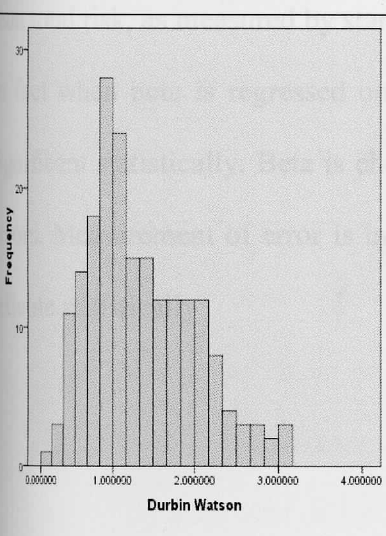
Interpretation

- Since most actual Durbin Watson values are less than 3.396 (1%) and 3.121 (5%), there is statistical evidence that the error terms are not negatively auto correlated. This implies that beta estimates are reliable.
- Only two models for S&P500 and one model for Russell 3000 show negative autocorrelations

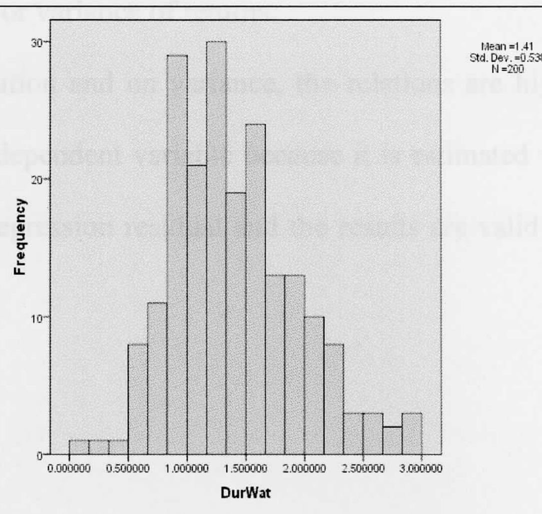
Histograms of Durbin Watson

Figure 5

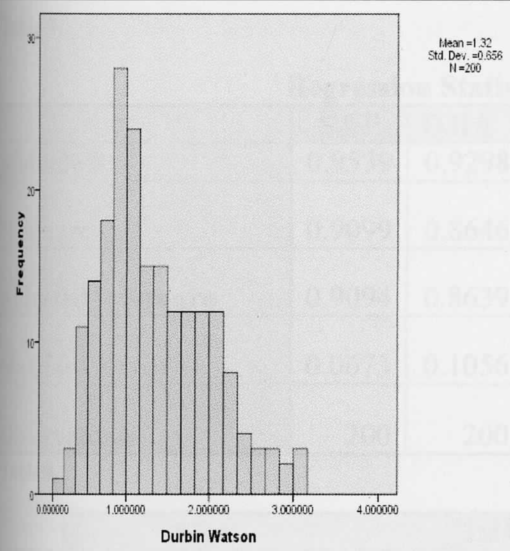
S&P500

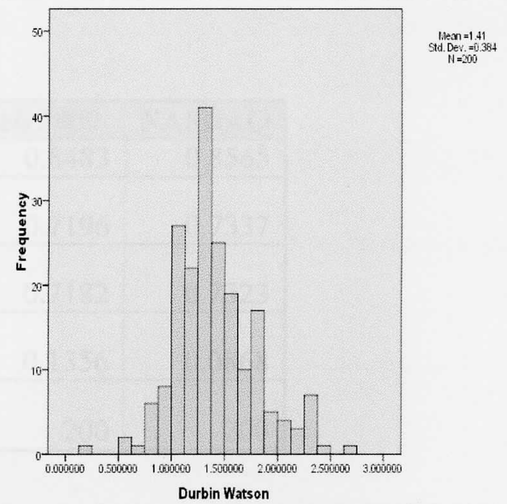


DJIA



Russell 3000	NASDAQ





5.4 Beta, Standard Deviation and Variance: to study the relation between beta and standard deviation and the relation between beta and variance to see which measurement of risk (beta or standard deviation and variance) is better than the other.

It is known theoretically that systematic risk, as measured by beta, is a better measure of risk than total risk, as measured by standard deviation or variance of returns.

In fact when beta is regressed on standard deviation and on variance, the relations are highly significant statistically. Beta is chosen to be the dependent variable because it is estimated with errors. Measurement of error is included in the regression residual and the results are valid and reliable statistically

1) Relation between estimated beta and standard deviation

Table 7

Regression Statistics	S&P	DJIA	Russell 3000	NASDAQ
Multiple R	0.9539	0.9298	0.8483	0.8565
R Square	0.9099	0.8646	0.7196	0.7337
Adjusted R Square	0.9094	0.8639	0.7182	0.7323
Standard Error	0.0673	0.1056	0.1356	0.0868
Observations	200	200	200	200

Table 8

	S&P		DJIA		Russell 3000		NASDAQ	
	Intercept	Slope	Intercept	Slope	Intercept	Slope	Intercept	Slope
Coefficients	0.0261	4.0151	0.0278	4.6974	0.0387	3.8541	-0.0310	2.5368
Standard Error	0.0229	0.0898	0.0332	0.1321	0.0429	0.1710	0.0273	0.1086
t Stat	1.1398	44.7071	0.8377	35.5540	0.9020	22.5431	-1.1340	23.3541
P-value	0.2557	0.0000	0.4032	0.0000	0.3682	0.0000	0.2582	0.0000
Lower 95%	-0.0191	3.8380	-0.0377	4.4368	-0.0459	3.5170	-0.0849	2.3226
Upper 95%	0.0714	4.1922	0.0934	4.9579	0.1234	4.1913	0.0229	2.7510

	Interpretation of significance of the intercept
S&P	Coefficient of intercept = 0.0261 and its t Stat = 1.1398 is less than 1.96[13], it is insignificant, which means that there is no bias in relationship and standard deviation is a good measurement of risk
DJIA	Coefficient of intercept = 0.0278 and its t Stat = 0.8377 is less than 1.96, it is insignificant, which means that there is no bias in relationship and standard deviation is a good measurement of risk

[13] At 5% two-tailed significance level with n = 200

Russell	Coefficient of intercept = 0.0387 and its t Stat = 0.902 is less than 1.96, it is insignificant, which means that there is no bias in relationship and standard deviation is a good measurement of risk
NASDAQ	Coefficient of intercept = - 0.031 and its t Stat =-1.134 is less than 1.96, it is insignificant, which means that there is no bias in relationship and standard deviation is a good measurement of risk

2) Relation between estimated beta and variance:

Table 9

	Regression Statistics			
	S&P	**DJIA**	**Russell 3000**	**NASDAQ**
Multiple R	0.9272	0.8965	0.8154	0.8297
R Square	0.8596	0.8036	0.6648	0.6884
Adjusted R Square	0.8589	0.8026	0.6632	0.6868
Standard Error	0.0840	0.1271	0.1482	0.0939
Observations	200	200	200	200

Table 10

	S&P		**DJIA**		**Russell 3000**		**NASDAQ**	
	Intercept	**Slope**	**Intercept**	**Slope**	**Intercept**	**Slope**	**Intercept**	**Slope**
Coefficients	0.5692	7.0538	0.6145	8.9260	0.5209	7.3131	0.2844	4.8431
Standard Error	0.0145	0.2026	0.0218	0.3136	0.0255	0.3690	0.0161	0.2316
t Stat	39.2848	34.8219	28.1949	28.4662	20.4225	19.8186	17.6685	20.9140
P-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Lower 95%	0.5406	6.6543	0.5715	8.3077	0.4706	6.5855	0.2526	4.3864
Upper 95%	0.5978	7.4533	0.6575	9.5444	0.5712	8.0408	0.3161	5.2998

	Interpretation of significance of the intercept
S&P	Coefficient of intercept = 0.5692 and its t Stat = 39.2848, it is very significant, which means that there is a bias in relationship and variance is a bad measurement of risk
DJIA	Coefficient of intercept = 0.6145 and its t Stat = 28.4662 it is very significant, which means that there is a bias in relationship and variance is a bad measurement of risk
Russell	Coefficient of intercept = 0.5209 and its t Stat = 20.4225, it is very significant, which means that there is a bias in relationship and variance is a bad measurement of risk
NASDAQ	Coefficient of intercept = 0.2844 and its t Stat = 17.6685 it is very significant, which means that there is a bias in relationship and variance is a bad measurement of risk

5.5 Adjusted estimated Beta, Square of Adjusted Estimated beta, Standard Deviation and Variance

There is another way to find out if beta provides information which standard deviation or variance do not. This is done by regressing adjusted beta $\beta\sigma_M$[14], where σ_M is the standard deviation of the market total return, on the standard deviation, or by regressing square of the adjusted beta $\beta^2 \sigma^2_M$ on the variance. If these two relations are unbiased, then beta does not produce a different estimate of risk. Two kinds of biases can result:

1) A bias in the intercept of the regression, if it is significant statistically. It is shown by the eight regressions (two regressions of adjusted beta on standard deviation and square of

[14] We got adjusted beta by multiplying estimated beta by the standard deviation of each index (standard deviation of total market return)

adjusted beta on variance for the four indexes). This means that when σ and $σ^2$ are zero then beta is greater than zero and/ or positive, which is not acceptable.

2) A bias in the slope of the regression, if the slope is statistically different than 1, then standard deviation and variance do not move with unit proportionality with beta. As a result of fact in all eighth regressions the slope is different from1

1) The relation between adjusted beta and standard deviation

Regression Statistics	S&P	DJIA	Russell 3000	NASDAQ
Multiple R	0.95387	0.9298	0.8539	0.8565
R Square	0.90987	0.8646	0.7291	0.7337
Adjusted R Square	0.90941	0.8639	0.7278	0.7323
Standard Error	0.01507	0.0200	0.0304	0.0290
Observations	200	200	200	200

Table 11

	S&P		DJIA		Russell 3000		NASDAQ	
	Intercept	Slope	Intercept	Slope	Intercept	Slope	Intercept	Slope
Coefficients	0.00586	0.89942	0.0053	0.8894	0.0082	0.8858	-0.0104	0.8479
Standard Error	0.00514	0.02012	0.0063	0.0250	0.0096	0.0384	0.0091	0.0363
t Stat	1.13981	44.70715	0.8377	35.5540	0.8477	23.0865	-1.1340	23.3541
P-value	0.25574	0.00000	0.4032	0.0000	0.3976	0.0000	0.2582	0.0000
Lower 95%	-0.00428	0.85974	-0.0071	0.8401	-0.0108	0.8101	-0.0284	0.7763
Upper 95%	0.01599	0.93909	0.0177	0.9388	0.0272	0.9615	0.0077	0.9195
Actual t-statistic of the slope ≠ 1		-4.99974		-4.41946		-2.97624		-4.19024

2) The relation between square of adjusted beta and variance

Table 12

Regression Statistics				
	S&P	DJIA	Russell 3000	NASDAQ
Multiple R	0.9602	0.9542	0.8803	0.8513
R Square	0.9219	0.9105	0.7749	0.7247
Adjusted R Square	0.9215	0.9100	0.7738	0.7233
Standard Error	0.0069	0.0071	0.0124	0.0121
Observations	200	200	200	200

Table 13

	S&P		DJIA		Russell 3000		NASDAQ	
	Intercept	Slope	Intercept	Slope	Intercept	Slope	Intercept	Slope
fficients	0.0035	0.7993	0.0030	0.7874	0.0030	0.8082	-0.0010	0.6815
ndard ror	0.0012	0.0165	0.0012	0.0175	0.0021	0.0310	0.0021	0.0299
at	2.9766	48.3444	2.4271	44.8788	1.4205	26.1103	-0.4802	22.8284
alue	0.0033	0.0000	0.0161	0.0000	0.1570	0.0000	0.6316	0.0000
wer 95%	0.0012	0.7667	0.0006	0.7528	-0.0012	0.7471	-0.0051	0.6226
per 95%	0.0059	0.8319	0.0054	0.8220	0.0073	0.8692	0.0031	0.7403
ual t-istic of slope		-12.1375		-12.1194		-6.19702		-10.6713

Interpretation

- Intercepts of the regressions:

  i. The absolute values of t-statistic of all four regressions of adjusted estimated beta on standard deviation are less than critical t-statistic (+/- 1.96, with a %5 two-tailed significance level). They are insignificant and there are no biases in the relationship, this implies that standard deviation is good estimate of volatility/ risk

  ii. When I look at the intercepts of the four regressions of the square of adjusted estimated beta on the variance, only intercepts of Russell and NASDAQ are not significant, but intercepts of S&P and DJIA are significant.

  I can conclude that there are biases in relationships of S&P and DJIA and its variance is a bad estimate of volatility, because if the variance is zero, then beta is different from zero, and it cannot be accepted. Where there are no biases for Russell and NASDAQ, the variance is good estimate of risk.

- Slopes of the regressions: Since the slopes in each of the eight regressions are different form 1, we calculated the actual t-statistic using the formula:

Actual t-statistic = | (coefficient of variable – 1)/ SE of the coefficient |

When I compare the absolute value of actual t-statistic of all eight t with the critical t-statistic (+/- 1.96, with a %5 two-tailed significance level), it is greater than |+/ - 1.96| which means that all slopes are statistically significantly different from 1 and that there are biases in the relationships, which implies that standard deviations and variance do not move with unit proportionality with beta

As conclusion, I can see that standard deviation is a good estimate of risk for all four indexes, while the variance is only good estimate of risk only for Russell and NASDAQ indexes. I also conclude that the variances and the standard deviations do not move with unit proportionality with beta.

Also from above we conclude that beta risk is different form total risk as expected from the theory.

5.6 Jensen's alpha

Table 14

	Descriptive statistics of Jensen's alpha							
	S&P		DJIA		Russell 3000		NASDAQ	
	Before expenses	After Expenses	Before expenses	After Expenses	Before expenses	After Expenses	Before expenses	After Expense
Mean	0.0392	0.0268	0.0314	0.0190	0.0174	0.0050	0.0052	-0.007
Standard Error	0.0031	0.0032	0.0043	0.0043	0.0031	0.0031	0.0028	0.002
Standard Deviation	0.0441	0.0459	0.0603	0.0612	0.0433	0.0444	0.0396	0.040
Sample Variance	*0.0019*	*0.0021*	*0.0036*	*0.0037*	*0.0019*	*0.0020*	*0.0016*	*0.001*
Minimum	-0.0122	-0.0710	-0.0220	-0.0621	-0.0264	-0.0723	-0.0270	-0.092
Maximum	0.2211	0.2125	0.6929	0.6789	0.4150	0.4012	0.2073	0.198
Mean difference	0.0124		0.0124		0.0124		0.0124	
Number of positive Jensen's alpha	167	110	181	100	126	56	44	4
Number of negative Jensen's alpha	33	90	19	100	74	144	156	15
Avg Jen Alpha/ SE	12.5965	8.2646	7.3652	4.3905	5.6883	1.5932	1.8565	-2.501

When I divided the average Jensen's alphas by its standard errors before and after expenses to use it as standardized measure and compared them with critical statistical value 1.96[15] I find:

- Comparing the value of average Jensen's alpha / SE of S&P500 before (12.5965) and after expenses (8.2646) are greater than 1.96. That means that mutual funds outperformed the market before and after the expenses.
- Also the values of average Jensen's alpha / SE of DJIA before (7.3652), and after the expenses (4.3905) are greater than 1.96.That means that mutual funds outperformed the market before and after expenses.
- Comparing the value of average Jensen's alpha / SE of Russell before the expenses (5.6883) is greater than 1.96, which means it outperformed the market. But after the expenses the value (1.5932) is less than 1.96. This means mutual funds do not generate abnormal profit after expenses.
- Comparing the values average Jensen's alpha / SE of NASDAQ before (1.8565), which means mutual funds do not generate abnormal profit. After expenses the value (-2.5019) is less than 1.96 and it is negative, which means that mutual funds underperformed the market after the expenses.

5.7 Actual Beta and estimated beta

5.7.1 Regression: By regressing estimated beta as dependent variable on actual beta as independent variable for each of the four indexes I find the following:

[15] At 5 % two-tailed significance level

Table 15

	S&P		DJIA		Russell		NASDAQ	
	Regression without constant	**Regression with constant**	**Regression without constant**	**Regression with constant**	**Regression without constant**	**Regression with constant**	**Regression without constant**	**Regression with constant**
Multiple R	0.984	0.574	0.977	0.481	0.972	0.417	0.963	0.311
R Square	0.968	0.33	0.955	0.232	0.945	0.174	0.928	0.097
Adjusted R Square	0.968	0.326	0.955	0.228	0.945	0.17	0.927	0.092
Std. Error of the Estimate	0.1878	0.1835	0.2572	0.2515	0.2499	0.1582	0.1657	0.1599

1. The R^2 and adjusted R^2 of regressions with constant for all indexes are greater than the critical value 0.01963 [16] which means these models have a good fit and reliable for estimation.

Table 16

	S&P			DJIA			Russell			NASDAQ		
	Regression without constant	**Regression with constant**		**Regression without constant**	**Regression with constant**		**Regression without constant**	**Regression with constant**		**Regressi on without constant**	**Regression with constant**	
	Slope	Intercept	Slope	Slope	Intercept	Slope	Slope	Intercept	Slope	Slope	Intercept	Slo
cients	0.976	0.255	0.739	1.117	0.348	0.793	1.018	0.77	0.283	0.557	0.301	0.
ard	0.013	0.08	0.075	0.017	0.109	0.103	0.017	0.045	0.044	0.011	0.065	0.
	78.072	3.204	9.866	65.215	3.196	7.727	58.417	17.272	6.451	50.49	4.609	3.
95%	0.951	0.098	0.591	1.083	0.133	0.591	0.983	0.682	0.197	0.535	0.172	0.
95%	1.001	0.412	0.887	1.151	0.563	0.996	1.052	0.857	0.37	0.579	0.429	0.
t- of pe	-1.846		-3.48	6.882		-2.009	1.058		-16.295	- 40.272		-10.

[16] I found this critical value by using the equation $t = (r\sqrt{n-2}) \div (\sqrt{1-rsq}) = 1.96$ and n=200, then I found r^2 = 0.0.01963

From the table we can see:

1) The intercept of the regression, if it is significant statistically then there is a bias. It is shown by the four regressions (regressions of estimated beta on actual beta with constant for the four indexes) where the absolute values of t-statistic of all four regressions are greater than critical t-statistic (+/- 1.96, with a 5% two-tailed significance level). They are significant and there are biases in the relationships.

   This means that when actual beta is zero then estimated beta is greater than zero and/ or positive, which is not acceptable

2) If the slope is statistically different than 1, then there is a bias which means that estimated beta does not move with unit proportionality with actual beta.

   - The slopes in each of all regressions with constant for the four indexes are different form 1, I calculated the actual t-statistic using the formula

   Actual t-statistic = | (coefficient of variable – 1)/ SE of the coefficient |

   - Regressions with constant: When I compare the absolute values of actual t-statistic with the critical t-statistic (+/- 1.96, with a 5% two-tailed significance level), I find that the absolute values of the actual t-statistics are greater than |+/- 1.96| for the four indexes with constant. This means that slopes of are significant different from 1 and that there are biases in relationships. This implies that estimated beta and actual do not move with unit proportionality.
   - Regressions without constant: When I compare the absolute values of actual t-statistic with the critical t-statistic (+/- 1.96, with a 5% two-tailed significance level), I find

that the absolute values of the actual t-statistics are greater than | +/ - 1.96 | for DJIA and NASDAQ, but less than | +/ - 1.96 | for S&P 500 and Russell 3000.

This means that slopes of are statistically significant different from 1 and that there are biases in relationships for DJIA and NASDAQ. This implies that estimated beta and actual do not move with unit proportionality. But slopes are statistically insignificant for S&P500 AND Russell 3000, and estimated beta and actual move with unit proportionality.

5.7.2. Tests

Table 17

Descriptive Statistics					
	S&P Beta	DJIA Beta	Russell Beta	NASDAQ Beta	ActBet
N	200	200	200	200	200
Mean	1.0294	1.1796	0.9818	0.5910	1.0477
Std. Deviation	0.2236	0.2862	0.2554	0.1678	0.1736
Minimum	0.3392	0.1245	0.1228	0.1024	0.3000
Maximum	1.8953	2.1904	1.8538	1.1685	1.6600

Correlation between estimated beta and actual beta are:

S&P 500: 0.5740

DJIA: 0.4810

Russell 3000: 0.4170

NASDAQ: 0.3110

Table 18

		S&P	DJIA	Russell	NASDAQ
		N	N	N	N
Actual Bet – estimated Beta	Negative Differences [a]	89	161	70	1
	Positive Differences [b]	111	39	130	199
	Ties [c]	0	0	0	0
	Total	200	200	200	200

a. ActBet < Beta

b. ActBet > Beta

c. *ActBet = Beta*

Table 19

Test Statistics

	S&P		DJIA		Russell		NASDAQ	
	Wilcoxon Test	Sign Test	Wilcoxon Test	Sign Test	Wilcoxon Test	Sign Test	Wilcoxon Test	Sign Test
Z	-1.337	-1.485	-8.195	-8.556	-3.668	-4.172	-12.261	-13.93
Asymp. Sig. (2-tailed)	0.181	0.138	0	0	0	0	0	0

Table 20

Matched Pair Test

	S&P	DJIA	Russell	NASDAQ
	Beta - ActBet	Beta - ActBet	Beta - ActBet	Beta - ActBet
Mean	-0.0183	0.1319	-0.0659	-0.4567
Std. Deviation	0.1886	0.2534	0.2417	0.2004
Std. Error Mean	0.0133	0.0179	0.0171	0.0142
Lower	-0.0446	0.0966	-0.0996	-0.4846
Upper	0.0080	0.1673	-0.0322	-0.4287
t	-1.3710	7.3630	-3.8550	-32.2240
df	199.0000	199.0000	199.0000	199.0000
Sig. (2-tailed)	0.1720	0.0000	0.0000	0.0000

From the tests table above we can see:

1. Z-statistic with a two-tailed probability for Wilcoxon, sign and matched pairs for S&P 500 (respectively, 0.181, 0.138, and 0.172 respectively) are higher than 10% which implies that the null hypothesis of no difference is not rejected, and that estimated beta is equal to actual beta when we use S&P500 index.
2. While z-statistic with a two-tailed probability Wilcoxon, sign and matched pair of DJIA, Russell and NASDAQ are less than 0.001, which implies that the null hypothesis of no differences is rejected and that there are differences between estimated beta and actual beta when using these indexes. This implies that estimated beta is different from actual beta for these market indexes.

From the above regressions and tests I can conclude that estimated beta and actual beta are equal only for S&P 500.

The limitations of the study:

1. I took a sample of 200 funds only out of more than 10,000 existing funds.

2. I did not include European funds, bond funds, and international funds.

3. I took the 4 indexes as benchmarks to compare the performance of mutual funds without taking into consideration the different market capitalization of each mutual fund.

4. I took yearly data with 8 degrees of freedom. Perhaps quarterly data would have been better.

5. I found positive serial autocorrelations for more than 25% of the total sample.

6. Since all indexes move together so significantly why are the average Jensen's alphas (before and after expenses) for the NASDAQ index so different? I did not analyze the reasons behind that and it could be a starting point for further researches.

7. I did not take taxes into consideration.

8. Only the betas of the S&P 500 are unbiased measures of the actual betas. Since all indexes move together so significantly why are the estimated betas for the DJIA, NASQAQ, and RUSSELL3000 so different from the betas of the S&P 500? I did not analyze the reasons behind that and it could be a starting point for further researches.

9. Theoretically beta is the best measure of risk. There is no theory that says that standard deviations or variances are better measures of risk although I test for this alternative.

10. Although I analyzed the biasness and unbiasness in the relation between beta and standard deviation and beta and variances, but I did not analyze the reasons that caused this biasness or unbiasness, and it could be a starting point for further studies.

Chapter 6: Conclusion and Recommendations

6.1 Conclusion

I studied the performance of 200 U.S. equity mutual funds from 2000 to 2009. I estimated 800 regressions to find the estimated beta and Jensen's alpha with each of the four indexes.

The analysis of t statistic of the four indexes shows that the correlations are statistically significant, which means the 4 indexes are significantly related, i.e. they move together significantly.

Looking into the adjusted R^2 for each of the regressions done with each indexes, most adjusted R^2 are greater than 0.3019- I found that all estimated betas are reliable and the models are well fitted. Also Durbin Watson tests show that there is statistical evidence that the error terms are not positively auto correlated and also statistical evidence that are not negative auto correlated and assures that estimated beta are reliable.

I analyzed the relationship between estimated beta as measure of systematic risk and standard deviation and variance as measurement of total risk on one side, and the relationship between adjusted estimated beta, standard deviation and variance on the other. I concluded that standard deviation is a good estimate of risk for all four indexes, while variance is only good estimate of risk only for Russell and NASDAQ indexes. I also concluded that the variances and standard deviations do not move with unit proportionality with beta and that beta is different form total risk as expected from the theory.

Studying Jensen's I divided the average alpha by standard errors before and after expenses and comparing it with critical value 1.96, I found:

- Mutual funds outperformed the market before and after expenses for S&P500 and DJIA.
- Mutual funds outperformed the market before expenses and do not generate abnormal profit after expenses for Russell.
- Mutual funds do not generate abnormal profit before expenses and after expenses it underperformed the market for NASDAQ.

I also studied the relationship between actual betas and estimated betas, I found:

- The intercepts of the regression are significant and there are biases in the relationships. This means that when actual beta is zero then estimated beta is greater than zero and/ or positive, which is not acceptable
- The slopes are statistically different than 1, then there is a bias which means that estimated beta does not move with unit proportionality with actual beta.

I did Wilcoxon, sign and matched pair tests where I concluded that:

- For S&P 500, the null hypothesis of no difference is not rejected, and that estimated beta is equal to actual beta because of its z-statistic with a two-tailed probability for all tests is less than critical z
- For DJIA, Russell and NASDAQ, the null hypothesis of no differences is rejected and there are differences between estimated beta and actual beta when using these indexes, because z-statistic with a two-tailed probability Wilcoxon, Sign and matched pair of are less than 0.001. Which implies that estimated beta is different from actual beta for these three market indexes.

Hence, I conclude that estimated beta and actual beta are equal only for S&P 500.

There are few limitations on the study, where I focused only on 200 U.S equity mutual funds without taking into consideration of the other types of mutual funds and the different market capitalization categories of mutual funds. Also taxes were excluded from the analysis, and I took yearly data with 8 degrees of freedom. I did not analyze the reasons behind the biasness and unbiasness in the relation between beta and standard deviation, and between beta and variance. Also I did not go behind the reasons of the different outputs of Jensen's alpha for the four indexes, and the relation between actual and estimated beta for the four indexes.

6.2 Recommendations

1. Further analysis to study the reasons that led to biasness in relation between actual and estimated beta.

2. Further analysis to study the performance of international, European and bond mutual funds with the four indexes and compare the results with what I have for the equity mutual funds.
3. Further analysis to study the performance of the 200 U.S equity mutual funds that I studied, but using another performance measurement and compare the results with what I got.
4. Categorizing mutual funds according to the different market capitalization categories to study the performance of each category with an appropriate index

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Appendix: list of the names of the mutual funds, list of regression outputs.

List of the names of the mutual funds

No	Fund Name	Ticker Symbol	Expense ratio	Number of Stocks	Total Net Assets	Stock style
1	Vanguard 500 Index Fund Investor Shares	(VFINX)	0.18%	504	$97.9 billion	Blend
2	Vanguard Capital Opportunity Fund Investor Shares	(VHCOX)	0.50%	112	$8.4 billion	Growth Med Cap
3	Vanguard Dividend Growth Fund	(VDIGX)	0.32%	50	$3.2 billion	Large Blend
4	Neuberger Berman Focus Adv	(NBFAX)	1.54%	37	$9.4 million	Large Blend
5	Vanguard Equity Income Fund Investor Shares	(VEIPX)	0.36%	155	$4.2 billion	Large Value
6	Vanguard Explorer Fund Investor Shares	(VEXPX)	0.54%	973	$9.3 billion	Small Growth
7	Vanguard Extended Market Index Fund Investor Shares	(VEXMX)	0.30%	3022	$13.9 billion	Mid Blend
8	Vanguard Growth and Income Fund Investor Shares	(VQNPX)	0.35%	137	$4.7 billion	Large Blend
9	Vanguard Growth Equity Fund	(VGEQX)	0.51%	81	$640.5 million	Large Growth
10	Vanguard Growth Index Fund Investor Shares	(VIGRX)	0.28%	421	$16.7 billion	Large Growth
11	Vanguard Health Care Fund Investor Shares	(VGHCX)	0.33%	78	$20.8 billion	Domestic Stock- Sector Health
12	Marsico Focus	(MFOCX)	1.32%	32	$2.1 billion	Large Growth
13	Vanguard Mid-Cap Growth Fund	(VMGRX)	0.60%	102	$1.4 billion	Mid Growth

14	Vanguard Mid-Cap Index Fund Investor Shares	(VIMSX)	0.27%	455	$21.8 billion	Mid Blend
15	Vanguard Morgan Growth Fund Investor Shares	(VMRGX)	0.48%	338	$8.3 billion	Large Growth
16	Neuberger Berman Guardian Adv	(NBGUX)	5.33%	31	$0.6 million	Large Blend
17	Vanguard PRIMECAP Core Fund	(VPCCX)	0.54%	136	$4.9 billion	Large Blend
18	Vanguard REIT Index Fund Investor Shares	(VGSIX)	0.26%	98	$13.1 billion	Real Estate
19	Vanguard Selected Value Fund	(VASVX)	0.52%	63	$3.5 billion	Mid Value
20	Vanguard Small-Cap Growth Index Fund	(VISGX)	0.28%	1000	$5.9 billion	Small Growth
21	Vanguard Small-Cap Index Fund Investor Shares	(NAESX)	0.28%	1738	$18.8 billion	Small Blend
22	Vanguard Small-Cap Value Index Fund	(VISVX)	0.28%	989	$5.9 billion	Small Value
23	Vanguard Strategic Equity Fund	(VSEQX)	0.30%	657	$3.3 billion	Mid Blend
24	Vanguard Tax-Managed Capital Appreciation Fund Investor Shares	(VMCAX	0.21%	618	$3.5 billion	Large Blend
25	Vanguard Total Stock Market Index Fund Investor Shares	(VTSMX)	0.18%	3386	$131.0 billion	Large Blend
26	Vanguard U.S. Growth Fund Investor Shares	(VWUSX)	0.49%	77	$4.1 billion	Large Growth
27	Vanguard Value Index Fund Investor Shares	(VIVAX)	0.26%	421	$12.6 billion	Large Value
28	Vanguard Windsor Fund Investor Shares	(VWNDX)	0.33%	166	$13.4 billion	Large Value
29	Vanguard Windsor II Fund Investor Shares	(VWNFX)	0.38%	231	$36.7 billion	Large Value

30	Aberdeen Equity Long-Short C	(MLSCX)	3.81%	89	$27.4 million	Large Growth
31	Manning & Napier Equity	(EXEYX)	1.12%	59	$1.3 billion	Large Blend
32	Aberdeen Small Cap A	(GSXAX)	2.11%	69	$106.0 million	Small Blend
33	Accessor Growth Inv	(AGRIX)	1.42%	98	$0.8 million	Large Growth
34	Accessor Small to Mid Cap Inv	(ACSIX)	1.74%	493	$1.7 million	Mid Cap Growth
35	Aegis Value	(AVALX)	1.53%	79	$169.6 million	Small Value
36	Al Frank Inv	(VALUX)	1.65%	190	$116.2 million	Mid Cap Blend
37	Alger Capital Appreciation A	(ACAAX)	1.43%	99	$684.0 million	Large Growth
38	Alger Large Cap Growth A	(ALGAX)	1.50%	96	$159.2 million	Large Growth
39	Alger MidCap Growth A	(AMGAX)	1.49%	106	$239.8 million	Mid Cap Growth
40	Alger SmallCap Growth A	(ALSAX)	1.53%	121	$325.3 million	Small Growth
41	Alger Spectra A	(SPECX)	1.90%	149	$421.3 million	Large Growth
42	Ariel	(ARGFX)	1.14%	35	$2.2 billion	Mid Cap Blend
43	Ariel Appreciation	(CAAPX)	1.25%	39	$1.6 billion	Mid Cap Blend
44	Artisan Mid Cap Inv	(ARTMX)	1.23%	86	$4.2 billion	Mid Cap Growth
45	Artisan Small Cap	(ARTSX)	1.38%	75	$387.3 million	Small Growth
46	Artisan Small Cap Value Investor	(ARTVX)	1.22%	108	$2.6 billion	Small Value
47	Aston/Montag & Caldwell Growth N	(MCGFX)	1.12%	31	$1.6 billion	Large Growth
48	Aston/Optimum Mid Cap N	(CHTTX)	1.21%	41	$1.3 billion	Mid Cap Blend

49	Aston/Veredus Aggressive Growth N	(VERDX)	1.83%	76	$39.7 million	Small Growth
50	Auxier Focus Inv	(AUXFX)	1.25%	120	$107.6 million	Large Value
51	Masters' Select Equity	(MSEFX)	1.25%	95	$331.3 million	Large Growth
52	BlackRock Aurora Portfolio Class C	(SSRDX)	2.40%	97	$63.9 million	Mid Cap Blend
53	BlackRock Aurora Portfolio Class A	(SSRAX)	1.60%	97	$331.3 million	Mid Cap Blend
54	Bogle Small Cap Growth Inv	(BOGLX)	1.67%	157	$57.5 million	Small Blend
55	Boyar Value	(BOYAX)	2.43%	35	$16.4 million	Large Value
56	Brandywine	(BRWIX)	1.10%	100	$2.1 billion	Mid Cap Growth
57	Bridgeway Aggressive Investors 1	(BRAGX)	0.34%	75	$116.3 million	Mid-Cap Growth
58	Bridgeway Blue Chip 35 Index	(BRLIX)	0.25%	36	$217.6 million	Large Blend
59	Bridgeway Micro-Cap Limited	(BRMCX)	0.87%	128	$23.7 million	Small Growth
60	Bridgeway Ultra-Small Company	(BRUSX)	1.17%	180	$92.0 million	Small Growth
61	Buffalo Growth Fund	(BUFGX)	1.05%	52	$105.1 million	Large Growth
62	Buffalo Large Cap	(BUFEX)	1.09%	35	$36.7 million	Large Growth
63	Buffalo Small Cap	(BUFSX)	1.01%	56	$2.9 billion	Small Growth
64	Burnham A	(BURHX)	1.69%	41	$71.5 million	Large Blend
65	California Investment Equity Income	(EQTIX)	0.97%	59	$16.7 million	Large Value
66	California Investment S&P MidCap Idx Dir	(SPMIX)	0.70%	380	$120.4 million	Mid-Cap Blend
67	California Investment S&P 500 Idx Dir	(SPFIX)	0.59%	469	$74.1 million	Large Blend

49	Aston/Veredus Aggressive Growth N	(VERDX)	1.83%	76	$39.7 million	Small Growth
50	Auxier Focus Inv	(AUXFX)	1.25%	120	$107.6 million	Large Value
51	Masters' Select Equity	(MSEFX)	1.25%	95	$331.3 million	Large Growth
52	BlackRock Aurora Portfolio Class C	(SSRDX)	2.40%	97	$63.9 million	Mid Cap Blend
53	BlackRock Aurora Portfolio Class A	(SSRAX)	1.60%	97	$331.3 million	Mid Cap Blend
54	Bogle Small Cap Growth Inv	(BOGLX)	1.67%	157	$57.5 million	Small Blend
55	Boyar Value	(BOYAX)	2.43%	35	$16.4 million	Large Value
56	Brandywine	(BRWIX)	1.10%	100	$2.1 billion	Mid Cap Growth
57	Bridgeway Aggressive Investors 1	(BRAGX)	0.34%	75	$116.3 million	Mid-Cap Growth
58	Bridgeway Blue Chip 35 Index	(BRLIX)	0.25%	36	$217.6 million	Large Blend
59	Bridgeway Micro-Cap Limited	(BRMCX)	0.87%	128	$23.7 million	Small Growth
60	Bridgeway Ultra-Small Company	(BRUSX)	1.17%	180	$92.0 million	Small Growth
61	Buffalo Growth Fund	(BUFGX)	1.05%	52	$105.1 million	Large Growth
62	Buffalo Large Cap	(BUFEX)	1.09%	35	$36.7 million	Large Growth
63	Buffalo Small Cap	(BUFSX)	1.01%	56	$2.9 billion	Small Growth
64	Burnham A	(BURHX)	1.69%	41	$71.5 million	Large Blend
65	California Investment Equity Income	(EQTIX)	0.97%	59	$16.7 million	Large Value
66	California Investment S&P MidCap Idx Dir	(SPMIX)	0.70%	380	$120.4 million	Mid-Cap Blend
67	California Investment S&P 500 Idx Dir	(SPFIX)	0.59%	469	$74.1 million	Large Blend

68	Manning & Napier Small Cap A	(MNSMX)	1.15%	66	$180.3 million	Small Blend
69	Calvert Capital Accumulation A	(CCAFX)	1.88%	43	$82.4 million	Mid-Cap Growth
70	Century Shares Trust Instl	(CENSX)	1.22%	41	$179.3 million	Large Growth
71	CGM Mutual	(LOMMX)	1.05%	15	$554.5 million	Large Growth
72	CGM Realty	(CGMRX)	0.86%	21	$1.4 billion	Real Estate - Speciality
73	Chesapeake Core Growth	(CHCGX)	1.61%	49	$381.1 million	Large Growth
74	Clipper	(CFIMX)	0.76%	24	$1.2 billion	Large Blend
75	Marshall Large-Cap Growth Y	(MASTX)	1.39%	66	$68.3 million	Large Growth
76	Columbia Acorn USA Z	(AUSAX)	1.01%	196	$1.3 billion	Small Growth
77	Matrix Advisors Value	(MAVFX)	1.44%	41	$100.8 million	Large Blend
78	COLUMBIA BLENDED EQUITY FUND	(UMEQX)	1.02%	106	$149.5 million	Large Blend
79	*Croft Value*	*(CLVFX)*	*1.48%*	*86*	*$238.0 million*	*Large Blend*
80	Davis NY Venture A	(NYVTX)	0.92%	88	$20.5 billion	Large Blend
81	Davis Opportunity A	(RPEAX)	1.15%	73	$313.4 million	Large Growth
82	Dodge & Cox Stock	(DODGX)	0.52%	87	$42.7 billion	Large Value
83	Dreyfus Fund	(DREVX)	0.76%	87	$1.0 billion	Large Blend
84	DREYFUS ALPHA GROWTH FUND CLASS C	(BSFCX)	2.08%	70	$38.4 million	Large Growth
85	Dreyfus Basic S&P 500 Stock Index	(DSPIX)	0.21%	500	$960.5 million	Large Blend
86	Dreyfus Core Equity A	(DLTSX)	1.36%	45	$71.3 million	Large Blend

87	Dreyfus Core Value A	(DCVIX)	1.16%	88	$335.0 million	Large Value
88	DWS Blue Chip A	(KBCAX)	1.26%	205	$252.0 million	Large Blend
89	Matthew 25	(MXXVX)	1.24%	18	$47.1 million	Mid-Cap Blend
90	DWS Dreman Small Cap Value A	(KDSAX)	1.25%	97	$1.3 billion	Small Blend
91	DWS Equity 500 Index Inst	(BTIIX)	0.24%	499	$1.5 billion	Large Blend
92	DWS Growth & Income A	(SUWAX)	1.09%	205	$47.1 million	Large Blend
93	DWS Large Cap Value A	(KDCAX)	1.02%	74	$506.8 million	Large Value
94	DWS Large Company Growth A	(SGGAX)	1.34%	35	$33.5 million	Large Growth
95	Eagle Capital Appreciation A	(HRCPX)	1.32%	35	$452.3 million	Large Growth
96	Eagle Growth & Income A	(HRCVX)	1.55%	55	$119.3 million	Large Blend
97	Eagle Mid Cap Growth A	(HAGAX)	1.44%	60	$118.0 million	Mid-Cap Growth
98	Eagle Small Cap Growth A	(HRSCX)	1.37%	72	$248.6 million	Small Growth
99	Embarcadero Absolute Return Fund	(EFARX)	9.80%	36	$9.2 million	Small Growth
100	FAM Equity-Income Inv	(FAMEX)	1.72%	27	$82.7 million	Mid-Cap Blend
101	FAM Value Inv	(FAMVX)	1.40%	42	$697.2 million	Mid-Cap Blend
102	FBR Focus	(FBRVX)	1.46%	24	$705.4 million	Mid-Cap Growth
103	Federated Capital Appreciation Fund Class A	(FEDEX)	1.36%	60	$994.1 million	Large Blend
104	Federated Equity Income Fund Class B	(LEIBX)	1.92%	108	$34.8 million	Large Value

105	Federated Max Cap Index Fund Class C	(MXCCX)	1.54%	515	$34.8 million	Large Blend
106	Federated Mid Cap Growth Strategies Fund Class A	(FGSAX)	1.44%	105	$306.1 million	Mid-Cap Growth
107	Fifth Third Disciplined Large Cap Val A	(FSSIX)	1.33%	58	$11.8 million	Large Value
108	Fifth Third Dividend Growth C	(FTPCX)	3.27%	62	$0.2 million	Large Growth
109	Fifth Third Equity Index A	(KNIDX)	0.88%	502	$40.7 million	Large Blend
110	Fifth Third Quality Growth Inv C	(FSQCX)	2.14%	58	$1.4 million	Large Growth
111	Fidelity Fund	(FFIDX)	0.64%	128	$5.2 billion	Large Blend
112	Fidelity Advisor Consumer Discret A	(FCNAX)	1.62%	104	$19.3 million	Consumer Discretionary
113	Nicholas	(NICSX)	0.77%	54	$1.5 billion	Mid-Cap Blend
114	Fidelity Advisor Dividend Growth A	(FADAX)	1.08%	500	$264.9 million	Large Blend
115	Fidelity Advisor Dynamic Cap App A	(FARAX)	1.09%	90	$211.5 million	Large Growth
116	Fidelity Advisor Energy I	(FANIX)	0.95%	85	$24.2 million	Equity Energy
117	Fidelity Advisor Equity Growth A	(EPGAX)	1.19%	171	$665.7 million	Large Growth
118	Fidelity Advisor Large Cap A	(FALAX)	1.16%	141	$120.7 million	Large Growth
119	Fidelity Advisor Mid Cap A	(FMCDX)	0.83%	71	$987.3 million	Mid-Cap Growth
120	Fidelity Advisor Small Cap A	(FSCDX)	1.53%	139	$1.4 billion	Small Blend
121	Fidelity Advisor Strategic Growth A	(FTQAX)	2.04%	146	$7.6 million	Large Growth

122	Fidelity Advisor Value Strategies A	(FSOAX)	1.03%	269	$233.4 million	Mid-Cap Blend
123	Fidelity Capital Appreciation	(FDCAX)	0.79%	89	$5.0 billion	Large Growth
124	FMI Common Stock	(FMIMX)	1.26%	46	$941.4 million	Mid-Cap Blend
125	FMI Focus	(FMIOX)	1.33%	64	$433.9 million	Small Blend
126	FMI Provident Trust Strategy	(FMIRX)	1.17%	17	$120.6 million	Large Growth
127	Pin Oak Aggressive Stock	(POGSX)	1.60%	38	$152.6 million	Large Growth
128	Franklin Equity Income A	(FISEX)	1.06%	39	$658.4 million	Large Value
129	Franklin Flex Cap Growth A	(FKCGX)	1.02%	88	$1.9 billion	Large Growth
130	Franklin Growth A	FKGRX	1.00%	152	$2.5 billion	Large Growth
131	Franklin Growth Opportunities A	(FGRAX)	1.34%	82	$162.7 million	Mid-Cap Growth
132	Franklin Rising Dividends A	(FRDPX)	1.17%	45	$1.7 billion	Large Blend
133	Franklin Small Cap Value A	(FRVLX)	1.44%	113	$752.5 million	Small Value
134	Franklin Small-Mid Cap Growth A	(FRSGX)	1.11%	110	$2.5 billion	Mid-Cap Growth
135	Nicholas Limited Edition I	(NCLEX)	0.93%	100	$148.2 million	Small Growth
136	Meridian Growth	(MERDX)	0.86%	53	$1.5 billion	Mid Cap Growth
137	Meridian Value	(MVALX)	1.12%	53	$951.6 million	Mid Cap Blend
138	Northern Stock Index	(NOSIX)	0.39%	497	$1.5 billion	Large Blend
139	Muhlenkamp	(MUHLX)	1.27%	48	$740.6 million	Large Value

140	Gabelli Asset AAA	(GABAX)	1.38%	449	$2.2 billion	Mid Cap Blend
141	Gabelli Blue Chip Value AAA	(GABBX)	2.02%	58	$26.3 million	Large Blend
142	Gabelli Equity Income AAA	(GABEX)	1.50%	347	$1.3 billion	Large Value
143	Gabelli Small Cap Growth AAA	(GABSX)	1.48%	517	$1.4 billion	Small Blend
144	GAMCO Westwood Equity AAA	(WESWX)	1.57%	56	$125.3 million	Large Blend
145	Gateway Fund Class A	(GATEX)	1.04%	236	$2.8 billion	Long Short
146	Green Century Equity	GCEQX	0.95%	399	$50.3 million	Large Blend
147	Harbor Capital Appreciation Instl	(HACAX)	0.70%	67	$8.5 billion	Large Growth
148	Marshall Mid-Cap Growth Inv	(MRMSX)	1.35%		1.70%	Mid Cap Growth
149	Harbor Large Cap Value Instl	(HAVLX)	0.77%	89	$221.7 million	Large Value
150	Marshall Small-Cap Growth Inv	(MRSCX)	1.60%	81	$178.4 million	Small Growth
151	Marsico Growth	(MGRIX)	1.31%	42	$1.0 billion	Large Growth
152	Heartland Select Value Fund Investor	(HRSVX)	1.33%	55	$500.9 million	Mid Cap Value
153	Heartland Value Fund Investor	(HRTVX)	1.20%	157	$1.2 billion	Small Value
154	Heartland Value Plus Investor	(HRVIX)	1.27%	61	$904.7 million	Small Value
155	Hennessy Cornerstone Growth	(HFCGX)	1.36%	50	$234.1 million	Mid-Cap Blend
156	Hennessy Cornerstone Value	(HFCVX)	1.27%	50	$168.3 million	Large Value
157	Hennessy Select Large Value Original	(HSVFX)	1.37%	65	$143.0 million	Large Value
158	Hennessy Total Return	(HDOGX)	1.56%	18	$54.2 million	Large Value
159	Hodges	(HDPMX)	1.37%	51	$414.0 million	Mid Cap Growth

160	Homestead Small-Company Stock	(HSCSX)	1.27%	37	$74.4 million	Small Value
161	Homestead Stock Index	(HSTIX)	0.59%	504	$51.0 million	Lareg Blend
162	Homestead Value	(HOVLX)	0.70%	45	$524.2 million	Large Value
163	IMS Capital Value	(IMSCX)	1.67%	40	$73.1 million	Mid-Cap Blend
164	Industry Leaders Investor	(ILFIX)	0.83%	73	$11.1 million	Large Blend
165	ING Corporate Leaders Trust Fund	(LEXCX)	0.59%	21	$386.9 million	Large Value
166	ING Growth and Income A	(AAGIX)	1.25%	61	$322.1 million	Large Blend
167	ING Growth Opportunities A	(NLCAX)	1.74%	66	$41.9 million	Large Growth
168	ING Index Plus LargeCap A	(AELAX)	1.14%	143	$104.6 million	Large Blend
169	ING Index Plus MidCap A	(AIMAX)	1.14%	251	$66.7 million	Mid Cap Blend
170	ING Index Plus SmallCap A	(AISAX)	1.33%	337	$21.4 million	Small Blend
171	ING Mid Cap Opportunities A	(NMCAX)	1.69%	84	$144.4 million	Mid Cap Growth
172	AIM Basic Value A	(GTVLX)	1.26%	45	$995.2 million	Large Blend
173	AIM Capital Development A	(ACDAX)	1.45%	98	$678.2 million	Mid-Cap Growth
174	AIM Charter A	(CHTRX)	1.32%	67	$4.3 billion	Large Blend
175	AIM Constellation A	(CSTGX)	1.45%	124	$2.9 billion	Large Growth
176	AIM Large Cap Growth A	(LCGAX)	1.56%	61	$733.6 million	Large Growth

177	AIM Large Cap Basic Value A	(LCBAX)	1.66%	42	$56.5 million	Large Blend
178	AIM Mid Cap Core Equity A	(GTAGX)	1.31%	84	$1.7 billion	Mid Cap Blend
179	AIM Select Equity A	(AGWFX)	1.52%	99	$186.2 million	Large Blend
180	AIM Small Cap Growth A	(GTSAX)	1.28%	130	$832.8 million	Small Growth
181	James Equity	(JALCX)	1.53%	95	$11.5 million	Mid Cap Value
182	Marsico 21st Century	(MXXIX)	1.38%	48	$865.7 million	Large Growth
183	James Small Cap	(JASCX)	1.50%	79	$70.4 million	Small Value
184	Perkins Mid Cap Value T	(JMCVX)	1.08%	153	$7.1 billion	Mid Cap Value
185	Perkins Small Cap Value Fund Class T Shares	(JSCVX)	1.07%	109	$881.9 million	Small Value
186	Jensen J	(JENSX)	0.96%	29	$1.9 billion	Large Growth
187	Keeley Small Cap Value A	(KSCVX)	1.39%	164	$4.1 billion	Small Blend
188	Laudus Growth Investors U.S. Large Cap Growth Fund	(LGILX)	0.96%	42	$214.6 million	Large Growth
189	Lazard U.S. Mid Cap Equity Open	(LZMOX)	1.15%	69	$68.9 million	Mid-Cap Value
190	Lazard U.S. Small-Mid Cap Equity Open	(LZCOX)	1.49%	89	$20.8 million	Small Blend
191	LKCM Aquinas Growth	(AQEGX)	1.57%	54	$35.6 million	Large Growth
192	LKCM Aquinas Small Cap	(AQBLX)	2.92%	92	$6.2 million	Small Growth
193	Loomis Sayles Small Cap Growth Retail	(LCGRX)	1.43%	104	$75.6 million	Small Growth
194	Madison Mosaic Investors	(MINVX)	0.99%	34	$41.2 million	Large Grwoth

195	Madison Mosaic Mid-Cap	(GTSGX)	1.25%	38	$152.1 million	Mid-Cap Growth
196	MainStay Common Stock A	(MSOAX)	1.00%	283	$13.2 million	Large Blend
197	MainStay Large Cap Growth A	(MLAAX)	1.25%	61	$1.3 billion	Large Grwoth
198	MainStay MAP A	(MAPAX)	1.29%	235	$355.5 million	Large Blend
199	Managers AMG Essex Large Cap Growth	(MGCAX)	1.62%	61	$14.7 million	Large Growth
200	Managers Special Equity Managers	(MGSEX)	1.52%	305	$218.9 million	Small Growth

System: SYSHOURSP
Estimation Method: Least Squares
Date: 05/01/10 Time: 12:21
Sample: 2000 2009
Included observations: 10
Total system (balanced) observations 2000

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	0.018111	0.001994	9.081590	0.0000
C(2)	1.003797	0.009302	107.9141	0.0000
C(3)	0.092315	0.029273	3.153592	0.0016
C(4)	1.236203	0.136537	9.054007	0.0000
C(5)	0.047320	0.032183	1.470337	0.1417
C(6)	0.813995	0.150110	5.422661	0.0000
C(7)	0.037301	0.040675	0.917060	0.3592
C(8)	1.247485	0.189718	6.575474	0.0000
C(9)	0.056818	0.020888	2.720103	0.0066
C(10)	0.768838	0.097427	7.891394	0.0000
C(11)	0.064398	0.025954	2.481219	0.0132
C(12)	1.110213	0.121057	9.170989	0.0000
C(13)	0.049187	0.017044	2.885867	0.0040
C(14)	1.134669	0.079499	14.27275	0.0000
C(15)	0.013400	0.004147	3.231198	0.0013
C(16)	0.995084	0.019343	51.44485	0.0000
C(17)	-0.020344	0.029622	-0.686784	0.4923
C(18)	1.389515	0.138166	10.05685	0.0000
C(19)	0.002498	0.022347	0.111761	0.9110
C(20)	1.072471	0.104235	10.28901	0.0000
C(21)	0.103250	0.052501	1.966646	0.0494
C(22)	0.522893	0.244878	2.135323	0.0329
C(23)	0.011995	0.022479	0.533628	0.5937
C(24)	1.097955	0.104846	10.47206	0.0000
C(25)	0.046612	0.033559	1.388973	0.1650
C(26)	1.211155	0.156527	7.737649	0.0000
C(27)	0.089691	0.030045	2.985269	0.0029
C(28)	1.063902	0.140136	7.591940	0.0000
C(29)	0.024214	0.012133	1.995738	0.0461
C(30)	1.156781	0.056592	20.44090	0.0000
C(31)	0.042691	0.014609	2.922208	0.0035
C(32)	1.065473	0.068141	15.63624	0.0000
C(33)	0.060671	0.018406	3.296241	0.0010
C(34)	1.019083	0.085851	11.87031	0.0000
C(35)	0.123110	0.053630	2.295549	0.0218
C(36)	0.851189	0.250143	3.402805	0.0007
C(37)	0.108201	0.032642	3.314811	0.0009
C(38)	0.889803	0.152249	5.844384	0.0000
C(39)	0.078230	0.019115	4.092584	0.0000
C(40)	1.091430	0.089158	12.24150	0.0000
C(41)	0.072450	0.019529	3.709862	0.0002
C(42)	1.051355	0.091089	11.54205	0.0000
C(43)	0.097839	0.037694	2.595587	0.0095
C(44)	0.837211	0.175817	4.761833	0.0000
C(45)	0.077466	0.029391	2.635721	0.0085
C(46)	1.046022	0.137086	7.630428	0.0000
C(47)	0.019557	0.006699	2.919355	0.0036
C(48)	1.061397	0.031246	33.96951	0.0000
C(49)	0.026304	0.004564	5.763570	0.0000
C(50)	1.022996	0.021287	48.05750	0.0000
C(51)	-0.036880	0.035986	-1.024822	0.3056
C(52)	1.186514	0.167850	7.068906	0.0000
C(53)	0.039574	0.018518	2.137071	0.0327
C(54)	0.964242	0.086372	11.16384	0.0000
C(55)	0.065287	0.033358	1.957165	0.0505

C(56)	1.059429	0.155591	6.809050	0.0000
C(57)	0.067094	0.025141	2.668735	0.0077
C(58)	0.929683	0.117263	7.928188	0.0000
C(59)	-0.014842	0.039443	-0.376286	0.7068
C(60)	0.593588	0.183972	3.226503	0.0013
C(61)	0.078749	0.027229	2.892089	0.0039
C(62)	0.983546	0.127004	7.744204	0.0000
C(63)	0.091932	0.028816	3.190300	0.0014
C(64)	1.263475	0.134406	9.400447	0.0000
C(65)	-0.016661	0.022382	-0.744412	0.4567
C(66)	0.951952	0.104394	9.118878	0.0000
C(67)	0.029142	0.024754	1.177256	0.2393
C(68)	1.138336	0.115460	9.859096	0.0000
C(69)	0.132364	0.078212	1.692384	0.0908
C(70)	1.203379	0.364800	3.298735	0.0010
C(71)	0.107185	0.051678	2.074088	0.0382
C(72)	1.240727	0.241041	5.147360	0.0000
C(73)	0.023280	0.038561	0.603717	0.5461
C(74)	1.446908	0.179859	8.044689	0.0000
C(75)	0.009679	0.025621	0.377758	0.7057
C(76)	1.308769	0.119505	10.95160	0.0000
C(77)	0.062941	0.044154	1.425507	0.1542
C(78)	1.620739	0.205944	7.869790	0.0000
C(79)	0.010860	0.035987	0.301772	0.7629
C(80)	1.476442	0.167854	8.796013	0.0000
C(81)	0.023292	0.045656	0.510164	0.6100
C(82)	1.463359	0.212950	6.871827	0.0000
C(83)	0.101235	0.059431	1.703409	0.0887
C(84)	1.096952	0.277201	3.957240	0.0001
C(85)	0.097254	0.047917	2.029620	0.0426
C(86)	0.996255	0.223500	4.457523	0.0000
C(87)	0.087551	0.041478	2.110753	0.0349
C(88)	1.174750	0.193466	6.072128	0.0000
C(89)	0.062478	0.034614	1.804998	0.0713
C(90)	1.222205	0.161448	7.570272	0.0000
C(91)	0.130358	0.033971	3.837347	0.0001
C(92)	0.717094	0.158449	4.525713	0.0000
C(93)	0.015672	0.021961	0.713622	0.4756
C(94)	0.882213	0.102432	8.612649	0.0000
C(95)	0.131966	0.044962	2.935057	0.0034
C(96)	1.177786	0.209715	5.616137	0.0000
C(97)	0.033900	0.058040	0.584093	0.5592
C(98)	1.354911	0.270712	5.004994	0.0000
C(99)	0.075335	0.019141	3.935861	0.0001
C(100)	0.614480	0.089277	6.882826	0.0000
C(101)	0.044973	0.027242	1.650884	0.0990
C(102)	1.175057	0.127064	9.247773	0.0000
C(103)	0.075532	0.053514	1.411451	0.1583
C(104)	0.911918	0.249603	3.653476	0.0003
C(105)	0.082905	0.053432	1.551585	0.1210
C(106)	0.913063	0.249223	3.663634	0.0003
C(107)	0.097928	0.048383	2.024016	0.0431
C(108)	1.263003	0.225671	5.596655	0.0000
C(109)	0.050082	0.036596	1.368507	0.1713
C(110)	0.835805	0.170695	4.896469	0.0000
C(111)	0.022866	0.035295	0.647852	0.5172
C(112)	1.083850	0.164625	6.583737	0.0000
C(113)	0.058463	0.046491	1.257520	0.2087
C(114)	1.410885	0.216845	6.506414	0.0000
C(115)	0.013315	0.013529	0.984202	0.3252
C(116)	0.904785	0.063103	14.33819	0.0000
C(117)	0.077343	0.059613	1.297426	0.1947
C(118)	0.982608	0.278050	3.533928	0.0004
C(119)	0.154270	0.062065	2.485611	0.0130

C(120)	1.221065	0.289489	4.217998	0.0000
C(121)	0.046028	0.022202	2.073119	0.0383
C(122)	0.969026	0.103557	9.357433	0.0000
C(123)	0.047582	0.037305	1.275482	0.2023
C(124)	1.116990	0.174001	6.419447	0.0000
C(125)	0.131331	0.055020	2.386976	0.0171
C(126)	0.914713	0.256626	3.564378	0.0004
C(127)	0.020871	0.020475	1.019354	0.3082
C(128)	0.985467	0.095499	10.31910	0.0000
C(129)	0.049266	0.010264	4.799876	0.0000
C(130)	0.832518	0.047875	17.38959	0.0000
C(131)	0.086989	0.028663	3.034858	0.0024
C(132)	0.939987	0.133693	7.030945	0.0000
C(133)	0.018507	0.002076	8.914145	0.0000
C(134)	0.989567	0.009684	102.1883	0.0000
C(135)	0.084398	0.050978	1.655580	0.0980
C(136)	1.245334	0.237775	5.237438	0.0000
C(137)	0.020500	0.026960	0.760392	0.4471
C(138)	1.006326	0.125750	8.002600	0.0000
C(139)	0.074081	0.041955	1.765728	0.0776
C(140)	0.810419	0.195688	4.141375	0.0000
C(141)	0.058259	0.035482	1.641932	0.1008
C(142)	0.862704	0.165498	5.212792	0.0000
C(143)	0.211346	0.046769	4.518953	0.0000
C(144)	1.325141	0.218142	6.074679	0.0000
C(145)	0.034043	0.029613	1.149585	0.2505
C(146)	1.327739	0.138123	9.612755	0.0000
C(147)	0.064379	0.061511	1.046623	0.2954
C(148)	0.973600	0.286904	3.393465	0.0007
C(149)	0.011199	0.015472	0.723848	0.4693
C(150)	1.082509	0.072165	15.00043	0.0000
C(151)	0.084284	0.035429	2.378978	0.0175
C(152)	1.082600	0.165249	6.551319	0.0000
C(153)	0.064229	0.034907	1.840018	0.0660
C(154)	1.044101	0.162815	6.412826	0.0000
C(155)	0.015055	0.008836	1.703802	0.0886
C(156)	0.995668	0.041213	24.15895	0.0000
C(157)	0.078320	0.027964	2.800759	0.0052
C(158)	1.167058	0.130431	8.947713	0.0000
C(159)	0.053278	0.020801	2.561258	0.0105
C(160)	1.033840	0.097023	10.65563	0.0000
C(161)	0.068244	0.029930	2.280104	0.0227
C(162)	1.163673	0.139603	8.335570	0.0000
C(163)	0.083430	0.035933	2.321803	0.0204
C(164)	1.002442	0.167601	5.981110	0.0000
C(165)	0.012591	0.009509	1.324135	0.1856
C(166)	1.019158	0.044352	22.97905	0.0000
C(167)	0.029021	0.027614	1.050945	0.2934
C(168)	0.893342	0.128801	6.935828	0.0000
C(169)	0.017227	0.002108	8.171277	0.0000
C(170)	1.005978	0.009833	102.3027	0.0000
C(171)	0.015901	0.010794	1.473162	0.1409
C(172)	0.781810	0.050344	15.52935	0.0000
C(173)	0.039036	0.023592	1.654636	0.0982
C(174)	0.924899	0.110038	8.405245	0.0000
C(175)	0.020042	0.010392	1.928591	0.0540
C(176)	1.082624	0.048470	22.33589	0.0000
C(177)	0.058583	0.052618	1.113366	0.2657
C(178)	0.899712	0.245423	3.665963	0.0003
C(179)	0.106783	0.023519	4.540250	0.0000
C(180)	0.875483	0.109699	7.980746	0.0000
C(181)	0.018059	0.002017	8.951867	0.0000
C(182)	1.004325	0.009409	106.7378	0.0000
C(183)	0.016648	0.012289	1.354762	0.1757

C(184)	1.035301	0.057318	18.06240	0.0000
C(185)	0.067514	0.025749	2.621981	0.0088
C(186)	0.873728	0.120100	7.274977	0.0000
C(187)	-0.022069	0.025604	-0.861936	0.3889
C(188)	0.988538	0.119425	8.277457	0.0000
C(189)	0.036889	0.024131	1.528696	0.1265
C(190)	1.253429	0.112553	11.13639	0.0000
C(191)	0.062581	0.015174	4.124284	0.0000
C(192)	1.006026	0.070775	14.21445	0.0000
C(193)	0.077886	0.027416	2.840879	0.0046
C(194)	0.990990	0.127876	7.749606	0.0000
C(195)	0.081969	0.026463	3.097482	0.0020
C(196)	0.988570	0.123430	8.009131	0.0000
C(197)	-0.238364	0.076695	-3.107953	0.0019
C(198)	1.895304	0.357724	5.298222	0.0000
C(199)	0.073114	0.036954	1.978526	0.0480
C(200)	0.549882	0.172363	3.190254	0.0014
C(201)	0.080620	0.032414	2.487212	0.0130
C(202)	0.612467	0.151187	4.051069	0.0001
C(203)	0.129354	0.045798	2.824470	0.0048
C(204)	0.884058	0.213612	4.138616	0.0000
C(205)	0.024532	0.010231	2.397830	0.0166
C(206)	0.755437	0.047720	15.83047	0.0000
C(207)	0.010680	0.013400	0.797022	0.4256
C(208)	0.829993	0.062502	13.27954	0.0000
C(209)	0.005711	0.002257	2.530585	0.0115
C(210)	1.003980	0.010527	95.37119	0.0000
C(211)	0.006234	0.023977	0.259985	0.7949
C(212)	1.267044	0.111835	11.32958	0.0000
C(213)	0.050671	0.023653	2.142264	0.0323
C(214)	0.927816	0.110325	8.409843	0.0000
C(215)	-0.036883	0.022087	-1.669873	0.0951
C(216)	0.994648	0.103020	9.654898	0.0000
C(217)	0.014311	0.002247	6.369142	0.0000
C(218)	1.002558	0.010480	95.66211	0.0000
C(219)	-0.001285	0.029032	-0.044249	0.9647
C(220)	1.055889	0.135412	7.797601	0.0000
C(221)	0.020734	0.013392	1.548208	0.1218
C(222)	1.061068	0.062464	16.98693	0.0000
C(223)	0.021090	0.023711	0.889468	0.3739
C(224)	0.896236	0.110593	8.103947	0.0000
C(225)	0.031987	0.014766	2.166282	0.0304
C(226)	0.911199	0.068873	13.23016	0.0000
C(227)	0.043291	0.035899	1.205903	0.2280
C(228)	1.097940	0.167444	6.557036	0.0000
C(229)	0.026387	0.035842	0.736198	0.4617
C(230)	1.044822	0.167175	6.249862	0.0000
C(231)	0.140566	0.059395	2.366645	0.0181
C(232)	1.394819	0.277032	5.034872	0.0000
C(233)	-0.005691	0.026283	-0.216520	0.8286
C(234)	1.259741	0.122592	10.27586	0.0000
C(235)	0.012510	0.024822	0.503972	0.6144
C(236)	1.289371	0.115776	11.13677	0.0000
C(237)	0.076707	0.046626	1.645142	0.1001
C(238)	1.357920	0.217478	6.243938	0.0000
C(239)	0.057233	0.024741	2.313239	0.0208
C(240)	0.910429	0.115400	7.889304	0.0000
C(241)	-0.002423	0.038214	-0.063409	0.9494
C(242)	1.286689	0.178239	7.218898	0.0000
C(243)	0.090530	0.042742	2.118032	0.0343
C(244)	1.446311	0.199362	7.254699	0.0000
C(245)	0.038797	0.020453	1.896872	0.0580
C(246)	1.195253	0.095399	12.52902	0.0000
C(247)	0.112847	0.029664	3.804187	0.0001

C(248)	0.571850	0.138360	4.133053	0.0000
C(249)	0.088393	0.036201	2.441731	0.0147
C(250)	0.928676	0.168851	5.499960	0.0000
C(251)	0.031207	0.027532	1.133494	0.2572
C(252)	0.787203	0.128415	6.130151	0.0000
C(253)	0.049664	0.019651	2.527243	0.0116
C(254)	0.145874	0.091659	1.591494	0.1117
C(255)	0.049507	0.029805	1.661055	0.0969
C(256)	0.827771	0.139017	5.954443	0.0000
C(257)	0.026139	0.024516	1.066238	0.2865
C(258)	1.112220	0.114347	9.726707	0.0000
C(259)	0.048966	0.018583	2.634944	0.0085
C(260)	0.957718	0.086678	11.04918	0.0000
C(261)	0.012430	0.036111	0.344220	0.7307
C(262)	1.366748	0.168429	8.114679	0.0000
C(263)	0.073959	0.032077	2.305680	0.0213
C(264)	0.553746	0.149615	3.701142	0.0002
C(265)	0.106243	0.035718	2.974503	0.0030
C(266)	0.806554	0.166598	4.841331	0.0000
C(267)	0.020856	0.019854	1.050468	0.2937
C(268)	1.274078	0.092606	13.75805	0.0000
C(269)	0.056467	0.024965	2.261882	0.0238
C(270)	0.899497	0.116442	7.724853	0.0000
C(271)	0.111307	0.039645	2.807590	0.0051
C(272)	0.870893	0.184915	4.709689	0.0000
C(273)	0.102213	0.041243	2.478303	0.0133
C(274)	0.764614	0.192369	3.974727	0.0001
C(275)	0.015143	0.002262	6.695477	0.0000
C(276)	1.005148	0.010549	95.28281	0.0000
C(277)	0.076259	0.048454	1.573850	0.1157
C(278)	1.013107	0.226001	4.482745	0.0000
C(279)	0.067376	0.013269	5.077682	0.0000
C(280)	0.975776	0.061891	15.76610	0.0000
C(281)	0.046755	0.029216	1.600327	0.1097
C(282)	1.071914	0.136271	7.866053	0.0000
C(283)	0.077837	0.020510	3.795054	0.0002
C(284)	0.848959	0.095664	8.874351	0.0000
C(285)	0.103796	0.020120	5.158975	0.0000
C(286)	0.820789	0.093843	8.746416	0.0000
C(287)	0.049339	0.023580	2.092372	0.0366
C(288)	0.817287	0.109984	7.430941	0.0000
C(289)	0.038385	0.010082	3.807163	0.0001
C(290)	0.339184	0.047027	7.212609	0.0000
C(291)	0.002762	0.011717	0.235761	0.8136
C(292)	0.971062	0.054651	17.76834	0.0000
C(293)	0.008571	0.027922	0.306975	0.7589
C(294)	1.141331	0.130237	8.763483	0.0000
C(295)	0.018937	0.024250	0.780917	0.4350
C(296)	1.160064	0.113107	10.25635	0.0000
C(297)	0.051530	0.020738	2.484845	0.0131
C(298)	0.837684	0.096727	8.660322	0.0000
C(299)	0.067281	0.032452	2.073272	0.0383
C(300)	1.304918	0.151363	8.621116	0.0000
C(301)	0.010804	0.022212	0.486420	0.6267
C(302)	1.125447	0.103604	10.86301	0.0000
C(303)	0.124117	0.037107	3.344790	0.0008
C(304)	0.833384	0.173079	4.815048	0.0000
C(305)	0.116342	0.050498	2.303886	0.0214
C(306)	1.106150	0.235537	4.696294	0.0000
C(307)	0.115423	0.043492	2.653924	0.0080
C(308)	0.623618	0.202857	3.074182	0.0021
C(309)	0.062507	0.043367	1.441341	0.1497
C(310)	0.924066	0.202275	4.568360	0.0000
C(311)	0.064840	0.032548	1.992137	0.0465

C(312)	1.061127	0.151812	6.989737	0.0000
C(313)	0.042617	0.021161	2.013893	0.0442
C(314)	0.846982	0.098702	8.581171	0.0000
C(315)	0.038852	0.022586	1.720160	0.0856
C(316)	0.699178	0.105349	6.636808	0.0000
C(317)	0.073106	0.046549	1.570531	0.1165
C(318)	1.530548	0.217116	7.049466	0.0000
C(319)	0.109291	0.033511	3.261369	0.0011
C(320)	0.830493	0.156303	5.313358	0.0000
C(321)	0.012217	0.002095	5.830513	0.0000
C(322)	1.005044	0.009773	102.8345	0.0000
C(323)	0.072580	0.023489	3.089965	0.0020
C(324)	0.860050	0.109559	7.850127	0.0000
C(325)	0.082347	0.035777	2.301664	0.0215
C(326)	0.879611	0.166873	5.271124	0.0000
C(327)	0.047402	0.008711	5.441799	0.0000
C(328)	0.889150	0.040629	21.88448	0.0000
C(329)	0.056053	0.013975	4.010878	0.0001
C(330)	0.752910	0.065184	11.55046	0.0000
C(331)	0.009020	0.011802	0.764273	0.4448
C(332)	1.070812	0.055049	19.45202	0.0000
C(333)	-0.040943	0.040005	-1.023459	0.3062
C(334)	1.328736	0.186592	7.121061	0.0000
C(335)	0.005173	0.003216	1.608560	0.1079
C(336)	0.981113	0.015000	65.40865	0.0000
C(337)	0.073591	0.029756	2.473109	0.0135
C(338)	0.911880	0.138791	6.570159	0.0000
C(339)	0.063462	0.026963	2.353702	0.0187
C(340)	0.846450	0.125761	6.730641	0.0000
C(341)	0.023222	0.045942	0.505478	0.6133
C(342)	1.229906	0.214284	5.739617	0.0000
C(343)	0.056049	0.043690	1.282864	0.1997
C(344)	1.305686	0.203784	6.407212	0.0000
C(345)	0.061459	0.024316	2.527486	0.0116
C(346)	1.248358	0.113418	11.00671	0.0000
C(347)	0.015737	0.023926	0.657747	0.5108
C(348)	0.875008	0.111599	7.840660	0.0000
C(349)	-0.015049	0.019272	-0.780870	0.4350
C(350)	1.104921	0.089892	12.29166	0.0000
C(351)	0.000898	0.043116	0.020818	0.9834
C(352)	1.084378	0.201105	5.392105	0.0000
C(353)	0.049797	0.044839	1.110577	0.2669
C(354)	1.270972	0.209141	6.077109	0.0000
C(355)	0.084787	0.022225	3.814893	0.0001
C(356)	0.721668	0.103664	6.961594	0.0000
C(357)	-0.005825	0.022239	-0.261951	0.7934
C(358)	1.101410	0.103727	10.61832	0.0000
C(359)	0.036224	0.016340	2.216888	0.0268
C(360)	1.139810	0.076215	14.95522	0.0000
C(361)	-0.001885	0.030896	-0.061011	0.9514
C(362)	1.096988	0.144107	7.612306	0.0000
C(363)	0.047384	0.031124	1.522464	0.1281
C(364)	1.262696	0.145169	8.698142	0.0000
C(365)	0.085691	0.037008	2.315450	0.0207
C(366)	0.881770	0.172616	5.108282	0.0000
C(367)	0.125977	0.034502	3.651261	0.0003
C(368)	0.752220	0.160928	4.674252	0.0000
C(369)	0.118161	0.036545	3.233334	0.0012
C(370)	0.681133	0.170454	3.996004	0.0001
C(371)	0.056131	0.028834	1.946714	0.0517
C(372)	0.660878	0.134487	4.914063	0.0000
C(373)	0.113159	0.034352	3.294096	0.0010
C(374)	0.970396	0.160227	6.056391	0.0000
C(375)	0.022623	0.031687	0.713952	0.4754

C(376)	1.196867	0.147799	8.097954	0.0000
C(377)	0.091749	0.039363	2.330861	0.0199
C(378)	0.934886	0.183599	5.092013	0.0000
C(379)	0.098789	0.042436	2.327933	0.0200
C(380)	0.968192	0.197934	4.891479	0.0000
C(381)	0.016724	0.024610	0.679543	0.4969
C(382)	0.872987	0.114789	7.605119	0.0000
C(383)	0.008346	0.022102	0.377611	0.7058
C(384)	1.038911	0.103091	10.07764	0.0000
C(385)	-0.027059	0.055429	-0.488179	0.6255
C(386)	1.438327	0.258535	5.563381	0.0000
C(387)	0.044571	0.024930	1.787847	0.0740
C(388)	0.839564	0.116280	7.220185	0.0000
C(389)	0.083801	0.034683	2.416167	0.0158
C(390)	0.836291	0.161772	5.169563	0.0000
C(391)	0.003592	0.012449	0.288557	0.7730
C(392)	0.993595	0.058065	17.11166	0.0000
C(393)	0.032134	0.022625	1.420322	0.1557
C(394)	1.160548	0.105528	10.99758	0.0000
C(395)	0.078462	0.025990	3.018917	0.0026
C(396)	0.988664	0.121225	8.155627	0.0000
C(397)	-0.041787	0.030502	-1.370004	0.1709
C(398)	1.202093	0.142267	8.449540	0.0000
C(399)	0.030251	0.017342	1.744417	0.0813
C(400)	1.154422	0.080886	14.27222	0.0000

Determinant residual covariance 0.000000

Equation: D(LNF1)=C(1)+C(2)*D(S_P500LN)
Observations: 10

R-squared	*0.999314*	*Mean dependent var*	*-0.010360*
Adjusted R-squared	0.999228	S.D. dependent var	0.224935
S.E. of regression	0.006251	Sum squared resid	0.000313
Durbin-Watson stat	0.379698		

Equation: D(LNF2)=C(3)+C(4)*D(S_P500LN)
Observations: 10

R-squared	0.911086	Mean dependent var	0.057252
Adjusted R-squared	0.899972	S.D. dependent var	0.290116
S.E. of regression	0.091755	Sum squared resid	0.067352
Durbin-Watson stat	1.208242		

Equation: D(LNF3)=C(5)+C(6)*D(S_P500LN)
Observations: 10

R-squared	0.786126	Mean dependent var	0.024232
Adjusted R-squared	0.759392	S.D. dependent var	0.205654
S.E. of regression	0.100877	Sum squared resid	0.081409
Durbin-Watson stat	1.974182		

Equation: D(LNF4)=C(7)+C(8)*D(S_P500LN)
Observations: 10

R-squared	0.843862	Mean dependent var	0.001919
Adjusted R-squared	0.824345	S.D. dependent var	0.304201
S.E. of regression	0.127494	Sum squared resid	0.130038
Durbin-Watson stat	2.053901		

Equation: D(LNF5)=C(9)+C(10)*D(S_P500LN)
Observations: 10

R-squared	0.886160	Mean dependent var	0.035011
Adjusted R-squared	0.871930	S.D. dependent var	0.182953
S.E. of regression	0.065473	Sum squared resid	0.034294
Durbin-Watson stat	0.877482		

Equation: D(LNF6)=C(11)+C(12)*D(S_P500LN)
Observations: 10

R-squared	0.913145	Mean dependent var	0.032909
Adjusted R-squared	0.902288	S.D. dependent var	0.260254
S.E. of regression	0.081353	Sum squared resid	0.052946
Durbin-Watson stat	1.076329		

Equation: D(LNF7)=C(13)+C(14)*D(S_P500LN)
Observations: 10

R-squared	0.962213	Mean dependent var	0.017005
Adjusted R-squared	0.957489	S.D. dependent var	0.259117
S.E. of regression	0.053425	Sum squared resid	0.022834
Durbin-Watson stat	1.072405		

Equation: D(LNF8)=C(15)+C(16)*D(S_P500LN)
Observations: 10

R-squared	0.996986	Mean dependent var	-0.014824
Adjusted R-squared	0.996610	S.D. dependent var	0.223242
S.E. of regression	0.012999	Sum squared resid	0.001352
Durbin-Watson stat	1.161555		

Equation: D(LNF9)=C(17)+C(18)*D(S_P500LN)
Observations: 10

R-squared	0.926700	Mean dependent var	-0.059755
Adjusted R-squared	0.917537	S.D. dependent var	0.323337
S.E. of regression	0.092850	Sum squared resid	0.068970
Durbin-Watson stat	2.114389		

Equation: D(LNF10)=C(19)+C(20)*D(S_P500LN)
Observations: 10

R-squared	0.929741	Mean dependent var	-0.027921
Adjusted R-squared	0.920958	S.D. dependent var	0.249153
S.E. of regression	0.070048	Sum squared resid	0.039254
Durbin-Watson stat	1.317452		

Equation: D(LNF11)=C(21)+C(22)*D(S_P500LN)
Observations: 10

R-squared	0.363037	Mean dependent var	0.088420
Adjusted R-squared	0.283417	S.D. dependent var	0.194401
S.E. of regression	0.164563	Sum squared resid	0.216647
Durbin-Watson stat	1.425647		

Equation: D(LNF12)=C(23)+C(24)*D(S_P500LN)
Observations: 10

R-squared	0.932010	Mean dependent var	-0.019146
Adjusted R-squared	0.923511	S.D. dependent var	0.254763
S.E. of regression	0.070459	Sum squared resid	0.039715
Durbin-Watson stat	2.193390		

Equation: D(LNF13)=C(25)+C(26)*D(S_P500LN)
Observations: 10

R-squared	0.882130	Mean dependent var	0.012260
Adjusted R-squared	0.867396	S.D. dependent var	0.288865
S.E. of regression	0.105190	Sum squared resid	0.088519
Durbin-Watson stat	2.163741		

Equation: D(LNF14)=C(27)+C(28)*D(S_P500LN)
Observations: 10

R-squared	0.878119	Mean dependent var	0.059515
Adjusted R-squared	0.862883	S.D. dependent var	0.254324
S.E. of regression	0.094174	Sum squared resid	0.070950
Durbin-Watson stat	0.901870		

Equation: D(LNF15)=C(29)+C(30)*D(S_P500LN)

Observations: 10

R-squared	0.981213	Mean dependent var	-0.008596
Adjusted R-squared	0.978865	S.D. dependent var	0.261596
S.E. of regression	0.038031	Sum squared resid	0.011571
Durbin-Watson stat	2.541965		

Equation: D(LNF16)=C(31)+C(32)*D(S_P500LN)
Observations: 10

R-squared	0.968316	Mean dependent var	0.012471
Adjusted R-squared	0.964355	S.D. dependent var	0.242547
S.E. of regression	0.045792	Sum squared resid	0.016775
Durbin-Watson stat	1.942765		

Equation: D(LNF17)=C(33)+C(34)*D(S_P500LN)
Observations: 10

R-squared	0.946274	Mean dependent var	0.031767
Adjusted R-squared	0.939558	S.D. dependent var	0.234673
S.E. of regression	0.057694	Sum squared resid	0.026629
Durbin-Watson stat	1.728390		

Equation: D(LNF18)=C(35)+C(36)*D(S_P500LN)
Observations: 10

R-squared	0.591401	Mean dependent var	0.098967
Adjusted R-squared	0.540326	S.D. dependent var	0.247940
S.E. of regression	0.168101	Sum squared resid	0.226065
Durbin-Watson stat	1.191290		

Equation: D(LNF19)=C(37)+C(38)*D(S_P500LN)
Observations: 10

R-squared	0.810232	Mean dependent var	0.082963
Adjusted R-squared	0.786511	S.D. dependent var	0.221437
S.E. of regression	0.102315	Sum squared resid	0.083746
Durbin-Watson stat	0.574170		

Equation: D(LNF20)=C(39)+C(40)*D(S_P500LN)
Observations: 10

R-squared	0.949320	Mean dependent var	0.047274
Adjusted R-squared	0.942985	S.D. dependent var	0.250929
S.E. of regression	0.059916	Sum squared resid	0.028720
Durbin-Watson stat	1.000122		

Equation: D(LNF21)=C(41)+C(42)*D(S_P500LN)
Observations: 10

R-squared	0.943350	Mean dependent var	0.042631
Adjusted R-squared	0.936269	S.D. dependent var	0.242479
S.E. of regression	0.061214	Sum squared resid	0.029977
Durbin-Watson stat	1.453560		

Equation: D(LNF22)=C(43)+C(44)*D(S_P500LN)
Observations: 10

R-squared	0.739202	Mean dependent var	0.074093
Adjusted R-squared	0.706602	S.D. dependent var	0.218130
S.E. of regression	0.118153	Sum squared resid	0.111680
Durbin-Watson stat	0.876597		

Equation: D(LNF23)=C(45)+C(46)*D(S_P500LN)
Observations: 10

R-squared	0.879197	Mean dependent var	0.047797
Adjusted R-squared	0.864096	S.D. dependent var	0.249896
S.E. of regression	0.092124	Sum squared resid	0.067895
Durbin-Watson stat	0.335985		

Equation: D(LNF24)=C(47)+C(48)*D(S_P500LN)
Observations: 10

R-squared	0.993115	Mean dependent var	-0.010548
Adjusted R-squared	0.992254	S.D. dependent var	0.238583
S.E. of regression	0.020998	Sum squared resid	0.003527
Durbin-Watson stat	1.457323		

Equation: D(LNF25)=C(49)+C(50)*D(S_P500LN)
Observations: 10

R-squared	0.996548	Mean dependent var	-0.002711
Adjusted R-squared	0.996117	S.D. dependent var	0.229555
S.E. of regression	0.014305	Sum squared resid	0.001637
Durbin-Watson stat	0.967424		

Equation: D(LNF26)=C(51)+C(52)*D(S_P500LN)
Observations: 10

R-squared	0.861996	Mean dependent var	-0.070533
Adjusted R-squared	0.844746	S.D. dependent var	0.286274
S.E. of regression	0.112798	Sum squared resid	0.101788
Durbin-Watson stat	1.187509		

Equation: D(LNF27)=C(53)+C(54)*D(S_P500LN)
Observations: 10

R-squared	0.939682	Mean dependent var	0.012225
Adjusted R-squared	0.932143	S.D. dependent var	0.222822
S.E. of regression	0.058044	Sum squared resid	0.026953
Durbin-Watson stat	1.604022		

Equation: D(LNF28)=C(55)+C(56)*D(S_P500LN)
Observations: 10

R-squared	0.852842	Mean dependent var	0.035239
Adjusted R-squared	0.834447	S.D. dependent var	0.256980
S.E. of regression	0.104561	Sum squared resid	0.087463
Durbin-Watson stat	0.705689		

Equation: D(LNF29)=C(57)+C(58)*D(S_P500LN)
Observations: 10

R-squared	0.887095	Mean dependent var	0.040725
Adjusted R-squared	0.872982	S.D. dependent var	0.221111
S.E. of regression	0.078803	Sum squared resid	0.049680
Durbin-Watson stat	0.760926		

Equation: D(LNF30)=C(59)+C(60)*D(S_P500LN)
Observations: 10

R-squared	0.565461	Mean dependent var	-0.031678
Adjusted R-squared	0.511144	S.D. dependent var	0.176826
S.E. of regression	0.123633	Sum squared resid	0.122282
Durbin-Watson stat	0.854375		

Equation: D(LNF31)=C(61)+C(62)*D(S_P500LN)
Observations: 10

R-squared	0.882306	Mean dependent var	0.050853
Adjusted R-squared	0.867594	S.D. dependent var	0.234556
S.E. of regression	0.085349	Sum squared resid	0.058276
Durbin-Watson stat	0.961952		

Equation: D(LNF32)=C(63)+C(64)*D(S_P500LN)
Observations: 10

R-squared	0.916985	Mean dependent var	0.056096
Adjusted R-squared	0.906608	S.D. dependent var	0.295561
S.E. of regression	0.090324	Sum squared resid	0.065267
Durbin-Watson stat	1.038129		

Equation: D(LNF33)=C(65)+C(66)*D(S_P500LN)
Observations: 10

R-squared	0.912236	Mean dependent var	-0.043661

Adjusted R-squared	0.901266	S.D. dependent var	0.223266
S.E. of regression	0.070155	Sum squared resid	0.039373
Durbin-Watson stat	0.927808		

Equation: D(LNF34)=C(67)+C(68)*D(S_P500LN)
Observations: 10

R-squared	0.923956	Mean dependent var	-0.003145
Adjusted R-squared	0.914450	S.D. dependent var	0.265281
S.E. of regression	0.077592	Sum squared resid	0.048164
Durbin-Watson stat	1.129307		

Equation: D(LNF35)=C(69)+C(70)*D(S_P500LN)
Observations: 10

R-squared	0.576308	Mean dependent var	0.098233
Adjusted R-squared	0.523347	S.D. dependent var	0.355088
S.E. of regression	0.245153	Sum squared resid	0.480801
Durbin-Watson stat	1.062630		

Equation: D(LNF36)=C(71)+C(72)*D(S_P500LN)
Observations: 10

R-squared	0.768084	Mean dependent var	0.071994
Adjusted R-squared	0.739095	S.D. dependent var	0.317127
S.E. of regression	0.161985	Sum squared resid	0.209913
Durbin-Watson stat	1.746908		

Equation: D(LNF37)=C(73)+C(74)*D(S_P500LN)
Observations: 10

R-squared	0.889984	Mean dependent var	-0.017759
Adjusted R-squared	0.876233	S.D. dependent var	0.343567
S.E. of regression	0.120869	Sum squared resid	0.116874
Durbin-Watson stat	1.175389		

Equation: D(LNF38)=C(75)+C(76)*D(S_P500LN)
Observations: 10

R-squared	0.937469	Mean dependent var	-0.027442
Adjusted R-squared	0.929653	S.D. dependent var	0.302793
S.E. of regression	0.080310	Sum squared resid	0.051597
Durbin-Watson stat	2.924149		

Equation: D(LNF39)=C(77)+C(78)*D(S_P500LN)
Observations: 10

R-squared	0.885606	Mean dependent var	0.016972
Adjusted R-squared	0.871307	S.D. dependent var	0.385793
S.E. of regression	0.138399	Sum squared resid	0.153234
Durbin-Watson stat	1.934575		

Equation: D(LNF40)=C(79)+C(80)*D(S_P500LN)
Observations: 10

R-squared	0.906290	Mean dependent var	-0.031017
Adjusted R-squared	0.894576	S.D. dependent var	0.347412
S.E. of regression	0.112801	Sum squared resid	0.101793
Durbin-Watson stat	0.958301		

Equation: D(LNF41)=C(81)+C(82)*D(S_P500LN)
Observations: 10

R-squared	0.855130	Mean dependent var	-0.018214
Adjusted R-squared	0.837021	S.D. dependent var	0.354484
S.E. of regression	0.143107	Sum squared resid	0.163837
Durbin-Watson stat	0.980118		

Equation: D(LNF42)=C(83)+C(84)*D(S_P500LN)
Observations: 10

R-squared	0.661873	Mean dependent var	0.070122
Adjusted R-squared	0.619607	S.D. dependent var	0.302038

S.E. of regression	0.186285	Sum squared resid	0.277617
Durbin-Watson stat	0.940805		

Equation: D(LNF43)=C(85)+C(86)*D(S_P500LN)
Observations: 10

R-squared	0.712948	Mean dependent var	0.068997
Adjusted R-squared	0.677066	S.D. dependent var	0.264304
S.E. of regression	0.150197	Sum squared resid	0.180472
Durbin-Watson stat	0.780181		

Equation: D(LNF44)=C(87)+C(88)*D(S_P500LN)
Observations: 10

R-squared	0.821710	Mean dependent var	0.054231
Adjusted R-squared	0.799424	S.D. dependent var	0.290300
S.E. of regression	0.130013	Sum squared resid	0.135227
Durbin-Watson stat	1.340538		

Equation: D(LNF45)=C(89)+C(90)*D(S_P500LN)
Observations: 10

R-squared	0.877505	Mean dependent var	0.027812
Adjusted R-squared	0.862194	S.D. dependent var	0.292268
S.E. of regression	0.108496	Sum squared resid	0.094172
Durbin-Watson stat	1.718402		

Equation: D(LNF46)=C(91)+C(92)*D(S_P500LN)
Observations: 10

R-squared	0.719122	Mean dependent var	0.110019
Adjusted R-squared	0.684012	S.D. dependent var	0.189425
S.E. of regression	0.106481	Sum squared resid	0.090705
Durbin-Watson stat	0.917733		

Equation: D(LNF47)=C(93)+C(94)*D(S_P500LN)
Observations: 10

R-squared	0.902650	Mean dependent var	-0.009350
Adjusted R-squared	0.890481	S.D. dependent var	0.208006
S.E. of regression	0.068837	Sum squared resid	0.037908
Durbin-Watson stat	1.748047		

Equation: D(LNF48)=C(95)+C(96)*D(S_P500LN)
Observations: 10

R-squared	0.797678	Mean dependent var	0.098560
Adjusted R-squared	0.772388	S.D. dependent var	0.295402
S.E. of regression	0.140933	Sum squared resid	0.158896
Durbin-Watson stat	0.761655		

Equation: D(LNF49)=C(97)+C(98)*D(S_P500LN)
Observations: 10

R-squared	0.757942	Mean dependent var	-0.004529
Adjusted R-squared	0.727685	S.D. dependent var	0.348621
S.E. of regression	0.181924	Sum squared resid	0.264771
Durbin-Watson stat	1.452368		

Equation: D(LNF50)=C(99)+C(100)*D(S_P500LN)
Observations: 10

R-squared	0.855526	Mean dependent var	0.057907
Adjusted R-squared	0.837467	S.D. dependent var	0.148817
S.E. of regression	0.059996	Sum squared resid	0.028796
Durbin-Watson stat	1.095581		

Equation: D(LNF51)=C(101)+C(102)*D(S_P500LN)
Observations: 10

R-squared	0.914458	Mean dependent var	0.011645
Adjusted R-squared	0.903765	S.D. dependent var	0.275257
S.E. of regression	0.085389	Sum squared resid	0.058331

Durbin-Watson stat	1.051463		

Equation: D(LNF52)=C(103)+C(104)*D(S_P500LN)
Observations: 10

R-squared	0.625256	Mean dependent var	0.049667
Adjusted R-squared	0.578413	S.D. dependent var	0.258338
S.E. of regression	0.167738	Sum squared resid	0.225089
Durbin-Watson stat	0.589942		

Equation: D(LNF53)=C(105)+C(106)*D(S_P500LN)
Observations: 10

R-squared	0.626556	Mean dependent var	0.057008
Adjusted R-squared	0.579875	S.D. dependent var	0.258394
S.E. of regression	0.167483	Sum squared resid	0.224405
Durbin-Watson stat	0.591852		

Equation: D(LNF54)=C(107)+C(108)*D(S_P500LN)
Observations: 10

R-squared	0.796554	Mean dependent var	0.062105
Adjusted R-squared	0.771124	S.D. dependent var	0.316999
S.E. of regression	0.151656	Sum squared resid	0.183995
Durbin-Watson stat	0.717355		

Equation: D(LNF55)=C(109)+C(110)*D(S_P500LN)
Observations: 10

R-squared	0.749808	Mean dependent var	0.026376
Adjusted R-squared	0.718534	S.D. dependent var	0.216218
S.E. of regression	0.114711	Sum squared resid	0.105269
Durbin-Watson stat	0.919504		

Equation: D(LNF56)=C(111)+C(112)*D(S_P500LN)
Observations: 10

R-squared	0.844193	Mean dependent var	-0.007875
Adjusted R-squared	0.824717	S.D. dependent var	0.264247
S.E. of regression	0.110632	Sum squared resid	0.097915
Durbin-Watson stat	2.047286		

Equation: D(LNF57)=C(113)+C(114)*D(S_P500LN)
Observations: 10

R-squared	0.841060	Mean dependent var	0.018446
Adjusted R-squared	0.821192	S.D. dependent var	0.344619
S.E. of regression	0.145725	Sum squared resid	0.169885
Durbin-Watson stat	1.844614		

Equation: D(LNF58)=C(115)+C(116)*D(S_P500LN)
Observations: 10

R-squared	0.962544	Mean dependent var	-0.012347
Adjusted R-squared	0.957862	S.D. dependent var	0.206584
S.E. of regression	0.042407	Sum squared resid	0.014387
Durbin-Watson stat	1.283739		

Equation: D(LNF59)=C(117)+C(118)*D(S_P500LN)
Observations: 10

R-squared	0.609540	Mean dependent var	0.049473
Adjusted R-squared	0.560732	S.D. dependent var	0.281930
S.E. of regression	0.186855	Sum squared resid	0.279319
Durbin-Watson stat	1.488636		

Equation: D(LNF60)=C(119)+C(120)*D(S_P500LN)
Observations: 10

R-squared	0.689820	Mean dependent var	0.119637
Adjusted R-squared	0.651048	S.D. dependent var	0.329331
S.E. of regression	0.194543	Sum squared resid	0.302775
Durbin-Watson stat	0.698799		

Equation: D(LNF61)=C(121)+C(122)*D(S_P500LN)
Observations: 10

R-squared	0.916284	Mean dependent var	0.018543
Adjusted R-squared	0.905820	S.D. dependent var	0.226768
S.E. of regression	0.069592	Sum squared resid	0.038745
Durbin-Watson stat	1.508490		

Equation: D(LNF62)=C(123)+C(124)*D(S_P500LN)
Observations: 10

R-squared	0.837429	Mean dependent var	0.015901
Adjusted R-squared	0.817108	S.D. dependent var	0.273424
S.E. of regression	0.116932	Sum squared resid	0.109385
Durbin-Watson stat	1.219217		

Equation: D(LNF63)=C(125)+C(126)*D(S_P500LN)
Observations: 10

R-squared	0.613616	Mean dependent var	0.105386
Adjusted R-squared	0.565318	S.D. dependent var	0.261576
S.E. of regression	0.172458	Sum squared resid	0.237935
Durbin-Watson stat	1.343352		

Equation: D(LNF64)=C(127)+C(128)*D(S_P500LN)
Observations: 10

R-squared	0.930121	Mean dependent var	-0.007080
Adjusted R-squared	0.921386	S.D. dependent var	0.228894
S.E. of regression	0.064178	Sum squared resid	0.032950
Durbin-Watson stat	2.171415		

Equation: D(LNF65)=C(129)+C(130)*D(S_P500LN)
Observations: 10

R-squared	0.974227	Mean dependent var	0.025654
Adjusted R-squared	0.971005	S.D. dependent var	0.188941
S.E. of regression	0.032173	Sum squared resid	0.008281
Durbin-Watson stat	1.571044		

Equation: D(LNF66)=C(131)+C(132)*D(S_P500LN)
Observations: 10

R-squared	0.860710	Mean dependent var	0.060328
Adjusted R-squared	0.843299	S.D. dependent var	0.226963
S.E. of regression	0.089844	Sum squared resid	0.064576
Durbin-Watson stat	0.894153		

Equation: D(LNF67)=C(133)+C(134)*D(S_P500LN)
Observations: 10

R-squared	0.999234	Mean dependent var	-0.009560
Adjusted R-squared	0.999139	S.D. dependent var	0.221755
S.E. of regression	0.006508	Sum squared resid	0.000339
Durbin-Watson stat	0.574077		

Equation: D(LNF68)=C(135)+C(136)*D(S_P500LN)
Observations: 10

R-squared	0.774207	Mean dependent var	0.049077
Adjusted R-squared	0.745983	S.D. dependent var	0.317043
S.E. of regression	0.159790	Sum squared resid	0.204263
Durbin-Watson stat	0.888632		

Equation: D(LNF69)=C(137)+C(138)*D(S_P500LN)
Observations: 10

R-squared	0.888953	Mean dependent var	-0.008042
Adjusted R-squared	0.875072	S.D. dependent var	0.239090
S.E. of regression	0.084507	Sum squared resid	0.057131
Durbin-Watson stat	1.354686		

Equation: D(LNF70)=C(139)+C(140)*D(S_P500LN)
Observations: 10

R-squared	0.681921	Mean dependent var	0.051095
Adjusted R-squared	0.642161	S.D. dependent var	0.219839
S.E. of regression	0.131507	Sum squared resid	0.138352
Durbin-Watson stat	0.962933		

Equation: D(LNF71)=C(141)+C(142)*D(S_P500LN)
Observations: 10

R-squared	0.772554	Mean dependent var	0.033790
Adjusted R-squared	0.744123	S.D. dependent var	0.219866
S.E. of regression	0.111218	Sum squared resid	0.098955
Durbin-Watson stat	2.394598		

Equation: D(LNF72)=C(143)+C(144)*D(S_P500LN)
Observations: 10

R-squared	0.821833	Mean dependent var	0.173760
Adjusted R-squared	0.799562	S.D. dependent var	0.327440
S.E. of regression	0.146596	Sum squared resid	0.171922
Durbin-Watson stat	0.982521		

Equation: D(LNF73)=C(145)+C(146)*D(S_P500LN)
Observations: 10

R-squared	0.920323	Mean dependent var	-0.003616
Adjusted R-squared	0.910363	S.D. dependent var	0.310030
S.E. of regression	0.092821	Sum squared resid	0.068926
Durbin-Watson stat	1.676728		

Equation: D(LNF74)=C(147)+C(148)*D(S_P500LN)
Observations: 10

R-squared	0.590072	Mean dependent var	0.036765
Adjusted R-squared	0.538831	S.D. dependent var	0.283916
S.E. of regression	0.192806	Sum squared resid	0.297392
Durbin-Watson stat	0.837468		

Equation: D(LNF75)=C(149)+C(150)*D(S_P500LN)
Observations: 10

R-squared	0.965667	Mean dependent var	-0.019504
Adjusted R-squared	0.961376	S.D. dependent var	0.246762
S.E. of regression	0.048497	Sum squared resid	0.018815
Durbin-Watson stat	1.841513		

Equation: D(LNF76)=C(151)+C(152)*D(S_P500LN)
Observations: 10

R-squared	0.842890	Mean dependent var	0.053578
Adjusted R-squared	0.823251	S.D. dependent var	0.264146
S.E. of regression	0.111051	Sum squared resid	0.098658
Durbin-Watson stat	1.954384		

Equation: D(LNF77)=C(153)+C(154)*D(S_P500LN)
Observations: 10

R-squared	0.837148	Mean dependent var	0.034615
Adjusted R-squared	0.816791	S.D. dependent var	0.255625
S.E. of regression	0.109415	Sum squared resid	0.095773
Durbin-Watson stat	1.115141		

Equation: D(LNF78)=C(155)+C(156)*D(S_P500LN)
Observations: 10

R-squared	0.986479	Mean dependent var	-0.013186
Adjusted R-squared	0.984788	S.D. dependent var	0.224560
S.E. of regression	0.027696	Sum squared resid	0.006137
Durbin-Watson stat	2.279800		

Equation: D(LNF79)=C(157)+C(158)*D(S_P500LN)

Observations: 10

R-squared	0.909154	Mean dependent var	0.045219
Adjusted R-squared	0.897799	S.D. dependent var	0.274180
S.E. of regression	0.087652	Sum squared resid	0.061463
Durbin-Watson stat	1.180282		

Equation: D(LNF80)=C(159)+C(160)*D(S_P500LN)
Observations: 10

R-squared	0.934179	Mean dependent var	0.023955
Adjusted R-squared	0.925952	S.D. dependent var	0.239607
S.E. of regression	0.065201	Sum squared resid	0.034010
Durbin-Watson stat	1.521925		

Equation: D(LNF81)=C(161)+C(162)*D(S_P500LN)
Observations: 10

R-squared	0.896750	Mean dependent var	0.035239
Adjusted R-squared	0.883844	S.D. dependent var	0.275269
S.E. of regression	0.093816	Sum squared resid	0.070412
Durbin-Watson stat	1.063562		

Equation: D(LNF82)=C(163)+C(164)*D(S_P500LN)
Observations: 10

R-squared	0.817242	Mean dependent var	0.054997
Adjusted R-squared	0.794397	S.D. dependent var	0.248397
S.E. of regression	0.112632	Sum squared resid	0.101487
Durbin-Watson stat	0.508463		

Equation: D(LNF83)=C(165)+C(166)*D(S_P500LN)
Observations: 10

R-squared	0.985076	Mean dependent var	-0.016316
Adjusted R-squared	0.983210	S.D. dependent var	0.230021
S.E. of regression	0.029805	Sum squared resid	0.007107
Durbin-Watson stat	1.623341		

Equation: D(LNF84)=C(167)+C(168)*D(S_P500LN)
Observations: 10

R-squared	0.857412	Mean dependent var	0.003683
Adjusted R-squared	0.839589	S.D. dependent var	0.216115
S.E. of regression	0.086557	Sum squared resid	0.059937
Durbin-Watson stat	2.119090		

Equation: D(LNF85)=C(169)+C(170)*D(S_P500LN)
Observations: 10

R-squared	0.999236	Mean dependent var	-0.011306
Adjusted R-squared	0.999141	S.D. dependent var	0.225432
S.E. of regression	0.006608	Sum squared resid	0.000349
Durbin-Watson stat	0.356590		

Equation: D(LNF86)=C(171)+C(172)*D(S_P500LN)
Observations: 10

R-squared	0.967892	Mean dependent var	-0.006274
Adjusted R-squared	0.963879	S.D. dependent var	0.178012
S.E. of regression	0.033832	Sum squared resid	0.009157
Durbin-Watson stat	1.367031		

Equation: D(LNF87)=C(173)+C(174)*D(S_P500LN)
Observations: 10

R-squared	0.898281	Mean dependent var	0.012803
Adjusted R-squared	0.885566	S.D. dependent var	0.218600
S.E. of regression	0.073948	Sum squared resid	0.043747
Durbin-Watson stat	0.949702		

Equation: D(LNF88)=C(175)+C(176)*D(S_P500LN)
Observations: 10

R-squared	0.984218	Mean dependent var	-0.010665
Adjusted R-squared	0.982245	S.D. dependent var	0.244452
S.E. of regression	0.032573	Sum squared resid	0.008488
Durbin-Watson stat	1.903383		

Equation: D(LNF89)=C(177)+C(178)*D(S_P500LN)
Observations: 10

R-squared	0.626853	Mean dependent var	0.033064
Adjusted R-squared	0.580210	S.D. dependent var	0.254555
S.E. of regression	0.164929	Sum squared resid	0.217614
Durbin-Watson stat	0.875293		

Equation: D(LNF90)=C(179)+C(180)*D(S_P500LN)
Observations: 10

R-squared	0.888412	Mean dependent var	0.081951
Adjusted R-squared	0.874464	S.D. dependent var	0.208066
S.E. of regression	0.073720	Sum squared resid	0.043477
Durbin-Watson stat	1.874002		

Equation: D(LNF91)=C(181)+C(182)*D(S_P500LN)
Observations: 10

R-squared	0.999298	Mean dependent var	-0.010427
Adjusted R-squared	0.999211	S.D. dependent var	0.225055
S.E. of regression	0.006323	Sum squared resid	0.000320
Durbin-Watson stat	0.373432		

Equation: D(LNF92)=C(183)+C(184)*D(S_P500LN)
Observations: 10

R-squared	0.976066	Mean dependent var	-0.012716
Adjusted R-squared	0.973074	S.D. dependent var	0.234741
S.E. of regression	0.038519	Sum squared resid	0.011870
Durbin-Watson stat	1.106191		

Equation: D(LNF93)=C(185)+C(186)*D(S_P500LN)
Observations: 10

R-squared	0.868692	Mean dependent var	0.042732
Adjusted R-squared	0.852278	S.D. dependent var	0.209993
S.E. of regression	0.080710	Sum squared resid	0.052113
Durbin-Watson stat	0.752063		

Equation: D(LNF94)=C(187)+C(188)*D(S_P500LN)
Observations: 10

R-squared	0.895447	Mean dependent var	-0.050107
Adjusted R-squared	0.882378	S.D. dependent var	0.234010
S.E. of regression	0.080256	Sum squared resid	0.051529
Durbin-Watson stat	1.044017		

Equation: D(LNF95)=C(189)+C(190)*D(S_P500LN)
Observations: 10

R-squared	0.939403	Mean dependent var	0.001337
Adjusted R-squared	0.931828	S.D. dependent var	0.289691
S.E. of regression	0.075638	Sum squared resid	0.045768
Durbin-Watson stat	1.806812		

Equation: D(LNF96)=C(191)+C(192)*D(S_P500LN)
Observations: 10

R-squared	0.961914	Mean dependent var	0.034047
Adjusted R-squared	0.957153	S.D. dependent var	0.229775
S.E. of regression	0.047562	Sum squared resid	0.018097
Durbin-Watson stat	1.676687		

Equation: D(LNF97)=C(193)+C(194)*D(S_P500LN)
Observations: 10

R-squared	0.882450	Mean dependent var	0.049778

Adjusted R-squared	0.867757	S.D. dependent var	0.236312
S.E. of regression	0.085935	Sum squared resid	0.059079
Durbin-Watson stat	2.436814		

Equation: D(LNF98)=C(195)+C(196)*D(S_P500LN)
Observations: 10

R-squared	0.889114	Mean dependent var	0.053930
Adjusted R-squared	0.875253	S.D. dependent var	0.234850
S.E. of regression	0.082948	Sum squared resid	0.055043
Durbin-Watson stat	1.285022		

Equation: D(LNF99)=C(197)+C(198)*D(S_P500LN)
Observations: 10

R-squared	0.778216	Mean dependent var	-0.292120
Adjusted R-squared	0.750493	S.D. dependent var	0.481272
S.E. of regression	0.240398	Sum squared resid	0.462331
Durbin-Watson stat	1.934295		

Equation: D(LNF100)=C(199)+C(200)*D(S_P500LN)
Observations: 10

R-squared	0.559901	Mean dependent var	0.057518
Adjusted R-squared	0.504888	S.D. dependent var	0.164617
S.E. of regression	0.115832	Sum squared resid	0.107336
Durbin-Watson stat	0.560754		

Equation: D(LNF101)=C(201)+C(202)*D(S_P500LN)
Observations: 10

R-squared	0.672281	Mean dependent var	0.063248
Adjusted R-squared	0.631316	S.D. dependent var	0.167328
S.E. of regression	0.101601	Sum squared resid	0.082581
Durbin-Watson stat	0.433773		

Equation: D(LNF102)=C(203)+C(204)*D(S_P500LN)
Observations: 10

R-squared	0.681632	Mean dependent var	0.104279
Adjusted R-squared	0.641836	S.D. dependent var	0.239865
S.E. of regression	*0.143552*	*Sum squared resid*	*0.164857*
Durbin-Watson stat	1.715618		

Equation: D(LNF103)=C(205)+C(206)*D(S_P500LN)
Observations: 10

R-squared	0.969065	Mean dependent var	0.003106
Adjusted R-squared	0.965198	S.D. dependent var	0.171903
S.E. of regression	0.032069	Sum squared resid	0.008227
Durbin-Watson stat	1.637008		

Equation: D(LNF104)=C(207)+C(208)*D(S_P500LN)
Observations: 10

R-squared	0.956603	Mean dependent var	-0.012861
Adjusted R-squared	0.951179	S.D. dependent var	0.190095
S.E. of regression	0.042002	Sum squared resid	0.014114
Durbin-Watson stat	2.336798		

Equation: D(LNF105)=C(209)+C(210)*D(S_P500LN)
Observations: 10

R-squared	0.999121	Mean dependent var	-0.022765
Adjusted R-squared	0.999011	S.D. dependent var	0.224997
S.E. of regression	0.007074	Sum squared resid	0.000400
Durbin-Watson stat	0.421068		

Equation: D(LNF106)=C(211)+C(212)*D(S_P500LN)
Observations: 10

R-squared	0.941331	Mean dependent var	-0.029704
Adjusted R-squared	0.933998	S.D. dependent var	0.292538

S.E. of regression	0.075155	Sum squared resid	0.045187
Durbin-Watson stat	1.904061		

Equation: D(LNF107)=C(213)+C(214)*D(S_P500LN)
Observations: 10

R-squared	0.898381	Mean dependent var	0.024356
Adjusted R-squared	0.885679	S.D. dependent var	0.219277
S.E. of regression	0.074141	Sum squared resid	0.043975
Durbin-Watson stat	1.604901		

Equation: D(LNF108)=C(215)+C(216)*D(S_P500LN)
Observations: 10

R-squared	0.920962	Mean dependent var	-0.065094
Adjusted R-squared	0.911082	S.D. dependent var	0.232172
S.E. of regression	0.069232	Sum squared resid	0.038344
Durbin-Watson stat	0.466005		

Equation: D(LNF109)=C(217)+C(218)*D(S_P500LN)
Observations: 10

R-squared	0.999127	Mean dependent var	-0.014125
Adjusted R-squared	0.999017	S.D. dependent var	0.224678
S.E. of regression	0.007043	Sum squared resid	0.000397
Durbin-Watson stat	0.335776		

Equation: D(LNF110)=C(219)+C(220)*D(S_P500LN)
Observations: 10

R-squared	0.883725	Mean dependent var	-0.031233
Adjusted R-squared	0.869191	S.D. dependent var	0.251606
S.E. of regression	0.091000	Sum squared resid	0.066248
Durbin-Watson stat	2.313551		

Equation: D(LNF111)=C(221)+C(222)*D(S_P500LN)
Observations: 10

R-squared	0.973024	Mean dependent var	-0.009362
Adjusted R-squared	0.969652	S.D. dependent var	0.240959
S.E. of regression	0.041977	Sum squared resid	0.014097
Durbin-Watson stat	2.749710		

Equation: D(LNF112)=C(223)+C(224)*D(S_P500LN)
Observations: 10

R-squared	0.891413	Mean dependent var	-0.004330
Adjusted R-squared	0.877840	S.D. dependent var	0.212640
S.E. of regression	0.074320	Sum squared resid	0.044188
Durbin-Watson stat	1.408178		

Equation: D(LNF113)=C(225)+C(226)*D(S_P500LN)
Observations: 10

R-squared	0.956293	Mean dependent var	0.006143
Adjusted R-squared	0.950830	S.D. dependent var	0.208727
S.E. of regression	0.046284	Sum squared resid	0.017138
Durbin-Watson stat	1.091316		

Equation: D(LNF114)=C(227)+C(228)*D(S_P500LN)
Observations: 10

R-squared	0.843121	Mean dependent var	0.012150
Adjusted R-squared	0.823511	S.D. dependent var	0.267852
S.E. of regression	0.112526	Sum squared resid	0.101297
Durbin-Watson stat	0.914722		

Equation: D(LNF115)=C(229)+C(230)*D(S_P500LN)
Observations: 10

R-squared	0.830007	Mean dependent var	-0.003248
Adjusted R-squared	0.808758	S.D. dependent var	0.256899
S.E. of regression	0.112345	Sum squared resid	0.100972

Durbin-Watson stat	3.133779		

Equation: D(LNF116)=C(231)+C(232)*D(S_P500LN)
Observations: 10

R-squared	0.760119	Mean dependent var	0.101004
Adjusted R-squared	0.730134	S.D. dependent var	0.358376
S.E. of regression	0.186171	Sum squared resid	0.277277
Durbin-Watson stat	2.799043		

Equation: D(LNF117)=C(233)+C(234)*D(S_P500LN)
Observations: 10

R-squared	0.929573	Mean dependent var	-0.041421
Adjusted R-squared	0.920770	S.D. dependent var	0.292685
S.E. of regression	0.082385	Sum squared resid	0.054298
Durbin-Watson stat	2.853505		

Equation: D(LNF118)=C(235)+C(236)*D(S_P500LN)
Observations: 10

R-squared	0.939407	Mean dependent var	-0.024061
Adjusted R-squared	0.931832	S.D. dependent var	0.297997
S.E. of regression	0.077804	Sum squared resid	0.048428
Durbin-Watson stat	2.313289		

Equation: D(LNF119)=C(237)+C(238)*D(S_P500LN)
Observations: 10

R-squared	0.829739	Mean dependent var	0.038192
Adjusted R-squared	0.808457	S.D. dependent var	0.333937
S.E. of regression	0.146150	Sum squared resid	0.170878
Durbin-Watson stat	1.334482		

Equation: D(LNF120)=C(239)+C(240)*D(S_P500LN)
Observations: 10

R-squared	0.886107	Mean dependent var	0.031410
Adjusted R-squared	0.871870	S.D. dependent var	0.216653
S.E. of regression	0.077552	Sum squared resid	0.048114
Durbin-Watson stat	1.689899		

Equation: D(LNF121)=C(241)+C(242)*D(S_P500LN)
Observations: 10

R-squared	0.866916	Mean dependent var	-0.038918
Adjusted R-squared	0.850281	S.D. dependent var	0.309561
S.E. of regression	0.119780	Sum squared resid	0.114779
Durbin-Watson stat	2.071043		

Equation: D(LNF122)=C(243)+C(244)*D(S_P500LN)
Observations: 10

R-squared	0.868054	Mean dependent var	0.049508
Adjusted R-squared	0.851560	S.D. dependent var	0.347736
S.E. of regression	0.133975	Sum squared resid	0.143595
Durbin-Watson stat	0.793322		

Equation: D(LNF123)=C(245)+C(246)*D(S_P500LN)
Observations: 10

R-squared	0.951508	Mean dependent var	0.004896
Adjusted R-squared	0.945447	S.D. dependent var	0.274483
S.E. of regression	0.064110	Sum squared resid	0.032881
Durbin-Watson stat	1.605858		

Equation: D(LNF124)=C(247)+C(248)*D(S_P500LN)
Observations: 10

R-squared	0.681048	Mean dependent var	0.096628
Adjusted R-squared	0.641179	S.D. dependent var	0.155223
S.E. of regression	0.092981	Sum squared resid	0.069164
Durbin-Watson stat	0.998899		

Equation: D(LNF125)=C(249)+C(250)*D(S_P500LN)
Observations: 10

R-squared	0.790847	Mean dependent var	0.062053
Adjusted R-squared	0.764703	S.D. dependent var	0.233926
S.E. of regression	0.113472	Sum squared resid	0.103007
Durbin-Watson stat	1.256143		

Equation: D(LNF126)=C(251)+C(252)*D(S_P500LN)
Observations: 10

R-squared	0.824480	Mean dependent var	0.008879
Adjusted R-squared	0.802540	S.D. dependent var	0.194204
S.E. of regression	0.086298	Sum squared resid	0.059578
Durbin-Watson stat	1.095489		

Equation: D(LNF127)=C(253)+C(254)*D(S_P500LN)
Observations: 10

R-squared	0.240472	Mean dependent var	0.045526
Adjusted R-squared	0.145531	S.D. dependent var	0.066636
S.E. of regression	0.061597	Sum squared resid	0.030353
Durbin-Watson stat	1.691834		

Equation: D(LNF128)=C(255)+C(256)*D(S_P500LN)
Observations: 10

R-squared	0.815903	Mean dependent var	0.026029
Adjusted R-squared	0.792891	S.D. dependent var	0.205283
S.E. of regression	0.093423	Sum squared resid	0.069822
Durbin-Watson stat	0.755259		

Equation: D(LNF129)=C(257)+C(258)*D(S_P500LN)
Observations: 10

R-squared	0.922034	Mean dependent var	-0.005407
Adjusted R-squared	0.912288	S.D. dependent var	0.259465
S.E. of regression	0.076844	Sum squared resid	0.047239
Durbin-Watson stat	2.071449		

Equation: D(LNF130)=C(259)+C(260)*D(S_P500LN)
Observations: 10

R-squared	*0.938502*	*Mean dependent var*	*0.021802*
Adjusted R-squared	*0.930814*	*S.D. dependent var*	*0.221453*
S.E. of regression	0.058249	Sum squared resid	0.027144
Durbin-Watson stat	1.135196		

Equation: D(LNF131)=C(261)+C(262)*D(S_P500LN)
Observations: 10

R-squared	0.891669	Mean dependent var	-0.026335
Adjusted R-squared	0.878128	S.D. dependent var	0.324226
S.E. of regression	0.113188	Sum squared resid	0.102492
Durbin-Watson stat	1.186822		

Equation: D(LNF132)=C(263)+C(264)*D(S_P500LN)
Observations: 10

R-squared	0.631310	Mean dependent var	0.058253
Adjusted R-squared	0.585224	S.D. dependent var	0.156117
S.E. of regression	0.100544	Sum squared resid	0.080873
Durbin-Watson stat	0.569694		

Equation: D(LNF133)=C(265)+C(266)*D(S_P500LN)
Observations: 10

R-squared	0.745535	Mean dependent var	0.083366
Adjusted R-squared	0.713727	S.D. dependent var	0.209248
S.E. of regression	0.111957	Sum squared resid	0.100275
Durbin-Watson stat	0.605674		

Equation: D(LNF134)=C(267)+C(268)*D(S_P500LN)
Observations: 10

R-squared	0.959449	Mean dependent var	-0.015281
Adjusted R-squared	0.954380	S.D. dependent var	0.291371
S.E. of regression	0.062233	Sum squared resid	0.030984
Durbin-Watson stat	1.983550		

Equation: D(LNF135)=C(269)+C(270)*D(S_P500LN)
Observations: 10

R-squared	0.881785	Mean dependent var	0.030955
Adjusted R-squared	0.867008	S.D. dependent var	0.214575
S.E. of regression	0.078251	Sum squared resid	0.048986
Durbin-Watson stat	3.035072		

Equation: D(LNF136)=C(271)+C(272)*D(S_P500LN)
Observations: 10

R-squared	0.734934	Mean dependent var	0.086606
Adjusted R-squared	0.701801	S.D. dependent var	0.227563
S.E. of regression	0.124267	Sum squared resid	0.123538
Durbin-Watson stat	0.915036		

Equation: D(LNF137)=C(273)+C(274)*D(S_P500LN)
Observations: 10

R-squared	0.663844	Mean dependent var	0.080526
Adjusted R-squared	0.621824	S.D. dependent var	0.210218
S.E. of regression	0.129276	Sum squared resid	0.133698
Durbin-Watson stat	0.591064		

Equation: D(LNF138)=C(275)+C(276)*D(S_P500LN)
Observations: 10

R-squared	0.999120	Mean dependent var	-0.013366
Adjusted R-squared	0.999010	S.D. dependent var	0.225259
S.E. of regression	0.007089	Sum squared resid	0.000402
Durbin-Watson stat	0.287564		

Equation: D(LNF139)=C(277)+C(278)*D(S_P500LN)
Observations: 10

R-squared	0.715252	Mean dependent var	0.047524
Adjusted R-squared	0.679658	S.D. dependent var	0.268341
S.E. of regression	0.151878	Sum squared resid	0.184535
Durbin-Watson stat	0.572084		

Equation: D(LNF140)=C(279)+C(280)*D(S_P500LN)
Observations: 10

R-squared	0.968819	Mean dependent var	0.039700
Adjusted R-squared	0.964922	S.D. dependent var	0.222070
S.E. of regression	0.041592	Sum squared resid	0.013839
Durbin-Watson stat	1.774373		

Equation: D(LNF141)=C(281)+C(282)*D(S_P500LN)
Observations: 10

R-squared	0.885509	Mean dependent var	0.016352
Adjusted R-squared	0.871198	S.D. dependent var	0.255167
S.E. of regression	0.091577	Sum squared resid	0.067091
Durbin-Watson stat	1.979002		

Equation: D(LNF142)=C(283)+C(284)*D(S_P500LN)
Observations: 10

R-squared	0.907785	Mean dependent var	0.053758
Adjusted R-squared	0.896259	S.D. dependent var	0.199598
S.E. of regression	0.064288	Sum squared resid	0.033064
Durbin-Watson stat	1.057862		

Equation: D(LNF143)=C(285)+C(286)*D(S_P500LN)

Observations: 10

R-squared	0.905325	Mean dependent var	0.080516
Adjusted R-squared	0.893491	S.D. dependent var	0.193237
S.E. of regression	0.063064	Sum squared resid	0.031817
Durbin-Watson stat	0.559901		

Equation: D(LNF144)=C(287)+C(288)*D(S_P500LN)
Observations: 10

R-squared	0.873456	Mean dependent var	0.026158
Adjusted R-squared	0.857637	S.D. dependent var	0.195892
S.E. of regression	0.073912	Sum squared resid	0.043704
Durbin-Watson stat	1.195006		

Equation: D(LNF145)=C(289)+C(290)*D(S_P500LN)
Observations: 10

R-squared	0.866715	Mean dependent var	0.028765
Adjusted R-squared	0.850054	S.D. dependent var	0.081613
S.E. of regression	0.031603	Sum squared resid	0.007990
Durbin-Watson stat	1.528475		

Equation: D(LNF146)=C(291)+C(292)*D(S_P500LN)
Observations: 10

R-squared	0.975287	Mean dependent var	-0.024780
Adjusted R-squared	0.972198	S.D. dependent var	0.220263
S.E. of regression	0.036727	Sum squared resid	0.010791
Durbin-Watson stat	0.690310		

Equation: D(LNF147)=C(293)+C(294)*D(S_P500LN)
Observations: 10

R-squared	0.905659	Mean dependent var	-0.023800
Adjusted R-squared	0.893866	S.D. dependent var	0.268652
S.E. of regression	0.087522	Sum squared resid	0.061281
Durbin-Watson stat	1.725728		

Equation: D(LNF148)=C(295)+C(296)*D(S_P500LN)
Observations: 10

R-squared	0.929324	Mean dependent var	-0.013966
Adjusted R-squared	0.920490	S.D. dependent var	0.269563
S.E. of regression	0.076010	Sum squared resid	0.046220
Durbin-Watson stat	2.210901		

Equation: D(LNF149)=C(297)+C(298)*D(S_P500LN)
Observations: 10

R-squared	0.903616	Mean dependent var	0.027771
Adjusted R-squared	0.891568	S.D. dependent var	0.197401
S.E. of regression	0.065002	Sum squared resid	0.033802
Durbin-Watson stat	1.008342		

Equation: D(LNF150)=C(299)+C(300)*D(S_P500LN)
Observations: 10

R-squared	0.902823	Mean dependent var	0.030269
Adjusted R-squared	0.890675	S.D. dependent var	0.307641
S.E. of regression	0.101719	Sum squared resid	0.082774
Durbin-Watson stat	2.792428		

Equation: D(LNF151)=C(301)+C(302)*D(S_P500LN)
Observations: 10

R-squared	0.936510	Mean dependent var	-0.021117
Adjusted R-squared	0.928574	S.D. dependent var	0.260513
S.E. of regression	0.069624	Sum squared resid	0.038780
Durbin-Watson stat	2.625104		

Equation: D(LNF152)=C(303)+C(304)*D(S_P500LN)
Observations: 10

R-squared	0.743464	Mean dependent var	0.100479
Adjusted R-squared	0.711397	S.D. dependent var	0.216509
S.E. of regression	0.116313	Sum squared resid	0.108229
Durbin-Watson stat	0.639323		

*Equation: D(LNF153)=C(305)+C(306)*D(S_P500LN)*
Observations: 10

R-squared	0.733823	Mean dependent var	0.084968
Adjusted R-squared	0.700551	S.D. dependent var	0.289254
S.E. of regression	0.158286	Sum squared resid	0.200435
Durbin-Watson stat	1.522830		

Equation: D(LNF154)=C(307)+C(308)*D(S_P500LN)
Observations: 10

R-squared	0.541563	Mean dependent var	0.097736
Adjusted R-squared	0.484258	S.D. dependent var	0.189826
S.E. of regression	0.136324	Sum squared resid	0.148673
Durbin-Watson stat	2.112358		

Equation: D(LNF155)=C(309)+C(310)*D(S_P500LN)
Observations: 10

R-squared	0.722895	Mean dependent var	0.036297
Adjusted R-squared	0.688257	S.D. dependent var	0.243460
S.E. of regression	0.135933	Sum squared resid	0.147823
Durbin-Watson stat	0.259166		

Equation: D(LNF156)=C(311)+C(312)*D(S_P500LN)
Observations: 10

R-squared	0.859295	Mean dependent var	0.034743
Adjusted R-squared	0.841707	S.D. dependent var	0.256423
S.E. of regression	0.102021	Sum squared resid	0.083266
Durbin-Watson stat	0.894139		

Equation: D(LNF157)=C(313)+C(314)*D(S_P500LN)
Observations: 10

R-squared	0.902005	Mean dependent var	0.018594
Adjusted R-squared	0.889755	S.D. dependent var	0.199771
S.E. of regression	0.066330	Sum squared resid	0.035197
Durbin-Watson stat	0.818363		

Equation: D(LNF158)=C(315)+C(316)*D(S_P500LN)
Observations: 10

R-squared	0.846293	Mean dependent var	0.019021
Adjusted R-squared	0.827080	S.D. dependent var	0.170251
S.E. of regression	0.070796	Sum squared resid	0.040097
Durbin-Watson stat	1.135331		

Equation: D(LNF159)=C(317)+C(318)*D(S_P500LN)
Observations: 10

R-squared	0.861340	Mean dependent var	0.029695
Adjusted R-squared	0.844007	S.D. dependent var	0.369421
S.E. of regression	0.145906	Sum squared resid	0.170309
Durbin-Watson stat	2.131214		

Equation: D(LNF160)=C(319)+C(320)*D(S_P500LN)
Observations: 10

R-squared	0.779199	Mean dependent var	0.085735
Adjusted R-squared	0.751599	S.D. dependent var	0.210753
S.E. of regression	0.105039	Sum squared resid	0.088265
Durbin-Watson stat	0.806335		

Equation: D(LNF161)=C(321)+C(322)*D(S_P500LN)
Observations: 10

R-squared	0.999244	Mean dependent var	-0.016289

Adjusted R-squared	0.999150	S.D. dependent var	0.225222
S.E. of regression	0.006568	Sum squared resid	0.000345
Durbin-Watson stat	0.319212		

Equation: D(LNF162)=C(323)+C(324)*D(S_P500LN)
Observations: 10

R-squared	0.885098	Mean dependent var	0.048186
Adjusted R-squared	0.870735	S.D. dependent var	0.204781
S.E. of regression	0.073626	Sum squared resid	0.043366
Durbin-Watson stat	0.614042		

Equation: D(LNF163)=C(325)+C(326)*D(S_P500LN)
Observations: 10

R-squared	0.776441	Mean dependent var	0.057398
Adjusted R-squared	0.748496	S.D. dependent var	0.223613
S.E. of regression	0.112142	Sum squared resid	0.100607
Durbin-Watson stat	1.551044		

Equation: D(LNF164)=C(327)+C(328)*D(S_P500LN)
Observations: 10

R-squared	0.983571	Mean dependent var	0.022183
Adjusted R-squared	0.981517	S.D. dependent var	0.200832
S.E. of regression	0.027304	Sum squared resid	0.005964
Durbin-Watson stat	0.862006		

Equation: D(LNF165)=C(329)+C(330)*D(S_P500LN)
Observations: 10

R-squared	0.943428	Mean dependent var	0.034698
Adjusted R-squared	0.936357	S.D. dependent var	0.173640
S.E. of regression	0.043805	Sum squared resid	0.015351
Durbin-Watson stat	0.821905		

Equation: D(LNF166)=C(331)+C(332)*D(S_P500LN)
Observations: 10

R-squared	0.979295	Mean dependent var	-0.021351
Adjusted R-squared	0.976707	S.D. dependent var	0.242392
S.E. of regression	0.036994	Sum squared resid	0.010948
Durbin-Watson stat	0.837986		

Equation: D(LNF167)=C(333)+C(334)*D(S_P500LN)
Observations: 10

R-squared	0.863736	Mean dependent var	-0.078630
Adjusted R-squared	0.846703	S.D. dependent var	0.320265
S.E. of regression	0.125394	Sum squared resid	0.125789
Durbin-Watson stat	1.442037		

Equation: D(LNF168)=C(335)+C(336)*D(S_P500LN)
Observations: 10

R-squared	0.998134	Mean dependent var	-0.022655
Adjusted R-squared	0.997900	S.D. dependent var	0.219982
S.E. of regression	0.010080	Sum squared resid	0.000813
Durbin-Watson stat	2.220061		

Equation: D(LNF169)=C(337)+C(338)*D(S_P500LN)
Observations: 10

R-squared	0.843649	Mean dependent var	0.047727
Adjusted R-squared	0.824105	S.D. dependent var	0.222392
S.E. of regression	0.093271	Sum squared resid	0.069595
Durbin-Watson stat	0.869406		

Equation: D(LNF170)=C(339)+C(340)*D(S_P500LN)
Observations: 10

R-squared	0.849910	Mean dependent var	0.039454
Adjusted R-squared	0.831149	S.D. dependent var	0.205672

S.E. of regression	0.084514	Sum squared resid	0.057141
Durbin-Watson stat	0.657389		

Equation: D(LNF171)=C(341)+C(342)*D(S_P500LN)
Observations: 10

R-squared	0.804607	Mean dependent var	-0.011662
Adjusted R-squared	0.780183	S.D. dependent var	0.307144
S.E. of regression	0.144003	Sum squared resid	0.165895
Durbin-Watson stat	2.219395		

Equation: D(LNF172)=C(343)+C(344)*D(S_P500LN)
Observations: 10

R-squared	0.836909	Mean dependent var	0.019016
Adjusted R-squared	0.816523	S.D. dependent var	0.319714
S.E. of regression	0.136947	Sum squared resid	0.150036
Durbin-Watson stat	0.721988		

Equation: D(LNF173)=C(345)+C(346)*D(S_P500LN)
Observations: 10

R-squared	0.938055	Mean dependent var	0.026052
Adjusted R-squared	0.930312	S.D. dependent var	0.288726
S.E. of regression	0.076219	Sum squared resid	0.046475
Durbin-Watson stat	1.284125		

Equation: D(LNF174)=C(347)+C(348)*D(S_P500LN)
Observations: 10

R-squared	0.884852	Mean dependent var	-0.009081
Adjusted R-squared	0.870459	S.D. dependent var	0.208371
S.E. of regression	0.074997	Sum squared resid	0.044996
Durbin-Watson stat	1.086024		

Equation: D(LNF175)=C(349)+C(350)*D(S_P500LN)
Observations: 10

R-squared	0.949712	Mean dependent var	-0.046388
Adjusted R-squared	0.943426	S.D. dependent var	0.253978
S.E. of regression	0.060409	Sum squared resid	0.029194
Durbin-Watson stat	3.126222		

Equation: D(LNF176)=C(351)+C(352)*D(S_P500LN)
Observations: 10

R-squared	0.784220	Mean dependent var	-0.029859
Adjusted R-squared	0.757248	S.D. dependent var	0.274298
S.E. of regression	0.135147	Sum squared resid	0.146117
Durbin-Watson stat	2.510178		

Equation: D(LNF177)=C(353)+C(354)*D(S_P500LN)
Observations: 10

R-squared	0.821950	Mean dependent var	0.013748
Adjusted R-squared	0.799694	S.D. dependent var	0.314032
S.E. of regression	0.140547	Sum squared resid	0.158028
Durbin-Watson stat	0.674219		

Equation: D(LNF178)=C(355)+C(356)*D(S_P500LN)
Observations: 10

R-squared	0.858316	Mean dependent var	0.064318
Adjusted R-squared	0.840606	S.D. dependent var	0.174492
S.E. of regression	0.069664	Sum squared resid	0.038825
Durbin-Watson stat	0.918806		

Equation: D(LNF179)=C(357)+C(358)*D(S_P500LN)
Observations: 10

R-squared	0.933747	Mean dependent var	-0.037065
Adjusted R-squared	0.925465	S.D. dependent var	0.255327
S.E. of regression	0.069707	Sum squared resid	0.038872

Durbin-Watson stat	2.134883		

Equation: D(LNF180)=C(359)+C(360)*D(S_P500LN)
Observations: 10

R-squared	0.965466	Mean dependent var	0.003896
Adjusted R-squared	0.961150	S.D. dependent var	0.259851
S.E. of regression	0.051218	Sum squared resid	0.020986
Durbin-Watson stat	2.144290		

Equation: D(LNF181)=C(361)+C(362)*D(S_P500LN)
Observations: 10

R-squared	0.878691	Mean dependent var	-0.032999
Adjusted R-squared	0.863527	S.D. dependent var	0.262147
S.E. of regression	0.096843	Sum squared resid	0.075029
Durbin-Watson stat	1.078238		

Equation: D(LNF182)=C(363)+C(364)*D(S_P500LN)
Observations: 10

R-squared	0.904372	Mean dependent var	0.011570
Adjusted R-squared	0.892419	S.D. dependent var	0.297431
S.E. of regression	0.097556	Sum squared resid	0.076138
Durbin-Watson stat	1.629576		

Equation: D(LNF183)=C(365)+C(366)*D(S_P500LN)
Observations: 10

R-squared	0.765358	Mean dependent var	0.060681
Adjusted R-squared	0.736028	S.D. dependent var	0.225779
S.E. of regression	0.116001	Sum squared resid	0.107651
Durbin-Watson stat	0.347332		

Equation: D(LNF184)=C(367)+C(368)*D(S_P500LN)
Observations: 10

R-squared	0.731981	Mean dependent var	0.104642
Adjusted R-squared	0.698479	S.D. dependent var	0.196950
S.E. of regression	0.108147	Sum squared resid	0.093567
Durbin-Watson stat	0.775960		

Equation: D(LNF185)=C(369)+C(370)*D(S_P500LN)
Observations: 10

R-squared	0.666222	Mean dependent var	0.098842
Adjusted R-squared	0.624500	S.D. dependent var	0.186932
S.E. of regression	0.114548	Sum squared resid	0.104971
Durbin-Watson stat	1.097858		

Equation: D(LNF186)=C(371)+C(372)*D(S_P500LN)
Observations: 10

R-squared	0.751151	Mean dependent var	0.037386
Adjusted R-squared	0.720045	S.D. dependent var	0.170812
S.E. of regression	0.090378	Sum squared resid	0.065346
Durbin-Watson stat	0.973053		

Equation: D(LNF187)=C(373)+C(374)*D(S_P500LN)
Observations: 10

R-squared	0.820948	Mean dependent var	0.085635
Adjusted R-squared	0.798567	S.D. dependent var	0.239912
S.E. of regression	0.107676	Sum squared resid	0.092752
Durbin-Watson stat	0.463089		

Equation: D(LNF188)=C(375)+C(376)*D(S_P500LN)
Observations: 10

R-squared	0.891270	Mean dependent var	-0.011324
Adjusted R-squared	0.877679	S.D. dependent var	0.283990
S.E. of regression	0.099324	Sum squared resid	0.078922
Durbin-Watson stat	1.380910		

Equation: D(LNF189)=C(377)+C(378)*D(S_P500LN)
Observations: 10

R-squared	0.764211	Mean dependent var	0.065233
Adjusted R-squared	0.734737	S.D. dependent var	0.239560
S.E. of regression	0.123382	Sum squared resid	0.121785
Durbin-Watson stat	0.708079		

Equation: D(LNF190)=C(379)+C(380)*D(S_P500LN)
Observations: 10

R-squared	0.749425	Mean dependent var	0.071328
Adjusted R-squared	0.718103	S.D. dependent var	0.250530
S.E. of regression	0.133016	Sum squared resid	0.141546
Durbin-Watson stat	1.007106		

Equation: D(LNF191)=C(381)+C(382)*D(S_P500LN)
Observations: 10

R-squared	0.878489	Mean dependent var	-0.008037
Adjusted R-squared	0.863300	S.D. dependent var	0.208642
S.E. of regression	0.077141	Sum squared resid	0.047606
Durbin-Watson stat	2.406008		

Equation: D(LNF192)=C(383)+C(384)*D(S_P500LN)
Observations: 10

R-squared	0.926980	Mean dependent var	-0.021121
Adjusted R-squared	0.917852	S.D. dependent var	0.241716
S.E. of regression	0.069279	Sum squared resid	0.038397
Durbin-Watson stat	1.481258		

Equation: D(LNF193)=C(385)+C(386)*D(S_P500LN)
Observations: 10

R-squared	0.794615	Mean dependent var	-0.067855
Adjusted R-squared	0.768942	S.D. dependent var	0.361444
S.E. of regression	0.173741	Sum squared resid	0.241487
Durbin-Watson stat	1.303307		

Equation: D(LNF194)=C(387)+C(388)*D(S_P500LN)
Observations: 10

R-squared	0.866957	Mean dependent var	0.020758
Adjusted R-squared	0.850327	S.D. dependent var	0.201984
S.E. of regression	0.078143	Sum squared resid	0.048850
Durbin-Watson stat	1.112871		

Equation: D(LNF195)=C(389)+C(390)*D(S_P500LN)
Observations: 10

R-squared	0.769614	Mean dependent var	0.060081
Adjusted R-squared	0.740816	S.D. dependent var	0.213541
S.E. of regression	0.108714	Sum squared resid	0.094550
Durbin-Watson stat	0.767030		

Equation: D(LNF196)=C(391)+C(392)*D(S_P500LN)
Observations: 10

R-squared	0.973405	Mean dependent var	-0.024589
Adjusted R-squared	0.970081	S.D. dependent var	0.225592
S.E. of regression	0.039021	Sum squared resid	0.012181
Durbin-Watson stat	1.784128		

Equation: D(LNF197)=C(393)+C(394)*D(S_P500LN)
Observations: 10

R-squared	0.937959	Mean dependent var	-0.000782
Adjusted R-squared	0.930204	S.D. dependent var	0.268431
S.E. of regression	0.070917	Sum squared resid	0.040233
Durbin-Watson stat	2.130967		

Equation: D(LNF198)=C(395)+C(396)*D(S_P500LN)
Observations: 10

R-squared	0.892638	Mean dependent var	0.050420
Adjusted R-squared	0.879218	S.D. dependent var	0.234408
S.E. of regression	0.081466	Sum squared resid	0.053093
Durbin-Watson stat	0.597176		

Equation: D(LNF199)=C(397)+C(398)*D(S_P500LN)
Observations: 10

R-squared	0.899238	Mean dependent var	-0.075882
Adjusted R-squared	0.886642	S.D. dependent var	0.283963
S.E. of regression	0.095607	Sum squared resid	0.073125
Durbin-Watson stat	1.258831		

Equation: D(LNF200)=C(399)+C(400)*D(S_P500LN)
Observations: 10

R-squared	0.962210	Mean dependent var	-0.002492
Adjusted R-squared	0.957486	S.D. dependent var	0.263628
S.E. of regression	0.054357	Sum squared resid	0.023637
Durbin-Watson stat	0.415719		

Dependent Variable: D(LNF127)
Method: Least Squares
Date: 05/08/10 Time: 12:27
Sample (adjusted): 2000 2009
Included observations: 10 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.025544	0.074783	-0.341577	0.7415
D(S_P500LN)	1.778075	0.348807	5.097594	0.0009

R-squared	0.764605	Mean dependent var	-0.075976
Adjusted R-squared	0.735181	S.D. dependent var	0.455505
S.E. of regression	0.234405	Akaike info criterion	0.113326
Sum squared resid	0.439567	Schwarz criterion	0.173844
Log likelihood	1.433368	Hannan-Quinn criter.	0.046939
F-statistic	25.98546	Durbin-Watson stat	1.442636
Prob(F-statistic)	0.000933		

System: SYSHOURDOW
Estimation Method: Least Squares
Date: 05/08/10 Time: 12:31
Sample: 2000 2009
Included observations: 10
Total system (balanced) observations 2000

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	0.000575	0.012992	0.044246	0.9647
C(2)	1.170248	0.072226	16.20256	0.0000
C(3)	0.070675	0.033878	2.086155	0.0371
C(4)	1.436593	0.188345	7.627475	0.0000
C(5)	0.033045	0.034256	0.964630	0.3349
C(6)	0.943129	0.190447	4.952196	0.0000
C(7)	0.015764	0.039477	0.399324	0.6897
C(8)	1.481802	0.219472	6.751673	0.0000
C(9)	0.043540	0.020148	2.161043	0.0308
C(10)	0.912813	0.112010	8.149375	0.0000
C(11)	0.045081	0.027883	1.616769	0.1061
C(12)	1.302672	0.155015	8.403512	0.0000
C(13)	0.029264	0.024745	1.182615	0.2371
C(14)	1.311986	0.137567	9.537043	0.0000
C(15)	-0.004000	0.013935	-0.287010	0.7741
C(16)	1.158465	0.077471	14.95347	0.0000
C(17)	-0.044716	0.036276	-1.232647	0.2179
C(18)	1.609543	0.201677	7.980817	0.0000
C(19)	-0.016289	0.027104	-0.600971	0.5479
C(20)	1.244913	0.150685	8.261686	0.0000
C(21)	0.094117	0.052529	1.791731	0.0734
C(22)	0.609781	0.292030	2.088074	0.0369
C(23)	-0.007305	0.028744	-0.254140	0.7994
C(24)	1.267283	0.159803	7.930302	0.0000
C(25)	0.025351	0.038402	0.660131	0.5093
C(26)	1.400980	0.213496	6.562087	0.0000
C(27)	0.071152	0.031988	2.224350	0.0263
C(28)	1.245417	0.177835	7.003210	0.0000
C(29)	0.003964	0.020305	0.195218	0.8452
C(30)	1.344164	0.112883	11.90760	0.0000
C(31)	0.024068	0.020142	1.194954	0.2323
C(32)	1.241187	0.111976	11.08437	0.0000
C(33)	0.042708	0.025824	1.653782	0.0984
C(34)	1.170961	0.143570	8.156031	0.0000
C(35)	0.108424	0.052842	2.051853	0.0403
C(36)	1.012040	0.293771	3.444997	0.0006
C(37)	0.092846	0.031732	2.925976	0.0035
C(38)	1.057687	0.176410	5.995608	0.0000
C(39)	0.059287	0.020450	2.899096	0.0038
C(40)	1.285622	0.113691	11.30807	0.0000
C(41)	0.054109	0.023012	2.351339	0.0188
C(42)	1.228416	0.127933	9.601997	0.0000
C(43)	0.083328	0.037640	2.213831	0.0270
C(44)	0.988337	0.209256	4.723094	0.0000
C(45)	0.059310	0.030077	1.971910	0.0488
C(46)	1.232119	0.167213	7.368565	0.0000
C(47)	0.000927	0.017915	0.051762	0.9587
C(48)	1.228130	0.099599	12.33072	0.0000
C(49)	0.008414	0.014526	0.579217	0.5625
C(50)	1.190633	0.080755	14.74376	0.0000
C(51)	-0.058115	0.045843	-1.267695	0.2051
C(52)	1.328978	0.254863	5.214482	0.0000
C(53)	0.022731	0.022087	1.029165	0.3036
C(54)	1.124368	0.122789	9.156905	0.0000
C(55)	0.047009	0.032115	1.463794	0.1434

C(56)	1.259737	0.178540	7.055758	0.0000
C(57)	0.050927	0.026342	1.933317	0.0534
C(58)	1.091823	0.146445	7.455491	0.0000
C(59)	-0.025469	0.041729	-0.610345	0.5417
C(60)	0.664496	0.231989	2.864339	0.0042
C(61)	0.061602	0.029223	2.107959	0.0352
C(62)	1.150374	0.162466	7.080720	0.0000
C(63)	0.069790	0.034169	2.042487	0.0413
C(64)	1.465558	0.189961	7.715065	0.0000
C(65)	-0.033556	0.029878	-1.123124	0.2616
C(66)	1.081495	0.166103	6.510989	0.0000
C(67)	0.009073	0.032004	0.283484	0.7768
C(68)	1.307525	0.177922	7.348852	0.0000
C(69)	0.112023	0.073573	1.522612	0.1281
C(70)	1.475946	0.409027	3.608436	0.0003
C(71)	0.085864	0.049332	1.740524	0.0820
C(72)	1.484363	0.274260	5.412244	0.0000
C(73)	-0.002109	0.044383	-0.047522	0.9621
C(74)	1.674892	0.246743	6.788009	0.0000
C(75)	-0.013233	0.031458	-0.420657	0.6741
C(76)	1.520706	0.174889	8.695257	0.0000
C(77)	0.034957	0.042496	0.822590	0.4109
C(78)	1.924787	0.236255	8.147091	0.0000
C(79)	-0.015266	0.046077	-0.331322	0.7404
C(80)	1.685667	0.256160	6.580513	0.0000
C(81)	-0.002409	0.051027	-0.047208	0.9624
C(82)	1.691465	0.283685	5.962485	0.0000
C(83)	0.082427	0.057243	1.439941	0.1501
C(84)	1.316921	0.318241	4.138121	0.0000
C(85)	0.080179	0.045699	1.754480	0.0795
C(86)	1.196682	0.254064	4.710159	0.0000
C(87)	0.067177	0.041744	1.609259	0.1078
C(88)	1.385537	0.232074	5.970235	0.0000
C(89)	0.041133	0.037637	1.092867	0.2746
C(90)	1.425581	0.209243	6.813057	0.0000
C(91)	0.117926	0.033930	3.475589	0.0005
C(92)	0.846261	0.188631	4.486336	0.0000
C(93)	0.000263	0.024490	0.010727	0.9914
C(94)	1.028830	0.136150	7.556597	0.0000
C(95)	0.111825	0.041145	2.717840	0.0066
C(96)	1.419627	0.228742	6.206229	0.0000
C(97)	0.010015	0.062538	0.160144	0.8728
C(98)	1.556559	0.347676	4.477040	0.0000
C(99)	0.064824	0.016787	3.861478	0.0001
C(100)	0.740290	0.093328	7.932142	0.0000
C(101)	0.024598	0.027831	0.883833	0.3769
C(102)	1.386274	0.154725	8.959577	0.0000
C(103)	0.060019	0.050638	1.185255	0.2361
C(104)	1.107898	0.281521	3.935405	0.0001
C(105)	0.067372	0.050550	1.332773	0.1828
C(106)	1.109252	0.281033	3.947057	0.0001
C(107)	0.076146	0.046943	1.622098	0.1050
C(108)	1.502651	0.260975	5.757826	0.0000
C(109)	0.035971	0.031769	1.132272	0.2577
C(110)	1.026842	0.176617	5.813942	0.0000
C(111)	0.003924	0.037786	0.103836	0.9173
C(112)	1.262764	0.210067	6.011243	0.0000
C(113)	0.034146	0.044478	0.767715	0.4428
C(114)	1.680291	0.247271	6.795341	0.0000
C(115)	-0.002337	0.013122	-0.178085	0.8587
C(116)	1.071338	0.072953	14.68532	0.0000
C(117)	0.060395	0.058657	1.029632	0.3033
C(118)	1.168866	0.326099	3.584385	0.0003
C(119)	0.133634	0.056201	2.377815	0.0175

C(120)	1.498052	0.312444	4.794625	0.0000
C(121)	0.029157	0.024131	1.208254	0.2271
C(122)	1.135924	0.134158	8.467093	0.0000
C(123)	0.028171	0.038189	0.737679	0.4608
C(124)	1.313247	0.212310	6.185501	0.0000
C(125)	0.115496	0.054625	2.114328	0.0346
C(126)	1.081952	0.303687	3.562722	0.0004
C(127)	0.003678	0.023428	0.156991	0.8753
C(128)	1.151353	0.130246	8.839824	0.0000
C(129)	0.034738	0.014286	2.431665	0.0151
C(130)	0.972236	0.079420	12.24164	0.0000
C(131)	0.070637	0.029795	2.370775	0.0179
C(132)	1.103302	0.165643	6.660737	0.0000
C(133)	0.001220	0.012818	0.095153	0.9242
C(134)	1.153678	0.071259	16.18998	0.0000
C(135)	0.062875	0.050192	1.252698	0.2105
C(136)	1.476723	0.279038	5.292201	0.0000
C(137)	0.002957	0.029050	0.101795	0.9189
C(138)	1.177182	0.161499	7.289082	0.0000
C(139)	0.060117	0.041001	1.466234	0.1428
C(140)	0.965573	0.227942	4.236047	0.0000
C(141)	0.043150	0.037345	1.155446	0.2481
C(142)	1.001745	0.207617	4.824956	0.0000
C(143)	0.188595	0.043595	4.326030	0.0000
C(144)	1.587627	0.242366	6.550532	0.0000
C(145)	0.011094	0.028604	0.387862	0.6982
C(146)	1.574371	0.159021	9.900417	0.0000
C(147)	0.048021	0.056776	0.845793	0.3978
C(148)	1.204687	0.315645	3.816595	0.0001
C(149)	-0.007759	0.021870	-0.354765	0.7228
C(150)	1.257032	0.121584	10.33881	0.0000
C(151)	0.065417	0.037120	1.762304	0.0782
C(152)	1.267047	0.206368	6.139728	0.0000
C(153)	0.046467	0.029400	1.580489	0.1142
C(154)	1.268405	0.163449	7.760233	0.0000
C(155)	-0.002299	0.014078	-0.163304	0.8703
C(156)	1.165123	0.078265	14.88697	0.0000
C(157)	0.058107	0.028028	2.073131	0.0383
C(158)	1.379319	0.155823	8.851850	0.0000
C(159)	0.035263	0.023508	1.500041	0.1338
C(160)	1.210241	0.130691	9.260329	0.0000
C(161)	0.048089	0.029971	1.604530	0.1088
C(162)	1.375264	0.166621	8.253833	0.0000
C(163)	0.066167	0.034355	1.925990	0.0543
C(164)	1.195462	0.190994	6.259148	0.0000
C(165)	-0.005180	0.014962	-0.346189	0.7292
C(166)	1.191810	0.083179	14.32819	0.0000
C(167)	0.013460	0.028990	0.464312	0.6425
C(168)	1.046379	0.161168	6.492477	0.0000
C(169)	-0.000349	0.013082	-0.026652	0.9787
C(170)	1.172667	0.072727	16.12430	0.0000
C(171)	0.002362	0.010952	0.215639	0.8293
C(172)	0.924223	0.060890	15.17866	0.0000
C(173)	0.023007	0.023802	0.966630	0.3339
C(174)	1.092138	0.132324	8.253497	0.0000
C(175)	0.000967	0.021754	0.044439	0.9646
C(176)	1.244877	0.120942	10.29316	0.0000
C(177)	0.042906	0.053126	0.807626	0.4194
C(178)	1.053324	0.295353	3.566323	0.0004
C(179)	0.091579	0.024274	3.772696	0.0002
C(180)	1.030434	0.134951	7.635594	0.0000
C(181)	0.000513	0.013002	0.039464	0.9685
C(182)	1.170862	0.072285	16.19776	0.0000
C(183)	-0.001471	0.018935	-0.077704	0.9381

C(184)	1.203447	0.105271	11.43191	0.0000
C(185)	0.052600	0.021528	2.443318	0.0147
C(186)	1.056106	0.119684	8.824119	0.0000
C(187)	-0.039583	0.032345	-1.223775	0.2212
C(188)	1.126369	0.179819	6.263886	0.0000
C(189)	0.015035	0.027855	0.539744	0.5894
C(190)	1.465905	0.154858	9.466119	0.0000
C(191)	0.045150	0.015669	2.881386	0.0040
C(192)	1.188230	0.087114	13.64001	0.0000
C(193)	0.060840	0.025119	2.422053	0.0155
C(194)	1.183878	0.139649	8.477500	0.0000
C(195)	0.064980	0.023768	2.733986	0.0063
C(196)	1.182663	0.132135	8.950442	0.0000
C(197)	-0.271654	0.082002	-3.312759	0.0009
C(198)	2.190373	0.455888	4.804632	0.0000
C(199)	0.063726	0.035657	1.787200	0.0741
C(200)	0.664432	0.198234	3.351760	0.0008
C(201)	0.070093	0.031436	2.229720	0.0259
C(202)	0.732526	0.174766	4.191475	0.0000
C(203)	0.114298	0.042898	2.664423	0.0078
C(204)	1.072268	0.238489	4.496096	0.0000
C(205)	0.011476	0.009383	1.223082	0.2215
C(206)	0.895800	0.052163	17.17303	0.0000
C(207)	-0.003844	0.017614	-0.218264	0.8273
C(208)	0.964983	0.097924	9.854438	0.0000
C(209)	-0.011837	0.013391	-0.883962	0.3768
C(210)	1.169470	0.074448	15.70853	0.0000
C(211)	-0.016140	0.033635	-0.479859	0.6314
C(212)	1.451627	0.186992	7.763046	0.0000
C(213)	0.034583	0.024046	1.438186	0.1506
C(214)	1.094596	0.133685	8.187856	0.0000
C(215)	-0.054403	0.028027	-1.941064	0.0524
C(216)	1.144228	0.155816	7.343462	0.0000
C(217)	-0.003209	0.013228	-0.242619	0.8083
C(218)	1.168217	0.073538	15.88588	0.0000
C(219)	-0.019673	0.030830	-0.638109	0.5235
C(220)	1.237217	0.171396	7.218465	0.0000
C(221)	0.002277	0.016562	0.137498	0.8907
C(222)	1.245639	0.092078	13.52814	0.0000
C(223)	0.005456	0.025766	0.211755	0.8323
C(224)	1.047376	0.143247	7.311684	0.0000
C(225)	0.015947	0.021492	0.742002	0.4582
C(226)	1.049267	0.119484	8.781689	0.0000
C(227)	0.024348	0.034658	0.702509	0.4825
C(228)	1.305411	0.192680	6.775017	0.0000
C(229)	0.001826	0.008730	0.209208	0.8343
C(230)	0.271203	0.048532	5.588185	0.0000
C(231)	0.116166	0.061957	1.874945	0.0610
C(232)	1.622683	0.344448	4.710973	0.0000
C(233)	-0.006132	0.006486	-0.945305	0.3446
C(234)	0.352468	0.036061	9.774253	0.0000
C(235)	-0.010021	0.029766	-0.336662	0.7364
C(236)	1.502597	0.165484	9.080018	0.0000
C(237)	0.053218	0.046053	1.155581	0.2480
C(238)	1.608088	0.256028	6.280894	0.0000
C(239)	0.041111	0.030592	1.343818	0.1792
C(240)	1.038172	0.170077	6.104143	0.0000
C(241)	-0.024992	0.042732	-0.584840	0.5587
C(242)	1.490411	0.237568	6.273611	0.0000
C(243)	0.065699	0.038683	1.698410	0.0896
C(244)	1.732837	0.215054	8.057670	0.0000
C(245)	0.018006	0.023180	0.776769	0.4374
C(246)	1.403050	0.128868	10.88746	0.0000
C(247)	0.102944	0.029494	3.490294	0.0005

C(248)	0.675972	0.163972	4.122484	0.0000
C(249)	0.014725	0.007445	1.977935	0.0481
C(250)	0.223069	0.041389	5.389599	0.0000
C(251)	0.017063	0.033943	0.502699	0.6152
C(252)	0.875832	0.188703	4.641332	0.0000
C(253)	-0.012753	0.022897	-0.556976	0.5776
C(254)	0.564757	0.127294	4.436655	0.0000
C(255)	0.035235	0.028769	1.224755	0.2208
C(256)	0.985265	0.159941	6.160177	0.0000
C(257)	0.006527	0.031572	0.206741	0.8362
C(258)	1.277213	0.175525	7.276525	0.0000
C(259)	0.032188	0.023132	1.391475	0.1643
C(260)	1.111554	0.128604	8.643233	0.0000
C(261)	-0.011851	0.046251	-0.256222	0.7978
C(262)	1.550208	0.257131	6.028869	0.0000
C(263)	0.064646	0.029254	2.209823	0.0273
C(264)	0.684247	0.162637	4.207214	0.0000
C(265)	0.092256	0.035753	2.580376	0.0100
C(266)	0.951406	0.198767	4.786543	0.0000
C(267)	-0.001624	0.030608	-0.053044	0.9577
C(268)	1.461611	0.170162	8.589517	0.0000
C(269)	0.040758	0.027237	1.496391	0.1347
C(270)	1.049181	0.151425	6.928703	0.0000
C(271)	0.096451	0.036762	2.623636	0.0088
C(272)	1.053671	0.204379	5.155484	0.0000
C(273)	0.089234	0.038368	2.325750	0.0202
C(274)	0.931989	0.213305	4.369283	0.0000
C(275)	-0.002418	0.013079	-0.184848	0.8534
C(276)	1.171749	0.072711	16.11525	0.0000
C(277)	0.058555	0.049860	1.174392	0.2404
C(278)	1.180563	0.277193	4.258987	0.0000
C(279)	0.050532	0.011325	4.461916	0.0000
C(280)	1.159217	0.062961	18.41152	0.0000
C(281)	0.027958	0.033243	0.841022	0.4005
C(282)	1.242099	0.184812	6.720866	0.0000
C(283)	0.063254	0.017802	3.553106	0.0004
C(284)	1.016287	0.098971	10.26852	0.0000
C(285)	0.089640	0.018873	4.749628	0.0000
C(286)	0.976439	0.104923	9.306202	0.0000
C(287)	0.035068	0.025511	1.374643	0.1694
C(288)	0.953623	0.141826	6.723913	0.0000
C(289)	0.032514	0.010001	3.250963	0.0012
C(290)	0.401306	0.055603	7.217392	0.0000
C(291)	-0.014229	0.017761	-0.801095	0.4232
C(292)	1.129249	0.098743	11.43620	0.0000
C(293)	-0.011709	0.037004	-0.316432	0.7517
C(294)	1.294029	0.205721	6.290212	0.0000
C(295)	-0.001358	0.028861	-0.047052	0.9625
C(296)	1.349367	0.160451	8.409864	0.0000
C(297)	0.037018	0.020855	1.775014	0.0761
C(298)	0.989613	0.115941	8.535469	0.0000
C(299)	0.044589	0.034321	1.299164	0.1941
C(300)	1.532487	0.190806	8.031654	0.0000
C(301)	-0.008948	0.028224	-0.317045	0.7513
C(302)	1.302298	0.156912	8.299561	0.0000
C(303)	0.109734	0.036335	3.020086	0.0026
C(304)	0.990474	0.202001	4.903307	0.0000
C(305)	0.097683	0.044147	2.212660	0.0271
C(306)	1.360794	0.245435	5.544423	0.0000
C(307)	0.104876	0.041269	2.541300	0.0111
C(308)	0.764166	0.229431	3.330704	0.0009
C(309)	0.046659	0.041385	1.127437	0.2597
C(310)	1.108939	0.230077	4.819858	0.0000
C(311)	0.046640	0.029333	1.590009	0.1120

C(312)	1.273275	0.163077	7.807817	0.0000
C(313)	0.027965	0.020822	1.343068	0.1794
C(314)	1.002957	0.115758	8.664267	0.0000
C(315)	0.027059	0.016639	1.626239	0.1041
C(316)	0.860234	0.092504	9.299450	0.0000
C(317)	0.046433	0.049163	0.944456	0.3451
C(318)	1.791321	0.273321	6.553899	0.0000
C(319)	0.095073	0.031160	3.051132	0.0023
C(320)	0.999396	0.173233	5.769093	0.0000
C(321)	-0.005343	0.013115	-0.407410	0.6838
C(322)	1.171447	0.072915	16.06601	0.0000
C(323)	0.057715	0.022904	2.519890	0.0118
C(324)	1.019779	0.127332	8.008810	0.0000
C(325)	0.067244	0.033908	1.983146	0.0475
C(326)	1.053753	0.188509	5.589947	0.0000
C(327)	0.032025	0.007940	4.033574	0.0001
C(328)	1.053280	0.044139	23.86260	0.0000
C(329)	0.042932	0.016145	2.659075	0.0079
C(330)	0.881200	0.089760	9.817314	0.0000
C(331)	-0.009753	0.019901	-0.490080	0.6241
C(332)	1.241303	0.110638	11.21953	0.0000
C(333)	-0.064608	0.049619	-1.302077	0.1931
C(334)	1.500700	0.275856	5.440164	0.0000
C(335)	-0.011998	0.014094	-0.851303	0.3947
C(336)	1.140451	0.078356	14.55476	0.0000
C(337)	0.057729	0.030735	1.878284	0.0605
C(338)	1.070472	0.170869	6.264856	0.0000
C(339)	0.048672	0.028911	1.683493	0.0925
C(340)	0.986504	0.160729	6.137669	0.0000
C(341)	0.001426	0.052027	0.027413	0.9781
C(342)	1.400701	0.289243	4.842651	0.0000
C(343)	0.033532	0.042059	0.797253	0.4254
C(344)	1.553587	0.233826	6.644196	0.0000
C(345)	0.039769	0.026212	1.517196	0.1294
C(346)	1.468083	0.145726	10.07426	0.0000
C(347)	0.000314	0.028452	0.011032	0.9912
C(348)	1.005420	0.158178	6.356245	0.0000
C(349)	-0.034445	0.025853	-1.332354	0.1829
C(350)	1.278247	0.143726	8.893651	0.0000
C(351)	-0.018285	0.047768	-0.382782	0.7019
C(352)	1.238708	0.265561	4.664485	0.0000
C(353)	0.027920	0.042670	0.654321	0.5130
C(354)	1.516709	0.237224	6.393586	0.0000
C(355)	0.072275	0.022392	3.227700	0.0013
C(356)	0.851622	0.124488	6.840983	0.0000
C(357)	-0.025321	0.031062	-0.815163	0.4151
C(358)	1.256881	0.172690	7.278251	0.0000
C(359)	0.016348	0.020833	0.784717	0.4327
C(360)	1.332678	0.115819	11.50653	0.0000
C(361)	-0.021475	0.040006	-0.536805	0.5915
C(362)	1.233303	0.222411	5.545161	0.0000
C(363)	0.025360	0.034222	0.741026	0.4588
C(364)	1.475769	0.190258	7.756691	0.0000
C(365)	0.070388	0.037213	1.891483	0.0587
C(366)	1.038951	0.206886	5.021857	0.0000
C(367)	0.113053	0.033147	3.410633	0.0007
C(368)	0.900134	0.184280	4.884608	0.0000
C(369)	0.106425	0.035750	2.976951	0.0030
C(370)	0.811567	0.198748	4.083395	0.0000
C(371)	0.044888	0.026154	1.716328	0.0863
C(372)	0.802914	0.145400	5.522111	0.0000
C(373)	0.096291	0.035111	2.742485	0.0062
C(374)	1.140433	0.195197	5.842462	0.0000
C(375)	0.001352	0.040677	0.033241	0.9735

C(376)	1.356603	0.226143	5.998880	0.0000
C(377)	0.075487	0.040033	1.885644	0.0595
C(378)	1.097463	0.222560	4.931100	0.0000
C(379)	0.082095	0.041347	1.985514	0.0473
C(380)	1.152358	0.229868	5.013140	0.0000
C(381)	0.001284	0.029762	0.043152	0.9656
C(382)	0.997579	0.165458	6.029191	0.0000
C(383)	-0.009732	0.024129	-0.403324	0.6868
C(384)	1.218881	0.134144	9.086381	0.0000
C(385)	-0.052695	0.063960	-0.823876	0.4101
C(386)	1.622452	0.355581	4.562824	0.0000
C(387)	0.030089	0.023853	1.261446	0.2073
C(388)	0.998619	0.132609	7.530547	0.0000
C(389)	0.069537	0.031641	2.197666	0.0281
C(390)	1.012087	0.175909	5.753461	0.0000
C(391)	-0.013839	0.019684	-0.703077	0.4821
C(392)	1.150510	0.109430	10.51362	0.0000
C(393)	0.011680	0.030562	0.382165	0.7024
C(394)	1.333724	0.169905	7.849811	0.0000
C(395)	0.061331	0.026151	2.345266	0.0191
C(396)	1.167686	0.145385	8.031690	0.0000
C(397)	-0.063040	0.038155	-1.652189	0.0987
C(398)	1.374448	0.212123	6.479492	0.0000
C(399)	0.010138	0.021236	0.477366	0.6332
C(400)	1.351655	0.118062	11.44864	0.0000

Determinant residual covariance 0.000000

Equation: D(LNF1)=C(1)+C(2)*D(DJIALN)
Observations: 10

R-squared	0.970428	Mean dependent var	-0.010360
Adjusted R-squared	0.966731	S.D. dependent var	0.224935
S.E. of regression	0.041028	Sum squared resid	0.013466
Durbin-Watson stat	1.226229		

Equation: D(LNF2)=C(3)+C(4)*D(DJIALN)
Observations: 10

R-squared	0.879115	Mean dependent var	0.057252
Adjusted R-squared	0.864004	S.D. dependent var	0.290116
S.E. of regression	0.106988	Sum squared resid	0.091571
Durbin-Watson stat	1.483440		

Equation: D(LNF3)=C(5)+C(6)*D(DJIALN)
Observations: 10

R-squared	0.754030	Mean dependent var	0.024232
Adjusted R-squared	0.723283	S.D. dependent var	0.205654
S.E. of regression	0.108182	Sum squared resid	0.093627
Durbin-Watson stat	1.908357		

Equation: D(LNF4)=C(7)+C(8)*D(DJIALN)
Observations: 10

R-squared	0.850705	Mean dependent var	0.001919
Adjusted R-squared	0.832043	S.D. dependent var	0.304201
S.E. of regression	0.124669	Sum squared resid	0.124340
Durbin-Watson stat	2.158958		

Equation: D(LNF5)=C(9)+C(10)*D(DJIALN)
Observations: 10

R-squared	0.892491	Mean dependent var	0.035011
Adjusted R-squared	0.879052	S.D. dependent var	0.182953
S.E. of regression	0.063627	Sum squared resid	0.032387
Durbin-Watson stat	1.099988		

Equation: D(LNF6)=C(11)+C(12)*D(DJIALN)
Observations: 10

R-squared	0.898243	Mean dependent var	0.032909
Adjusted R-squared	0.885524	S.D. dependent var	0.260254
S.E. of regression	0.088055	Sum squared resid	0.062030
Durbin-Watson stat	1.467826		

Equation: D(LNF7)=C(13)+C(14)*D(DJIALN)
Observations: 10

R-squared	0.919155	Mean dependent var	0.017005
Adjusted R-squared	0.909050	S.D. dependent var	0.259117
S.E. of regression	0.078144	Sum squared resid	0.048852
Durbin-Watson stat	1.103503		

Equation: D(LNF8)=C(15)+C(16)*D(DJIALN)
Observations: 10

R-squared	0.965459	Mean dependent var	-0.014824
Adjusted R-squared	0.961141	S.D. dependent var	0.223242
S.E. of regression	0.044007	Sum squared resid	0.015493
Durbin-Watson stat	1.311020		

Equation: D(LNF9)=C(17)+C(18)*D(DJIALN)
Observations: 10

R-squared	0.888414	Mean dependent var	-0.059755
Adjusted R-squared	0.874466	S.D. dependent var	0.323337
S.E. of regression	0.114561	Sum squared resid	0.104994
Durbin-Watson stat	1.806079		

Equation: D(LNF10)=C(19)+C(20)*D(DJIALN)
Observations: 10

R-squared	0.895089	Mean dependent var	-0.027921
Adjusted R-squared	0.881976	S.D. dependent var	0.249153
S.E. of regression	0.085596	Sum squared resid	0.058613
Durbin-Watson stat	1.230507		

Equation: D(LNF11)=C(21)+C(22)*D(DJIALN)
Observations: 10

R-squared	0.352754	Mean dependent var	0.088420
Adjusted R-squared	0.271848	S.D. dependent var	0.194401
S.E. of regression	0.165886	Sum squared resid	0.220145
Durbin-Watson stat	1.496225		

Equation: D(LNF12)=C(23)+C(24)*D(DJIALN)
Observations: 10

R-squared	0.887149	Mean dependent var	-0.019146
Adjusted R-squared	0.873042	S.D. dependent var	0.254763
S.E. of regression	0.090775	Sum squared resid	0.065921
Durbin-Watson stat	1.805342		

Equation: D(LNF13)=C(25)+C(26)*D(DJIALN)
Observations: 10

R-squared	0.843325	Mean dependent var	0.012260
Adjusted R-squared	0.823740	S.D. dependent var	0.288865
S.E. of regression	0.121275	Sum squared resid	0.117661
Durbin-Watson stat	2.074781		

Equation: D(LNF14)=C(27)+C(28)*D(DJIALN)
Observations: 10

R-squared	0.859760	Mean dependent var	0.059515
Adjusted R-squared	0.842230	S.D. dependent var	0.254324
S.E. of regression	0.101018	Sum squared resid	0.081637
Durbin-Watson stat	1.337150		

Equation: D(LNF15)=C(29)+C(30)*D(DJIALN)

Observations: 10

R-squared	0.946592	Mean dependent var	-0.008596
Adjusted R-squared	0.939916	S.D. dependent var	0.261596
S.E. of regression	0.064122	Sum squared resid	0.032893
Durbin-Watson stat	1.864489		

Equation: D(LNF16)=C(31)+C(32)*D(DJIALN)
Observations: 10

R-squared	0.938867	Mean dependent var	0.012471
Adjusted R-squared	0.931226	S.D. dependent var	0.242547
S.E. of regression	0.063607	Sum squared resid	0.032367
Durbin-Watson stat	1.987818		

Equation: D(LNF17)=C(33)+C(34)*D(DJIALN)
Observations: 10

R-squared	0.892647	Mean dependent var	0.031767
Adjusted R-squared	0.879228	S.D. dependent var	0.234673
S.E. of regression	0.081554	Sum squared resid	0.053208
Durbin-Watson stat	1.658280		

Equation: D(LNF18)=C(35)+C(36)*D(DJIALN)
Observations: 10

R-squared	0.597343	Mean dependent var	0.098967
Adjusted R-squared	0.547010	S.D. dependent var	0.247940
S.E. of regression	0.166875	Sum squared resid	0.222777
Durbin-Watson stat	1.266207		

Equation: D(LNF19)=C(37)+C(38)*D(DJIALN)
Observations: 10

R-squared	0.817964	Mean dependent var	0.082963
Adjusted R-squared	0.795209	S.D. dependent var	0.221437
S.E. of regression	0.100209	Sum squared resid	0.080334
Durbin-Watson stat	0.776656		

Equation: D(LNF20)=C(39)+C(40)*D(DJIALN)
Observations: 10

R-squared	0.941121	Mean dependent var	0.047274
Adjusted R-squared	0.933761	S.D. dependent var	0.250929
S.E. of regression	0.064581	Sum squared resid	0.033366
Durbin-Watson stat	1.539021		

Equation: D(LNF21)=C(41)+C(42)*D(DJIALN)
Observations: 10

R-squared	0.920158	Mean dependent var	0.042631
Adjusted R-squared	0.910178	S.D. dependent var	0.242479
S.E. of regression	0.072672	Sum squared resid	0.042249
Durbin-Watson stat	1.560333		

Equation: D(LNF22)=C(43)+C(44)*D(DJIALN)
Observations: 10

R-squared	0.736040	Mean dependent var	0.074093
Adjusted R-squared	0.703045	S.D. dependent var	0.218130
S.E. of regression	0.118867	Sum squared resid	0.113034
Durbin-Watson stat	1.023847		

Equation: D(LNF23)=C(45)+C(46)*D(DJIALN)
Observations: 10

R-squared	0.871580	Mean dependent var	0.047797
Adjusted R-squared	0.855528	S.D. dependent var	0.249896
S.E. of regression	0.094984	Sum squared resid	0.072176
Durbin-Watson stat	0.685645		

Equation: D(LNF24)=C(47)+C(48)*D(DJIALN)
Observations: 10

R-squared	0.950015	Mean dependent var	-0.010548
Adjusted R-squared	0.943766	S.D. dependent var	0.238583
S.E. of regression	0.056577	Sum squared resid	0.025607
Durbin-Watson stat	1.233478		

Equation: D(LNF25)=C(49)+C(50)*D(DJIALN)
Observations: 10

R-squared	0.964504	Mean dependent var	-0.002711
Adjusted R-squared	0.960067	S.D. dependent var	0.229555
S.E. of regression	0.045872	Sum squared resid	0.016834
Durbin-Watson stat	1.179191		

Equation: D(LNF26)=C(51)+C(52)*D(DJIALN)
Observations: 10

R-squared	0.772668	Mean dependent var	-0.070533
Adjusted R-squared	0.744252	S.D. dependent var	0.286274
S.E. of regression	0.144773	Sum squared resid	0.167674
Durbin-Watson stat	1.143384		

Equation: D(LNF27)=C(53)+C(54)*D(DJIALN)
Observations: 10

R-squared	0.912900	Mean dependent var	0.012225
Adjusted R-squared	0.902013	S.D. dependent var	0.222822
S.E. of regression	0.069750	Sum squared resid	0.038920
Durbin-Watson stat	1.601293		

Equation: D(LNF28)=C(55)+C(56)*D(DJIALN)
Observations: 10

R-squared	0.861553	Mean dependent var	0.035239
Adjusted R-squared	0.844247	S.D. dependent var	0.256980
S.E. of regression	0.101419	Sum squared resid	0.082286
Durbin-Watson stat	0.897358		

Equation: D(LNF29)=C(57)+C(58)*D(DJIALN)
Observations: 10

R-squared	0.874183	Mean dependent var	0.040725
Adjusted R-squared	0.858456	S.D. dependent var	0.221111
S.E. of regression	0.083187	Sum squared resid	0.055361
Durbin-Watson stat	1.127999		

Equation: D(LNF30)=C(59)+C(60)*D(DJIALN)
Observations: 10

R-squared	0.506308	Mean dependent var	-0.031678
Adjusted R-squared	0.444597	S.D. dependent var	0.176826
S.E. of regression	0.131780	Sum squared resid	0.138928
Durbin-Watson stat	0.757405		

Equation: D(LNF31)=C(61)+C(62)*D(DJIALN)
Observations: 10

R-squared	0.862393	Mean dependent var	0.050853
Adjusted R-squared	0.845192	S.D. dependent var	0.234556
S.E. of regression	0.092288	Sum squared resid	0.068136
Durbin-Watson stat	1.281993		

Equation: D(LNF32)=C(63)+C(64)*D(DJIALN)
Observations: 10

R-squared	0.881520	Mean dependent var	0.056096
Adjusted R-squared	0.866711	S.D. dependent var	0.295561
S.E. of regression	0.107906	Sum squared resid	0.093149
Durbin-Watson stat	1.233547		

Equation: D(LNF33)=C(65)+C(66)*D(DJIALN)
Observations: 10

R-squared	0.841248	Mean dependent var	-0.043661

Adjusted R-squared	0.821404	S.D. dependent var	0.223266
S.E. of regression	0.094354	Sum squared resid	0.071221
Durbin-Watson stat	0.937291		

Equation: D(LNF34)=C(67)+C(68)*D(DJIALN)
Observations: 10

R-squared	0.870979	Mean dependent var	-0.003145
Adjusted R-squared	0.854852	S.D. dependent var	0.265281
S.E. of regression	0.101068	Sum squared resid	0.081717
Durbin-Watson stat	1.064820		

Equation: D(LNF35)=C(69)+C(70)*D(DJIALN)
Observations: 10

R-squared	0.619425	Mean dependent var	0.098233
Adjusted R-squared	0.571853	S.D. dependent var	0.355088
S.E. of regression	0.232345	Sum squared resid	0.431873
Durbin-Watson stat	1.102808		

Equation: D(LNF36)=C(71)+C(72)*D(DJIALN)
Observations: 10

R-squared	0.785479	Mean dependent var	0.071994
Adjusted R-squared	0.758664	S.D. dependent var	0.317127
S.E. of regression	0.155792	Sum squared resid	0.194169
Durbin-Watson stat	1.889538		

Equation: D(LNF37)=C(73)+C(74)*D(DJIALN)
Observations: 10

R-squared	0.852063	Mean dependent var	-0.017759
Adjusted R-squared	0.833571	S.D. dependent var	0.343567
S.E. of regression	0.140161	Sum squared resid	0.157160
Durbin-Watson stat	1.105347		

Equation: D(LNF38)=C(75)+C(76)*D(DJIALN)
Observations: 10

R-squared	0.904315	Mean dependent var	-0.027442
Adjusted R-squared	0.892354	S.D. dependent var	0.302793
S.E. of regression	0.099345	Sum squared resid	0.078955
Durbin-Watson stat	2.543894		

Equation: D(LNF39)=C(77)+C(78)*D(DJIALN)
Observations: 10

R-squared	0.892437	Mean dependent var	0.016972
Adjusted R-squared	0.878992	S.D. dependent var	0.385793
S.E. of regression	0.134203	Sum squared resid	0.144083
Durbin-Watson stat	2.414314		

Equation: D(LNF40)=C(79)+C(80)*D(DJIALN)
Observations: 10

R-squared	0.844064	Mean dependent var	-0.031017
Adjusted R-squared	0.824572	S.D. dependent var	0.347412
S.E. of regression	0.145510	Sum squared resid	0.169386
Durbin-Watson stat	0.888070		

Equation: D(LNF41)=C(81)+C(82)*D(DJIALN)
Observations: 10

R-squared	0.816308	Mean dependent var	-0.018214
Adjusted R-squared	0.793347	S.D. dependent var	0.354484
S.E. of regression	0.161145	Sum squared resid	0.207742
Durbin-Watson stat	0.921032		

Equation: D(LNF42)=C(83)+C(84)*D(DJIALN)
Observations: 10

R-squared	0.681580	Mean dependent var	0.070122
Adjusted R-squared	0.641777	S.D. dependent var	0.302038

S.E. of regression	0.180775	Sum squared resid	0.261436
Durbin-Watson stat	1.095645		

Equation: D(LNF43)=C(85)+C(86)*D(DJIALN)
Observations: 10

R-squared	0.734973	Mean dependent var	0.068997
Adjusted R-squared	0.701845	S.D. dependent var	0.264304
S.E. of regression	0.144319	Sum squared resid	0.166625
Durbin-Watson stat	0.893000		

Equation: D(LNF44)=C(87)+C(88)*D(DJIALN)
Observations: 10

R-squared	0.816698	Mean dependent var	0.054231
Adjusted R-squared	0.793785	S.D. dependent var	0.290300
S.E. of regression	0.131828	Sum squared resid	0.139029
Durbin-Watson stat	1.655527		

Equation: D(LNF45)=C(89)+C(90)*D(DJIALN)
Observations: 10

R-squared	0.852989	Mean dependent var	0.027812
Adjusted R-squared	0.834613	S.D. dependent var	0.292268
S.E. of regression	0.118859	Sum squared resid	0.113019
Durbin-Watson stat	1.907931		

Equation: D(LNF46)=C(91)+C(92)*D(DJIALN)
Observations: 10

R-squared	0.715578	Mean dependent var	0.110019
Adjusted R-squared	0.680025	S.D. dependent var	0.189425
S.E. of regression	0.107151	Sum squared resid	0.091850
Durbin-Watson stat	1.027575		

Equation: D(LNF47)=C(93)+C(94)*D(DJIALN)
Observations: 10

R-squared	0.877116	Mean dependent var	-0.009350
Adjusted R-squared	0.861756	S.D. dependent var	0.208006
S.E. of regression	0.077339	Sum squared resid	0.047851
Durbin-Watson stat	1.766714		

Equation: D(LNF48)=C(95)+C(96)*D(DJIALN)
Observations: 10

R-squared	0.828021	Mean dependent var	0.098560
Adjusted R-squared	0.806524	S.D. dependent var	0.295402
S.E. of regression	0.129936	Sum squared resid	0.135066
Durbin-Watson stat	0.874231		

Equation: D(LNF49)=C(97)+C(98)*D(DJIALN)
Observations: 10

R-squared	0.714733	Mean dependent var	-0.004529
Adjusted R-squared	0.679074	S.D. dependent var	0.348621
S.E. of regression	0.197495	Sum squared resid	0.312034
Durbin-Watson stat	1.629452		

Equation: D(LNF50)=C(99)+C(100)*D(DJIALN)
Observations: 10

R-squared	0.887195	Mean dependent var	0.057907
Adjusted R-squared	0.873094	S.D. dependent var	0.148817
S.E. of regression	0.053014	Sum squared resid	0.022484
Durbin-Watson stat	1.221934		

Equation: D(LNF51)=C(101)+C(102)*D(DJIALN)
Observations: 10

R-squared	0.909373	Mean dependent var	0.011645
Adjusted R-squared	0.898045	S.D. dependent var	0.275257
S.E. of regression	0.087891	Sum squared resid	0.061798

Durbin-Watson stat	1.525658

Equation: D(LNF52)=C(103)+C(104)*D(DJIALN)
Observations: 10

R-squared	0.659392	Mean dependent var	0.049667
Adjusted R-squared	0.616816	S.D. dependent var	0.258338
S.E. of regression	0.159916	Sum squared resid	0.204585
Durbin-Watson stat	0.631065		

Equation: D(LNF53)=C(105)+C(106)*D(DJIALN)
Observations: 10

R-squared	0.660719	Mean dependent var	0.057008
Adjusted R-squared	0.618309	S.D. dependent var	0.258394
S.E. of regression	0.159639	Sum squared resid	0.203876
Durbin-Watson stat	0.633017		

Equation: D(LNF54)=C(107)+C(108)*D(DJIALN)
Observations: 10

R-squared	0.805601	Mean dependent var	0.062105
Adjusted R-squared	0.781302	S.D. dependent var	0.316999
S.E. of regression	0.148245	Sum squared resid	0.175813
Durbin-Watson stat	0.899282		

Equation: D(LNF55)=C(109)+C(110)*D(DJIALN)
Observations: 10

R-squared	0.808621	Mean dependent var	0.026376
Adjusted R-squared	0.784699	S.D. dependent var	0.216218
S.E. of regression	0.100326	Sum squared resid	0.080523
Durbin-Watson stat	0.878562		

Equation: D(LNF56)=C(111)+C(112)*D(DJIALN)
Observations: 10

R-squared	0.818738	Mean dependent var	-0.007875
Adjusted R-squared	0.796080	S.D. dependent var	0.264247
S.E. of regression	0.119327	Sum squared resid	0.113912
Durbin-Watson stat	2.131520		

Equation: D(LNF57)=C(113)+C(114)*D(DJIALN)
Observations: 10

R-squared	0.852335	Mean dependent var	0.018446
Adjusted R-squared	0.833877	S.D. dependent var	0.344619
S.E. of regression	0.140461	Sum squared resid	0.157834
Durbin-Watson stat	2.214954		

Equation: D(LNF58)=C(115)+C(116)*D(DJIALN)
Observations: 10

R-squared	0.964231	Mean dependent var	-0.012347
Adjusted R-squared	0.959760	S.D. dependent var	0.206584
S.E. of regression	0.041440	Sum squared resid	0.013739
Durbin-Watson stat	0.703585		

Equation: D(LNF59)=C(117)+C(118)*D(DJIALN)
Observations: 10

R-squared	0.616267	Mean dependent var	0.049473
Adjusted R-squared	0.568300	S.D. dependent var	0.281930
S.E. of regression	0.185239	Sum squared resid	0.274507
Durbin-Watson stat	1.587198		

Equation: D(LNF60)=C(119)+C(120)*D(DJIALN)
Observations: 10

R-squared	0.741839	Mean dependent var	0.119637
Adjusted R-squared	0.709569	S.D. dependent var	0.329331
S.E. of regression	0.177482	Sum squared resid	0.251998
Durbin-Watson stat	0.616967		

Equation: D(LNF61)=C(121)+C(122)*D(DJIALN)
Observations: 10

R-squared	0.899613	Mean dependent var	0.018543
Adjusted R-squared	0.887065	S.D. dependent var	0.226768
S.E. of regression	0.076207	Sum squared resid	0.046460
Durbin-Watson stat	1.641773		

Equation: D(LNF62)=C(123)+C(124)*D(DJIALN)
Observations: 10

R-squared	0.827066	Mean dependent var	0.015901
Adjusted R-squared	0.805449	S.D. dependent var	0.273424
S.E. of regression	0.120602	Sum squared resid	0.116358
Durbin-Watson stat	1.450553		

Equation: D(LNF63)=C(125)+C(126)*D(DJIALN)
Observations: 10

R-squared	0.613396	Mean dependent var	0.105386
Adjusted R-squared	0.565070	S.D. dependent var	0.261576
S.E. of regression	0.172507	Sum squared resid	0.238070
Durbin-Watson stat	1.448431		

Equation: D(LNF64)=C(127)+C(128)*D(DJIALN)
Observations: 10

R-squared	0.907131	Mean dependent var	-0.007080
Adjusted R-squared	0.895522	S.D. dependent var	0.228894
S.E. of regression	0.073985	Sum squared resid	0.043791
Durbin-Watson stat	2.307623		

Equation: D(LNF65)=C(129)+C(130)*D(DJIALN)
Observations: 10

R-squared	0.949321	Mean dependent var	0.025654
Adjusted R-squared	0.942987	S.D. dependent var	0.188941
S.E. of regression	0.045114	Sum squared resid	0.016282
Durbin-Watson stat	1.607802		

Equation: D(LNF66)=C(131)+C(132)*D(DJIALN)
Observations: 10

R-squared	0.847227	Mean dependent var	0.060328
Adjusted R-squared	0.828131	S.D. dependent var	0.226963
S.E. of regression	0.094092	Sum squared resid	0.070827
Durbin-Watson stat	1.291451		

Equation: D(LNF67)=C(133)+C(134)*D(DJIALN)
Observations: 10

R-squared	0.970383	Mean dependent var	-0.009560
Adjusted R-squared	0.966681	S.D. dependent var	0.221755
S.E. of regression	0.040478	Sum squared resid	0.013108
Durbin-Watson stat	1.221036		

Equation: D(LNF68)=C(135)+C(136)*D(DJIALN)
Observations: 10

R-squared	0.777823	Mean dependent var	0.049077
Adjusted R-squared	0.750051	S.D. dependent var	0.317043
S.E. of regression	0.158505	Sum squared resid	0.200992
Durbin-Watson stat	1.073381		

Equation: D(LNF69)=C(137)+C(138)*D(DJIALN)
Observations: 10

R-squared	0.869133	Mean dependent var	-0.008042
Adjusted R-squared	0.852775	S.D. dependent var	0.239090
S.E. of regression	0.091739	Sum squared resid	0.067328
Durbin-Watson stat	1.605696		

Equation: D(LNF70)=C(139)+C(140)*D(DJIALN)
Observations: 10

R-squared	0.691645	Mean dependent var	0.051095
Adjusted R-squared	0.653100	S.D. dependent var	0.219839
S.E. of regression	0.129481	Sum squared resid	0.134123
Durbin-Watson stat	1.153147		

Equation: D(LNF71)=C(141)+C(142)*D(DJIALN)
Observations: 10

R-squared	0.744247	Mean dependent var	0.033790
Adjusted R-squared	0.712278	S.D. dependent var	0.219866
S.E. of regression	0.117936	Sum squared resid	0.111271
Durbin-Watson stat	2.280984		

Equation: D(LNF72)=C(143)+C(144)*D(DJIALN)
Observations: 10

R-squared	0.842858	Mean dependent var	0.173760
Adjusted R-squared	0.823216	S.D. dependent var	0.327440
S.E. of regression	0.137675	Sum squared resid	0.151634
Durbin-Watson stat	1.194917		

Equation: D(LNF73)=C(145)+C(146)*D(DJIALN)
Observations: 10

R-squared	0.924541	Mean dependent var	-0.003616
Adjusted R-squared	0.915109	S.D. dependent var	0.310030
S.E. of regression	0.090331	Sum squared resid	0.065277
Durbin-Watson stat	2.207284		

Equation: D(LNF74)=C(147)+C(148)*D(DJIALN)
Observations: 10

R-squared	0.645491	Mean dependent var	0.036765
Adjusted R-squared	0.601177	S.D. dependent var	0.283916
S.E. of regression	0.179300	Sum squared resid	0.257187
Durbin-Watson stat	0.880285		

Equation: D(LNF75)=C(149)+C(150)*D(DJIALN)
Observations: 10

R-squared	0.930369	Mean dependent var	-0.019504
Adjusted R-squared	0.921665	S.D. dependent var	0.246762
S.E. of regression	0.069065	Sum squared resid	0.038160
Durbin-Watson stat	1.787322		

Equation: D(LNF76)=C(151)+C(152)*D(DJIALN)
Observations: 10

R-squared	0.824931	Mean dependent var	0.053578
Adjusted R-squared	0.803047	S.D. dependent var	0.264146
S.E. of regression	0.117226	Sum squared resid	0.109936
Durbin-Watson stat	2.032497		

Equation: D(LNF77)=C(153)+C(154)*D(DJIALN)
Observations: 10

R-squared	0.882734	Mean dependent var	0.034615
Adjusted R-squared	0.868076	S.D. dependent var	0.255625
S.E. of regression	0.092846	Sum squared resid	0.068963
Durbin-Watson stat	1.118130		

Equation: D(LNF78)=C(155)+C(156)*D(DJIALN)
Observations: 10

R-squared	0.965160	Mean dependent var	-0.013186
Adjusted R-squared	0.960805	S.D. dependent var	0.224560
S.E. of regression	0.044458	Sum squared resid	0.015812
Durbin-Watson stat	1.639710		

Equation: D(LNF79)=C(157)+C(158)*D(DJIALN)

Observations: 10

R-squared	0.907359	Mean dependent var	0.045219
Adjusted R-squared	0.895779	S.D. dependent var	0.274180
S.E. of regression	0.088514	Sum squared resid	0.062678
Durbin-Watson stat	1.607276		

Equation: D(LNF80)=C(159)+C(160)*D(DJIALN)
Observations: 10

R-squared	0.914670	Mean dependent var	0.023955
Adjusted R-squared	0.904004	S.D. dependent var	0.239607
S.E. of regression	0.074238	Sum squared resid	0.044090
Durbin-Watson stat	1.848061		

Equation: D(LNF81)=C(161)+C(162)*D(DJIALN)
Observations: 10

R-squared	0.894911	Mean dependent var	0.035239
Adjusted R-squared	0.881775	S.D. dependent var	0.275269
S.E. of regression	0.094648	Sum squared resid	0.071666
Durbin-Watson stat	1.364368		

Equation: D(LNF82)=C(163)+C(164)*D(DJIALN)
Observations: 10

R-squared	0.830426	Mean dependent var	0.054997
Adjusted R-squared	0.809229	S.D. dependent var	0.248397
S.E. of regression	0.108493	Sum squared resid	0.094166
Durbin-Watson stat	0.727586		

Equation: D(LNF83)=C(165)+C(166)*D(DJIALN)
Observations: 10

R-squared	0.962494	Mean dependent var	-0.016316
Adjusted R-squared	0.957805	S.D. dependent var	0.230021
S.E. of regression	0.047249	Sum squared resid	0.017860
Durbin-Watson stat	1.321273		

Equation: D(LNF84)=C(167)+C(168)*D(DJIALN)
Observations: 10

R-squared	0.840486	Mean dependent var	0.003683
Adjusted R-squared	0.820546	S.D. dependent var	0.216115
S.E. of regression	0.091550	Sum squared resid	0.067052
Durbin-Watson stat	2.166529		

Equation: D(LNF85)=C(169)+C(170)*D(DJIALN)
Observations: 10

R-squared	0.970148	Mean dependent var	-0.011306
Adjusted R-squared	0.966417	S.D. dependent var	0.225432
S.E. of regression	0.041312	Sum squared resid	0.013653
Durbin-Watson stat	1.220051		

Equation: D(LNF86)=C(171)+C(172)*D(DJIALN)
Observations: 10

R-squared	0.966442	Mean dependent var	-0.006274
Adjusted R-squared	0.962247	S.D. dependent var	0.178012
S.E. of regression	0.034588	Sum squared resid	0.009571
Durbin-Watson stat	1.593737		

Equation: D(LNF87)=C(173)+C(174)*D(DJIALN)
Observations: 10

R-squared	0.894903	Mean dependent var	0.012803
Adjusted R-squared	0.881766	S.D. dependent var	0.218600
S.E. of regression	0.075166	Sum squared resid	0.045199
Durbin-Watson stat	1.170153		

Equation: D(LNF88)=C(175)+C(176)*D(DJIALN)
Observations: 10

R-squared	0.929793	Mean dependent var	-0.010665
Adjusted R-squared	0.921017	S.D. dependent var	0.244452
S.E. of regression	0.068700	Sum squared resid	0.037758
Durbin-Watson stat	1.432074		

Equation: D(LNF89)=C(177)+C(178)*D(DJIALN)
Observations: 10

R-squared	0.613875	Mean dependent var	0.033064
Adjusted R-squared	0.565609	S.D. dependent var	0.254555
S.E. of regression	0.167773	Sum squared resid	0.225183
Durbin-Watson stat	0.991226		

Equation: D(LNF90)=C(179)+C(180)*D(DJIALN)
Observations: 10

R-squared	0.879341	Mean dependent var	0.081951
Adjusted R-squared	0.864258	S.D. dependent var	0.208066
S.E. of regression	0.076658	Sum squared resid	0.047012
Durbin-Watson stat	1.860639		

Equation: D(LNF91)=C(181)+C(182)*D(DJIALN)
Observations: 10

R-squared	0.970411	Mean dependent var	-0.010427
Adjusted R-squared	0.966712	S.D. dependent var	0.225055
S.E. of regression	0.041061	Sum squared resid	0.013488
Durbin-Watson stat	1.218358		

Equation: D(LNF92)=C(183)+C(184)*D(DJIALN)
Observations: 10

R-squared	0.942317	Mean dependent var	-0.012716
Adjusted R-squared	0.935106	S.D. dependent var	0.234741
S.E. of regression	0.059798	Sum squared resid	0.028607
Durbin-Watson stat	1.446450		

Equation: D(LNF93)=C(185)+C(186)*D(DJIALN)
Observations: 10

R-squared	0.906831	Mean dependent var	0.042732
Adjusted R-squared	0.895184	S.D. dependent var	0.209993
S.E. of regression	0.067986	Sum squared resid	0.036976
Durbin-Watson stat	0.837421		

Equation: D(LNF94)=C(187)+C(188)*D(DJIALN)
Observations: 10

R-squared	0.830639	Mean dependent var	-0.050107
Adjusted R-squared	0.809468	S.D. dependent var	0.234010
S.E. of regression	0.102145	Sum squared resid	0.083469
Durbin-Watson stat	0.995988		

Equation: D(LNF95)=C(189)+C(190)*D(DJIALN)
Observations: 10

R-squared	0.918039	Mean dependent var	0.001337
Adjusted R-squared	0.907794	S.D. dependent var	0.289691
S.E. of regression	0.087966	Sum squared resid	0.061904
Durbin-Watson stat	1.983352		

Equation: D(LNF96)=C(191)+C(192)*D(DJIALN)
Observations: 10

R-squared	0.958773	Mean dependent var	0.034047
Adjusted R-squared	0.953620	S.D. dependent var	0.229775
S.E. of regression	0.049484	Sum squared resid	0.019590
Durbin-Watson stat	1.997069		

Equation: D(LNF97)=C(193)+C(194)*D(DJIALN)
Observations: 10

R-squared	0.899835	Mean dependent var	0.049778

Adjusted R-squared	0.887314	S.D. dependent var	0.236312
S.E. of regression	0.079327	Sum squared resid	0.050342
Durbin-Watson stat	2.966331		

Equation: D(LNF98)=C(195)+C(196)*D(DJIALN)
Observations: 10

R-squared	0.909205	Mean dependent var	0.053930
Adjusted R-squared	0.897855	S.D. dependent var	0.234850
S.E. of regression	0.075058	Sum squared resid	0.045070
Durbin-Watson stat	1.507854		

Equation: D(LNF99)=C(197)+C(198)*D(DJIALN)
Observations: 10

R-squared	0.742637	Mean dependent var	-0.292120
Adjusted R-squared	0.710466	S.D. dependent var	0.481272
S.E. of regression	0.258964	Sum squared resid	0.536499
Durbin-Watson stat	1.725666		

Equation: D(LNF100)=C(199)+C(200)*D(DJIALN)
Observations: 10

R-squared	0.584076	Mean dependent var	0.057518
Adjusted R-squared	0.532086	S.D. dependent var	0.164617
S.E. of regression	0.112605	Sum squared resid	0.101440
Durbin-Watson stat	0.647092		

Equation: D(LNF101)=C(201)+C(202)*D(DJIALN)
Observations: 10

R-squared	0.687115	Mean dependent var	0.063248
Adjusted R-squared	0.648004	S.D. dependent var	0.167328
S.E. of regression	0.099275	Sum squared resid	0.078843
Durbin-Watson stat	0.575409		

Equation: D(LNF102)=C(203)+C(204)*D(DJIALN)
Observations: 10

R-squared	0.716462	Mean dependent var	0.104279
Adjusted R-squared	0.681019	S.D. dependent var	0.239865
S.E. of regression	0.135472	Sum squared resid	0.146821
Durbin-Watson stat	1.772548		

Equation: D(LNF103)=C(205)+C(206)*D(DJIALN)
Observations: 10

R-squared	0.973590	Mean dependent var	0.003106
Adjusted R-squared	0.970288	S.D. dependent var	0.171903
S.E. of regression	0.029631	Sum squared resid	0.007024
Durbin-Watson stat	1.549046		

Equation: D(LNF104)=C(207)+C(208)*D(DJIALN)
Observations: 10

R-squared	0.923889	Mean dependent var	-0.012861
Adjusted R-squared	0.914375	S.D. dependent var	0.190095
S.E. of regression	0.055625	Sum squared resid	0.024753
Durbin-Watson stat	1.468917		

Equation: D(LNF105)=C(209)+C(210)*D(DJIALN)
Observations: 10

R-squared	0.968598	Mean dependent var	-0.022765
Adjusted R-squared	0.964672	S.D. dependent var	0.224997
S.E. of regression	0.042290	Sum squared resid	0.014307
Durbin-Watson stat	1.205269		

Equation: D(LNF106)=C(211)+C(212)*D(DJIALN)
Observations: 10

R-squared	0.882809	Mean dependent var	-0.029704
Adjusted R-squared	0.868161	S.D. dependent var	0.292538

S.E. of regression	0.106220	Sum squared resid	0.090261
Durbin-Watson stat	1.546535		

Equation: D(LNF107)=C(213)+C(214)*D(DJIALN)
Observations: 10

R-squared	0.893392	Mean dependent var	0.024356
Adjusted R-squared	0.880066	S.D. dependent var	0.219277
S.E. of regression	0.075939	Sum squared resid	0.046134
Durbin-Watson stat	1.778967		

Equation: D(LNF108)=C(215)+C(216)*D(DJIALN)
Observations: 10

R-squared	0.870814	Mean dependent var	-0.065094
Adjusted R-squared	0.854666	S.D. dependent var	0.232172
S.E. of regression	0.088510	Sum squared resid	0.062672
Durbin-Watson stat	0.574604		

Equation: D(LNF109)=C(217)+C(218)*D(DJIALN)
Observations: 10

R-squared	0.969273	Mean dependent var	-0.014125
Adjusted R-squared	0.965433	S.D. dependent var	0.224678
S.E. of regression	0.041773	Sum squared resid	0.013960
Durbin-Watson stat	1.201776		

Equation: D(LNF110)=C(219)+C(220)*D(DJIALN)
Observations: 10

R-squared	0.866902	Mean dependent var	-0.031233
Adjusted R-squared	0.850265	S.D. dependent var	0.251606
S.E. of regression	0.097360	Sum squared resid	0.075832
Durbin-Watson stat	2.298647		

Equation: D(LNF111)=C(221)+C(222)*D(DJIALN)
Observations: 10

R-squared	0.958117	Mean dependent var	-0.009362
Adjusted R-squared	0.952882	S.D. dependent var	0.240959
S.E. of regression	0.052304	Sum squared resid	0.021886
Durbin-Watson stat	2.439423		

Equation: D(LNF112)=C(223)+C(224)*D(DJIALN)
Observations: 10

R-squared	0.869836	Mean dependent var	-0.004330
Adjusted R-squared	0.853565	S.D. dependent var	0.212640
S.E. of regression	0.081370	Sum squared resid	0.052969
Durbin-Watson stat	1.420954		

Equation: D(LNF113)=C(225)+C(226)*D(DJIALN)
Observations: 10

R-squared	0.906013	Mean dependent var	0.006143
Adjusted R-squared	0.894265	S.D. dependent var	0.208727
S.E. of regression	0.067872	Sum squared resid	0.036853
Durbin-Watson stat	1.320739		

Equation: D(LNF114)=C(227)+C(228)*D(DJIALN)
Observations: 10

R-squared	0.851579	Mean dependent var	0.012150
Adjusted R-squared	0.833027	S.D. dependent var	0.267852
S.E. of regression	0.109451	Sum squared resid	0.095836
Durbin-Watson stat	1.133063		

Equation: D(LOG(LNF115))=C(229)+C(230)*D(DJIALN)
Observations: 10

R-squared	0.796063	Mean dependent var	-0.000708
Adjusted R-squared	0.770571	S.D. dependent var	0.057555
S.E. of regression	0.027568	Sum squared resid	0.006080

Durbin-Watson stat	2.821608		

Equation: D(LNF116)=C(231)+C(232)*D(DJIALN)
Observations: 10

R-squared	0.735040	Mean dependent var	0.101004
Adjusted R-squared	0.701920	S.D. dependent var	0.358376
S.E. of regression	0.195661	Sum squared resid	0.306266
Durbin-Watson stat	2.896967		

Equation: D(LOG(LNF117))=C(233)+C(234)*D(DJIALN)
Observations: 10

R-squared	0.922732	Mean dependent var	-0.009425
Adjusted R-squared	0.913074	S.D. dependent var	0.069477
S.E. of regression	0.020484	Sum squared resid	0.003357
Durbin-Watson stat	2.835938		

Equation: D(LNF118)=C(235)+C(236)*D(DJIALN)
Observations: 10

R-squared	0.911550	Mean dependent var	-0.024061
Adjusted R-squared	0.900494	S.D. dependent var	0.297997
S.E. of regression	0.094002	Sum squared resid	0.070691
Durbin-Watson stat	2.136097		

Equation: D(LNF119)=C(237)+C(238)*D(DJIALN)
Observations: 10

R-squared	0.831400	Mean dependent var	0.038192
Adjusted R-squared	0.810325	S.D. dependent var	0.333937
S.E. of regression	0.145435	Sum squared resid	0.169211
Durbin-Watson stat	1.646972		

Equation: D(LNF120)=C(239)+C(240)*D(DJIALN)
Observations: 10

R-squared	0.823246	Mean dependent var	0.031410
Adjusted R-squared	0.801151	S.D. dependent var	0.216653
S.E. of regression	0.096611	Sum squared resid	0.074669
Durbin-Watson stat	1.448758		

Equation: D(LNF121)=C(241)+C(242)*D(DJIALN)
Observations: 10

R-squared	0.831075	Mean dependent var	-0.038918
Adjusted R-squared	0.809959	S.D. dependent var	0.309561
S.E. of regression	0.134949	Sum squared resid	0.145690
Durbin-Watson stat	2.087327		

Equation: D(LNF122)=C(243)+C(244)*D(DJIALN)
Observations: 10

R-squared	0.890300	Mean dependent var	0.049508
Adjusted R-squared	0.876587	S.D. dependent var	0.347736
S.E. of regression	0.122160	Sum squared resid	0.119385
Durbin-Watson stat	0.950785		

Equation: D(LNF123)=C(245)+C(246)*D(DJIALN)
Observations: 10

R-squared	0.936777	Mean dependent var	0.004896
Adjusted R-squared	0.928874	S.D. dependent var	0.274483
S.E. of regression	0.073203	Sum squared resid	0.042869
Durbin-Watson stat	1.363139		

Equation: D(LNF124)=C(247)+C(248)*D(DJIALN)
Observations: 10

R-squared	0.679934	Mean dependent var	0.096628
Adjusted R-squared	0.639926	S.D. dependent var	0.155223
S.E. of regression	0.093143	Sum squared resid	0.069405
Durbin-Watson stat	1.128087		

Equation: D(LOG(LNF125))=C(249)+C(250)*D(DJIALN)
Observations: 10

R-squared	0.784063	Mean dependent var	0.012641
Adjusted R-squared	0.757070	S.D. dependent var	0.047701
S.E. of regression	0.023511	Sum squared resid	0.004422
Durbin-Watson stat	1.455838		

Equation: D(LNF126)=C(251)+C(252)*D(DJIALN)
Observations: 10

R-squared	0.729199	Mean dependent var	0.008879
Adjusted R-squared	0.695349	S.D. dependent var	0.194204
S.E. of regression	0.107191	Sum squared resid	0.091920
Durbin-Watson stat	0.943068		

Equation: D(LOG(LNF127))=C(253)+C(254)*D(DJIALN)
Observations: 10

R-squared	0.711023	Mean dependent var	-0.018030
Adjusted R-squared	0.674901	S.D. dependent var	0.126818
S.E. of regression	0.072308	Sum squared resid	0.041828
Durbin-Watson stat	1.432898		

Equation: D(LNF128)=C(255)+C(256)*D(DJIALN)
Observations: 10

R-squared	0.825889	Mean dependent var	0.026029
Adjusted R-squared	0.804125	S.D. dependent var	0.205283
S.E. of regression	0.090853	Sum squared resid	0.066035
Durbin-Watson stat	0.941368		

Equation: D(LNF129)=C(257)+C(258)*D(DJIALN)
Observations: 10

R-squared	0.868740	Mean dependent var	-0.005407
Adjusted R-squared	0.852333	S.D. dependent var	0.259465
S.E. of regression	0.099706	Sum squared resid	0.079530
Durbin-Watson stat	1.786773		

Equation: D(LNF130)=C(259)+C(260)*D(DJIALN)
Observations: 10

R-squared	0.903271	Mean dependent var	0.021802
Adjusted R-squared	0.891180	S.D. dependent var	0.221453
S.E. of regression	0.073053	Sum squared resid	0.042693
Durbin-Watson stat	1.438828		

Equation: D(LNF131)=C(261)+C(262)*D(DJIALN)
Observations: 10

R-squared	0.819606	Mean dependent var	-0.026335
Adjusted R-squared	0.797056	S.D. dependent var	0.324226
S.E. of regression	0.146061	Sum squared resid	0.170672
Durbin-Watson stat	1.138157		

Equation: D(LNF132)=C(263)+C(264)*D(DJIALN)
Observations: 10

R-squared	0.688724	Mean dependent var	0.058253
Adjusted R-squared	0.649814	S.D. dependent var	0.156117
S.E. of regression	0.092385	Sum squared resid	0.068279
Durbin-Watson stat	0.522430		

Equation: D(LNF133)=C(265)+C(266)*D(DJIALN)
Observations: 10

R-squared	0.741192	Mean dependent var	0.083366
Adjusted R-squared	0.708841	S.D. dependent var	0.209248
S.E. of regression	0.112908	Sum squared resid	0.101986
Durbin-Watson stat	0.813930		

Equation: D(LNF134)=C(267)+C(268)*D(DJIALN)
Observations: 10

R-squared	0.902176	Mean dependent var	-0.015281
Adjusted R-squared	0.889948	S.D. dependent var	0.291371
S.E. of regression	0.096660	Sum squared resid	0.074745
Durbin-Watson stat	1.681696		

Equation: D(LNF135)=C(269)+C(270)*D(DJIALN)
Observations: 10

R-squared	0.857161	Mean dependent var	0.030955
Adjusted R-squared	0.839306	S.D. dependent var	0.214575
S.E. of regression	0.086016	Sum squared resid	0.059190
Durbin-Watson stat	2.832492		

Equation: D(LNF136)=C(271)+C(272)*D(DJIALN)
Observations: 10

R-squared	0.768646	Mean dependent var	0.086606
Adjusted R-squared	0.739727	S.D. dependent var	0.227563
S.E. of regression	0.116096	Sum squared resid	0.107826
Durbin-Watson stat	0.962273		

Equation: D(LNF137)=C(273)+C(274)*D(DJIALN)
Observations: 10

R-squared	0.704695	Mean dependent var	0.080526
Adjusted R-squared	0.667782	S.D. dependent var	0.210218
S.E. of regression	0.121166	Sum squared resid	0.117450
Durbin-Watson stat	0.620413		

Equation: D(LNF138)=C(275)+C(276)*D(DJIALN)
Observations: 10

R-squared	0.970116	Mean dependent var	-0.013366
Adjusted R-squared	0.966380	S.D. dependent var	0.225259
S.E. of regression	0.041303	Sum squared resid	0.013647
Durbin-Watson stat	1.195120		

Equation: D(LNF139)=C(277)+C(278)*D(DJIALN)
Observations: 10

R-squared	0.693944	Mean dependent var	0.047524
Adjusted R-squared	0.655687	S.D. dependent var	0.268341
S.E. of regression	0.157458	Sum squared resid	0.198344
Durbin-Watson stat	0.804007		

Equation: D(LNF140)=C(279)+C(280)*D(DJIALN)
Observations: 10

R-squared	0.976944	Mean dependent var	0.039700
Adjusted R-squared	0.974062	S.D. dependent var	0.222070
S.E. of regression	0.035765	Sum squared resid	0.010233
Durbin-Watson stat	2.539728		

Equation: D(LNF141)=C(281)+C(282)*D(DJIALN)
Observations: 10

R-squared	0.849539	Mean dependent var	0.016352
Adjusted R-squared	0.830732	S.D. dependent var	0.255167
S.E. of regression	0.104981	Sum squared resid	0.088169
Durbin-Watson stat	1.868721		

Equation: D(LNF142)=C(283)+C(284)*D(DJIALN)
Observations: 10

R-squared	0.929480	Mean dependent var	0.053758
Adjusted R-squared	0.920665	S.D. dependent var	0.199598
S.E. of regression	0.056220	Sum squared resid	0.025285
Durbin-Watson stat	1.441322		

Equation: D(LNF143)=C(285)+C(286)*D(DJIALN)

Observations: 10

R-squared	0.915438	Mean dependent var	0.080516
Adjusted R-squared	0.904868	S.D. dependent var	0.193237
S.E. of regression	0.059601	Sum squared resid	0.028418
Durbin-Watson stat	0.832496		

Equation: D(LNF144)=C(287)+C(288)*D(DJIALN)
Observations: 10

R-squared	0.849655	Mean dependent var	0.026158
Adjusted R-squared	0.830862	S.D. dependent var	0.195892
S.E. of regression	0.080563	Sum squared resid	0.051923
Durbin-Watson stat	1.415461		

Equation: D(LNF145)=C(289)+C(290)*D(DJIALN)
Observations: 10

R-squared	0.866868	Mean dependent var	0.028765
Adjusted R-squared	0.850227	S.D. dependent var	0.081613
S.E. of regression	0.031585	Sum squared resid	0.007981
Durbin-Watson stat	1.706666		

Equation: D(LNF146)=C(291)+C(292)*D(DJIALN)
Observations: 10

R-squared	0.942358	Mean dependent var	-0.024780
Adjusted R-squared	0.935152	S.D. dependent var	0.220263
S.E. of regression	0.056091	Sum squared resid	0.025169
Durbin-Watson stat	0.821324		

Equation: D(LNF147)=C(293)+C(294)*D(DJIALN)
Observations: 10

R-squared	0.831815	Mean dependent var	-0.023800
Adjusted R-squared	0.810792	S.D. dependent var	0.268652
S.E. of regression	0.116858	Sum squared resid	0.109247
Durbin-Watson stat	1.547621		

Equation: D(LNF148)=C(295)+C(296)*D(DJIALN)
Observations: 10

R-squared	0.898381	Mean dependent var	-0.013966
Adjusted R-squared	0.885679	S.D. dependent var	0.269563
S.E. of regression	0.091143	Sum squared resid	0.066456
Durbin-Watson stat	2.099729		

Equation: D(LNF149)=C(297)+C(298)*D(DJIALN)
Observations: 10

R-squared	0.901057	Mean dependent var	0.027771
Adjusted R-squared	0.888689	S.D. dependent var	0.197401
S.E. of regression	0.065860	Sum squared resid	0.034700
Durbin-Watson stat	1.315897		

Equation: D(LNF150)=C(299)+C(300)*D(DJIALN)
Observations: 10

R-squared	0.889667	Mean dependent var	0.030269
Adjusted R-squared	0.875875	S.D. dependent var	0.307641
S.E. of regression	0.108386	Sum squared resid	0.093980
Durbin-Watson stat	2.640052		

Equation: D(LNF151)=C(301)+C(302)*D(DJIALN)
Observations: 10

R-squared	0.895945	Mean dependent var	-0.021117
Adjusted R-squared	0.882939	S.D. dependent var	0.260513
S.E. of regression	0.089133	Sum squared resid	0.063557
Durbin-Watson stat	2.183053		

Equation: D(LNF152)=C(303)+C(304)*D(DJIALN)
Observations: 10

R-squared	0.750331	Mean dependent var	0.100479
Adjusted R-squared	0.719122	S.D. dependent var	0.216509
S.E. of regression	0.114745	Sum squared resid	0.105332
Durbin-Watson stat	0.821673		

Equation: D(LNF153)=C(305)+C(306)*D(DJIALN)
Observations: 10

R-squared	0.793498	Mean dependent var	0.084968
Adjusted R-squared	0.767686	S.D. dependent var	0.289254
S.E. of regression	0.139418	Sum squared resid	0.155498
Durbin-Watson stat	1.526133		

Equation: D(LNF154)=C(307)+C(308)*D(DJIALN)
Observations: 10

R-squared	0.581011	Mean dependent var	0.097736
Adjusted R-squared	0.528638	S.D. dependent var	0.189826
S.E. of regression	0.130327	Sum squared resid	0.135880
Durbin-Watson stat	2.136154		

Equation: D(LNF155)=C(309)+C(310)*D(DJIALN)
Observations: 10

R-squared	0.743845	Mean dependent var	0.036297
Adjusted R-squared	0.711825	S.D. dependent var	0.243460
S.E. of regression	0.130694	Sum squared resid	0.136647
Durbin-Watson stat	0.328329		

Equation: D(LNF156)=C(311)+C(312)*D(DJIALN)
Observations: 10

R-squared	0.883994	Mean dependent var	0.034743
Adjusted R-squared	0.869493	S.D. dependent var	0.256423
S.E. of regression	0.092635	Sum squared resid	0.068650
Durbin-Watson stat	1.056444		

Equation: D(LNF157)=C(313)+C(314)*D(DJIALN)
Observations: 10

R-squared	0.903695	Mean dependent var	0.018594
Adjusted R-squared	0.891657	S.D. dependent var	0.199771
S.E. of regression	0.065755	Sum squared resid	0.034590
Durbin-Watson stat	1.195839		

Equation: D(LNF158)=C(315)+C(316)*D(DJIALN)
Observations: 10

R-squared	0.915326	Mean dependent var	0.019021
Adjusted R-squared	0.904742	S.D. dependent var	0.170251
S.E. of regression	0.052546	Sum squared resid	0.022089
Durbin-Watson stat	1.018283		

Equation: D(LNF159)=C(317)+C(318)*D(DJIALN)
Observations: 10

R-squared	0.842994	Mean dependent var	0.029695
Adjusted R-squared	0.823369	S.D. dependent var	0.369421
S.E. of regression	0.155258	Sum squared resid	0.192841
Durbin-Watson stat	1.988267		

Equation: D(LNF160)=C(319)+C(320)*D(DJIALN)
Observations: 10

R-squared	0.806213	Mean dependent var	0.085735
Adjusted R-squared	0.781990	S.D. dependent var	0.210753
S.E. of regression	0.098404	Sum squared resid	0.077466
Durbin-Watson stat	0.925790		

Equation: D(LNF161)=C(321)+C(322)*D(DJIALN)
Observations: 10

R-squared	0.969938	Mean dependent var	-0.016289

Adjusted R-squared	0.966180	S.D. dependent var	0.225222
S.E. of regression	0.041419	Sum squared resid	0.013724
Durbin-Watson stat	1.224807		

Equation: D(LNF162)=C(323)+C(324)*D(DJIALN)
Observations: 10

R-squared	0.889106	Mean dependent var	0.048186
Adjusted R-squared	0.875244	S.D. dependent var	0.204781
S.E. of regression	0.072330	Sum squared resid	0.041853
Durbin-Watson stat	0.949718		

Equation: D(LNF163)=C(325)+C(326)*D(DJIALN)
Observations: 10

R-squared	0.796165	Mean dependent var	0.057398
Adjusted R-squared	0.770686	S.D. dependent var	0.223613
S.E. of regression	0.107081	Sum squared resid	0.091731
Durbin-Watson stat	1.607753		

Equation: D(LNF164)=C(327)+C(328)*D(DJIALN)
Observations: 10

R-squared	0.986145	Mean dependent var	0.022183
Adjusted R-squared	0.984414	S.D. dependent var	0.200832
S.E. of regression	0.025073	Sum squared resid	0.005029
Durbin-Watson stat	1.632914		

Equation: D(LNF165)=C(329)+C(330)*D(DJIALN)
Observations: 10

R-squared	0.923357	Mean dependent var	0.034698
Adjusted R-squared	0.913776	S.D. dependent var	0.173640
S.E. of regression	0.050987	Sum squared resid	0.020798
Durbin-Watson stat	0.959308		

Equation: D(LNF166)=C(331)+C(332)*D(DJIALN)
Observations: 10

R-squared	0.940244	Mean dependent var	-0.021351
Adjusted R-squared	0.932775	S.D. dependent var	0.242392
S.E. of regression	0.062847	Sum squared resid	0.031598
Durbin-Watson stat	0.887508		

Equation: D(LNF167)=C(333)+C(334)*D(DJIALN)
Observations: 10

R-squared	0.787208	Mean dependent var	-0.078630
Adjusted R-squared	0.760609	S.D. dependent var	0.320265
S.E. of regression	0.156698	Sum squared resid	0.196434
Durbin-Watson stat	1.304299		

Equation: D(LNF168)=C(335)+C(336)*D(DJIALN)
Observations: 10

R-squared	0.963610	Mean dependent var	-0.022655
Adjusted R-squared	0.959061	S.D. dependent var	0.219982
S.E. of regression	0.044510	Sum squared resid	0.015849
Durbin-Watson stat	1.318383		

Equation: D(LNF169)=C(337)+C(338)*D(DJIALN)
Observations: 10

R-squared	0.830682	Mean dependent var	0.047727
Adjusted R-squared	0.809517	S.D. dependent var	0.222392
S.E. of regression	0.097061	Sum squared resid	0.075367
Durbin-Watson stat	1.245004		

Equation: D(LNF170)=C(339)+C(340)*D(DJIALN)
Observations: 10

R-squared	0.824834	Mean dependent var	0.039454
Adjusted R-squared	0.802938	S.D. dependent var	0.205672

S.E. of regression	0.091301	Sum squared resid	0.066687
Durbin-Watson stat	0.919617		

Equation: D(LNF171)=C(341)+C(342)*D(DJIALN)
Observations: 10

R-squared	0.745638	Mean dependent var	-0.011662
Adjusted R-squared	0.713843	S.D. dependent var	0.307144
S.E. of regression	0.164302	Sum squared resid	0.215962
Durbin-Watson stat	2.012262		

Equation: D(LNF172)=C(343)+C(344)*D(DJIALN)
Observations: 10

R-squared	0.846583	Mean dependent var	0.019016
Adjusted R-squared	0.827405	S.D. dependent var	0.319714
S.E. of regression	0.132823	Sum squared resid	0.141136
Durbin-Watson stat	0.997849		

Equation: D(LNF173)=C(345)+C(346)*D(DJIALN)
Observations: 10

R-squared	0.926934	Mean dependent var	0.026052
Adjusted R-squared	0.917801	S.D. dependent var	0.288726
S.E. of regression	0.082779	Sum squared resid	0.054819
Durbin-Watson stat	1.821106		

Equation: D(LNF174)=C(347)+C(348)*D(DJIALN)
Observations: 10

R-squared	0.834717	Mean dependent var	-0.009081
Adjusted R-squared	0.814057	S.D. dependent var	0.208371
S.E. of regression	0.089852	Sum squared resid	0.064587
Durbin-Watson stat	0.918983		

Equation: D(LNF175)=C(349)+C(350)*D(DJIALN)
Observations: 10

R-squared	0.908148	Mean dependent var	-0.046388
Adjusted R-squared	0.896667	S.D. dependent var	0.253978
S.E. of regression	0.081642	Sum squared resid	0.053324
Durbin-Watson stat	2.407889		

Equation: D(LNF176)=C(351)+C(352)*D(DJIALN)
Observations: 10

R-squared	0.731160	Mean dependent var	-0.029859
Adjusted R-squared	0.697554	S.D. dependent var	0.274298
S.E. of regression	0.150850	Sum squared resid	0.182047
Durbin-Watson stat	2.308429		

Equation: D(LNF177)=C(353)+C(354)*D(DJIALN)
Observations: 10

R-squared	0.836327	Mean dependent var	0.013748
Adjusted R-squared	0.815868	S.D. dependent var	0.314032
S.E. of regression	0.134753	Sum squared resid	0.145268
Durbin-Watson stat	0.915175		

Equation: D(LNF178)=C(355)+C(356)*D(DJIALN)
Observations: 10

R-squared	0.854012	Mean dependent var	0.064318
Adjusted R-squared	0.835764	S.D. dependent var	0.174492
S.E. of regression	0.070715	Sum squared resid	0.040005
Durbin-Watson stat	1.273947		

Equation: D(LNF179)=C(357)+C(358)*D(DJIALN)
Observations: 10

R-squared	0.868794	Mean dependent var	-0.037065
Adjusted R-squared	0.852394	S.D. dependent var	0.255327
S.E. of regression	0.098095	Sum squared resid	0.076982

Durbin-Watson stat	1.683158

Equation: D(LNF180)=C(359)+C(360)*D(DJIALN)
Observations: 10

R-squared	0.943020	Mean dependent var	0.003896
Adjusted R-squared	0.935898	S.D. dependent var	0.259851
S.E. of regression	0.065790	Sum squared resid	0.034627
Durbin-Watson stat	1.971567		

Equation: D(LNF181)=C(361)+C(362)*D(DJIALN)
Observations: 10

R-squared	0.793542	Mean dependent var	-0.032999
Adjusted R-squared	0.767735	S.D. dependent var	0.262147
S.E. of regression	0.126339	Sum squared resid	0.127692
Durbin-Watson stat	0.942066		

Equation: D(LNF182)=C(363)+C(364)*D(DJIALN)
Observations: 10

R-squared	0.882640	Mean dependent var	0.011570
Adjusted R-squared	0.867970	S.D. dependent var	0.297431
S.E. of regression	0.108075	Sum squared resid	0.093441
Durbin-Watson stat	1.504309		

Equation: D(LNF183)=C(365)+C(366)*D(DJIALN)
Observations: 10

R-squared	0.759174	Mean dependent var	0.060681
Adjusted R-squared	0.729071	S.D. dependent var	0.225779
S.E. of regression	0.117520	Sum squared resid	0.110488
Durbin-Watson stat	0.476764		

Equation: D(LNF184)=C(367)+C(368)*D(DJIALN)
Observations: 10

R-squared	0.748897	Mean dependent var	0.104642
Adjusted R-squared	0.717509	S.D. dependent var	0.196950
S.E. of regression	0.104679	Sum squared resid	0.087661
Durbin-Watson stat	0.916243		

Equation: D(LNF185)=C(369)+C(370)*D(DJIALN)
Observations: 10

R-squared	0.675774	Mean dependent var	0.098842
Adjusted R-squared	0.635245	S.D. dependent var	0.186932
S.E. of regression	0.112897	Sum squared resid	0.101967
Durbin-Watson stat	1.205887		

Equation: D(LNF186)=C(371)+C(372)*D(DJIALN)
Observations: 10

R-squared	0.792174	Mean dependent var	0.037386
Adjusted R-squared	0.766196	S.D. dependent var	0.170812
S.E. of regression	0.082593	Sum squared resid	0.054573
Durbin-Watson stat	1.061556		

Equation: D(LNF187)=C(373)+C(374)*D(DJIALN)
Observations: 10

R-squared	0.810131	Mean dependent var	0.085635
Adjusted R-squared	0.786398	S.D. dependent var	0.239912
S.E. of regression	0.110881	Sum squared resid	0.098356
Durbin-Watson stat	0.770977		

Equation: D(LNF188)=C(375)+C(376)*D(DJIALN)
Observations: 10

R-squared	0.818126	Mean dependent var	-0.011324
Adjusted R-squared	0.795392	S.D. dependent var	0.283990
S.E. of regression	0.128459	Sum squared resid	0.132013
Durbin-Watson stat	1.342393		

Equation: D(LNF189)=C(377)+C(378)*D(DJIALN)
Observations: 10

R-squared	0.752443	Mean dependent var	0.065233
Adjusted R-squared	0.721498	S.D. dependent var	0.239560
S.E. of regression	0.126423	Sum squared resid	0.127863
Durbin-Watson stat	0.964791		

Equation: D(LNF190)=C(379)+C(380)*D(DJIALN)
Observations: 10

R-squared	0.758538	Mean dependent var	0.071328
Adjusted R-squared	0.728356	S.D. dependent var	0.250530
S.E. of regression	0.130575	Sum squared resid	0.136398
Durbin-Watson stat	1.109204		

Equation: D(LNF191)=C(381)+C(382)*D(DJIALN)
Observations: 10

R-squared	0.819621	Mean dependent var	-0.008037
Adjusted R-squared	0.797074	S.D. dependent var	0.208642
S.E. of regression	0.093987	Sum squared resid	0.070669
Durbin-Watson stat	2.271526		

Equation: D(LNF192)=C(383)+C(384)*D(DJIALN)
Observations: 10

R-squared	0.911663	Mean dependent var	-0.021121
Adjusted R-squared	0.900621	S.D. dependent var	0.241716
S.E. of regression	0.076199	Sum squared resid	0.046451
Durbin-Watson stat	1.587684		

Equation: D(LNF193)=C(385)+C(386)*D(DJIALN)
Observations: 10

R-squared	0.722409	Mean dependent var	-0.067855
Adjusted R-squared	0.687710	S.D. dependent var	0.361444
S.E. of regression	0.201985	Sum squared resid	0.326384
Durbin-Watson stat	1.176414		

Equation: D(LNF194)=C(387)+C(388)*D(DJIALN)
Observations: 10

R-squared	0.876370	Mean dependent var	0.020758
Adjusted R-squared	0.860916	S.D. dependent var	0.201984
S.E. of regression	0.075328	Sum squared resid	0.045394
Durbin-Watson stat	1.310224		

Equation: D(LNF195)=C(389)+C(390)*D(DJIALN)
Observations: 10

R-squared	0.805364	Mean dependent var	0.060081
Adjusted R-squared	0.781034	S.D. dependent var	0.213541
S.E. of regression	0.099924	Sum squared resid	0.079879
Durbin-Watson stat	0.885122		

Equation: D(LNF196)=C(391)+C(392)*D(DJIALN)
Observations: 10

R-squared	0.932510	Mean dependent var	-0.024589
Adjusted R-squared	0.924074	S.D. dependent var	0.225592
S.E. of regression	0.062161	Sum squared resid	0.030912
Durbin-Watson stat	1.544026		

Equation: D(LNF197)=C(393)+C(394)*D(DJIALN)
Observations: 10

R-squared	0.885090	Mean dependent var	-0.000782
Adjusted R-squared	0.870726	S.D. dependent var	0.268431
S.E. of regression	0.096514	Sum squared resid	0.074519
Durbin-Watson stat	1.880166		

Equation: D(LNF198)=C(395)+C(396)*D(DJIALN)
Observations: 10

R-squared	0.889667	Mean dependent var	0.050420
Adjusted R-squared	0.875876	S.D. dependent var	0.234408
S.E. of regression	0.082585	Sum squared resid	0.054562
Durbin-Watson stat	0.963700		

Equation: D(LNF199)=C(397)+C(398)*D(DJIALN)
Observations: 10

R-squared	0.839948	Mean dependent var	-0.075882
Adjusted R-squared	0.819942	S.D. dependent var	0.283963
S.E. of regression	0.120495	Sum squared resid	0.116152
Durbin-Watson stat	1.182573		

Equation: D(LNF200)=C(399)+C(400)*D(DJIALN)
Observations: 10

R-squared	0.942476	Mean dependent var	-0.002492
Adjusted R-squared	0.935285	S.D. dependent var	0.263628
S.E. of regression	0.067065	Sum squared resid	0.035981
Durbin-Watson stat	1.074883		

System:-SYSHOURRUS
Estimation Method: Least Squares
Date: 05/08/10 Time: 13:46
Sample: 2000 2009
Included observations: 10
Total system (balanced) observations 2000

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.008352	0.002356	-3.545303	0.0004
C(2)	0.980509	0.010830	90.54015	0.0000
C(3)	0.059737	0.027467	2.174867	0.0298
C(4)	1.213809	0.126264	9.613250	0.0000
C(5)	0.025865	0.031546	0.819917	0.4124
C(6)	0.797617	0.145016	5.500193	0.0000
C(7)	0.004420	0.039798	0.111057	0.9116
C(8)	1.221612	0.182947	6.677400	0.0000
C(9)	0.036545	0.021051	1.736070	0.0827
C(10)	0.749485	0.096768	7.745147	0.0000
C(11)	0.035138	0.024629	1.426684	0.1539
C(12)	1.088913	0.113219	9.617750	0.0000
C(13)	0.019280	0.015780	1.221769	0.2220
C(14)	1.111279	0.072541	15.31930	0.0000
C(15)	-0.012834	0.004328	-2.965356	0.0031
C(16)	0.971979	0.019895	48.85521	0.0000
C(17)	-0.056977	0.029565	-1.927195	0.0541
C(18)	1.356735	0.135907	9.982805	0.0000
C(19)	-0.025775	0.022100	-1.166297	0.2437
C(20)	1.047926	0.101593	10.31494	0.0000
C(21)	0.089482	0.051572	1.735079	0.0829
C(22)	0.518822	0.237073	2.188446	0.0288
C(23)	-0.016948	0.021969	-0.771435	0.4406
C(24)	1.073727	0.100991	10.63195	0.0000
C(25)	0.014694	0.032077	0.458088	0.6470
C(26)	1.188761	0.147456	8.061807	0.0000
C(27)	0.061654	0.028740	2.145203	0.0321
C(28)	1.044315	0.132116	7.904508	0.0000
C(29)	-0.006279	0.011190	-0.561112	0.5748
C(30)	1.131560	0.051440	21.99780	0.0000
C(31)	0.014602	0.014421	1.012617	0.3114
C(32)	1.041048	0.066290	15.70444	0.0000
C(33)	0.033812	0.017116	1.975478	0.0484
C(34)	0.998969	0.078681	12.69649	0.0000
C(35)	0.100680	0.052695	1.910620	0.0562
C(36)	0.836558	0.242235	3.453503	0.0006
C(37)	0.084751	0.031765	2.668056	0.0077
C(38)	0.872964	0.146021	5.978360	0.0000
C(39)	0.049465	0.017598	2.810845	0.0050
C(40)	1.070167	0.080896	13.22888	0.0000
C(41)	0.044740	0.018369	2.435593	0.0150
C(42)	1.030179	0.084442	12.19987	0.0000
C(43)	0.075777	0.036775	2.060570	0.0395
C(44)	0.822414	0.169051	4.864889	0.0000
C(45)	0.049897	0.028293	1.763578	0.0780
C(46)	1.025886	0.130062	7.887669	0.0000
C(47)	-0.008423	0.005617	-1.499552	0.1339
C(48)	1.037945	0.025821	40.19845	0.0000
C(49)	-0.000665	0.004065	-0.163481	0.8702
C(50)	0.999741	0.018685	53.50450	0.0000
C(51)	-0.068150	0.034772	-1.959888	0.0502
C(52)	1.163764	0.159846	7.280538	0.0000
C(53)	0.014154	0.018350	0.771300	0.4406
C(54)	0.942026	0.084355	11.16738	0.0000
C(55)	0.037365	0.032401	1.153191	0.2490

C(56)	1.038550	0.148947	6.972616	0.0000
C(57)	0.042589	0.024477	1.739991	0.0821
C(58)	0.910286	0.112517	8.090238	0.0000
C(59)	-0.030497	0.039379	-0.774451	0.4388
C(60)	0.576677	0.181022	3.185677	0.0015
C(61)	0.052829	0.026058	2.027370	0.0428
C(62)	0.965212	0.119786	8.057801	0.0000
C(63)	0.058630	0.027668	2.119061	0.0342
C(64)	1.237787	0.127187	9.731995	0.0000
C(65)	-0.041757	0.022127	-1.887112	0.0593
C(66)	0.930237	0.101718	9.145281	0.0000
C(67)	-0.000859	0.023364	-0.036766	0.9707
C(68)	1.116354	0.107401	10.39431	0.0000
C(69)	0.100666	0.076376	1.318023	0.1877
C(70)	1.188305	0.351095	3.384566	0.0007
C(71)	0.074481	0.050927	1.462490	0.1438
C(72)	1.214247	0.234108	5.186687	0.0000
C(73)	-0.014873	0.039062	-0.380750	0.7034
C(74)	1.409667	0.179563	7.850561	0.0000
C(75)	-0.024823	0.025216	-0.984432	0.3251
C(76)	1.279198	0.115914	11.03576	0.0000
C(77)	0.020214	0.043781	0.461701	0.6444
C(78)	1.583303	0.201259	7.867010	0.0000
C(79)	-0.028062	0.035484	-0.790839	0.4292
C(80)	1.443185	0.163115	8.847652	0.0000
C(81)	-0.015294	0.045905	-0.333157	0.7391
C(82)	1.426115	0.211022	6.758118	0.0000
C(83)	0.072338	0.057765	1.252277	0.2107
C(84)	1.082154	0.265541	4.075285	0.0000
C(85)	0.071011	0.046211	1.536688	0.1246
C(86)	0.983707	0.212427	4.630809	0.0000
C(87)	0.056590	0.040370	1.401766	0.1612
C(88)	1.152126	0.185579	6.208267	0.0000
C(89)	0.030264	0.033575	0.901385	0.3675
C(90)	1.197554	0.154343	7.759065	0.0000
C(91)	0.111470	0.032634	3.415777	0.0007
C(92)	0.708829	0.150015	4.725050	0.0000
C(93)	-0.007588	0.021975	-0.345283	0.7299
C(94)	0.860986	0.101017	8.523139	0.0000
C(95)	0.100928	0.043654	2.311989	0.0209
C(96)	1.156539	0.200675	5.763242	0.0000
C(97)	-0.001804	0.056534	-0.031911	0.9745
C(98)	1.330918	0.259882	5.121250	0.0000
C(99)	0.059138	0.018801	3.145385	0.0017
C(100)	0.601225	0.086428	6.956344	0.0000
C(101)	0.014005	0.025764	0.543592	0.5868
C(102)	1.152767	0.118436	9.733229	0.0000
C(103)	0.051491	0.053058	0.970459	0.3320
C(104)	0.890762	0.243905	3.652081	0.0003
C(105)	0.058834	0.052975	1.110598	0.2669
C(106)	0.891911	0.243521	3.662558	0.0003
C(107)	0.064651	0.046446	1.391986	0.1641
C(108)	1.243635	0.213506	5.824822	0.0000
C(109)	0.028049	0.036201	0.774816	0.4386
C(110)	0.817095	0.166415	4.909997	0.0000
C(111)	-0.005718	0.035901	-0.159274	0.8735
C(112)	1.053670	0.165034	6.384558	0.0000
C(113)	0.021264	0.046396	0.458323	0.6468
C(114)	1.376581	0.213279	6.454359	0.0000
C(115)	-0.010539	0.013620	-0.773761	0.4392
C(116)	0.883381	0.062609	14.10939	0.0000
C(117)	0.051447	0.058690	0.876590	0.3808
C(118)	0.964102	0.269794	3.573472	0.0004
C(119)	0.122091	0.060896	2.004913	0.0451

C(120)	1.198334	0.279932	4.280799	0.0000
C(121)	0.020490	0.020927	0.979112	0.3277
C(122)	0.950817	0.096200	9.883784	0.0000
C(123)	0.018153	0.035441	0.512185	0.6086
C(124)	1.099825	0.162921	6.750682	0.0000
C(125)	0.107225	0.054093	1.982254	0.0476
C(126)	0.898190	0.248660	3.612128	0.0003
C(127)	-0.005106	0.019916	-0.256379	0.7977
C(128)	0.964082	0.091553	10.53034	0.0000
C(129)	0.027323	0.009261	2.950315	0.0032
C(130)	0.815164	0.042572	19.14805	0.0000
C(131)	0.062219	0.027327	2.276886	0.0229
C(132)	0.923867	0.125618	7.354596	0.0000
C(133)	-0.007581	0.002049	-3.700235	0.0002
C(134)	0.966753	0.009418	102.6529	0.0000
C(135)	0.051579	0.049742	1.036934	0.2999
C(136)	1.222113	0.228659	5.344698	0.0000
C(137)	-0.006022	0.025948	-0.232085	0.8165
C(138)	0.986633	0.119280	8.271552	0.0000
C(139)	0.052725	0.041069	1.283824	0.1994
C(140)	0.796299	0.188790	4.217911	0.0000
C(141)	0.035504	0.035966	0.987149	0.3237
C(142)	0.837124	0.165334	5.063242	0.0000
C(143)	0.176406	0.046729	3.775110	0.0002
C(144)	1.292339	0.214808	6.016239	0.0000
C(145)	-0.000955	0.028612	-0.033367	0.9734
C(146)	1.299922	0.131528	9.883256	0.0000
C(147)	0.038721	0.060557	0.639418	0.5226
C(148)	0.955634	0.278376	3.432894	0.0006
C(149)	-0.017338	0.015110	-1.147449	0.2514
C(150)	1.058100	0.069458	15.23366	0.0000
C(151)	0.055750	0.034592	1.611622	0.1072
C(152)	1.060567	0.159018	6.669472	0.0000
C(153)	0.036710	0.034076	1.077301	0.2815
C(154)	1.023014	0.156643	6.530870	0.0000
C(155)	-0.011198	0.009963	-1.123958	0.2612
C(156)	0.970748	0.045799	21.19577	0.0000
C(157)	0.047552	0.027820	1.709269	0.0876
C(158)	1.139732	0.127887	8.912022	0.0000
C(159)	0.026030	0.019499	1.334946	0.1821
C(160)	1.013756	0.089636	11.30974	0.0000
C(161)	0.037582	0.027909	1.346569	0.1783
C(162)	1.144346	0.128297	8.919491	0.0000
C(163)	0.057006	0.035313	1.614298	0.1067
C(164)	0.981197	0.162332	6.044386	0.0000
C(165)	-0.014280	0.010208	-1.398852	0.1621
C(166)	0.994353	0.046926	21.18980	0.0000
C(167)	0.005476	0.026868	0.203797	0.8385
C(168)	0.875392	0.123509	7.087657	0.0000
C(169)	-0.009294	0.002444	-3.803238	0.0001
C(170)	0.982644	0.011233	87.47574	0.0000
C(171)	-0.004711	0.010827	-0.435077	0.6636
C(172)	0.763477	0.049773	15.33931	0.0000
C(173)	0.014649	0.023798	0.615564	0.5383
C(174)	0.901750	0.109396	8.242964	0.0000
C(175)	-0.008494	0.008481	-1.001568	0.3167
C(176)	1.060388	0.038985	27.19994	0.0000
C(177)	0.034892	0.050750	0.687524	0.4919
C(178)	0.892784	0.233295	3.826839	0.0001
C(179)	0.083701	0.023423	3.573526	0.0004
C(180)	0.854791	0.107672	7.938855	0.0000
C(181)	-0.008419	0.002547	-3.305055	0.0010
C(182)	0.980952	0.011709	83.77550	0.0000
C(183)	-0.010638	0.010170	-1.046002	0.2957

C(184)	1.015179	0.046749	21.71540	0.0000
C(185)	0.044478	0.025641	1.734667	0.0830
C(186)	0.852988	0.117869	7.236761	0.0000
C(187)	-0.048131	0.025480	-1.888942	0.0591
C(188)	0.965298	0.117131	8.241186	0.0000
C(189)	0.003851	0.022884	0.168302	0.8664
C(190)	1.227867	0.105198	11.67198	0.0000
C(191)	0.036055	0.015949	2.260679	0.0239
C(192)	0.980407	0.073314	13.37268	0.0000
C(193)	0.051760	0.027229	1.900917	0.0575
C(194)	0.967890	0.125169	7.732633	0.0000
C(195)	0.055907	0.026210	2.133068	0.0331
C(196)	0.965875	0.120484	8.016612	0.0000
C(197)	-0.288325	0.075701	-3.808728	0.0001
C(198)	1.853836	0.347991	5.327248	0.0000
C(199)	0.058625	0.036332	1.613584	0.1068
C(200)	0.540621	0.167016	3.236948	0.0012
C(201)	0.064480	0.031785	2.028650	0.0427
C(202)	0.601458	0.146111	4.116433	0.0000
C(203)	0.106042	0.045699	2.320446	0.0204
C(204)	0.860977	0.210074	4.098439	0.0000
C(205)	0.004609	0.011747	0.392311	0.6949
C(206)	0.733981	0.054001	13.59191	0.0000
C(207)	-0.011208	0.014456	-0.775296	0.4383
C(208)	0.807455	0.066454	12.15062	0.0000
C(209)	-0.020757	0.002618	-7.927579	0.0000
C(210)	0.980671	0.012036	81.47762	0.0000
C(211)	-0.027170	0.023887	-1.137438	0.2555
C(212)	1.237438	0.109807	11.26921	0.0000
C(213)	0.026215	0.023059	1.136858	0.2558
C(214)	0.908100	0.106001	8.566894	0.0000
C(215)	-0.063111	0.022726	-2.777045	0.0055
C(216)	0.968478	0.104469	9.270442	0.0000
C(217)	-0.012120	0.002625	-4.616753	0.0000
C(218)	0.979274	0.012068	81.14836	0.0000
C(219)	-0.029121	0.028759	-1.012570	0.3114
C(220)	1.031629	0.132204	7.803324	0.0000
C(221)	-0.007245	0.014551	-0.497910	0.6186
C(222)	1.033701	0.066891	15.45358	0.0000
C(223)	-0.002524	0.022035	-0.114563	0.9088
C(224)	0.882001	0.101293	8.707421	0.0000
C(225)	0.007977	0.012543	0.635968	0.5249
C(226)	0.895577	0.057657	15.53286	0.0000
C(227)	0.014362	0.034228	0.419587	0.6748
C(228)	1.080065	0.157343	6.864404	0.0000
C(229)	-0.000235	0.007575	-0.031029	0.9753
C(230)	0.230878	0.034822	6.630144	0.0000
C(231)	0.103792	0.059045	1.757828	0.0790
C(232)	1.361410	0.271427	5.015754	0.0000
C(233)	-0.008826	0.006114	-1.443642	0.1490
C(234)	0.292391	0.028105	10.40341	0.0000
C(235)	-0.021476	0.023624	-0.909053	0.3635
C(236)	1.262810	0.108598	11.62832	0.0000
C(237)	0.040923	0.044995	0.909501	0.3632
C(238)	1.333702	0.206838	6.448051	0.0000
C(239)	0.033229	0.024713	1.344635	0.1789
C(240)	0.888558	0.113602	7.821700	0.0000
C(241)	-0.036340	0.037488	-0.969383	0.3325
C(242)	1.259004	0.172327	7.305883	0.0000
C(243)	0.052412	0.041266	1.270115	0.2042
C(244)	1.418469	0.189695	7.477639	0.0000
C(245)	0.007290	0.019718	0.369708	0.7116
C(246)	1.169301	0.090642	12.90020	0.0000
C(247)	0.097781	0.028850	3.389297	0.0007

C(248)	0.563530	0.132621	4.249168	0.0000
C(249)	0.013019	0.007394	1.760675	0.0785
C(250)	0.184485	0.033990	5.427591	0.0000
C(251)	0.010461	0.026702	0.391780	0.6953
C(252)	0.772541	0.122745	6.293869	0.0000
C(253)	-0.017017	0.019051	-0.893254	0.3719
C(254)	0.494510	0.087576	5.646635	0.0000
C(255)	0.027693	0.028918	0.957614	0.3384
C(256)	0.812498	0.132936	6.111963	0.0000
C(257)	-0.003174	0.023262	-0.136449	0.8915
C(258)	1.090411	0.106934	10.19704	0.0000
C(259)	0.023725	0.017382	1.364869	0.1725
C(260)	0.938987	0.079906	11.75120	0.0000
C(261)	-0.023599	0.035565	-0.663553	0.5071
C(262)	1.336269	0.163490	8.173402	0.0000
C(263)	0.059363	0.031691	1.873202	0.0612
C(264)	0.542026	0.145679	3.720697	0.0002
C(265)	0.084988	0.034868	2.437409	0.0149
C(266)	0.791996	0.160286	4.941138	0.0000
C(267)	-0.012723	0.017865	-0.712165	0.4765
C(268)	1.249321	0.082122	15.21295	0.0000
C(269)	0.032753	0.024820	1.319637	0.1871
C(270)	0.878406	0.114095	7.698928	0.0000
C(271)	0.088357	0.038733	2.281186	0.0227
C(272)	0.855184	0.178052	4.803011	0.0000
C(273)	0.082056	0.040874	2.007545	0.0449
C(274)	0.747064	0.187893	3.976016	0.0001
C(275)	-0.011356	0.002765	-4.107064	0.0000
C(276)	0.981746	0.012710	77.23916	0.0000
C(277)	0.049569	0.046920	1.056448	0.2909
C(278)	0.998704	0.215689	4.630295	0.0000
C(279)	0.041647	0.014136	2.946227	0.0033
C(280)	0.950895	0.064981	14.63341	0.0000
C(281)	0.018505	0.028003	0.660832	0.5088
C(282)	1.051590	0.128727	8.169130	0.0000
C(283)	0.055457	0.020140	2.753570	0.0060
C(284)	0.830169	0.092583	8.966785	0.0000
C(285)	0.082161	0.019592	4.193504	0.0000
C(286)	0.803325	0.090065	8.919425	0.0000
C(287)	0.027785	0.024081	1.153846	0.2487
C(288)	0.794884	0.110696	7.180773	0.0000
C(289)	0.029439	0.010361	2.841458	0.0045
C(290)	0.329455	0.047627	6.917424	0.0000
C(291)	-0.022834	0.010750	-2.124093	0.0338
C(292)	0.950391	0.049417	19.23208	0.0000
C(293)	-0.021508	0.026566	-0.809610	0.4183
C(294)	1.119578	0.122121	9.167776	0.0000
C(295)	-0.011652	0.024887	-0.468204	0.6397
C(296)	1.130212	0.114402	9.879308	0.0000
C(297)	0.029441	0.021187	1.389598	0.1648
C(298)	0.815646	0.097393	8.374789	0.0000
C(299)	0.032875	0.032714	1.004922	0.3151
C(300)	1.272478	0.150383	8.461609	0.0000
C(301)	-0.018864	0.021810	-0.864946	0.3872
C(302)	1.100197	0.100257	10.97378	0.0000
C(303)	0.102157	0.036113	2.828831	0.0047
C(304)	0.819225	0.166007	4.934882	0.0000
C(305)	0.087188	0.049586	1.758329	0.0789
C(306)	1.084306	0.227942	4.756944	0.0000
C(307)	0.098982	0.043146	2.294149	0.0219
C(308)	0.608828	0.198336	3.069675	0.0022
C(309)	0.038143	0.043141	0.884152	0.3767
C(310)	0.901523	0.198315	4.545920	0.0000
C(311)	0.036873	0.031598	1.166914	0.2434

C(312)	1.040115	0.145255	7.160606	0.0000
C(313)	0.020287	0.021110	0.961017	0.3367
C(314)	0.826879	0.097039	8.521073	0.0000
C(315)	0.020417	0.022670	0.900577	0.3679
C(316)	0.681484	0.104214	6.539259	0.0000
C(317)	0.032749	0.046823	0.699424	0.4844
C(318)	1.491671	0.215241	6.930221	0.0000
C(319)	0.087410	0.032225	2.712512	0.0067
C(320)	0.818083	0.148135	5.522552	0.0000
C(321)	-0.014279	0.002564	-5.568353	0.0000
C(322)	0.981675	0.011788	83.27714	0.0000
C(323)	0.049908	0.023164	2.154551	0.0313
C(324)	0.840777	0.106482	7.895922	0.0000
C(325)	0.059158	0.035412	1.670582	0.0950
C(326)	0.859693	0.162785	5.281156	0.0000
C(327)	0.023960	0.009130	2.624303	0.0088
C(328)	0.867790	0.041970	20.67658	0.0000
C(329)	0.036193	0.015515	2.332715	0.0198
C(330)	0.729918	0.071322	10.23405	0.0000
C(331)	-0.019212	0.012425	-1.546313	0.1222
C(332)	1.044705	0.057115	18.29118	0.0000
C(333)	-0.075967	0.039158	-1.940005	0.0526
C(334)	1.300643	0.180007	7.225495	0.0000
C(335)	-0.020693	0.003912	-5.289477	0.0000
C(336)	0.958037	0.017984	53.27277	0.0000
C(337)	0.049561	0.028593	1.733353	0.0832
C(338)	0.895820	0.131437	6.815564	0.0000
C(339)	0.041155	0.025965	1.585063	0.1131
C(340)	0.831027	0.119357	6.962550	0.0000
C(341)	-0.009190	0.044630	-0.205907	0.8369
C(342)	1.207303	0.205161	5.884663	0.0000
C(343)	0.021641	0.042092	0.514142	0.6072
C(344)	1.282444	0.193493	6.627842	0.0000
C(345)	0.028554	0.023266	1.227303	0.2199
C(346)	1.222320	0.106952	11.42867	0.0000
C(347)	-0.007326	0.023286	-0.314623	0.7531
C(348)	0.856834	0.107042	8.004661	0.0000
C(349)	-0.044178	0.019098	-2.313179	0.0208
C(350)	1.079459	0.087794	12.29536	0.0000
C(351)	-0.027681	0.042117	-0.657241	0.5111
C(352)	1.063575	0.193609	5.493416	0.0000
C(353)	0.016302	0.043523	0.374560	0.7080
C(354)	1.247186	0.200071	6.233717	0.0000
C(355)	0.065769	0.021345	3.081292	0.0021
C(356)	0.708587	0.098119	7.221710	0.0000
C(357)	-0.034855	0.021094	-1.652360	0.0987
C(358)	1.079228	0.096968	11.12969	0.0000
C(359)	0.006180	0.015325	0.403243	0.6868
C(360)	1.115611	0.070450	15.83558	0.0000
C(361)	-0.030808	0.030960	-0.995106	0.3198
C(362)	1.070070	0.142319	7.518830	0.0000
C(363)	0.014090	0.031589	0.446029	0.6556
C(364)	1.230420	0.145213	8.473214	0.0000
C(365)	0.062452	0.036161	1.727064	0.0843
C(366)	0.865172	0.166229	5.204716	0.0000
C(367)	0.106152	0.033893	3.131936	0.0018
C(368)	0.737279	0.155804	4.732076	0.0000
C(369)	0.100216	0.035569	2.817484	0.0049
C(370)	0.671379	0.163510	4.106049	0.0000
C(371)	0.038713	0.028246	1.370558	0.1707
C(372)	0.648128	0.129845	4.991538	0.0000
C(373)	0.087571	0.034474	2.540221	0.0112
C(374)	0.945437	0.158473	5.965915	0.0000
C(375)	-0.008919	0.030303	-0.294345	0.7685

C(376)	1.174199	0.139300	8.429297	0.0000
C(377)	0.067114	0.038290	1.752785	0.0798
C(378)	0.918529	0.176014	5.218488	0.0000
C(379)	0.073283	0.040823	1.795129	0.0728
C(380)	0.955021	0.187662	5.089043	0.0000
C(381)	-0.006281	0.023422	-0.268176	0.7886
C(382)	0.857456	0.107669	7.963781	0.0000
C(383)	-0.019036	0.020934	-0.909296	0.3633
C(384)	1.018426	0.096234	10.58286	0.0000
C(385)	-0.064976	0.054845	-1.184726	0.2363
C(386)	1.405815	0.252118	5.576026	0.0000
C(387)	0.022445	0.023979	0.936040	0.3494
C(388)	0.823875	0.110229	7.474224	0.0000
C(389)	0.061750	0.034639	1.782643	0.0748
C(390)	0.815152	0.159235	5.119191	0.0000
C(391)	-0.022602	0.012468	-1.812762	0.0701
C(392)	0.970406	0.057316	16.93067	0.0000
C(393)	0.001541	0.022053	0.069900	0.9443
C(394)	1.135027	0.101374	11.19640	0.0000
C(395)	0.052402	0.025300	2.071245	0.0385
C(396)	0.967933	0.116301	8.322641	0.0000
C(397)	-0.073474	0.029845	-2.461888	0.0139
C(398)	1.176060	0.137194	8.572249	0.0000
C(399)	-0.000176	0.015800	-0.011131	0.9911
C(400)	1.131234	0.072631	15.57514	0.0000

Determinant residual covariance 0.000000

Equation: D(LNF1)=C(1)+C(2)*D(RUSSELL_LN)
Observations: 10

R-squared	0.999025	Mean dependent var	-0.010360
Adjusted R-squared	0.998903	S.D. dependent var	0.224935
S.E. of regression	0.007449	Sum squared resid	0.000444
Durbin-Watson stat	1.008087		

Equation: D(LNF2)=C(3)+C(4)*D(RUSSELL_LN)
Observations: 10

R-squared	0.920330	Mean dependent var	0.057252
Adjusted R-squared	0.910372	S.D. dependent var	0.290116
S.E. of regression	0.086855	Sum squared resid	0.060350
Durbin-Watson stat	1.205272		

Equation: D(LNF3)=C(5)+C(6)*D(RUSSELL_LN)
Observations: 10

R-squared	0.790861	Mean dependent var	0.024232
Adjusted R-squared	0.764719	S.D. dependent var	0.205654
S.E. of regression	0.099754	Sum squared resid	0.079607
Durbin-Watson stat	1.947134		

Equation: D(LNF4)=C(7)+C(8)*D(RUSSELL_LN)
Observations: 10

R-squared	0.847873	Mean dependent var	0.001919
Adjusted R-squared	0.828857	S.D. dependent var	0.304201
S.E. of regression	0.125846	Sum squared resid	0.126698
Durbin-Watson stat	2.075550		

Equation: D(LNF5)=C(9)+C(10)*D(RUSSELL_LN)
Observations: 10

R-squared	0.882331	Mean dependent var	0.035011
Adjusted R-squared	0.867622	S.D. dependent var	0.182953
S.E. of regression	0.066565	Sum squared resid	0.035447
Durbin-Watson stat	0.889942		

Equation: D(LNF6)=C(11)+C(12)*D(RUSSELL_LN)
Observations: 10

R-squared	0.920399	Mean dependent var	0.032909
Adjusted R-squared	0.910449	S.D. dependent var	0.260254
S.E. of regression	0.077881	Sum squared resid	0.048524
Durbin-Watson stat	1.078829		

Equation: D(LNF7)=C(13)+C(14)*D(RUSSELL_LN)
Observations: 10

R-squared	0.967035	Mean dependent var	0.017005
Adjusted R-squared	0.962914	S.D. dependent var	0.259117
S.E. of regression	0.049900	Sum squared resid	0.019920
Durbin-Watson stat	1.118629		

Equation: D(LNF8)=C(15)+C(16)*D(RUSSELL_LN)
Observations: 10

R-squared	0.996659	Mean dependent var	-0.014824
Adjusted R-squared	0.996242	S.D. dependent var	0.223242
S.E. of regression	0.013685	Sum squared resid	0.001498
Durbin-Watson stat	0.907503		

Equation: D(LNF9)=C(17)+C(18)*D(RUSSELL_LN)
Observations: 10

R-squared	0.925690	Mean dependent var	-0.059755
Adjusted R-squared	0.916401	S.D. dependent var	0.323337
S.E. of regression	0.093488	Sum squared resid	0.069920
Durbin-Watson stat	2.037962		

Equation: D(LNF10)=C(19)+C(20)*D(RUSSELL_LN)
Observations: 10

R-squared	0.930069	Mean dependent var	-0.027921
Adjusted R-squared	0.921327	S.D. dependent var	0.249153
S.E. of regression	0.069884	Sum squared resid	0.039070
Durbin-Watson stat	1.376510		

Equation: D(LNF11)=C(21)+C(22)*D(RUSSELL_LN)
Observations: 10

R-squared	0.374477	Mean dependent var	0.088420
Adjusted R-squared	0.296287	S.D. dependent var	0.194401
S.E. of regression	0.163078	Sum squared resid	0.212757
Durbin-Watson stat	1.405455		

Equation: D(LNF12)=C(23)+C(24)*D(RUSSELL_LN)
Observations: 10

R-squared	0.933905	Mean dependent var	-0.019146
Adjusted R-squared	0.925643	S.D. dependent var	0.254763
S.E. of regression	0.069470	Sum squared resid	0.038608
Durbin-Watson stat	2.145194		

Equation: D(LNF13)=C(25)+C(26)*D(RUSSELL_LN)
Observations: 10

R-squared	0.890400	Mean dependent var	0.012260
Adjusted R-squared	0.876700	S.D. dependent var	0.288865
S.E. of regression	0.101432	Sum squared resid	0.082308
Durbin-Watson stat	2.148901		

Equation: D(LNF14)=C(27)+C(28)*D(RUSSELL_LN)
Observations: 10

R-squared	*0.886495*	Mean dependent var	0.059515
Adjusted R-squared	0.872306	S.D. dependent var	0.254324
S.E. of regression	0.090881	Sum squared resid	0.066074
Durbin-Watson stat	0.865197		

Equation: D(LNF15)=C(29)+C(30)*D(RUSSELL_LN)

Observations: 10

R-squared	0.983737	Mean dependent var	-0.008596
Adjusted R-squared	0.981704	S.D. dependent var	0.261596
S.E. of regression	0.035384	Sum squared resid	0.010016
Durbin-Watson stat	2.708164		

Equation: D(LNF16)=C(31)+C(32)*D(RUSSELL_LN)
Observations: 10

R-squared	0.968582	Mean dependent var	0.012471
Adjusted R-squared	0.964655	S.D. dependent var	0.242547
S.E. of regression	0.045600	Sum squared resid	0.016635
Durbin-Watson stat	2.096048		

Equation: D(LNF17)=C(33)+C(34)*D(RUSSELL_LN)
Observations: 10

R-squared	0.952719	Mean dependent var	0.031767
Adjusted R-squared	0.946809	S.D. dependent var	0.234673
S.E. of regression	0.054123	Sum squared resid	0.023434
Durbin-Watson stat	1.766018		

Equation: D(LNF18)=C(35)+C(36)*D(RUSSELL_LN)
Observations: 10

R-squared	0.598528	Mean dependent var	0.098967
Adjusted R-squared	0.548344	S.D. dependent var	0.247940
S.E. of regression	0.166629	Sum squared resid	0.222121
Durbin-Watson stat	1.194798		

Equation: D(LNF19)=C(37)+C(38)*D(RUSSELL_LN)
Observations: 10

R-squared	0.817104	Mean dependent var	0.082963
Adjusted R-squared	0.794242	S.D. dependent var	0.221437
S.E. of regression	0.100445	Sum squared resid	0.080714
Durbin-Watson stat	0.579762		

Equation: D(LNF20)=C(39)+C(40)*D(RUSSELL_LN)
Observations: 10

R-squared	0.956285	Mean dependent var	0.047274
Adjusted R-squared	0.950821	S.D. dependent var	0.250929
S.E. of regression	0.055647	Sum squared resid	0.024773
Durbin-Watson stat	1.030063		

Equation: D(LNF21)=C(41)+C(42)*D(RUSSELL_LN)
Observations: 10

R-squared	0.948992	Mean dependent var	0.042631
Adjusted R-squared	0.942616	S.D. dependent var	0.242479
S.E. of regression	0.058086	Sum squared resid	0.026992
Durbin-Watson stat	1.618402		

Equation: D(LNF22)=C(43)+C(44)*D(RUSSELL_LN)
Observations: 10

R-squared	0.747372	Mean dependent var	0.074093
Adjusted R-squared	0.715794	S.D. dependent var	0.218130
S.E. of regression	0.116287	Sum squared resid	0.108182
Durbin-Watson stat	0.892491		

Equation: D(LNF23)=C(45)+C(46)*D(RUSSELL_LN)
Observations: 10

R-squared	0.886065	Mean dependent var	0.047797
Adjusted R-squared	0.871823	S.D. dependent var	0.249896
S.E. of regression	0.089467	Sum squared resid	0.064035
Durbin-Watson stat	0.305072		

Equation: D(LNF24)=C(47)+C(48)*D(RUSSELL_LN)
Observations: 10

R-squared	0.995074	Mean dependent var	-0.010548
Adjusted R-squared	0.994458	S.D. dependent var	0.238583
S.E. of regression	0.017761	Sum squared resid	0.002524
Durbin-Watson stat	1.118119		

Equation: D(LNF25)=C(49)+C(50)*D(RUSSELL_LN)
Observations: 10

R-squared	0.997213	Mean dependent var	-0.002711
Adjusted R-squared	0.996865	S.D. dependent var	0.229555
S.E. of regression	0.012853	Sum squared resid	0.001322
Durbin-Watson stat	1.271881		

Equation: D(LNF26)=C(51)+C(52)*D(RUSSELL_LN)
Observations: 10

R-squared	0.868866	Mean dependent var	-0.070533
Adjusted R-squared	0.852474	S.D. dependent var	0.286274
S.E. of regression	0.109955	Sum squared resid	0.096721
Durbin-Watson stat	1.136946		

Equation: D(LNF27)=C(53)+C(54)*D(RUSSELL_LN)
Observations: 10

R-squared	0.939718	Mean dependent var	0.012225
Adjusted R-squared	0.932183	S.D. dependent var	0.222822
S.E. of regression	0.058026	Sum squared resid	0.026937
Durbin-Watson stat	1.518057		

Equation: D(LNF28)=C(55)+C(56)*D(RUSSELL_LN)
Observations: 10

R-squared	0.858701	Mean dependent var	0.035239
Adjusted R-squared	0.841038	S.D. dependent var	0.256980
S.E. of regression	0.102458	Sum squared resid	0.083981
Durbin-Watson stat	0.711826		

Equation: D(LNF29)=C(57)+C(58)*D(RUSSELL_LN)
Observations: 10

R-squared	0.891085	Mean dependent var	0.040725
Adjusted R-squared	0.877471	S.D. dependent var	0.221111
S.E. of regression	0.077398	Sum squared resid	0.047924
Durbin-Watson stat	0.740287		

Equation: D(LNF30)=C(59)+C(60)*D(RUSSELL_LN)
Observations: 10

R-squared	0.559193	Mean dependent var	-0.031678
Adjusted R-squared	0.504092	S.D. dependent var	0.176826
S.E. of regression	0.124522	Sum squared resid	0.124045
Durbin-Watson stat	0.835465		

Equation: D(LNF31)=C(61)+C(62)*D(RUSSELL_LN)
Observations: 10

R-squared	0.890303	Mean dependent var	0.050853
Adjusted R-squared	0.876591	S.D. dependent var	0.234556
S.E. of regression	0.082399	Sum squared resid	0.054316
Durbin-Watson stat	0.930809		

Equation: D(LNF32)=C(63)+C(64)*D(RUSSELL_LN)
Observations: 10

R-squared	0.922112	Mean dependent var	0.056096
Adjusted R-squared	0.912376	S.D. dependent var	0.295561
S.E. of regression	0.087490	Sum squared resid	0.061236
Durbin-Watson stat	0.986205		

Equation: D(LNF33)=C(65)+C(66)*D(RUSSELL_LN)
Observations: 10

R-squared	0.912698	Mean dependent var	-0.043661

Adjusted R-squared	0.901785	S.D. dependent var	0.223266
S.E. of regression	0.069970	Sum squared resid	0.039166
Durbin-Watson stat	0.953705		

Equation: D(LNF34)=C(67)+C(68)*D(RUSSELL_LN)
Observations: 10

R-squared	0.931059	Mean dependent var	-0.003145
Adjusted R-squared	0.922442	S.D. dependent var	0.265281
S.E. of regression	0.073879	Sum squared resid	0.043665
Durbin-Watson stat	1.092333		

Equation: D(LNF35)=C(69)+C(70)*D(RUSSELL_LN)
Observations: 10

R-squared	0.588801	Mean dependent var	0.098233
Adjusted R-squared	0.537401	S.D. dependent var	0.355088
S.E. of regression	0.241512	Sum squared resid	0.466625
Durbin-Watson stat	1.077016		

Equation: D(LNF36)=C(71)+C(72)*D(RUSSELL_LN)
Observations: 10

R-squared	0.770785	Mean dependent var	0.071994
Adjusted R-squared	0.742133	S.D. dependent var	0.317127
S.E. of regression	0.161039	Sum squared resid	0.207468
Durbin-Watson stat	1.786848		

Equation: D(LNF37)=C(73)+C(74)*D(RUSSELL_LN)
Observations: 10

R-squared	0.885109	Mean dependent var	-0.017759
Adjusted R-squared	0.870748	S.D. dependent var	0.343567
S.E. of regression	0.123518	Sum squared resid	0.122053
Durbin-Watson stat	1.184627		

Equation: D(LNF38)=C(75)+C(76)*D(RUSSELL_LN)
Observations: 10

R-squared	0.938361	Mean dependent var	-0.027442
Adjusted R-squared	0.930656	S.D. dependent var	0.302793
S.E. of regression	0.079735	Sum squared resid	0.050862
Durbin-Watson stat	2.961611		

Equation: D(LNF39)=C(77)+C(78)*D(RUSSELL_LN)
Observations: 10

R-squared	0.885534	Mean dependent var	0.016972
Adjusted R-squared	0.871226	S.D. dependent var	0.385793
S.E. of regression	0.138442	Sum squared resid	0.153330
Durbin-Watson stat	1.944009		

Equation: D(LNF40)=C(79)+C(80)*D(RUSSELL_LN)
Observations: 10

R-squared	0.907280	Mean dependent var	-0.031017
Adjusted R-squared	0.895690	S.D. dependent var	0.347412
S.E. of regression	0.112204	Sum squared resid	0.100718
Durbin-Watson stat	0.887664		

Equation: D(LNF41)=C(81)+C(82)*D(RUSSELL_LN)
Observations: 10

R-squared	0.850947	Mean dependent var	-0.018214
Adjusted R-squared	0.832315	S.D. dependent var	0.354484
S.E. of regression	0.145159	Sum squared resid	0.168568
Durbin-Watson stat	1.001171		

Equation: D(LNF42)=C(83)+C(84)*D(RUSSELL_LN)
Observations: 10

R-squared	0.674902	Mean dependent var	0.070122
Adjusted R-squared	0.634264	S.D. dependent var	0.302038

S.E. of regression	0.182661	Sum squared resid	0.266919
Durbin-Watson stat	0.946305		

Equation: D(LNF43)=C(85)+C(86)*D(RUSSELL_LN)
Observations: 10

R-squared	0.728301	Mean dependent var	0.068997
Adjusted R-squared	0.694339	S.D. dependent var	0.264304
S.E. of regression	0.146125	Sum squared resid	0.170819
Durbin-Watson stat	0.776494		

Equation: D(LNF44)=C(87)+C(88)*D(RUSSELL_LN)
Observations: 10

R-squared	0.828114	Mean dependent var	0.054231
Adjusted R-squared	0.806629	S.D. dependent var	0.290300
S.E. of regression	0.127657	Sum squared resid	0.130370
Durbin-Watson stat	1.344841		

Equation: D(LNF45)=C(89)+C(90)*D(RUSSELL_LN)
Observations: 10

R-squared	0.882703	Mean dependent var	0.027812
Adjusted R-squared	0.868041	S.D. dependent var	0.292268
S.E. of regression	0.106170	Sum squared resid	0.090176
Durbin-Watson stat	1.836544		

Equation: D(LNF46)=C(91)+C(92)*D(RUSSELL_LN)
Observations: 10

R-squared	0.736201	Mean dependent var	0.110019
Adjusted R-squared	0.703226	S.D. dependent var	0.189425
S.E. of regression	0.103193	Sum squared resid	0.085190
Durbin-Watson stat	0.914280		

Equation: D(LNF47)=C(93)+C(94)*D(RUSSELL_LN)
Observations: 10

R-squared	0.900798	Mean dependent var	-0.009350
Adjusted R-squared	0.888398	S.D. dependent var	0.208006
S.E. of regression	0.069488	Sum squared resid	0.038629
Durbin-Watson stat	1.742108		

Equation: D(LNF48)=C(95)+C(96)*D(RUSSELL_LN)
Observations: 10

R-squared	0.805896	Mean dependent var	0.098560
Adjusted R-squared	0.781633	S.D. dependent var	0.295402
S.E. of regression	0.138041	Sum squared resid	0.152442
Durbin-Watson stat	0.786571		

Equation: D(LNF49)=C(97)+C(98)*D(RUSSELL_LN)
Observations: 10

R-squared	0.766268	Mean dependent var	-0.004529
Adjusted R-squared	0.737051	S.D. dependent var	0.348621
S.E. of regression	0.178768	Sum squared resid	0.255664
Durbin-Watson stat	1.462988		

Equation: D(LNF50)=C(99)+C(100)*D(RUSSELL_LN)
Observations: 10

R-squared	0.858133	Mean dependent var	0.057907
Adjusted R-squared	0.840399	S.D. dependent var	0.148817
S.E. of regression	0.059452	Sum squared resid	0.028277
Durbin-Watson stat	1.175089		

Equation: D(LNF51)=C(101)+C(102)*D(RUSSELL_LN)
Observations: 10

R-squared	0.922130	Mean dependent var	0.011645
Adjusted R-squared	0.912397	S.D. dependent var	0.275257
S.E. of regression	0.081470	Sum squared resid	0.053099

Durbin-Watson stat	1.081996		

Equation: D(LNF52)=C(103)+C(104)*D(RUSSELL_LN)
Observations: 10

R-squared	0.625077	Mean dependent var	0.049667
Adjusted R-squared	0.578211	S.D. dependent var	0.258338
S.E. of regression	0.167778	Sum squared resid	0.225196
Durbin-Watson stat	0.597931		

Equation: D(LNF53)=C(105)+C(106)*D(RUSSELL_LN)
Observations: 10

R-squared	0.626418	Mean dependent var	0.057008
Adjusted R-squared	0.579721	S.D. dependent var	0.258394
S.E. of regression	0.167514	Sum squared resid	0.224488
Durbin-Watson stat	0.599873		

Equation: D(LNF54)=C(107)+C(108)*D(RUSSELL_LN)
Observations: 10

R-squared	0.809199	Mean dependent var	0.062105
Adjusted R-squared	0.785349	S.D. dependent var	0.316999
S.E. of regression	0.146867	Sum squared resid	0.172560
Durbin-Watson stat	0.653552		

Equation: D(LNF55)=C(109)+C(110)*D(RUSSELL_LN)
Observations: 10

R-squared	0.750841	Mean dependent var	0.026376
Adjusted R-squared	0.719697	S.D. dependent var	0.216218
S.E. of regression	0.114474	Sum squared resid	0.104834
Durbin-Watson stat	0.955555		

Equation: D(LNF56)=C(111)+C(112)*D(RUSSELL_LN)
Observations: 10

R-squared	0.835940	Mean dependent var	-0.007875
Adjusted R-squared	0.815432	S.D. dependent var	0.264247
S.E. of regression	0.113524	Sum squared resid	0.103102
Durbin-Watson stat	1.924432		

Equation: D(LNF57)=C(113)+C(114)*D(RUSSELL_LN)
Observations: 10

R-squared	0.838901	Mean dependent var	0.018446
Adjusted R-squared	0.818763	S.D. dependent var	0.344619
S.E. of regression	0.146711	Sum squared resid	0.172193
Durbin-Watson stat	1.792593		

Equation: D(LNF58)=C(115)+C(116)*D(RUSSELL_LN)
Observations: 10

R-squared	0.961367	Mean dependent var	-0.012347
Adjusted R-squared	0.956537	S.D. dependent var	0.206584
S.E. of regression	0.043068	Sum squared resid	0.014839
Durbin-Watson stat	1.398873		

Equation: D(LNF59)=C(117)+C(118)*D(RUSSELL_LN)
Observations: 10

R-squared	0.614823	Mean dependent var	0.049473
Adjusted R-squared	0.566676	S.D. dependent var	0.281930
S.E. of regression	0.185587	Sum squared resid	0.275539
Durbin-Watson stat	1.490177		

Equation: D(LNF60)=C(119)+C(120)*D(RUSSELL_LN)
Observations: 10

R-squared	0.696109	Mean dependent var	0.119637
Adjusted R-squared	0.658123	S.D. dependent var	0.329331
S.E. of regression	0.192561	Sum squared resid	0.296636
Durbin-Watson stat	0.717557		

Equation: D(LNF61)=C(121)+C(122)*D(RUSSELL_LN)
Observations: 10

R-squared	0.924306	Mean dependent var	0.018543
Adjusted R-squared	0.914845	S.D. dependent var	0.226768
S.E. of regression	0.066174	Sum squared resid	0.035032
Durbin-Watson stat	1.505872		

Equation: D(LNF62)=C(123)+C(124)*D(RUSSELL_LN)
Observations: 10

R-squared	0.850667	Mean dependent var	0.015901
Adjusted R-squared	0.832001	S.D. dependent var	0.273424
S.E. of regression	0.112070	Sum squared resid	0.100478
Durbin-Watson stat	1.196509		

Equation: D(LNF63)=C(125)+C(126)*D(RUSSELL_LN)
Observations: 10

R-squared	0.619907	Mean dependent var	0.105386
Adjusted R-squared	0.572395	S.D. dependent var	0.261576
S.E. of regression	0.171049	Sum squared resid	0.234061
Durbin-Watson stat	1.376695		

Equation: D(LNF64)=C(127)+C(128)*D(RUSSELL_LN)
Observations: 10

R-squared	0.932710	Mean dependent var	-0.007080
Adjusted R-squared	0.924298	S.D. dependent var	0.228894
S.E. of regression	0.062978	Sum squared resid	0.031729
Durbin-Watson stat	2.171177		

Equation: D(LNF65)=C(129)+C(130)*D(RUSSELL_LN)
Observations: 10

R-squared	0.978647	Mean dependent var	0.025654
Adjusted R-squared	0.975977	S.D. dependent var	0.188941
S.E. of regression	0.029284	Sum squared resid	0.006861
Durbin-Watson stat	1.742453		

Equation: D(LNF66)=C(131)+C(132)*D(RUSSELL_LN)
Observations: 10

R-squared	0.871155	Mean dependent var	0.060328
Adjusted R-squared	0.855049	S.D. dependent var	0.226963
S.E. of regression	0.086410	Sum squared resid	0.059734
Durbin-Watson stat	0.847775		

Equation: D(LNF67)=C(133)+C(134)*D(RUSSELL_LN)
Observations: 10

R-squared	0.999241	Mean dependent var	-0.009560
Adjusted R-squared	0.999147	S.D. dependent var	0.221755
S.E. of regression	0.006478	Sum squared resid	0.000336
Durbin-Watson stat	1.063891		

Equation: D(LNF68)=C(135)+C(136)*D(RUSSELL_LN)
Observations: 10

R-squared	0.781216	Mean dependent var	0.049077
Adjusted R-squared	0.753868	S.D. dependent var	0.317043
S.E. of regression	0.157290	Sum squared resid	0.197922
Durbin-Watson stat	0.905896		

Equation: D(LNF69)=C(137)+C(138)*D(RUSSELL_LN)
Observations: 10

R-squared	0.895313	Mean dependent var	-0.008042
Adjusted R-squared	0.882228	S.D. dependent var	0.239090
S.E. of regression	0.082051	Sum squared resid	0.053859
Durbin-Watson stat	1.363932		

Equation: D(LNF70)=C(139)+C(140)*D(RUSSELL_LN)
Observations: 10

R-squared	0.689812	Mean dependent var	0.051095
Adjusted R-squared	0.651038	S.D. dependent var	0.219839
S.E. of regression	0.129865	Sum squared resid	0.134920
Durbin-Watson stat	0.938837		

Equation: D(LNF71)=C(141)+C(142)*D(RUSSELL_LN)
Observations: 10

R-squared	0.762163	Mean dependent var	0.033790
Adjusted R-squared	0.732433	S.D. dependent var	0.219866
S.E. of regression	0.113730	Sum squared resid	0.103476
Durbin-Watson stat	2.320165		

Equation: D(LNF72)=C(143)+C(144)*D(RUSSELL_LN)
Observations: 10

R-squared	0.818985	Mean dependent var	0.173760
Adjusted R-squared	0.796358	S.D. dependent var	0.327440
S.E. of regression	0.147763	Sum squared resid	0.174671
Durbin-Watson stat	0.951341		

Equation: D(LNF73)=C(145)+C(146)*D(RUSSELL_LN)
Observations: 10

R-squared	0.924299	Mean dependent var	-0.003616
Adjusted R-squared	0.914836	S.D. dependent var	0.310030
S.E. of regression	0.090476	Sum squared resid	0.065487
Durbin-Watson stat	1.699623		

Equation: D(LNF74)=C(147)+C(148)*D(RUSSELL_LN)
Observations: 10

R-squared	0.595648	Mean dependent var	0.036765
Adjusted R-squared	0.545104	S.D. dependent var	0.283916
S.E. of regression	0.191490	Sum squared resid	0.293347
Durbin-Watson stat	0.834232		

Equation: D(LNF75)=C(149)+C(150)*D(RUSSELL_LN)
Observations: 10

R-squared	0.966676	Mean dependent var	-0.019504
Adjusted R-squared	0.962510	S.D. dependent var	0.246762
S.E. of regression	0.047779	Sum squared resid	0.018263
Durbin-Watson stat	1.933688		

Equation: D(LNF76)=C(151)+C(152)*D(RUSSELL_LN)
Observations: 10

R-squared	0.847566	Mean dependent var	0.053578
Adjusted R-squared	0.828512	S.D. dependent var	0.264146
S.E. of regression	0.109386	Sum squared resid	0.095722
Durbin-Watson stat	2.048931		

Equation: D(LNF77)=C(153)+C(154)*D(RUSSELL_LN)
Observations: 10

R-squared	0.842060	Mean dependent var	0.034615
Adjusted R-squared	0.822318	S.D. dependent var	0.255625
S.E. of regression	0.107752	Sum squared resid	0.092884
Durbin-Watson stat	1.155801		

Equation: D(LNF78)=C(155)+C(156)*D(RUSSELL_LN)
Observations: 10

R-squared	0.982505	Mean dependent var	-0.013186
Adjusted R-squared	0.980318	S.D. dependent var	0.224560
S.E. of regression	0.031504	Sum squared resid	0.007940
Durbin-Watson stat	1.893089		

Equation: D(LNF79)=C(157)+C(158)*D(RUSSELL_LN)

Observations: 10

R-squared	0.908492	Mean dependent var	0.045219
Adjusted R-squared	0.897054	S.D. dependent var	0.274180
S.E. of regression	0.087971	Sum squared resid	0.061912
Durbin-Watson stat	1.196564		

Equation: D(LNF80)=C(159)+C(160)*D(RUSSELL_LN)
Observations: 10

R-squared	0.941138	Mean dependent var	0.023955
Adjusted R-squared	0.933780	S.D. dependent var	0.239607
S.E. of regression	0.061659	Sum squared resid	0.030414
Durbin-Watson stat	1.450361		

Equation: D(LNF81)=C(161)+C(162)*D(RUSSELL_LN)
Observations: 10

R-squared	0.908631	Mean dependent var	0.035239
Adjusted R-squared	0.897210	S.D. dependent var	0.275269
S.E. of regression	0.088253	Sum squared resid	0.062309
Durbin-Watson stat	1.008242		

Equation: D(LNF82)=C(163)+C(164)*D(RUSSELL_LN)
Observations: 10

R-squared	0.820364	Mean dependent var	0.054997
Adjusted R-squared	0.797910	S.D. dependent var	0.248397
S.E. of regression	0.111665	Sum squared resid	0.099753
Durbin-Watson stat	0.513462		

Equation: D(LNF83)=C(165)+C(166)*D(RUSSELL_LN)
Observations: 10

R-squared	0.982495	Mean dependent var	-0.016316
Adjusted R-squared	0.980307	S.D. dependent var	0.230021
S.E. of regression	0.032280	Sum squared resid	0.008336
Durbin-Watson stat	1.709128		

Equation: D(LNF84)=C(167)+C(168)*D(RUSSELL_LN)
Observations: 10

R-squared	0.862625	Mean dependent var	0.003683
Adjusted R-squared	0.845453	S.D. dependent var	0.216115
S.E. of regression	0.084960	Sum squared resid	0.057745
Durbin-Watson stat	2.157811		

Equation: D(LNF85)=C(169)+C(170)*D(RUSSELL_LN)
Observations: 10

R-squared	0.998956	Mean dependent var	-0.011306
Adjusted R-squared	0.998825	S.D. dependent var	0.225432
S.E. of regression	0.007727	Sum squared resid	0.000478
Durbin-Watson stat	0.962537		

Equation: D(LNF86)=C(171)+C(172)*D(RUSSELL_LN)
Observations: 10

R-squared	*0.967118*	*Mean dependent var*	*-0.006274*
Adjusted R-squared	0.963008	S.D. dependent var	0.178012
S.E. of regression	0.034238	Sum squared resid	0.009378
Durbin-Watson stat	1.321337		

Equation: D(LNF87)=C(173)+C(174)*D(RUSSELL_LN)
Observations: 10

R-squared	0.894663	Mean dependent var	0.012803
Adjusted R-squared	0.881495	S.D. dependent var	0.218600
S.E. of regression	0.075252	Sum squared resid	0.045303
Durbin-Watson stat	0.956919		

Equation: D(LNF88)=C(175)+C(176)*D(RUSSELL_LN)
Observations: 10

R-squared	0.989302	Mean dependent var	-0.010665
Adjusted R-squared	0.987965	S.D. dependent var	0.244452
S.E. of regression	0.026817	Sum squared resid	0.005753
Durbin-Watson stat	2.123403		

Equation: D(LNF89)=C(177)+C(178)*D(RUSSELL_LN)
Observations: 10

R-squared	0.646716	Mean dependent var	0.033064
Adjusted R-squared	0.602556	S.D. dependent var	0.254555
S.E. of regression	0.160480	Sum squared resid	0.206030
Durbin-Watson stat	0.875228		

Equation: D(LNF90)=C(179)+C(180)*D(RUSSELL_LN)
Observations: 10

R-squared	0.887364	Mean dependent var	0.081951
Adjusted R-squared	0.873285	S.D. dependent var	0.208066
S.E. of regression	0.074066	Sum squared resid	0.043886
Durbin-Watson stat	1.968059		

Equation: D(LNF91)=C(181)+C(182)*D(RUSSELL_LN)
Observations: 10

R-squared	0.998861	Mean dependent var	-0.010427
Adjusted R-squared	0.998719	S.D. dependent var	0.225055
S.E. of regression	0.008055	Sum squared resid	0.000519
Durbin-Watson stat	0.984730		

Equation: D(LNF92)=C(183)+C(184)*D(RUSSELL_LN)
Observations: 10

R-squared	0.983318	Mean dependent var	-0.012716
Adjusted R-squared	0.981233	S.D. dependent var	0.234741
S.E. of regression	0.032158	Sum squared resid	0.008273
Durbin-Watson stat	1.033326		

Equation: D(LNF93)=C(185)+C(186)*D(RUSSELL_LN)
Observations: 10

R-squared	0.867485	Mean dependent var	0.042732
Adjusted R-squared	0.850921	S.D. dependent var	0.209993
S.E. of regression	0.081080	Sum squared resid	0.052592
Durbin-Watson stat	0.784108		

Equation: D(LNF94)=C(187)+C(188)*D(RUSSELL_LN)
Observations: 10

R-squared	0.894622	Mean dependent var	-0.050107
Adjusted R-squared	0.881450	S.D. dependent var	0.234010
S.E. of regression	0.080572	Sum squared resid	0.051935
Durbin-Watson stat	0.991985		

Equation: D(LNF95)=C(189)+C(190)*D(RUSSELL_LN)
Observations: 10

R-squared	0.944535	Mean dependent var	0.001337
Adjusted R-squared	0.937602	S.D. dependent var	0.289691
S.E. of regression	0.072364	Sum squared resid	0.041892
Durbin-Watson stat	1.970486		

Equation: D(LNF96)=C(191)+C(192)*D(RUSSELL_LN)
Observations: 10

R-squared	0.957180	Mean dependent var	0.034047
Adjusted R-squared	0.951827	S.D. dependent var	0.229775
S.E. of regression	0.050432	Sum squared resid	0.020347
Durbin-Watson stat	1.667148		

Equation: D(LNF97)=C(193)+C(194)*D(RUSSELL_LN)
Observations: 10

R-squared	0.881995	Mean dependent var	0.049778

Adjusted R-squared	0.867244	S.D. dependent var	0.236312
S.E. of regression	0.086102	Sum squared resid	0.059308
Durbin-Watson stat	2.494510		

Equation: D(LNF98)=C(195)+C(196)*D(RUSSELL_LN)
Observations: 10

R-squared	0.889298	Mean dependent var	0.053930
Adjusted R-squared	0.875460	S.D. dependent var	0.234850
S.E. of regression	0.082879	Sum squared resid	0.054951
Durbin-Watson stat	1.402859		

Equation: D(LNF99)=C(197)+C(198)*D(RUSSELL_LN)
Observations: 10

R-squared	0.780096	Mean dependent var	-0.292120
Adjusted R-squared	0.752608	S.D. dependent var	0.481272
S.E. of regression	0.239377	Sum squared resid	0.458411
Durbin-Watson stat	1.900738		

Equation: D(LNF100)=C(199)+C(200)*D(RUSSELL_LN)
Observations: 10

R-squared	0.567049	Mean dependent var	0.057518
Adjusted R-squared	0.512930	S.D. dependent var	0.164617
S.E. of regression	0.114887	Sum squared resid	0.105592
Durbin-Watson stat	0.565331		

Equation: D(LNF101)=C(201)+C(202)*D(RUSSELL_LN)
Observations: 10

R-squared	0.679295	Mean dependent var	0.063248
Adjusted R-squared	0.639207	S.D. dependent var	0.167328
S.E. of regression	0.100507	Sum squared resid	0.080814
Durbin-Watson stat	0.435729		

Equation: D(LNF102)=C(203)+C(204)*D(RUSSELL_LN)
Observations: 10

R-squared	0.677383	Mean dependent var	0.104279
Adjusted R-squared	0.637056	S.D. dependent var	0.239865
S.E. of regression	0.144506	Sum squared resid	0.167057
Durbin-Watson stat	1.769412		

Equation: D(LNF103)=C(205)+C(206)*D(RUSSELL_LN)
Observations: 10

R-squared	0.958493	Mean dependent var	0.003106
Adjusted R-squared	0.953305	S.D. dependent var	0.171903
S.E. of regression	0.037147	Sum squared resid	0.011039
Durbin-Watson stat	1.589662		

Equation: D(LNF104)=C(207)+C(208)*D(RUSSELL_LN)
Observations: 10

R-squared	0.948599	Mean dependent var	-0.012861
Adjusted R-squared	0.942173	S.D. dependent var	0.190095
S.E. of regression	0.045712	Sum squared resid	0.016717
Durbin-Watson stat	2.143973		

Equation: D(LNF105)=C(209)+C(210)*D(RUSSELL_LN)
Observations: 10

R-squared	0.998796	Mean dependent var	-0.022765
Adjusted R-squared	0.998646	S.D. dependent var	0.224997
S.E. of regression	0.008279	Sum squared resid	0.000548
Durbin-Watson stat	0.922434		

Equation: D(LNF106)=C(211)+C(212)*D(RUSSELL_LN)
Observations: 10

R-squared	0.940739	Mean dependent var	-0.029704
Adjusted R-squared	0.933331	S.D. dependent var	0.292538

S.E. of regression	0.075534	Sum squared resid	0.045643
Durbin-Watson stat	1.815560		

Equation: D(LNF107)=C(213)+C(214)*D(RUSSELL_LN)
Observations: 10

R-squared	0.901710	Mean dependent var	0.024356
Adjusted R-squared	0.889424	S.D. dependent var	0.219277
S.E. of regression	0.072916	Sum squared resid	0.042534
Durbin-Watson stat	1.543711		

Equation: D(LNF108)=C(215)+C(216)*D(RUSSELL_LN)
Observations: 10

R-squared	0.914840	Mean dependent var	-0.065094
Adjusted R-squared	0.904195	S.D. dependent var	0.232172
S.E. of regression	0.071863	Sum squared resid	0.041314
Durbin-Watson stat	0.473436		

Equation: D(LNF109)=C(217)+C(218)*D(RUSSELL_LN)
Observations: 10

R-squared	0.998787	Mean dependent var	-0.014125
Adjusted R-squared	0.998635	S.D. dependent var	0.224678
S.E. of regression	0.008301	Sum squared resid	0.000551
Durbin-Watson stat	0.862224		

Equation: D(LNF110)=C(219)+C(220)*D(RUSSELL_LN)
Observations: 10

R-squared	0.883876	Mean dependent var	-0.031233
Adjusted R-squared	0.869360	S.D. dependent var	0.251606
S.E. of regression	0.090941	Sum squared resid	0.066162
Durbin-Watson stat	2.296418		

Equation: D(LNF111)=C(221)+C(222)*D(RUSSELL_LN)
Observations: 10

R-squared	0.967587	Mean dependent var	-0.009362
Adjusted R-squared	0.963535	S.D. dependent var	0.240959
S.E. of regression	0.046013	Sum squared resid	0.016938
Durbin-Watson stat	2.487437		

Equation: D(LN 112)=C(223)+C(224)*D(RUSSELL_LN)
Observations: 10

R-squared	0.904556	Mean dependent var	-0.004330
Adjusted R-squared	0.892626	S.D. dependent var	0.212640
S.E. of regression	0.069678	Sum squared resid	0.038840
Durbin-Watson stat	1.508826		

Equation: D(LNF113)=C(225)+C(226)*D(RUSSELL_LN)
Observations: 10

R-squared	0.967906	Mean dependent var	0.006143
Adjusted R-squared	0.963895	S.D. dependent var	0.208727
S.E. of regression	0.039661	Sum squared resid	0.012584
Durbin-Watson stat	1.073317		

Equation: D(LNF114)=C(227)+C(228)*D(RUSSELL_LN)
Observations: 10

R-squared	0.854862	Mean dependent var	0.012150
Adjusted R-squared	0.836720	S.D. dependent var	0.267852
S.E. of regression	0.108233	Sum squared resid	0.093716
Durbin-Watson stat	0.901133		

Equation: D(LOG(LNF115))=C(229)+C(230)*D(RUSSELL_LN)
Observations: 10

R-squared	0.846032	Mean dependent var	-0.000708
Adjusted R-squared	0.826786	S.D. dependent var	0.057555
S.E. of regression	0.023954	Sum squared resid	0.004590

Durbin-Watson stat	3.147837		

Equation: D(LNF116)=C(231)+C(232)*D(RUSSELL_LN)
Observations: 10

R-squared	0.758729	Mean dependent var	0.101004
Adjusted R-squared	0.728571	S.D. dependent var	0.358376
S.E. of regression	0.186710	Sum squared resid	0.278884
Durbin-Watson stat	2.742301		

Equation: D(LOG(LNF117))=C(233)+C(234)*D(RUSSELL_LN)
Observations: 10

R-squared	0.931172	Mean dependent var	-0.009425
Adjusted R-squared	0.922568	S.D. dependent var	0.069477
S.E. of regression	0.019333	Sum squared resid	0.002990
Durbin-Watson stat	2.747677		

Equation: D(LNF118)=C(235)+C(236)*D(RUSSELL_LN)
Observations: 10

R-squared	0.944141	Mean dependent var	-0.024061
Adjusted R-squared	0.937159	S.D. dependent var	0.297997
S.E. of regression	0.074702	Sum squared resid	0.044644
Durbin-Watson stat	2.370810		

Equation: D(LNF119)=C(237)+C(238)*D(RUSSELL_LN)
Observations: 10

R-squared	0.838636	Mean dependent var	0.038192
Adjusted R-squared	0.818466	S.D. dependent var	0.333937
S.E. of regression	0.142280	Sum squared resid	0.161949
Durbin-Watson stat	1.304341		

Equation: D(LNF120)=C(239)+C(240)*D(RUSSELL_LN)
Observations: 10

R-squared	0.884358	Mean dependent var	0.031410
Adjusted R-squared	0.869903	S.D. dependent var	0.216653
S.E. of regression	0.078145	Sum squared resid	0.048853
Durbin-Watson stat	1.757300		

Equation: D(LNF121)=C(241)+C(242)*D(RUSSELL_LN)
Observations: 10

R-squared	0.869656	Mean dependent var	-0.038918
Adjusted R-squared	0.853363	S.D. dependent var	0.309561
S.E. of regression	0.118541	Sum squared resid	0.112416
Durbin-Watson stat	2.101953		

Equation: D(LNF122)=C(243)+C(244)*D(RUSSELL_LN)
Observations: 10

R-squared	0.874834	Mean dependent var	0.049508
Adjusted R-squared	0.859188	S.D. dependent var	0.347736
S.E. of regression	0.130488	Sum squared resid	0.136216
Durbin-Watson stat	0.829050		

Equation: D(LNF123)=C(245)+C(246)*D(RUSSELL_LN)
Observations: 10

R-squared	0.954132	Mean dependent var	0.004896
Adjusted R-squared	0.948399	S.D. dependent var	0.274483
S.E. of regression	0.062351	Sum squared resid	0.031101
Durbin-Watson stat	1.700623		

Equation: D(LNF124)=C(247)+C(248)*D(RUSSELL_LN)
Observations: 10

R-squared	0.692962	Mean dependent var	0.096628
Adjusted R-squared	0.654583	S.D. dependent var	0.155223
S.E. of regression	0.091228	Sum squared resid	0.066580
Durbin-Watson stat	1.019016		

Equation: D(LOG(LNF125))=C(249)+C(250)*D(RUSSELL_LN)
Observations: 10

R-squared	0.786432	Mean dependent var	0.012641
Adjusted R-squared	0.759736	S.D. dependent var	0.047701
S.E. of regression	0.023381	Sum squared resid	0.004373
Durbin-Watson stat	1.348996		

Equation: D(LNF126)=C(251)+C(252)*D(RUSSELL_LN)
Observations: 10

R-squared	0.831978	Mean dependent var	0.008879
Adjusted R-squared	0.810975	S.D. dependent var	0.194204
S.E. of regression	0.084434	Sum squared resid	0.057033
Durbin-Watson stat	1.050042		

Equation: D(LOG(LNF127))=C(253)+C(254)*D(RUSSELL_LN)
Observations: 10

R-squared	0.799421	Mean dependent var	-0.018030
Adjusted R-squared	0.774348	S.D. dependent var	0.126818
S.E. of regression	0.060242	Sum squared resid	0.029033
Durbin-Watson stat	1.491323		

Equation: D(LNF128)=C(255)+C(256)*D(RUSSELL_LN)
Observations: 10

R-squared	0.823618	Mean dependent var	0.026029
Adjusted R-squared	0.801570	S.D. dependent var	0.205283
S.E. of regression	0.091444	Sum squared resid	0.066896
Durbin-Watson stat	0.732647		

Equation: D(LNF129)=C(257)+C(258)*D(RUSSELL_LN)
Observations: 10

R-squared	0.928558	Mean dependent var	-0.005407
Adjusted R-squared	0.919628	S.D. dependent var	0.259465
S.E. of regression	0.073558	Sum squared resid	0.043286
Durbin-Watson stat	2.084890		

Equation: D(LNF130)=C(259)+C(260)*D(RUSSELL_LN)
Observations: 10

R-squared	0.945240	Mean dependent var	0.021802
Adjusted R-squared	0.938394	S.D. dependent var	0.221453
S.E. of regression	0.054966	Sum squared resid	0.024170
Durbin-Watson stat	1.094067		

Equation: D(LNF131)=C(261)+C(262)*D(RUSSELL_LN)
Observations: 10

R-squared	0.893055	Mean dependent var	-0.026335
Adjusted R-squared	0.879686	S.D. dependent var	0.324226
S.E. of regression	0.112462	Sum squared resid	0.101181
Durbin-Watson stat	1.195213		

Equation: D(LNF132)=C(263)+C(264)*D(RUSSELL_LN)
Observations: 10

R-squared	0.633760	Mean dependent var	0.058253
Adjusted R-squared	0.587980	S.D. dependent var	0.156117
S.E. of regression	0.100210	Sum squared resid	0.080336
Durbin-Watson stat	0.578229		

Equation: D(LNF133)=C(265)+C(266)*D(RUSSELL_LN)
Observations: 10

R-squared	0.753200	Mean dependent var	0.083366
Adjusted R-squared	0.722349	S.D. dependent var	0.209248
S.E. of regression	0.110258	Sum squared resid	0.097255
Durbin-Watson stat	0.612301		

Equation: D(LNF134)=C(267)+C(268)*D(RUSSELL_LN)
Observations: 10

R-squared	0.966588	Mean dependent var	-0.015281
Adjusted R-squared	0.962411	S.D. dependent var	0.291371
S.E. of regression	0.056490	Sum squared resid	0.025529
Durbin-Watson stat	2.066969		

Equation: D(LNF135)=C(269)+C(270)*D(RUSSELL_LN)
Observations: 10

R-squared	0.881082	Mean dependent var	0.030955
Adjusted R-squared	0.866218	S.D. dependent var	0.214575
S.E. of regression	0.078484	Sum squared resid	0.049277
Durbin-Watson stat	3.114939		

Equation: D(LNF136)=C(271)+C(272)*D(RUSSELL_LN)
Observations: 10

R-squared	0.742508	Mean dependent var	0.086606
Adjusted R-squared	0.710321	S.D. dependent var	0.227563
S.E. of regression	0.122479	Sum squared resid	0.120008
Durbin-Watson stat	0.932415		

Equation: D(LNF137)=C(273)+C(274)*D(RUSSELL_LN)
Observations: 10

R-squared	0.663988	Mean dependent var	0.080526
Adjusted R-squared	0.621987	S.D. dependent var	0.210218
S.E. of regression	0.129248	Sum squared resid	0.133640
Durbin-Watson stat	0.602442		

Equation: D(LNF138)=C(275)+C(276)*D(RUSSELL_LN)
Observations: 10

R-squared	0.998661	Mean dependent var	-0.013366
Adjusted R-squared	0.998493	S.D. dependent var	0.225259
S.E. of regression	0.008743	Sum squared resid	0.000612
Durbin-Watson stat	0.809522		

Equation: D(LNF139)=C(277)+C(278)*D(RUSSELL_LN)
Observations: 10

R-squared	0.728258	Mean dependent var	0.047524
Adjusted R-squared	0.694290	S.D. dependent var	0.268341
S.E. of regression	0.148369	Sum squared resid	0.176106
Durbin-Watson stat	0.548510		

Equation: D(LNF140)=C(279)+C(280)*D(RUSSELL_LN)
Observations: 10

R-squared	0.963986	Mean dependent var	0.039700
Adjusted R-squared	0.959484	S.D. dependent var	0.222070
S.E. of regression	0.044699	Sum squared resid	0.015984
Durbin-Watson stat	1.907614		

Equation: D(LNF141)=C(281)+C(282)*D(RUSSELL_LN)
Observations: 10

R-squared	0.892955	Mean dependent var	0.016352
Adjusted R-squared	0.879574	S.D. dependent var	0.255167
S.E. of regression	0.088549	Sum squared resid	0.062728
Durbin-Watson stat	2.006319		

Equation: D(LNF142)=C(283)+C(284)*D(RUSSELL_LN)
Observations: 10

R-squared	0.909506	Mean dependent var	0.053758
Adjusted R-squared	0.898194	S.D. dependent var	0.199598
S.E. of regression	0.063686	Sum squared resid	0.032447
Durbin-Watson stat	1.057966		

Equation: D(LNF143)=C(285)+C(286)*D(RUSSELL_LN)

Observations: 10

R-squared	0.908630	Mean dependent var	0.080516
Adjusted R-squared	0.897209	S.D. dependent var	0.193237
S.E. of regression	0.061954	Sum squared resid	0.030706
Durbin-Watson stat	0.593073		

Equation: D(LNF144)=C(287)+C(288)*D(RUSSELL_LN)
Observations: 10

R-squared	0.865690	Mean dependent var	0.026158
Adjusted R-squared	0.848901	S.D. dependent var	0.195892
S.E. of regression	0.076146	Sum squared resid	0.046386
Durbin-Watson stat	1.117269		

Equation: D(LNF145)=C(289)+C(290)*D(RUSSELL_LN)
Observations: 10

R-squared	0.856761	Mean dependent var	0.028765
Adjusted R-squared	0.838856	S.D. dependent var	0.081613
S.E. of regression	0.032762	Sum squared resid	0.008587
Durbin-Watson stat	1.447629		

Equation: D(LNF146)=C(291)+C(292)*D(RUSSELL_LN)
Observations: 10

R-squared	0.978829	Mean dependent var	-0.024780
Adjusted R-squared	0.976182	S.D. dependent var	0.220263
S.E. of regression	0.033993	Sum squared resid	0.009244
Durbin-Watson stat	0.769901		

Equation: D(LNF147)=C(293)+C(294)*D(RUSSELL_LN)
Observations: 10

R-squared	0.913089	Mean dependent var	-0.023800
Adjusted R-squared	0.902225	S.D. dependent var	0.268652
S.E. of regression	0.084005	Sum squared resid	0.056455
Durbin-Watson stat	1.751377		

Equation: D(LNF148)=C(295)+C(296)*D(RUSSELL_LN)
Observations: 10

R-squared	0.924243	Mean dependent var	-0.013966
Adjusted R-squared	0.914773	S.D. dependent var	0.269563
S.E. of regression	0.078695	Sum squared resid	0.049543
Durbin-Watson stat	2.231346		

Equation: D(LNF149)=C(297)+C(298)*D(RUSSELL_LN)
Observations: 10

R-squared	0.897616	Mean dependent var	0.027771
Adjusted R-squared	0.884818	S.D. dependent var	0.197401
S.E. of regression	0.066995	Sum squared resid	0.035907
Durbin-Watson stat	1.082106		

Equation: D(LNF150)=C(299)+C(300)*D(RUSSELL_LN)
Observations: 10

R-squared	0.899496	Mean dependent var	0.030269
Adjusted R-squared	0.886933	S.D. dependent var	0.307641
S.E. of regression	0.103445	Sum squared resid	0.085608
Durbin-Watson stat	2.865686		

Equation: D(LNF151)=C(301)+C(302)*D(RUSSELL_LN)
Observations: 10

R-squared	0.937706	Mean dependent var	-0.021117
Adjusted R-squared	0.929920	S.D. dependent var	0.260513
S.E. of regression	0.068965	Sum squared resid	0.038049
Durbin-Watson stat	2.601759		

Equation: D(LNF152)=C(303)+C(304)*D(RUSSELL_LN)
Observations: 10

R-squared	0.752728	Mean dependent var	0.100479
Adjusted R-squared	0.721819	S.D. dependent var	0.216509
S.E. of regression	0.114193	Sum squared resid	0.104321
Durbin-Watson stat	0.623922		

Equation: D(LNF153)=C(305)+C(306)*D(RUSSELL_LN)
Observations: 10

R-squared	0.738806	Mean dependent var	0.084968
Adjusted R-squared	0.706156	S.D. dependent var	0.289254
S.E. of regression	0.156797	Sum squared resid	0.196683
Durbin-Watson stat	1.566261		

Equation: D(LNF154)=C(307)+C(308)*D(RUSSELL_LN)
Observations: 10

R-squared	0.540834	Mean dependent var	0.097736
Adjusted R-squared	0.483439	S.D. dependent var	0.189826
S.E. of regression	0.136432	Sum squared resid	0.148910
Durbin-Watson stat	2.153988		

Equation: D(LNF155)=C(309)+C(310)*D(RUSSELL_LN)
Observations: 10

R-squared	0.720918	Mean dependent var	0.036297
Adjusted R-squared	0.686033	S.D. dependent var	0.243460
S.E. of regression	0.136417	Sum squared resid	0.148877
Durbin-Watson stat	0.263625		

Equation: D(LNF156)=C(311)+C(312)*D(RUSSELL_LN)
Observations: 10

R-squared	0.865034	Mean dependent var	0.034743
Adjusted R-squared	0.848163	S.D. dependent var	0.256423
S.E. of regression	0.099918	Sum squared resid	0.079870
Durbin-Watson stat	0.936560		

Equation: D(LNF157)=C(313)+C(314)*D(RUSSELL_LN)
Observations: 10

R-squared	0.900755	Mean dependent var	0.018594
Adjusted R-squared	0.888349	S.D. dependent var	0.199771
S.E. of regression	0.066752	Sum squared resid	0.035646
Durbin-Watson stat	0.859434		

Equation: D(LNF158)=C(315)+C(316)*D(RUSSELL_LN)
Observations: 10

R-squared	0.842401	Mean dependent var	0.019021
Adjusted R-squared	0.822702	S.D. dependent var	0.170251
S.E. of regression	0.071687	Sum squared resid	0.041112
Durbin-Watson stat	1.145992		

Equation: D(LNF159)=C(317)+C(318)*D(RUSSELL_LN)
Observations: 10

R-squared	0.857214	Mean dependent var	0.029695
Adjusted R-squared	0.839366	S.D. dependent var	0.369421
S.E. of regression	0.148061	Sum squared resid	0.175376
Durbin-Watson stat	2.151984		

Equation: D(LNF160)=C(319)+C(320)*D(RUSSELL_LN)
Observations: 10

R-squared	0.792200	Mean dependent var	0.085735
Adjusted R-squared	0.766225	S.D. dependent var	0.210753
S.E. of regression	0.101899	Sum squared resid	0.083068
Durbin-Watson stat	0.789306		

Equation: D(LNF161)=C(321)+C(322)*D(RUSSELL_LN)
Observations: 10

R-squared	0.998848	Mean dependent var	-0.016289

Adjusted R-squared	0.998704	S.D. dependent var	0.225222
S.E. of regression	0.008109	Sum squared resid	0.000526
Durbin-Watson stat	0.978252		

Equation: D(LNF162)=C(323)+C(324)*D(RUSSELL_LN)
Observations: 10

R-squared	0.886276	Mean dependent var	0.048186
Adjusted R-squared	0.872060	S.D. dependent var	0.204781
S.E. of regression	0.073247	Sum squared resid	0.042921
Durbin-Watson stat	0.625407		

Equation: D(LNF163)=C(325)+C(326)*D(RUSSELL_LN)
Observations: 10

R-squared	0.777100	Mean dependent var	0.057398
Adjusted R-squared	0.749238	S.D. dependent var	0.223613
S.E. of regression	0.111977	Sum squared resid	0.100311
Durbin-Watson stat	1.579050		

Equation: D(LNF164)=C(327)+C(328)*D(RUSSELL_LN)
Observations: 10

R-squared	0.981631	Mean dependent var	0.022183
Adjusted R-squared	0.979335	S.D. dependent var	0.200832
S.E. of regression	0.028870	Sum squared resid	0.006668
Durbin-Watson stat	0.972269		

Equation: D(LNF165)=C(329)+C(330)*D(RUSSELL_LN)
Observations: 10

R-squared	0.929038	Mean dependent var	0.034698
Adjusted R-squared	0.920167	S.D. dependent var	0.173640
S.E. of regression	0.049061	Sum squared resid	0.019256
Durbin-Watson stat	0.876192		

Equation: D(LNF166)=C(331)+C(332)*D(RUSSELL_LN)
Observations: 10

R-squared	0.976647	Mean dependent var	-0.021351
Adjusted R-squared	0.973728	S.D. dependent var	0.242392
S.E. of regression	0.039289	Sum squared resid	0.012349
Durbin-Watson stat	0.810402		

Equation: D(LNF167)=C(333)+C(334)*D(RUSSELL_LN)
Observations: 10

R-squared	0.867127	Mean dependent var	-0.078630
Adjusted R-squared	0.850518	S.D. dependent var	0.320265
S.E. of regression	0.123824	Sum squared resid	0.122659
Durbin-Watson stat	1.396687		

Equation: D(LNF168)=C(335)+C(336)*D(RUSSELL_LN)
Observations: 10

R-squared	0.997189	Mean dependent var	-0.022655
Adjusted R-squared	0.996838	S.D. dependent var	0.219982
S.E. of regression	0.012371	Sum squared resid	0.001224
Durbin-Watson stat	1.285942		

Equation: D(LNF169)=C(337)+C(338)*D(RUSSELL_LN)
Observations: 10

R-squared	0.853081	Mean dependent var	0.047727
Adjusted R-squared	0.834717	S.D. dependent var	0.222392
S.E. of regression	0.090413	Sum squared resid	0.065397
Durbin-Watson stat	0.822557		

Equation: D(LNF170)=C(339)+C(340)*D(RUSSELL_LN)
Observations: 10

R-squared	0.858350	Mean dependent var	0.039454
Adjusted R-squared	0.840643	S.D. dependent var	0.205672

S.E. of regression	0.082103	Sum squared resid	0.053928
Durbin-Watson stat	0.651052		

Equation: D(LNF171)=C(341)+C(342)*D(RUSSELL_LN)
Observations: 10

R-squared	0.812335	Mean dependent var	-0.011662
Adjusted R-squared	0.788877	S.D. dependent var	0.307144
S.E. of regression	0.141127	Sum squared resid	0.159334
Durbin-Watson stat	2.198055		

Equation: D(LNF172)=C(343)+C(344)*D(RUSSELL_LN)
Observations: 10

R-squared	0.845941	Mean dependent var	0.019016
Adjusted R-squared	0.826684	S.D. dependent var	0.319714
S.E. of regression	0.133101	Sum squared resid	0.141726
Durbin-Watson stat	0.698763		

Equation: D(LNF173)=C(345)+C(346)*D(RUSSELL_LN)
Observations: 10

R-squared	0.942286	Mean dependent var	0.026052
Adjusted R-squared	0.935072	S.D. dependent var	0.288726
S.E. of regression	0.073570	Sum squared resid	0.043301
Durbin-Watson stat	1.267475		

Equation: D(LNF174)=C(347)+C(348)*D(RUSSELL_LN)
Observations: 10

R-squared	0.889004	Mean dependent var	-0.009081
Adjusted R-squared	0.875129	S.D. dependent var	0.208371
S.E. of regression	0.073632	Sum squared resid	0.043374
Durbin-Watson stat	1.034797		

Equation: D(LNF175)=C(349)+C(350)*D(RUSSELL_LN)
Observations: 10

R-squared	0.949741	Mean dependent var	-0.046388
Adjusted R-squared	0.943459	S.D. dependent var	0.253978
S.E. of regression	0.060392	Sum squared resid	0.029178
Durbin-Watson stat	2.940055		

Equation: D(LNF176)=C(351)+C(352)*D(RUSSELL_LN)
Observations: 10

R-squared	0.790453	Mean dependent var	-0.029859
Adjusted R-squared	0.764260	S.D. dependent var	0.274298
S.E. of regression	0.133180	Sum squared resid	0.141896
Durbin-Watson stat	2.478509		

Equation: D(LNF177)=C(353)+C(354)*D(RUSSELL_LN)
Observations: 10

R-squared	0.829276	Mean dependent var	0.013748
Adjusted R-squared	0.807935	S.D. dependent var	0.314032
S.E. of regression	0.137625	Sum squared resid	0.151526
Durbin-Watson stat	0.651816		

Equation: D(LNF178)=C(355)+C(356)*D(RUSSELL_LN)
Observations: 10

R-squared	0.867006	Mean dependent var	0.064318
Adjusted R-squared	0.850382	S.D. dependent var	0.174492
S.E. of regression	0.067494	Sum squared resid	0.036444
Durbin-Watson stat	0.894414		

Equation: D(LNF179)=C(357)+C(358)*D(RUSSELL_LN)
Observations: 10

R-squared	0.939334	Mean dependent var	-0.037065
Adjusted R-squared	0.931751	S.D. dependent var	0.255327
S.E. of regression	0.066703	Sum squared resid	0.035594

Durbin-Watson stat	2.109043

Equation: D(LNF180)=C(359)+C(360)*D(RUSSELL_LN)
Observations: 10

R-squared	0.969084	Mean dependent var	0.003896
Adjusted R-squared	0.965219	S.D. dependent var	0.259851
S.E. of regression	0.048461	Sum squared resid	0.018788
Durbin-Watson stat	2.139215		

Equation: D(LNF181)=C(361)+C(362)*D(RUSSELL_LN)
Observations: 10

R-squared	0.876032	Mean dependent var	-0.032999
Adjusted R-squared	0.860536	S.D. dependent var	0.262147
S.E. of regression	0.097899	Sum squared resid	0.076673
Durbin-Watson stat	1.016171		

Equation: D(LNF182)=C(363)+C(364)*D(RUSSELL_LN)
Observations: 10

R-squared	0.899744	Mean dependent var	0.011570
Adjusted R-squared	0.887211	S.D. dependent var	0.297431
S.E. of regression	0.099889	Sum squared resid	0.079823
Durbin-Watson stat	1.574122		

Equation: D(LNF183)=C(365)+C(366)*D(RUSSELL_LN)
Observations: 10

R-squared	0.772009	Mean dependent var	0.060681
Adjusted R-squared	0.743510	S.D. dependent var	0.225779
S.E. of regression	0.114346	Sum squared resid	0.104599
Durbin-Watson stat	0.331064		

Equation: D(LNF184)=C(367)+C(368)*D(RUSSELL_LN)
Observations: 10

R-squared	0.736778	Mean dependent var	0.104642
Adjusted R-squared	0.703875	S.D. dependent var	0.196950
S.E. of regression	0.107175	Sum squared resid	0.091892
Durbin-Watson stat	0.790626		

Equation: D(LNF185)=C(369)+C(370)*D(RUSSELL_LN)
Observations: 10

R-squared	0.678193	Mean dependent var	0.098842
Adjusted R-squared	0.637967	S.D. dependent var	0.186932
S.E. of regression	0.112475	Sum squared resid	0.101206
Durbin-Watson stat	1.106162		

Equation: D(LNF186)=C(371)+C(372)*D(RUSSELL_LN)
Observations: 10

R-squared	0.756953	Mean dependent var	0.037386
Adjusted R-squared	0.726572	S.D. dependent var	0.170812
S.E. of regression	0.089318	Sum squared resid	0.063822
Durbin-Watson stat	0.980613		

Equation: D(LNF187)=C(373)+C(374)*D(RUSSELL_LN)
Observations: 10

R-squared	0.816481	Mean dependent var	0.085635
Adjusted R-squared	0.793541	S.D. dependent var	0.239912
S.E. of regression	0.109011	Sum squared resid	0.095067
Durbin-Watson stat	0.501995		

Equation: D(LNF188)=C(375)+C(376)*D(RUSSELL_LN)
Observations: 10

R-squared	0.898802	Mean dependent var	-0.011324
Adjusted R-squared	0.886152	S.D. dependent var	0.283990
S.E. of regression	0.095822	Sum squared resid	0.073455
Durbin-Watson stat	1.366558		

Equation: D(LNF189)=C(377)+C(378)*D(RUSSELL_LN)
Observations: 10

R-squared	0.772938	Mean dependent var	0.065233
Adjusted R-squared	0.744555	S.D. dependent var	0.239560
S.E. of regression	0.121077	Sum squared resid	0.117277
Durbin-Watson stat	0.716490		

Equation: D(LNF190)=C(379)+C(380)*D(RUSSELL_LN)
Observations: 10

R-squared	0.764000	Mean dependent var	0.071328
Adjusted R-squared	0.734500	S.D. dependent var	0.250530
S.E. of regression	0.129089	Sum squared resid	0.133313
Durbin-Watson stat	1.029550		

Equation: D(LNF191)=C(381)+C(382)*D(RUSSELL_LN)
Observations: 10

R-squared	0.887989	Mean dependent var	-0.008037
Adjusted R-squared	0.873988	S.D. dependent var	0.208642
S.E. of regression	0.074064	Sum squared resid	0.043884
Durbin-Watson stat	2.452203		

Equation: D(LNF192)=C(383)+C(384)*D(RUSSELL_LN)
Observations: 10

R-squared	0.933332	Mean dependent var	-0.021121
Adjusted R-squared	0.924998	S.D. dependent var	0.241716
S.E. of regression	0.066197	Sum squared resid	0.035057
Durbin-Watson stat	1.489986		

Equation: D(LNF193)=C(385)+C(386)*D(RUSSELL_LN)
Observations: 10

R-squared	0.795355	Mean dependent var	-0.067855
Adjusted R-squared	0.769774	S.D. dependent var	0.361444
S.E. of regression	0.173427	Sum squared resid	0.240616
Durbin-Watson stat	1.246643		

Equation: D(LNF194)=C(387)+C(388)*D(RUSSELL_LN)
Observations: 10

R-squared	0.874734	Mean dependent var	0.020758
Adjusted R-squared	0.859076	S.D. dependent var	0.201984
S.E. of regression	0.075825	Sum squared resid	0.045995
Durbin-Watson stat	1.163538		

Equation: D(LNF195)=C(389)+C(390)*D(RUSSELL_LN)
Observations: 10

R-squared	0.766124	Mean dependent var	0.060081
Adjusted R-squared	0.736889	S.D. dependent var	0.213541
S.E. of regression	0.109535	Sum squared resid	0.095983
Durbin-Watson stat	0.829720		

Equation: D(LNF196)=C(391)+C(392)*D(RUSSELL_LN)
Observations: 10

R-squared	0.972849	Mean dependent var	-0.024589
Adjusted R-squared	0.969455	S.D. dependent var	0.225592
S.E. of regression	0.039427	Sum squared resid	0.012436
Durbin-Watson stat	1.546681		

Equation: D(LNF197)=C(393)+C(394)*D(RUSSELL_LN)
Observations: 10

R-squared	0.940012	Mean dependent var	-0.000782
Adjusted R-squared	0.932513	S.D. dependent var	0.268431
S.E. of regression	0.069734	Sum squared resid	0.038902
Durbin-Watson stat	2.178688		

Equation: D(LNF198)=C(395)+C(396)*D(RUSSELL_LN)
Observations: 10

R-squared	0.896462	Mean dependent var	0.050420
Adjusted R-squared	0.883520	S.D. dependent var	0.234408
S.E. of regression	0.080002	Sum squared resid	0.051202
Durbin-Watson stat	0.584986		

Equation: D(LNF199)=C(397)+C(398)*D(RUSSELL_LN)
Observations: 10

R-squared	0.901821	Mean dependent var	-0.075882
Adjusted R-squared	0.889548	S.D. dependent var	0.283963
S.E. of regression	0.094373	Sum squared resid	0.071250
Durbin-Watson stat	1.207737		

Equation: D(LNF200)=C(399)+C(400)*D(RUSSELL_LN)
Observations: 10

R-squared	0.968075	Mean dependent var	-0.002492
Adjusted R-squared	0.964084	S.D. dependent var	0.263628
S.E. of regression	0.049961	Sum squared resid	0.019969
Durbin-Watson stat	0.319441		

System: SYSHOURDAQ
Estimation Method: Least Squares
Date: 05/08/10 Time: 13:19
Sample: 2000 2009
Included observations: 10
Total system (balanced) observations 2000

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	0.025727	0.030412	0.845959	0.3977
C(2)	0.617859	0.094328	6.550112	0.0000
C(3)	0.098228	0.058265	1.685891	0.0920
C(4)	0.701565	0.180717	3.882113	0.0001
C(5)	0.049793	0.049305	1.009906	0.3127
C(6)	0.437632	0.152926	2.861729	0.0043
C(7)	0.043713	0.064114	0.681799	0.4955
C(8)	0.715572	0.198859	3.598388	0.0003
C(9)	0.058276	0.042798	1.361665	0.1735
C(10)	0.398336	0.132744	3.000778	0.0027
C(11)	0.069837	0.051810	1.347943	0.1779
C(12)	0.632259	0.160697	3.934489	0.0001
C(13)	0.060026	0.027568	2.177411	0.0296
C(14)	0.736586	0.085505	8.614489	0.0000
C(15)	0.020631	0.031765	0.649482	0.5161
C(16)	0.607030	0.098524	6.161254	0.0000
C(17)	-0.006404	0.036318	-0.176317	0.8601
C(18)	0.913448	0.112646	8.109015	0.0000
C(19)	0.014300	0.020755	0.688998	0.4909
C(20)	0.722884	0.064375	11.22923	0.0000
C(21)	0.098392	0.063380	1.552416	0.1208
C(22)	0.170744	0.196583	0.868561	0.3852
C(23)	0.022686	0.029735	0.762935	0.4456
C(24)	0.716220	0.092228	7.765790	0.0000
C(25)	0.053008	0.058151	0.911569	0.3621
C(26)	0.697662	0.180363	3.868096	0.0001
C(27)	0.092661	0.057783	1.603590	0.1090
C(28)	0.567494	0.179224	3.166396	0.0016
C(29)	0.034093	0.031917	1.068180	0.2856
C(30)	0.730893	0.098996	7.383035	0.0000
C(31)	0.049525	0.040164	1.233066	0.2177
C(32)	0.634416	0.124575	5.092626	0.0000
C(33)	0.067453	0.039435	1.710509	0.0874
C(34)	0.610995	0.122312	4.995375	0.0000
C(35)	0.121758	0.071917	1.693026	0.0906
C(36)	0.390207	0.223062	1.749316	0.0804
C(37)	0.110229	0.053589	2.056927	0.0399
C(38)	0.466834	0.166215	2.808610	0.0050
C(39)	0.085310	0.042586	2.003210	0.0453
C(40)	0.651219	0.132088	4.930186	0.0000
C(41)	0.079999	0.038990	2.051776	0.0404
C(42)	0.639798	0.120934	5.290470	0.0000
C(43)	0.098788	0.056672	1.743147	0.0815
C(44)	0.422801	0.175777	2.405328	0.0163
C(45)	0.081879	0.053287	1.536570	0.1246
C(46)	0.583526	0.165277	3.530594	0.0004
C(47)	0.028114	0.030459	0.923011	0.3561
C(48)	0.661939	0.094472	7.006705	0.0000
C(49)	0.034601	0.028750	1.203532	0.2289
C(50)	0.638840	0.089171	7.164180	0.0000
C(51)	-0.024232	0.036973	-0.655386	0.5123
C(52)	0.792737	0.114677	6.912768	0.0000
C(53)	0.043454	0.045392	0.957297	0.3386
C(54)	0.534681	0.140791	3.797697	0.0002
C(55)	0.068025	0.059894	1.135757	0.2562

C(56)	0.561335	0.185769	3.021690	0.0026
C(57)	0.069059	0.051274	1.346869	0.1782
C(58)	0.485111	0.159033	3.050379	0.0023
C(59)	-0.003956	0.026644	-0.148495	0.8820
C(60)	0.474626	0.082640	5.743308	0.0000
C(61)	0.081268	0.053626	1.515474	0.1298
C(62)	0.520756	0.166328	3.130891	0.0018
C(63)	0.097730	0.059656	1.638234	0.1016
C(64)	0.712827	0.185030	3.852481	0.0001
C(65)	-0.005513	0.015969	-0.345217	0.7300
C(66)	0.653154	0.049531	13.18685	0.0000
C(67)	0.040028	0.032961	1.214414	0.2248
C(68)	0.739172	0.102233	7.230291	0.0000
C(69)	0.136153	0.095860	1.420344	0.1557
C(70)	0.649254	0.297322	2.183670	0.0291
C(71)	0.114221	0.070045	1.630681	0.1032
C(72)	0.722978	0.217255	3.327778	0.0009
C(73)	0.039640	0.034368	1.153396	0.2489
C(74)	0.982737	0.106597	9.219211	0.0000
C(75)	0.021255	0.040399	0.526115	0.5989
C(76)	0.833751	0.125304	6.653830	0.0000
C(77)	0.069777	0.081804	0.852975	0.3938
C(78)	0.904081	0.253726	3.563212	0.0004
C(79)	0.027285	0.033049	0.825588	0.4092
C(80)	0.998197	0.102506	9.737906	0.0000
C(81)	0.041476	0.032341	1.282467	0.1999
C(82)	1.021958	0.100309	10.18808	0.0000
C(83)	0.102002	0.082098	1.242439	0.2143
C(84)	0.545829	0.254640	2.143531	0.0322
C(85)	0.100246	0.066380	1.510179	0.1312
C(86)	0.535011	0.205887	2.598565	0.0094
C(87)	0.090566	0.069094	1.310752	0.1901
C(88)	0.622097	0.214306	2.902838	0.0037
C(89)	0.070270	0.055404	1.268330	0.2049
C(90)	0.726939	0.171843	4.230237	0.0000
C(91)	0.132319	0.047744	2.771406	0.0056
C(92)	0.381807	0.148086	2.578278	0.0100
C(93)	0.023114	0.031912	0.724288	0.4690
C(94)	0.555826	0.098980	5.615520	0.0000
C(95)	0.135354	0.070666	1.915401	0.0556
C(96)	0.629958	0.219182	2.874137	0.0041
C(97)	0.037982	0.085167	0.445972	0.6557
C(98)	0.727846	0.264158	2.755341	0.0059
C(99)	0.078799	0.030224	2.607130	0.0092
C(100)	0.357701	0.093745	3.815674	0.0001
C(101)	0.050815	0.054489	0.932583	0.3512
C(102)	0.670642	0.169004	3.968198	0.0001
C(103)	0.073906	0.074331	0.994276	0.3202
C(104)	0.414992	0.230549	1.800017	0.0720
C(105)	0.081305	0.074280	1.094582	0.2739
C(106)	0.416009	0.230390	1.805670	0.0712
C(107)	0.100643	0.077663	1.295892	0.1952
C(108)	0.659824	0.240885	2.739172	0.0062
C(109)	0.052032	0.054137	0.961129	0.3366
C(110)	0.439260	0.167912	2.616008	0.0090
C(111)	0.026712	0.059712	0.447345	0.6547
C(112)	0.592179	0.185205	3.197419	0.0014
C(113)	0.063270	0.078494	0.806047	0.4203
C(114)	0.767446	0.243461	3.152231	0.0017
C(115)	0.022160	0.020703	1.070399	0.2846
C(116)	0.590810	0.064212	9.200868	0.0000
C(117)	*0.081851*	*0.072474*	*1.129385*	*0.2589*
C(118)	0.554349	0.224789	2.466087	0.0138
C(119)	0.161487	0.077102	2.094442	0.0364

C(120)	0.716519	0.239145	2.996174	0.0028
C(121)	0.051405	0.043223	1.189299	0.2345
C(122)	0.562639	0.134062	4.196842	0.0000
C(123)	0.051480	0.062244	0.827068	0.4083
C(124)	0.609165	0.193059	3.155328	0.0016
C(125)	0.132455	0.071887	1.842545	0.0656
C(126)	0.463456	0.222969	2.078570	0.0378
C(127)	0.026460	0.042536	0.622067	0.5340
C(128)	0.574253	0.131932	4.352646	0.0000
C(129)	0.054457	0.031503	1.728619	0.0841
C(130)	0.493146	0.097711	5.046972	0.0000
C(131)	0.089676	0.052068	1.722299	0.0852
C(132)	0.502482	0.161496	3.111429	0.0019
C(133)	0.026041	0.029875	0.871666	0.3835
C(134)	0.609531	0.092661	6.578102	0.0000
C(135)	0.088095	0.076765	1.147593	0.2513
C(136)	0.668051	0.238099	2.805763	0.0051
C(137)	0.025223	0.049340	0.511203	0.6093
C(138)	0.569537	0.153035	3.721620	0.0002
C(139)	0.072320	0.062494	1.157237	0.2473
C(140)	0.363410	0.193834	1.874846	0.0610
C(141)	0.067950	0.034327	1.979490	0.0479
C(142)	0.584861	0.106470	5.493192	0.0000
C(143)	0.215790	0.075782	2.847489	0.0045
C(144)	0.719593	0.235050	3.061444	0.0022
C(145)	0.040632	0.061015	0.665931	0.5056
C(146)	0.757586	0.189248	4.003147	0.0001
C(147)	0.061319	0.084140	0.728774	0.4662
C(148)	0.420409	0.260974	1.610923	0.1074
C(149)	0.019792	0.034656	0.571118	0.5680
C(150)	0.672807	0.107490	6.259267	0.0000
C(151)	0.093279	0.045963	2.029444	0.0426
C(152)	0.679721	0.142560	4.767966	0.0000
C(153)	0.069109	0.055395	1.247575	0.2124
C(154)	0.590587	0.171816	3.437327	0.0006
C(155)	0.022304	0.032684	0.682424	0.4951
C(156)	0.607628	0.101373	5.993990	0.0000
C(157)	0.082699	0.058253	1.419649	0.1559
C(158)	0.641713	0.180681	3.551640	0.0004
C(159)	0.057400	0.049166	1.167488	0.2432
C(160)	0.572635	0.152495	3.755113	0.0002
C(161)	0.072881	0.058453	1.246828	0.2126
C(162)	0.644481	0.181301	3.554754	0.0004
C(163)	0.085019	0.061186	1.389517	0.1649
C(164)	0.514021	0.189778	2.708534	0.0068
C(165)	0.021296	0.027677	0.769458	0.4417
C(166)	0.643967	0.085845	7.501506	0.0000
C(167)	0.036895	0.035091	1.051409	0.2932
C(168)	0.568628	0.108840	5.224440	0.0000
C(169)	0.024886	0.030366	0.819537	0.4126
C(170)	0.619653	0.094185	6.579094	0.0000
C(171)	0.020282	0.031621	0.641396	0.5214
C(172)	0.454665	0.098077	4.635785	0.0000
C(173)	0.041448	0.049325	0.840291	0.4009
C(174)	0.490439	0.152990	3.205689	0.0014
C(175)	0.028223	0.034505	0.817937	0.4135
C(176)	0.665815	0.107023	6.221238	0.0000
C(177)	0.062529	0.065041	0.961385	0.3365
C(178)	0.504482	0.201734	2.500727	0.0125
C(179)	0.113110	0.036572	3.092830	0.0020
C(180)	0.533488	0.113433	4.703110	0.0000
C(181)	0.025702	0.030328	0.847463	0.3969
C(182)	0.618569	0.094066	6.575936	0.0000
C(183)	0.023181	0.038746	0.598290	0.5497

C(184)	0.614609	0.120176	5.114229	0.0000
C(185)	0.069893	0.048159	1.451295	0.1469
C(186)	0.465036	0.149373	3.113260	0.0019
C(187)	-0.011238	0.024803	-0.453108	0.6505
C(188)	0.665486	0.076930	8.650555	0.0000
C(189)	0.046355	0.045195	1.025656	0.3052
C(190)	0.770751	0.140179	5.498326	0.0000
C(191)	0.068688	0.039631	1.733190	0.0833
C(192)	0.593091	0.122921	4.824981	0.0000
C(193)	0.084784	0.042757	1.982937	0.0475
C(194)	0.599343	0.132617	4.519365	0.0000
C(195)	0.087175	0.046963	1.856258	0.0636
C(196)	0.569211	0.145663	3.907732	0.0001
C(197)	-0.223875	0.095927	-2.333803	0.0197
C(198)	1.168450	0.297532	3.927142	0.0001
C(199)	0.072423	0.048020	1.508190	0.1317
C(200)	0.255192	0.148940	1.713380	0.0868
C(201)	0.080459	0.046136	1.743950	0.0814
C(202)	0.294666	0.143098	2.059191	0.0396
C(203)	0.136464	0.052412	2.603684	0.0093
C(204)	0.551038	0.162563	3.389694	0.0007
C(205)	0.029619	0.027566	1.074477	0.2828
C(206)	0.453934	0.085499	5.309238	0.0000
C(207)	0.017326	0.027063	0.640191	0.5221
C(208)	0.516837	0.083941	6.157137	0.0000
C(209)	0.013398	0.030124	0.444757	0.6566
C(210)	0.619148	0.093434	6.626575	0.0000
C(211)	0.018738	0.031880	0.587767	0.5568
C(212)	0.829384	0.098880	8.387766	0.0000
C(213)	0.053377	0.048836	1.092981	0.2746
C(214)	0.496875	0.151471	3.280321	0.0011
C(215)	-0.026825	0.026300	-1.019965	0.3079
C(216)	0.655221	0.081572	8.032431	0.0000
C(217)	0.021953	0.030234	0.726093	0.4679
C(218)	0.617695	0.093776	6.586946	0.0000
C(219)	0.006871	0.042816	0.160486	0.8725
C(220)	0.652396	0.132801	4.912576	0.0000
C(221)	0.029086	0.033511	0.867954	0.3855
C(222)	0.658281	0.103941	6.333227	0.0000
C(223)	0.028027	0.035658	0.785980	0.4320
C(224)	0.553995	0.110600	5.009001	0.0000
C(225)	0.038565	0.032613	1.182504	0.2372
C(226)	0.555115	0.101155	5.487748	0.0000
C(227)	0.047204	0.060538	0.779748	0.4357
C(228)	0.600171	0.187767	3.196359	0.0014
C(229)	0.007344	0.011765	0.624208	0.5326
C(230)	0.137848	0.036489	3.777761	0.0002
C(231)	0.143733	0.089359	1.608480	0.1079
C(232)	0.731564	0.277161	2.639490	0.0084
C(233)	0.001392	0.010762	0.129324	0.8971
C(234)	0.185197	0.033380	5.548153	0.0000
C(235)	0.023049	0.043313	0.532150	0.5947
C(236)	0.806584	0.134341	6.003996	0.0000
C(237)	0.079009	0.081397	0.970658	0.3319
C(238)	0.698831	0.252465	2.768030	0.0057
C(239)	0.068214	0.017337	3.934569	0.0001
C(240)	0.630127	0.053773	11.71818	0.0000
C(241)	0.007490	0.054252	0.138063	0.8902
C(242)	0.794562	0.168271	4.721908	0.0000
C(243)	0.097439	0.072901	1.336602	0.1815
C(244)	0.820648	0.226112	3.629381	0.0003
C(245)	0.050846	0.026859	1.893027	0.0585
C(246)	0.786719	0.083308	9.443457	0.0000
C(247)	0.113570	0.041343	2.747026	0.0061

C(248)	0.290076	0.128231	2.262136	0.0238
C(249)	0.018621	0.011334	1.642914	0.1006
C(250)	0.102383	0.035154	2.912410	0.0036
C(251)	0.041299	0.019585	2.108710	0.0351
C(252)	0.555072	0.060746	9.137557	0.0000
C(253)	0.001248	0.021337	0.058468	0.9534
C(254)	0.330054	0.066179	4.987320	0.0000
C(255)	0.050231	0.051680	0.971967	0.3312
C(256)	0.414364	0.160292	2.585061	0.0098
C(257)	0.036034	0.035909	1.003489	0.3158
C(258)	0.709525	0.111378	6.370449	0.0000
C(259)	0.053912	0.042156	1.278871	0.2011
C(260)	0.549769	0.130754	4.204603	0.0000
C(261)	0.028600	0.027073	1.056398	0.2909
C(262)	0.940557	0.083970	11.20108	0.0000
C(263)	0.072994	0.044802	1.629247	0.1035
C(264)	0.252390	0.138961	1.816261	0.0695
C(265)	0.106867	0.054675	1.954564	0.0508
C(266)	0.402355	0.169584	2.372597	0.0178
C(267)	0.031550	0.039008	0.808813	0.4187
C(268)	0.801804	0.120990	6.627045	0.0000
C(269)	0.064904	0.031075	2.088615	0.0369
C(270)	0.581252	0.096384	6.030605	0.0000
C(271)	0.113151	0.057790	1.957978	0.0504
C(272)	0.454482	0.179243	2.535566	0.0113
C(273)	0.100487	0.060189	1.669534	0.0952
C(274)	0.341756	0.186684	1.830665	0.0673
C(275)	0.022802	0.030324	0.751969	0.4522
C(276)	0.619251	0.094053	6.584066	0.0000
C(277)	0.077687	0.070074	1.108643	0.2678
C(278)	0.516426	0.217345	2.376072	0.0176
C(279)	0.073494	0.037235	1.973775	0.0486
C(280)	0.578588	0.115490	5.009836	0.0000
C(281)	0.052073	0.052089	0.999695	0.3176
C(282)	0.611593	0.161563	3.785486	0.0002
C(283)	0.080657	0.043335	1.861248	0.0629
C(284)	0.460558	0.134410	3.426511	0.0006
C(285)	0.107231	0.040310	2.660151	0.0079
C(286)	0.457401	0.125028	3.658382	0.0003
C(287)	0.051173	0.045607	1.122040	0.2620
C(288)	0.428296	0.141458	3.027732	0.0025
C(289)	0.039219	0.018934	2.071315	0.0385
C(290)	0.178984	0.058727	3.047731	0.0023
C(291)	0.011948	0.022481	0.531461	0.5952
C(292)	0.628823	0.069727	9.018333	0.0000
C(293)	0.020513	0.030259	0.677914	0.4979
C(294)	0.758705	0.093854	8.083892	0.0000
C(295)	0.028730	0.038842	0.739663	0.4596
C(296)	0.731011	0.120474	6.067797	0.0000
C(297)	0.054508	0.042541	1.281285	0.2003
C(298)	0.457767	0.131948	3.469294	0.0005
C(299)	0.080575	0.037010	2.177103	0.0296
C(300)	0.861291	0.114792	7.503045	0.0000
C(301)	0.020957	0.033936	0.617534	0.5370
C(302)	0.720355	0.105259	6.843655	0.0000
C(303)	0.124617	0.056862	2.191574	0.0286
C(304)	0.413275	0.176366	2.343279	0.0192
C(305)	0.123333	0.064233	1.920070	0.0550
C(306)	0.656852	0.199230	3.296962	0.0010
C(307)	0.123175	0.041551	2.964429	0.0031
C(308)	0.435548	0.128876	3.379583	0.0007
C(309)	0.065051	0.061199	1.062935	0.2880
C(310)	0.492299	0.189819	2.593526	0.0096
C(311)	0.068696	0.057072	1.203680	0.2289

C(312)	0.581325	0.177017	3.284005	0.0010
C(313)	0.044902	0.044786	1.002599	0.3162
C(314)	0.450434	0.138910	3.242642	0.0012
C(315)	0.040680	0.039808	1.021914	0.3070
C(316)	0.370832	0.123470	3.003412	0.0027
C(317)	0.089406	0.047893	1.866788	0.0621
C(318)	1.022332	0.148547	6.882194	0.0000
C(319)	0.111951	0.050485	2.217504	0.0267
C(320)	0.448844	0.156587	2.866422	0.0042
C(321)	0.019852	0.030416	0.652667	0.5141
C(322)	0.618779	0.094341	6.558954	0.0000
C(323)	0.075052	0.046137	1.626710	0.1040
C(324)	0.459977	0.143102	3.214330	0.0013
C(325)	0.089062	0.044693	1.992734	0.0465
C(326)	0.542121	0.138623	3.910772	0.0001
C(327)	0.052583	0.034225	1.536383	0.1246
C(328)	0.520494	0.106155	4.903135	0.0000
C(329)	0.061020	0.029464	2.070977	0.0385
C(330)	0.450662	0.091388	4.931303	0.0000
C(331)	0.017568	0.032630	0.538386	0.5904
C(332)	0.666347	0.101208	6.583937	0.0000
C(333)	-0.027697	0.045274	-0.611773	0.5408
C(334)	0.872040	0.140423	6.210095	0.0000
C(335)	0.012413	0.030742	0.403770	0.6864
C(336)	0.600393	0.095349	6.296771	0.0000
C(337)	0.075459	0.053137	1.420084	0.1558
C(338)	0.474809	0.164812	2.880915	0.0040
C(339)	0.066655	0.045850	1.453753	0.1462
C(340)	0.465712	0.142211	3.274804	0.0011
C(341)	0.033107	0.057786	0.572917	0.5668
C(342)	0.766492	0.179233	4.276513	0.0000
C(343)	0.059044	0.076070	0.776179	0.4378
C(344)	0.685340	0.235943	2.904685	0.0037
C(345)	0.066675	0.058403	1.141628	0.2538
C(346)	0.695521	0.181147	3.839541	0.0001
C(347)	0.025124	0.024376	1.030700	0.3028
C(348)	0.585623	0.075604	7.745892	0.0000
C(349)	-0.006757	0.038996	-0.173278	0.8625
C(350)	0.678536	0.120953	5.609936	0.0000
C(351)	0.006575	0.060791	0.108165	0.9139
C(352)	0.623801	0.188552	3.308377	0.0010
C(353)	0.051858	0.077065	0.672913	0.5011
C(354)	0.652485	0.239028	2.729743	0.0064
C(355)	0.086679	0.040461	2.142303	0.0323
C(356)	0.382849	0.125495	3.050720	0.0023
C(357)	0.000778	0.046135	0.016854	0.9866
C(358)	0.647912	0.143093	4.527903	0.0000
C(359)	0.044045	0.041405	1.063766	0.2876
C(360)	0.687404	0.128422	5.352680	0.0000
C(361)	0.009477	0.033488	0.282988	0.7772
C(362)	0.727241	0.103869	7.001514	0.0000
C(363)	0.059472	0.039374	1.510460	0.1311
C(364)	0.820140	0.122123	6.715691	0.0000
C(365)	0.089891	0.051765	1.736511	0.0827
C(366)	0.500111	0.160557	3.114849	0.0019
C(367)	0.126795	0.051406	2.466557	0.0137
C(368)	0.379296	0.159443	2.378885	0.0175
C(369)	0.119373	0.049589	2.407250	0.0162
C(370)	0.351514	0.153807	2.285425	0.0224
C(371)	0.056475	0.044787	1.260946	0.2075
C(372)	0.326821	0.138915	2.352668	0.0188
C(373)	0.115498	0.057431	2.011083	0.0445
C(374)	0.511288	0.178130	2.870309	0.0042
C(375)	0.035135	0.034056	1.031685	0.3024

C(376)	0.795435	0.105630	7.530376	0.0000
C(377)	0.092735	0.061599	1.505464	0.1324
C(378)	0.470870	0.191058	2.464538	0.0138
C(379)	0.102597	0.059804	1.715566	0.0864
C(380)	0.535368	0.185490	2.886239	0.0040
C(381)	0.022287	0.039509	0.564104	0.5728
C(382)	0.519188	0.122544	4.236762	0.0000
C(383)	0.013876	0.046163	0.300585	0.7638
C(384)	0.599187	0.143181	4.184817	0.0000
C(385)	-0.012379	0.058938	-0.210028	0.8337
C(386)	0.949822	0.182804	5.195847	0.0000
C(387)	0.047342	0.045317	1.044690	0.2963
C(388)	0.455154	0.140558	3.238195	0.0012
C(389)	0.084682	0.054762	1.546356	0.1222
C(390)	0.421201	0.169853	2.479798	0.0132
C(391)	0.009321	0.039239	0.237543	0.8123
C(392)	0.580588	0.121707	4.770381	0.0000
C(393)	0.042556	0.035033	1.214736	0.2246
C(394)	0.742011	0.108661	6.828704	0.0000
C(395)	0.081445	0.052204	1.560131	0.1189
C(396)	0.531175	0.161917	3.280532	0.0011
C(397)	-0.029217	0.032935	-0.887096	0.3752
C(398)	0.798976	0.102154	7.821314	0.0000
C(399)	0.037287	0.045354	0.822120	0.4111
C(400)	0.681063	0.140673	4.841454	0.0000

Determinant residual covariance 0.000000

Equation: D(LNF1)=C(1)+C(2)*D(NASDAQLN)
Observations: 10

R-squared	0.842841	Mean dependent var	-0.010360
Adjusted R-squared	0.823197	S.D. dependent var	0.224935
S.E. of regression	0.094581	Sum squared resid	0.071564
Durbin-Watson stat	1.330912		

Equation: D(LNF2)=C(3)+C(4)*D(NASDAQLN)
Observations: 10

R-squared	0.653241	Mean dependent var	0.057252
Adjusted R-squared	0.609897	S.D. dependent var	0.290116
S.E. of regression	0.181201	Sum squared resid	0.262671
Durbin-Watson stat	1.384431		

Equation: D(LNF3)=C(5)+C(6)*D(NASDAQLN)
Observations: 10

R-squared	0.505852	Mean dependent var	0.024232
Adjusted R-squared	0.444084	S.D. dependent var	0.205654
S.E. of regression	0.153335	Sum squared resid	0.188093
Durbin-Watson stat	1.750024		

Equation: D(LNF4)=C(7)+C(8)*D(NASDAQLN)
Observations: 10

R-squared	0.618109	Mean dependent var	0.001919
Adjusted R-squared	0.570373	S.D. dependent var	0.304201
S.E. of regression	0.199392	Sum squared resid	0.318056
Durbin-Watson stat	1.489767		

Equation: D(LNF5)=C(9)+C(10)*D(NASDAQLN)
Observations: 10

R-squared	0.529541	Mean dependent var	0.035011
Adjusted R-squared	0.470734	S.D. dependent var	0.182953
S.E. of regression	0.133100	Sum squared resid	0.141724
Durbin-Watson stat	1.258529		

Equation: D(LNF6)=C(11)+C(12)*D(NASDAQLN)
Observations: 10

R-squared	0.659287	Mean dependent var	0.032909
Adjusted R-squared	0.616698	S.D. dependent var	0.260254
S.E. of regression	0.161127	Sum squared resid	0.207695
Durbin-Watson stat	1.122472		

Equation: D(LNF7)=C(13)+C(14)*D(NASDAQLN)
Observations: 10

R-squared	0.902688	Mean dependent var	0.017005
Adjusted R-squared	0.890524	S.D. dependent var	0.259117
S.E. of regression	0.085734	Sum squared resid	0.058803
Durbin-Watson stat	0.983826		

Equation: D(LNF8)=C(15)+C(16)*D(NASDAQLN)
Observations: 10

R-squared	0.825940	Mean dependent var	-0.014824
Adjusted R-squared	0.804182	S.D. dependent var	0.223242
S.E. of regression	0.098788	Sum squared resid	0.078072
Durbin-Watson stat	1.100889		

Equation: D(LNF9)=C(17)+C(18)*D(NASDAQLN)
Observations: 10

R-squared	0.891534	Mean dependent var	-0.059755
Adjusted R-squared	0.877976	S.D. dependent var	0.323337
S.E. of regression	0.112948	Sum squared resid	0.102058
Durbin-Watson stat	2.301909		

Equation: D(LNF10)=C(19)+C(20)*D(NASDAQLN)
Observations: 10

R-squared	0.940341	Mean dependent var	-0.027921
Adjusted R-squared	0.932884	S.D. dependent var	0.249153
S.E. of regression	0.064548	Sum squared resid	0.033331
Durbin-Watson stat	2.019357		

Equation: D(LNF11)=C(21)+C(22)*D(NASDAQLN)
Observations: 10

R-squared	0.086174	Mean dependent var	0.088420
Adjusted R-squared	-0.028055	S.D. dependent var	0.194401
S.E. of regression	0.197109	Sum squared resid	0.310816
Durbin-Watson stat	1.594415		

Equation: D(LNF12)=C(23)+C(24)*D(NASDAQLN)
Observations: 10

R-squared	0.882883	Mean dependent var	-0.019146
Adjusted R-squared	0.868243	S.D. dependent var	0.254763
S.E. of regression	0.092475	Sum squared resid	0.068412
Durbin-Watson stat	2.387888		

Equation: D(LNF13)=C(25)+C(26)*D(NASDAQLN)
Observations: 10

R-squared	0.651601	Mean dependent var	0.012260
Adjusted R-squared	0.608051	S.D. dependent var	0.288865
S.E. of regression	0.180846	Sum squared resid	0.261643
Durbin-Watson stat	1.812007		

Equation: D(LNF14)=C(27)+C(28)*D(NASDAQLN)
Observations: 10

R-squared	0.556198	Mean dependent var	0.059515
Adjusted R-squared	0.500723	S.D. dependent var	0.254324
S.E. of regression	0.179704	Sum squared resid	0.258348
Durbin-Watson stat	1.267377		

Equation: D(LNF15)=C(29)+C(30)*D(NASDAQLN)

Observations: 10

R-squared	0.872019	Mean dependent var	-0.008596
Adjusted R-squared	0.856021	S.D. dependent var	0.261596
S.E. of regression	0.099261	Sum squared resid	0.078823
Durbin-Watson stat	1.565455		

Equation: D(LNF16)=C(31)+C(32)*D(NASDAQLN)
Observations: 10

R-squared	0.764254	Mean dependent var	0.012471
Adjusted R-squared	0.734786	S.D. dependent var	0.242547
S.E. of regression	0.124909	Sum squared resid	0.124818
Durbin-Watson stat	1.134209		

Equation: D(LNF17)=C(33)+C(34)*D(NASDAQLN)
Observations: 10

R-squared	0.757236	Mean dependent var	0.031767
Adjusted R-squared	0.726890	S.D. dependent var	0.234673
S.E. of regression	0.122640	Sum squared resid	0.120324
Durbin-Watson stat	1.499415		

Equation: D(LNF18)=C(35)+C(36)*D(NASDAQLN)
Observations: 10

R-squared	0.276680	Mean dependent var	0.098967
Adjusted R-squared	0.186265	S.D. dependent var	0.247940
S.E. of regression	0.223660	Sum squared resid	0.400190
Durbin-Watson stat	1.189388		

Equation: D(LNF19)=C(37)+C(38)*D(NASDAQLN)
Observations: 10

R-squared	0.496485	Mean dependent var	0.082963
Adjusted R-squared	0.433545	S.D. dependent var	0.221437
S.E. of regression	0.166661	Sum squared resid	0.222206
Durbin-Watson stat	1.013086		

Equation: D(LNF20)=C(39)+C(40)*D(NASDAQLN)
Observations: 10

R-squared	0.752374	Mean dependent var	0.047274
Adjusted R-squared	0.721420	S.D. dependent var	0.250929
S.E. of regression	0.132442	Sum squared resid	0.140327
Durbin-Watson stat	1.185915		

Equation: D(LNF21)=C(41)+C(42)*D(NASDAQLN)
Observations: 10

R-squared	0.777710	Mean dependent var	0.042631
Adjusted R-squared	0.749924	S.D. dependent var	0.242479
S.E. of regression	0.121258	Sum squared resid	0.117628
Durbin-Watson stat	0.955697		

Equation: D(LNF22)=C(43)+C(44)*D(NASDAQLN)
Observations: 10

R-squared	0.419685	Mean dependent var	0.074093
Adjusted R-squared	0.347145	S.D. dependent var	0.218130
S.E. of regression	0.176248	Sum squared resid	0.248506
Durbin-Watson stat	1.073118		

Equation: D(LNF23)=C(45)+C(46)*D(NASDAQLN)
Observations: 10

R-squared	0.609091	Mean dependent var	0.047797
Adjusted R-squared	0.560227	S.D. dependent var	0.249896
S.E. of regression	0.165720	Sum squared resid	0.219704
Durbin-Watson stat	0.833920		

Equation: D(LNF24)=C(47)+C(48)*D(NASDAQLN)
Observations: 10

R-squared	0.859880	Mean dependent var	-0.010548
Adjusted R-squared	0.842365	S.D. dependent var	0.238583
S.E. of regression	0.094725	Sum squared resid	0.071783
Durbin-Watson stat	1.386467		

Equation: D(LNF25)=C(49)+C(50)*D(NASDAQLN)
Observations: 10

R-squared	0.865151	Mean dependent var	-0.002711
Adjusted R-squared	0.848295	S.D. dependent var	0.229555
S.E. of regression	0.089410	Sum squared resid	0.063953
Durbin-Watson stat	1.272588		

Equation: D(LNF26)=C(51)+C(52)*D(NASDAQLN)
Observations: 10

R-squared	0.856596	Mean dependent var	-0.070533
Adjusted R-squared	0.838670	S.D. dependent var	0.286274
S.E. of regression	0.114984	Sum squared resid	0.105771
Durbin-Watson stat	1.854885		

Equation: D(LNF27)=C(53)+C(54)*D(NASDAQLN)
Observations: 10

R-squared	0.643216	Mean dependent var	0.012225
Adjusted R-squared	0.598618	S.D. dependent var	0.222822
S.E. of regression	0.141168	Sum squared resid	0.159427
Durbin-Watson stat	1.282624		

Equation: D(LNF28)=C(55)+C(56)*D(NASDAQLN)
Observations: 10

R-squared	0.533000	Mean dependent var	0.035239
Adjusted R-squared	0.474625	S.D. dependent var	0.256980
S.E. of regression	0.186266	Sum squared resid	0.277561
Durbin-Watson stat	1.120801		

Equation: D(LNF29)=C(57)+C(58)*D(NASDAQLN)
Observations: 10

R-squared	0.537701	Mean dependent var	0.040725
Adjusted R-squared	0.479913	S.D. dependent var	0.221111
S.E. of regression	0.159459	Sum squared resid	0.203417
Durbin-Watson stat	1.232485		

Equation: D(LNF30)=C(59)+C(60)*D(NASDAQLN)
Observations: 10

R-squared	0.804809	Mean dependent var	-0.031678
Adjusted R-squared	0.780411	S.D. dependent var	0.176826
S.E. of regression	0.082861	Sum squared resid	0.054928
Durbin-Watson stat	1.410825		

*Equation: D(LNF31)=C(61)+C(62)*D(NASDAQLN)*
Observations: 10

R-squared	0.550624	Mean dependent var	0.050853
Adjusted R-squared	0.494452	S.D. dependent var	0.234556
S.E. of regression	0.166774	Sum squared resid	0.222508
Durbin-Watson stat	1.359460		

Equation: D(LNF32)=C(63)+C(64)*D(NASDAQLN)
Observations: 10

R-squared	0.649762	Mean dependent var	0.056096
Adjusted R-squared	0.605982	S.D. dependent var	0.295561
S.E. of regression	0.185526	Sum squared resid	0.275359
Durbin-Watson stat	0.976940		

Equation: D(LNF33)=C(65)+C(66)*D(NASDAQLN)
Observations: 10

R-squared	0.956018	Mean dependent var	-0.043661

Adjusted R-squared	0.950520	S.D. dependent var	0.223266
S.E. of regression	0.049663	Sum squared resid	0.019732
Durbin-Watson stat	1.689103		

Equation: D(LNF34)=C(67)+C(68)*D(NASDAQLN)
Observations: 10

R-squared	0.867280	Mean dependent var	-0.003145
Adjusted R-squared	0.850690	S.D. dependent var	0.265281
S.E. of regression	0.102506	Sum squared resid	0.084061
Durbin-Watson stat	1.042315		

Equation: D(LNF35)=C(69)+C(70)*D(NASDAQLN)
Observations: 10

R-squared	0.373454	Mean dependent var	0.098233
Adjusted R-squared	0.295136	S.D. dependent var	0.355088
S.E. of regression	0.298119	Sum squared resid	0.710998
Durbin-Watson stat	1.228563		

Equation: D(LNF36)=C(71)+C(72)*D(NASDAQLN)
Observations: 10

R-squared	0.580583	Mean dependent var	0.071994
Adjusted R-squared	0.528156	S.D. dependent var	0.317127
S.E. of regression	0.217837	Sum squared resid	0.379625
Durbin-Watson stat	1.148058		

Equation: D(LNF37)=C(73)+C(74)*D(NASDAQLN)
Observations: 10

R-squared	0.913973	Mean dependent var	-0.017759
Adjusted R-squared	0.903219	S.D. dependent var	0.343567
S.E. of regression	0.106882	Sum squared resid	0.091390
Durbin-Watson stat	1.646794		

Equation: D(LNF38)=C(75)+C(76)*D(NASDAQLN)
Observations: 10

R-squared	0.846959	Mean dependent var	-0.027442
Adjusted R-squared	0.827828	S.D. dependent var	0.302793
S.E. of regression	0.125640	Sum squared resid	0.126282
Durbin-Watson stat	1.817924		

Equation: D(LNF39)=C(77)+C(78)*D(NASDAQLN)
Observations: 10

R-squared	0.613461	Mean dependent var	0.016972
Adjusted R-squared	0.565143	S.D. dependent var	0.385793
S.E. of regression	0.254406	Sum squared resid	0.517779
Durbin-Watson stat	1.644262		

Equation: D(LNF40)=C(79)+C(80)*D(NASDAQLN)
Observations: 10

R-squared	0.922199	Mean dependent var	-0.031017
Adjusted R-squared	0.912474	S.D. dependent var	0.347412
S.E. of regression	0.102781	Sum squared resid	0.084511
Durbin-Watson stat	2.279375		

Equation: D(LNF41)=C(81)+C(82)*D(NASDAQLN)
Observations: 10

R-squared	0.928442	Mean dependent var	-0.018214
Adjusted R-squared	0.919497	S.D. dependent var	0.354484
S.E. of regression	0.100578	Sum squared resid	0.080927
Durbin-Watson stat	1.451313		

Equation: D(LNF42)=C(83)+C(84)*D(NASDAQLN)
Observations: 10

R-squared	0.364814	Mean dependent var	0.070122
Adjusted R-squared	0.285415	S.D. dependent var	0.302038

S.E. of regression	0.255322	Sum squared resid	0.521515
Durbin-Watson stat	1.327736		

Equation: D(LNF43)=C(85)+C(86)*D(NASDAQLN)
Observations: 10

R-squared	0.457721	Mean dependent var	0.068997
Adjusted R-squared	0.389936	S.D. dependent var	0.264304
S.E. of regression	0.206439	Sum squared resid	0.340935
Durbin-Watson stat	1.185390		

Equation: D(LNF44)=C(87)+C(88)*D(NASDAQLN)
Observations: 10

R-squared	0.512981	Mean dependent var	0.054231
Adjusted R-squared	0.452104	S.D. dependent var	0.290300
S.E. of regression	0.214880	Sum squared resid	0.369389
Durbin-Watson stat	1.572002		

Equation: D(LNF45)=C(89)+C(90)*D(NASDAQLN)
Observations: 10

R-squared	0.691059	Mean dependent var	0.027812
Adjusted R-squared	0.652441	S.D. dependent var	0.292268
S.E. of regression	0.172304	Sum squared resid	0.237509
Durbin-Watson stat	1.169135		

Equation: D(LNF46)=C(91)+C(92)*D(NASDAQLN)
Observations: 10

R-squared	0.453832	Mean dependent var	0.110019
Adjusted R-squared	0.385561	S.D. dependent var	0.189425
S.E. of regression	0.148483	Sum squared resid	0.176377
Durbin-Watson stat	1.045674		

Equation: D(LNF47)=C(93)+C(94)*D(NASDAQLN)
Observations: 10

R-squared	0.797643	Mean dependent var	-0.009350
Adjusted R-squared	0.772348	S.D. dependent var	0.208006
S.E. of regression	0.099245	Sum squared resid	0.078797
Durbin-Watson stat	1.944582		

Equation: D(LNF48)=C(95)+C(96)*D(NASDAQLN)
Observations: 10

R-squared	0.508015	Mean dependent var	0.098560
Adjusted R-squared	0.446517	S.D. dependent var	0.295402
S.E. of regression	0.219769	Sum squared resid	0.386387
Durbin-Watson stat	1.325298		

Equation: D(LNF49)=C(97)+C(98)*D(NASDAQLN)
Observations: 10

R-squared	0.486913	Mean dependent var	-0.004529
Adjusted R-squared	0.422777	S.D. dependent var	0.348621
S.E. of regression	0.264866	Sum squared resid	0.561231
Durbin-Watson stat	1.465462		

Equation: D(LNF50)=C(99)+C(100)*D(NASDAQLN)
Observations: 10

R-squared	0.645380	Mean dependent var	0.057907
Adjusted R-squared	0.601053	S.D. dependent var	0.148817
S.E. of regression	0.093996	Sum squared resid	0.070682
Durbin-Watson stat	1.058607		

Equation: D(LNF51)=C(101)+C(102)*D(NASDAQLN)
Observations: 10

R-squared	0.663110	Mean dependent var	0.011645
Adjusted R-squared	0.620998	S.D. dependent var	0.275257
S.E. of regression	0.169457	Sum squared resid	0.229725

Durbin-Watson stat	1.326687		

Equation: D(LNF52)=C(103)+C(104)*D(NASDAQLN)
Observations: 10

R-squared	0.288260	Mean dependent var	0.049667
Adjusted R-squared	0.199293	S.D. dependent var	0.258338
S.E. of regression	0.231167	Sum squared resid	0.427504
Durbin-Watson stat	1.012466		

Equation: D(LNF53)=C(105)+C(106)*D(NASDAQLN)
Observations: 10

R-squared	0.289548	Mean dependent var	0.057008
Adjusted R-squared	0.200742	S.D. dependent var	0.258394
S.E. of regression	0.231007	Sum squared resid	0.426915
Durbin-Watson stat	1.013822		

Equation: D(LNF54)=C(107)+C(108)*D(NASDAQLN)
Observations: 10

R-squared	0.483973	Mean dependent var	0.062105
Adjusted R-squared	0.419469	S.D. dependent var	0.316999
S.E. of regression	0.241530	Sum squared resid	0.466693
Durbin-Watson stat	1.050560		

Equation: D(LNF55)=C(109)+C(110)*D(NASDAQLN)
Observations: 10

R-squared	0.461044	Mean dependent var	0.026376
Adjusted R-squared	0.393674	S.D. dependent var	0.216218
S.E. of regression	0.168362	Sum squared resid	0.226767
Durbin-Watson stat	1.152587		

Equation: D(LNF56)=C(111)+C(112)*D(NASDAQLN)
Observations: 10

R-squared	0.561006	Mean dependent var	-0.007875
Adjusted R-squared	0.506132	S.D. dependent var	0.264247
S.E. of regression	0.185702	Sum squared resid	0.275880
Durbin-Watson stat	1.568950		

Equation: D(LNF57)=C(113)+C(114)*D(NASDAQLN)
Observations: 10

R-squared	0.553984	Mean dependent var	0.018446
Adjusted R-squared	0.498232	S.D. dependent var	0.344619
S.E. of regression	0.244113	Sum squared resid	0.476730
Durbin-Watson stat	1.521998		

Equation: D(LNF58)=C(115)+C(116)*D(NASDAQLN)
Observations: 10

R-squared	0.913659	Mean dependent var	-0.012347
Adjusted R-squared	0.902866	S.D. dependent var	0.206584
S.E. of regression	0.064384	Sum squared resid	0.033163
Durbin-Watson stat	*1.492649*		

Equation: D(LNF59)=C(117)+C(118)*D(NASDAQLN)
Observations: 10

R-squared	0.431882	Mean dependent var	0.049473
Adjusted R-squared	0.360867	S.D. dependent var	0.281930
S.E. of regression	0.225391	Sum squared resid	0.406408
Durbin-Watson stat	1.054509		

Equation: D(LNF60)=C(119)+C(120)*D(NASDAQLN)
Observations: 10

R-squared	0.528776	Mean dependent var	0.119637
Adjusted R-squared	0.469873	S.D. dependent var	0.329331
S.E. of regression	0.239785	Sum squared resid	0.459975
Durbin-Watson stat	0.689081		

Equation: D(LNF61)=C(121)+C(122)*D(NASDAQLN)
Observations: 10

R-squared	0.687665	Mean dependent var	0.018543
Adjusted R-squared	0.648623	S.D. dependent var	0.226768
S.E. of regression	0.134421	Sum squared resid	0.144553
Durbin-Watson stat	1.459092		

Equation: D(LNF62)=C(123)+C(124)*D(NASDAQLN)
Observations: 10

R-squared	0.554469	Mean dependent var	0.015901
Adjusted R-squared	0.498778	S.D. dependent var	0.273424
S.E. of regression	0.193576	Sum squared resid	0.299774
Durbin-Watson stat	1.586590		

Equation: D(LNF63)=C(125)+C(126)*D(NASDAQLN)
Observations: 10

R-squared	0.350673	Mean dependent var	0.105386
Adjusted R-squared	0.269507	S.D. dependent var	0.261576
S.E. of regression	0.223566	Sum squared resid	0.399854
Durbin-Watson stat	1.315654		

Equation: D(LNF64)=C(127)+C(128)*D(NASDAQLN)
Observations: 10

R-squared	0.703105	Mean dependent var	-0.007080
Adjusted R-squared	0.665993	S.D. dependent var	0.228894
S.E. of regression	0.132285	Sum squared resid	0.139995
Durbin-Watson stat	1.786806		

Equation: D(LNF65)=C(129)+C(130)*D(NASDAQLN)
Observations: 10

R-squared	0.760994	Mean dependent var	0.025654
Adjusted R-squared	0.731118	S.D. dependent var	0.188941
S.E. of regression	0.097973	Sum squared resid	0.076790
Durbin-Watson stat	1.338893		

Equation: D(LNF66)=C(131)+C(132)*D(NASDAQLN)
Observations: 10

R-squared	0.547537	Mean dependent var	0.060328
Adjusted R-squared	0.490979	S.D. dependent var	0.226963
S.E. of regression	0.161928	Sum squared resid	0.209766
Durbin-Watson stat	1.264842		

Equation: D(LNF67)=C(133)+C(134)*D(NASDAQLN)
Observations: 10

R-squared	0.843968	Mean dependent var	-0.009560
Adjusted R-squared	0.824464	S.D. dependent var	0.221755
S.E. of regression	0.092909	Sum squared resid	0.069056
Durbin-Watson stat	1.324767		

Equation: D(LNF68)=C(135)+C(136)*D(NASDAQLN)
Observations: 10

R-squared	0.495977	Mean dependent var	0.049077
Adjusted R-squared	0.432975	S.D. dependent var	0.317043
S.E. of regression	0.238737	Sum squared resid	0.455963
Durbin-Watson stat	1.025574		

Equation: D(LNF69)=C(137)+C(138)*D(NASDAQLN)
Observations: 10

R-squared	0.633875	Mean dependent var	-0.008042
Adjusted R-squared	0.588109	S.D. dependent var	0.239090
S.E. of regression	0.153445	Sum squared resid	0.188362
Durbin-Watson stat	1.491843		

Equation: D(LNF70)=C(139)+C(140)*D(NASDAQLN)
Observations: 10

R-squared	0.305257	Mean dependent var	0.051095
Adjusted R-squared	0.218414	S.D. dependent var	0.219839
S.E. of regression	0.194353	Sum squared resid	0.302186
Durbin-Watson stat	1.406219		

Equation: D(LNF71)=C(141)+C(142)*D(NASDAQLN)
Observations: 10

R-squared	0.790440	Mean dependent var	0.033790
Adjusted R-squared	0.764245	S.D. dependent var	0.219866
S.E. of regression	0.106755	Sum squared resid	0.091174
Durbin-Watson stat	2.355663		

Equation: D(LNF72)=C(143)+C(144)*D(NASDAQLN)
Observations: 10

R-squared	0.539500	Mean dependent var	0.173760
Adjusted R-squared	0.481938	S.D. dependent var	0.327440
S.E. of regression	0.235680	Sum squared resid	0.444360
Durbin-Watson stat	1.124657		

Equation: D(LNF73)=C(145)+C(146)*D(NASDAQLN)
Observations: 10

R-squared	0.667016	Mean dependent var	-0.003616
Adjusted R-squared	0.625393	S.D. dependent var	0.310030
S.E. of regression	0.189754	Sum squared resid	0.288054
Durbin-Watson stat	1.563203		

Equation: D(LNF74)=C(147)+C(148)*D(NASDAQLN)
Observations: 10

R-squared	0.244932	Mean dependent var	0.036765
Adjusted R-squared	0.150549	S.D. dependent var	0.283916
S.E. of regression	0.261673	Sum squared resid	0.547782
Durbin-Watson stat	1.357716		

Equation: D(LNF75)=C(149)+C(150)*D(NASDAQLN)
Observations: 10

R-squared	0.830431	Mean dependent var	-0.019504
Adjusted R-squared	0.809235	S.D. dependent var	0.246762
S.E. of regression	0.107778	Sum squared resid	0.092928
Durbin-Watson stat	1.627829		

Equation: D(LNF76)=C(151)+C(152)*D(NASDAQLN)
Observations: 10

R-squared	0.739698	Mean dependent var	0.053578
Adjusted R-squared	0.707160	S.D. dependent var	0.264146
S.E. of regression	0.142942	Sum squared resid	0.163459
Durbin-Watson stat	1.083935		

Equation: D(LNF77)=C(153)+C(154)*D(NASDAQLN)
Observations: 10

R-squared	0.596270	Mean dependent var	0.034615
Adjusted R-squared	0.545804	S.D. dependent var	0.255625
S.E. of regression	0.172276	Sum squared resid	0.237432
Durbin-Watson stat	1.158136		

Equation: D(LNF78)=C(155)+C(156)*D(NASDAQLN)
Observations: 10

R-squared	0.817883	Mean dependent var	-0.013186
Adjusted R-squared	0.795119	S.D. dependent var	0.224560
S.E. of regression	0.101644	Sum squared resid	0.082653
Durbin-Watson stat	1.626087		

Equation: D(LNF79)=C(157)+C(158)*D(NASDAQLN)

Observations: 10

R-squared	0.611917	Mean dependent var	0.045219
Adjusted R-squared	0.563407	S.D. dependent var	0.274180
S.E. of regression	0.181165	Sum squared resid	0.262565
Durbin-Watson stat	1.393797		

Equation: D(LNF80)=C(159)+C(160)*D(NASDAQLN)
Observations: 10

R-squared	0.638023	Mean dependent var	0.023955
Adjusted R-squared	0.592776	S.D. dependent var	0.239607
S.E. of regression	0.152903	Sum squared resid	0.187035
Durbin-Watson stat	1.434419		

Equation: D(LNF81)=C(161)+C(162)*D(NASDAQLN)
Observations: 10

R-squared	0.612333	Mean dependent var	0.035239
Adjusted R-squared	0.563875	S.D. dependent var	0.275269
S.E. of regression	0.181787	Sum squared resid	0.264371
Durbin-Watson stat	1.336118		

Equation: D(LNF82)=C(163)+C(164)*D(NASDAQLN)
Observations: 10

R-squared	0.478357	Mean dependent var	0.054997
Adjusted R-squared	0.413152	S.D. dependent var	0.248397
S.E. of regression	0.190287	Sum squared resid	0.289672
Durbin-Watson stat	1.052364		

Equation: D(LNF83)=C(165)+C(166)*D(NASDAQLN)
Observations: 10

R-squared	0.875530	Mean dependent var	-0.016316
Adjusted R-squared	0.859971	S.D. dependent var	0.230021
S.E. of regression	0.086075	Sum squared resid	0.059271
Durbin-Watson stat	1.410656		

Equation: D(LNF84)=C(167)+C(168)*D(NASDAQLN)
Observations: 10

R-squared	0.773338	Mean dependent var	0.003683
Adjusted R-squared	0.745005	S.D. dependent var	0.216115
S.E. of regression	0.109132	Sum squared resid	0.095278
Durbin-Watson stat	1.364744		

Equation: D(LNF85)=C(169)+C(170)*D(NASDAQLN)
Observations: 10

R-squared	0.844007	Mean dependent var	-0.011306
Adjusted R-squared	0.824508	S.D. dependent var	0.225432
S.E. of regression	0.094437	Sum squared resid	0.071347
Durbin-Watson stat	1.329735		

Equation: D(LNF86)=C(171)+C(172)*D(NASDAQLN)
Observations: 10

R-squared	0.728726	Mean dependent var	-0.006274
Adjusted R-squared	0.694817	S.D. dependent var	0.178012
S.E. of regression	0.098340	Sum squared resid	0.077366
Durbin-Watson stat	1.553533		

Equation: D(LNF87)=C(173)+C(174)*D(NASDAQLN)
Observations: 10

R-squared	0.562278	Mean dependent var	0.012803
Adjusted R-squared	0.507563	S.D. dependent var	0.218600
S.E. of regression	0.153400	Sum squared resid	0.188252
Durbin-Watson stat	1.202091		

Equation: D(LNF88)=C(175)+C(176)*D(NASDAQLN)
Observations: 10

R-squared	0.828708	Mean dependent var	-0.010665
Adjusted R-squared	0.807296	S.D. dependent var	0.244452
S.E. of regression	0.107310	Sum squared resid	0.092123
Durbin-Watson stat	1.567192		

Equation: D(LNF89)=C(177)+C(178)*D(NASDAQLN)
Observations: 10

R-squared	0.438740	Mean dependent var	0.033064
Adjusted R-squared	0.368582	S.D. dependent var	0.254555
S.E. of regression	0.202274	Sum squared resid	0.327319
Durbin-Watson stat	0.951880		

Equation: D(LNF90)=C(179)+C(180)*D(NASDAQLN)
Observations: 10

R-squared	0.734389	Mean dependent var	0.081951
Adjusted R-squared	0.701188	S.D. dependent var	0.208066
S.E. of regression	0.113737	Sum squared resid	0.103488
Durbin-Watson stat	1.058869		

Equation: D(LNF91)=C(181)+C(182)*D(NASDAQLN)
Observations: 10

R-squared	0.843881	Mean dependent var	-0.010427
Adjusted R-squared	0.824366	S.D. dependent var	0.225055
S.E. of regression	0.094318	Sum squared resid	0.071166
Durbin-Watson stat	1.332167		

Equation: D(LNF92)=C(183)+C(184)*D(NASDAQLN)
Observations: 10

R-squared	0.765776	Mean dependent var	-0.012716
Adjusted R-squared	0.736498	S.D. dependent var	0.234741
S.E. of regression	0.120498	Sum squared resid	0.116159
Durbin-Watson stat	1.368543		

Equation: D(LNF93)=C(185)+C(186)*D(NASDAQLN)
Observations: 10

R-squared	0.547828	Mean dependent var	0.042732
Adjusted R-squared	0.491307	S.D. dependent var	0.209993
S.E. of regression	0.149773	Sum squared resid	0.179455
Durbin-Watson stat	1.307959		

Equation: D(LNF94)=C(187)+C(188)*D(NASDAQLN)
Observations: 10

R-squared	0.903419	Mean dependent var	-0.050107
Adjusted R-squared	0.891346	S.D. dependent var	0.234010
S.E. of regression	0.077136	Sum squared resid	0.047600
Durbin-Watson stat	1.610976		

Equation: D(LNF95)=C(189)+C(190)*D(NASDAQLN)
Observations: 10

R-squared	0.790749	Mean dependent var	0.001337
Adjusted R-squared	0.764593	S.D. dependent var	0.289691
S.E. of regression	0.140555	Sum squared resid	0.158045
Durbin-Watson stat	1.732122		

Equation: D(LNF96)=C(191)+C(192)*D(NASDAQLN)
Observations: 10

R-squared	0.744249	Mean dependent var	0.034047
Adjusted R-squared	0.712280	S.D. dependent var	0.229775
S.E. of regression	0.123250	Sum squared resid	0.121525
Durbin-Watson stat	1.351579		

Equation: D(LNF97)=C(193)+C(194)*D(NASDAQLN)
Observations: 10

R-squared	0.718554	Mean dependent var	0.049778

Adjusted R-squared	0.683374	S.D. dependent var	0.236312
S.E. of regression	0.132972	Sum squared resid	0.141452
Durbin-Watson stat	1.847170		

Equation: D(LNF98)=C(195)+C(196)*D(NASDAQLN)
Observations: 10

R-squared	0.656215	Mean dependent var	0.053930
Adjusted R-squared	0.613242	S.D. dependent var	0.234850
S.E. of regression	0.146053	Sum squared resid	0.170651
Durbin-Watson stat	1.180524		

Equation: D(LNF99)=C(197)+C(198)*D(NASDAQLN)
Observations: 10

R-squared	0.658447	Mean dependent var	-0.292120
Adjusted R-squared	0.615753	S.D. dependent var	0.481272
S.E. of regression	0.298329	Sum squared resid	0.712001
Durbin-Watson stat	1.921925		

Equation: D(LNF100)=C(199)+C(200)*D(NASDAQLN)
Observations: 10

R-squared	0.268449	Mean dependent var	0.057518
Adjusted R-squared	0.177005	S.D. dependent var	0.164617
S.E. of regression	0.149339	Sum squared resid	0.178418
Durbin-Watson stat	0.934347		

Equation: D(LNF101)=C(201)+C(202)*D(NASDAQLN)
Observations: 10

R-squared	0.346420	Mean dependent var	0.063248
Adjusted R-squared	0.264722	S.D. dependent var	0.167328
S.E. of regression	0.143481	Sum squared resid	0.164695
Durbin-Watson stat	0.934459		

Equation: D(LNF102)=C(203)+C(204)*D(NASDAQLN)
Observations: 10

R-squared	0.589534	Mean dependent var	0.104279
Adjusted R-squared	0.538225	S.D. dependent var	0.239865
S.E. of regression	0.162998	Sum squared resid	0.212547
Durbin-Watson stat	1.344749		

Equation: D(LNF103)=C(205)+C(206)*D(NASDAQLN)
Observations: 10

R-squared	0.778932	Mean dependent var	0.003106
Adjusted R-squared	0.751299	S.D. dependent var	0.171903
S.E. of regression	0.085728	Sum squared resid	0.058794
Durbin-Watson stat	1.279449		

Equation: D(LNF104)=C(207)+C(208)*D(NASDAQLN)
Observations: 10

R-squared	0.825747	Mean dependent var	-0.012861
Adjusted R-squared	0.803966	S.D. dependent var	0.190095
S.E. of regression	0.084166	Sum squared resid	0.056671
Durbin-Watson stat	1.527019		

Equation: D(LNF105)=C(209)+C(210)*D(NASDAQLN)
Observations: 10

R-squared	0.845892	Mean dependent var	-0.022765
Adjusted R-squared	0.826628	S.D. dependent var	0.224997
S.E. of regression	0.093684	Sum squared resid	0.070214
Durbin-Watson stat	1.324152		

Equation: D(LNF106)=C(211)+C(212)*D(NASDAQLN)
Observations: 10

R-squared	0.897900	Mean dependent var	-0.029704
Adjusted R-squared	0.885138	S.D. dependent var	0.292538

S.E. of regression	0.099145	Sum squared resid	0.078638
Durbin-Watson stat	1.893338		

Equation: D(LNF107)=C(213)+C(214)*D(NASDAQLN)
Observations: 10

R-squared	0.573572	Mean dependent var	0.024356
Adjusted R-squared	0.520269	S.D. dependent var	0.219277
S.E. of regression	0.151877	Sum squared resid	0.184533
Durbin-Watson stat	1.426589		

Equation: D(LNF108)=C(215)+C(216)*D(NASDAQLN)
Observations: 10

R-squared	0.889686	Mean dependent var	-0.065094
Adjusted R-squared	0.875896	S.D. dependent var	0.232172
S.E. of regression	0.081790	Sum squared resid	0.053517
Durbin-Watson stat	1.299100		

Equation: D(LNF109)=C(217)+C(218)*D(NASDAQLN)
Observations: 10

R-squared	0.844321	Mean dependent var	-0.014125
Adjusted R-squared	0.824861	S.D. dependent var	0.224678
S.E. of regression	0.094027	Sum squared resid	0.070728
Durbin-Watson stat	1.336368		

Equation: D(LNF110)=C(219)+C(220)*D(NASDAQLN)
Observations: 10

R-squared	0.751038	Mean dependent var	-0.031233
Adjusted R-squared	0.719918	S.D. dependent var	0.251606
S.E. of regression	0.133157	Sum squared resid	0.141846
Durbin-Watson stat	1.792315		

Equation: D(LNF111)=C(221)+C(222)*D(NASDAQLN)
Observations: 10

R-squared	0.833714	Mean dependent var	-0.009362
Adjusted R-squared	0.812928	S.D. dependent var	0.240959
S.E. of regression	0.104219	Sum squared resid	0.086893
Durbin-Watson stat	1.597903		

Equation: D(LNF112)=C(223)+C(224)*D(NASDAQLN)
Observations: 10

R-squared	0.758236	Mean dependent var	-0.004330
Adjusted R-squared	0.728015	S.D. dependent var	0.212640
S.E. of regression	0.110896	Sum squared resid	0.098384
Durbin-Watson stat	1.312624		

Equation: D(LNF113)=C(225)+C(226)*D(NASDAQLN)
Observations: 10

R-squared	0.790111	Mean dependent var	0.006143
Adjusted R-squared	0.763875	S.D. dependent var	0.208727
S.E. of regression	0.101426	Sum squared resid	0.082298
Durbin-Watson stat	1.360642		

Equation: D(LNF114)=C(227)+C(228)*D(NASDAQLN)
Observations: 10

R-squared	0.560843	Mean dependent var	0.012150
Adjusted R-squared	0.505948	S.D. dependent var	0.267852
S.E. of regression	0.188270	Sum squared resid	0.283565
Durbin-Watson stat	1.401841		

Equation: D(LOG(LNF115))=C(229)+C(230)*D(NASDAQLN)
Observations: 10

R-squared	0.640796	Mean dependent var	-0.000708
Adjusted R-squared	0.595896	S.D. dependent var	0.057555
S.E. of regression	0.036587	Sum squared resid	0.010709

Durbin-Watson stat	2.360047		

Equation: D(LNF116)=C(231)+C(232)*D(NASDAQLN)
Observations: 10

R-squared	0.465487	Mean dependent var	0.101004
Adjusted R-squared	0.398673	S.D. dependent var	0.358376
S.E. of regression	0.277903	Sum squared resid	0.617842
Durbin-Watson stat	2.105634		

Equation: D(LOG(LNF117))=C(233)+C(234)*D(NASDAQLN)
Observations: 10

R-squared	0.793719	Mean dependent var	-0.009425
Adjusted R-squared	0.767934	S.D. dependent var	0.069477
S.E. of regression	0.033469	Sum squared resid	0.008962
Durbin-Watson stat	1.858390		

Equation: D(LNF118)=C(235)+C(236)*D(NASDAQLN)
Observations: 10

R-squared	0.818380	Mean dependent var	-0.024061
Adjusted R-squared	0.795677	S.D. dependent var	0.297997
S.E. of regression	0.134701	Sum squared resid	0.145155
Durbin-Watson stat	2.039064		

Equation: D(LNF119)=C(237)+C(238)*D(NASDAQLN)
Observations: 10

R-squared	0.489209	Mean dependent var	0.038192
Adjusted R-squared	0.425360	S.D. dependent var	0.333937
S.E. of regression	0.253141	Sum squared resid	0.512643
Durbin-Watson stat	1.522116		

Equation: D(LNF120)=C(239)+C(240)*D(NASDAQLN)
Observations: 10

R-squared	0.944948	Mean dependent var	0.031410
Adjusted R-squared	0.938066	S.D. dependent var	0.216653
S.E. of regression	0.053917	Sum squared resid	0.023257
Durbin-Watson stat	1.475729		

Equation: D(LNF121)=C(241)+C(242)*D(NASDAQLN)
Observations: 10

R-squared	0.735942	Mean dependent var	-0.038918
Adjusted R-squared	0.702935	S.D. dependent var	0.309561
S.E. of regression	0.168722	Sum squared resid	0.227737
Durbin-Watson stat	1.717671		

Equation: D(LNF122)=C(243)+C(244)*D(NASDAQLN)
Observations: 10

R-squared	0.622150	Mean dependent var	0.049508
Adjusted R-squared	0.574918	S.D. dependent var	0.347736
S.E. of regression	0.226718	Sum squared resid	0.411208
Durbin-Watson stat	1.097254		

Equation: D(LNF123)=C(245)+C(246)*D(NASDAQLN)
Observations: 10

R-squared	0.917678	Mean dependent var	0.004896
Adjusted R-squared	0.907387	S.D. dependent var	0.274483
S.E. of regression	0.083532	Sum squared resid	0.055820
Durbin-Watson stat	0.846957		

Equation: D(LNF124)=C(247)+C(248)*D(NASDAQLN)
Observations: 10

R-squared	0.390116	Mean dependent var	0.096628
Adjusted R-squared	0.313881	S.D. dependent var	0.155223
S.E. of regression	0.128575	Sum squared resid	0.132251
Durbin-Watson stat	1.173608		

Equation: D(LOG(LNF125))=C(249)+C(250)*D(NASDAQLN)
Observations: 10

R-squared	0.514626	Mean dependent var	0.012641
Adjusted R-squared	0.453954	S.D. dependent var	0.047701
S.E. of regression	0.035248	Sum squared resid	0.009940
Durbin-Watson stat	1.360568		

Equation: D(LNF126)=C(251)+C(252)*D(NASDAQLN)
Observations: 10

R-squared	0.912563	Mean dependent var	0.008879
Adjusted R-squared	0.901634	S.D. dependent var	0.194204
S.E. of regression	0.060909	Sum squared resid	0.029679
Durbin-Watson stat	1.910350		

Equation: D(LOG(LNF127))=C(253)+C(254)*D(NASDAQLN)
Observations: 10

R-squared	0.756642	Mean dependent var	-0.018030
Adjusted R-squared	0.726222	S.D. dependent var	0.126818
S.E. of regression	0.066356	Sum squared resid	0.035225
Durbin-Watson stat	1.818052		

Equation: D(LNF128)=C(255)+C(256)*D(NASDAQLN)
Observations: 10

R-squared	0.455135	Mean dependent var	0.026029
Adjusted R-squared	0.387027	S.D. dependent var	0.205283
S.E. of regression	0.160721	Sum squared resid	0.206650
Durbin-Watson stat	1.243463		

Equation: D(LNF129)=C(257)+C(258)*D(NASDAQLN)
Observations: 10

R-squared	0.835332	Mean dependent var	-0.005407
Adjusted R-squared	0.814749	S.D. dependent var	0.259465
S.E. of regression	0.111676	Sum squared resid	0.099772
Durbin-Watson stat	2.069152		

Equation: D(LNF130)=C(259)+C(260)*D(NASDAQLN)
Observations: 10

R-squared	0.688458	Mean dependent var	0.021802
Adjusted R-squared	0.649515	S.D. dependent var	0.221453
S.E. of regression	0.131104	Sum squared resid	0.137506
Durbin-Watson stat	1.385783		

Equation: D(LNF131)=C(261)+C(262)*D(NASDAQLN)
Observations: 10

R-squared	0.940059	Mean dependent var	-0.026335
Adjusted R-squared	0.932566	S.D. dependent var	0.324226
S.E. of regression	0.084195	Sum squared resid	0.056710
Durbin-Watson stat	1.837065		

Equation: D(LNF132)=C(263)+C(264)*D(NASDAQLN)
Observations: 10

R-squared	0.291961	Mean dependent var	0.058253
Adjusted R-squared	0.203456	S.D. dependent var	0.156117
S.E. of regression	0.139334	Sum squared resid	0.155311
Durbin-Watson stat	1.040538		

Equation: D(LNF133)=C(265)+C(266)*D(NASDAQLN)
Observations: 10

R-squared	0.413026	Mean dependent var	0.083366
Adjusted R-squared	0.339654	S.D. dependent var	0.209248
S.E. of regression	0.170038	Sum squared resid	0.231304
Durbin-Watson stat	1.005384		

Equation: D(LNF134)=C(267)+C(268)*D(NASDAQLN)
Observations: 10

R-squared	0.845910	Mean dependent var	-0.015281
Adjusted R-squared	0.826649	S.D. dependent var	0.291371
S.E. of regression	0.121314	Sum squared resid	0.117736
Durbin-Watson stat	1.706453		

Equation: D(LNF135)=C(269)+C(270)*D(NASDAQLN)
Observations: 10

R-squared	0.819691	Mean dependent var	0.030955
Adjusted R-squared	0.797152	S.D. dependent var	0.214575
S.E. of regression	0.096642	Sum squared resid	0.074717
Durbin-Watson stat	1.566175		

Equation: D(LNF136)=C(271)+C(272)*D(NASDAQLN)
Observations: 10

R-squared	0.445565	Mean dependent var	0.086606
Adjusted R-squared	0.376260	S.D. dependent var	0.227563
S.E. of regression	0.179723	Sum squared resid	0.258403
Durbin-Watson stat	1.209031		

Equation: D(LNF137)=C(273)+C(274)*D(NASDAQLN)
Observations: 10

R-squared	0.295237	Mean dependent var	0.080526
Adjusted R-squared	0.207142	S.D. dependent var	0.210218
S.E. of regression	0.187184	Sum squared resid	0.280302
Durbin-Watson stat	1.181790		

Equation: D(LNF138)=C(275)+C(276)*D(NASDAQLN)
Observations: 10

R-squared	0.844206	Mean dependent var	-0.013366
Adjusted R-squared	0.824732	S.D. dependent var	0.225259
S.E. of regression	0.094305	Sum squared resid	0.071147
Durbin-Watson stat	1.334472		

Equation: D(LNF139)=C(277)+C(278)*D(NASDAQLN)
Observations: 10

R-squared	0.413735	Mean dependent var	0.047524
Adjusted R-squared	0.340452	S.D. dependent var	0.268341
S.E. of regression	0.217927	Sum squared resid	0.379936
Durbin-Watson stat	0.879611		

Equation: D(LNF140)=C(279)+C(280)*D(NASDAQLN)
Observations: 10

R-squared	0.758297	Mean dependent var	0.039700
Adjusted R-squared	0.728084	S.D. dependent var	0.222070
S.E. of regression	0.115800	Sum squared resid	0.107277
Durbin-Watson stat	1.399320		

Equation: D(LNF141)=C(281)+C(282)*D(NASDAQLN)
Observations: 10

R-squared	0.641736	Mean dependent var	0.016352
Adjusted R-squared	0.596953	S.D. dependent var	0.255167
S.E. of regression	0.161995	Sum squared resid	0.209940
Durbin-Watson stat	1.444550		

Equation: D(LNF142)=C(283)+C(284)*D(NASDAQLN)
Observations: 10

R-squared	0.594752	Mean dependent var	0.053758
Adjusted R-squared	0.544095	S.D. dependent var	0.199598
S.E. of regression	0.134770	Sum squared resid	0.145304
Durbin-Watson stat	1.411784		

Equation: D(LNF143)=C(285)+C(286)*D(NASDAQLN)

Observations: 10

R-squared	0.625884	Mean dependent var	0.080516
Adjusted R-squared	0.579120	S.D. dependent var	0.193237
S.E. of regression	0.125363	Sum squared resid	0.125727
Durbin-Watson stat	1.128537		

Equation: D(LNF144)=C(287)+C(288)*D(NASDAQLN)
Observations: 10

R-squared	0.533994	Mean dependent var	0.026158
Adjusted R-squared	0.475743	S.D. dependent var	0.195892
S.E. of regression	0.141836	Sum squared resid	0.160941
Durbin-Watson stat	1.275949		

Equation: D(LNF145)=C(289)+C(290)*D(NASDAQLN)
Observations: 10

R-squared	0.537269	Mean dependent var	0.028765
Adjusted R-squared	0.479428	S.D. dependent var	0.081613
S.E. of regression	0.058884	Sum squared resid	0.027739
Durbin-Watson stat	1.473386		

Equation: D(LNF146)=C(291)+C(292)*D(NASDAQLN)
Observations: 10

R-squared	0.910445	Mean dependent var	-0.024780
Adjusted R-squared	0.899250	S.D. dependent var	0.220263
S.E. of regression	0.069914	Sum squared resid	0.039104
Durbin-Watson stat	1.579403		

Equation: D(LNF147)=C(293)+C(294)*D(NASDAQLN)
Observations: 10

R-squared	0.890933	Mean dependent var	-0.023800
Adjusted R-squared	0.877299	S.D. dependent var	0.268652
S.E. of regression	0.094105	Sum squared resid	0.070846
Durbin-Watson stat	1.864156		

Equation: D(LNF148)=C(295)+C(296)*D(NASDAQLN)
Observations: 10

R-squared	0.821501	Mean dependent var	-0.013966
Adjusted R-squared	0.799189	S.D. dependent var	0.269563
S.E. of regression	0.120796	Sum squared resid	0.116734
Durbin-Watson stat	1.753620		

Equation: D(LNF149)=C(297)+C(298)*D(NASDAQLN)
Observations: 10

R-squared	0.600719	Mean dependent var	0.027771
Adjusted R-squared	0.550809	S.D. dependent var	0.197401
S.E. of regression	0.132302	Sum squared resid	0.140030
Durbin-Watson stat	1.112389		

Equation: D(LNF150)=C(299)+C(300)*D(NASDAQLN)
Observations: 10

R-squared	0.875575	Mean dependent var	0.030269
Adjusted R-squared	0.860022	S.D. dependent var	0.307641
S.E. of regression	0.115100	Sum squared resid	0.105983
Durbin-Watson stat	1.642029		

Equation: D(LNF151)=C(301)+C(302)*D(NASDAQLN)
Observations: 10

R-squared	0.854109	Mean dependent var	-0.021117
Adjusted R-squared	0.835873	S.D. dependent var	0.260513
S.E. of regression	0.105541	Sum squared resid	0.089111
Durbin-Watson stat	2.279304		

Equation: D(LNF152)=C(303)+C(304)*D(NASDAQLN)
Observations: 10

R-squared	0.407010	Mean dependent var	0.100479
Adjusted R-squared	0.332887	S.D. dependent var	0.216509
S.E. of regression	0.176838	Sum squared resid	0.250175
Durbin-Watson stat	1.110983		

Equation: D(LNF153)=C(305)+C(306)*D(NASDAQLN)
Observations: 10

R-squared	0.576046	Mean dependent var	0.084968
Adjusted R-squared	0.523051	S.D. dependent var	0.289254
S.E. of regression	0.199763	Sum squared resid	0.319243
Durbin-Watson stat	1.162042		

Equation: D(LNF154)=C(307)+C(308)*D(NASDAQLN)
Observations: 10

R-squared	0.588087	Mean dependent var	0.097736
Adjusted R-squared	0.536598	S.D. dependent var	0.189826
S.E. of regression	0.129221	Sum squared resid	0.133585
Durbin-Watson stat	1.602644		

Equation: D(LNF155)=C(309)+C(310)*D(NASDAQLN)
Observations: 10

R-squared	0.456757	Mean dependent var	0.036297
Adjusted R-squared	0.388852	S.D. dependent var	0.243460
S.E. of regression	0.190327	Sum squared resid	0.289795
Durbin-Watson stat	0.535876		

Equation: D(LNF156)=C(311)+C(312)*D(NASDAQLN)
Observations: 10

R-squared	0.574121	Mean dependent var	0.034743
Adjusted R-squared	0.520886	S.D. dependent var	0.256423
S.E. of regression	0.177491	Sum squared resid	0.252025
Durbin-Watson stat	1.297185		

Equation: D(LNF157)=C(313)+C(314)*D(NASDAQLN)
Observations: 10

R-squared	0.567912	Mean dependent var	0.018594
Adjusted R-squared	0.513901	S.D. dependent var	0.199771
S.E. of regression	0.139282	Sum squared resid	0.155195
Durbin-Watson stat	1.260538		

Equation: D(LNF158)=C(315)+C(316)*D(NASDAQLN)
Observations: 10

R-squared	0.529978	Mean dependent var	0.019021
Adjusted R-squared	0.471225	S.D. dependent var	0.170251
S.E. of regression	0.123801	Sum squared resid	0.122614
Durbin-Watson stat	1.371833		

Equation: D(LNF159)=C(317)+C(318)*D(NASDAQLN)
Observations: 10

R-squared	0.855503	Mean dependent var	0.029695
Adjusted R-squared	0.837441	S.D. dependent var	0.369421
S.E. of regression	0.148945	Sum squared resid	0.177477
Durbin-Watson stat	0.857872		

Equation: D(LNF160)=C(319)+C(320)*D(NASDAQLN)
Observations: 10

R-squared	0.506671	Mean dependent var	0.085735
Adjusted R-squared	0.445005	S.D. dependent var	0.210753
S.E. of regression	0.157006	Sum squared resid	0.197208
Durbin-Watson stat	1.183457		

Equation: D(LNF161)=C(321)+C(322)*D(NASDAQLN)
Observations: 10

R-squared	0.843198	Mean dependent var	-0.016289

Adjusted R-squared	0.823598	S.D. dependent var	0.225222
S.E. of regression	0.094594	Sum squared resid	0.071584
Durbin-Watson stat	1.334963		

Equation: D(LNF162)=C(323)+C(324)*D(NASDAQLN)
Observations: 10

R-squared	0.563603	Mean dependent var	0.048186
Adjusted R-squared	0.509053	S.D. dependent var	0.204781
S.E. of regression	0.143485	Sum squared resid	0.164704
Durbin-Watson stat	1.099871		

Equation: D(LNF163)=C(325)+C(326)*D(NASDAQLN)
Observations: 10

R-squared	0.656566	Mean dependent var	0.057398
Adjusted R-squared	0.613637	S.D. dependent var	0.223613
S.E. of regression	0.138994	Sum squared resid	0.154554
Durbin-Watson stat	0.815834		

Equation: D(LNF164)=C(327)+C(328)*D(NASDAQLN)
Observations: 10

R-squared	0.750318	Mean dependent var	0.022183
Adjusted R-squared	0.719108	S.D. dependent var	0.200832
S.E. of regression	0.106440	Sum squared resid	0.090635
Durbin-Watson stat	1.302382		

Equation: D(LNF165)=C(329)+C(330)*D(NASDAQLN)
Observations: 10

R-squared	0.752458	Mean dependent var	0.034698
Adjusted R-squared	0.721515	S.D. dependent var	0.173640
S.E. of regression	0.091633	Sum squared resid	0.067173
Durbin-Watson stat	0.861861		

Equation: D(LNF166)=C(331)+C(332)*D(NASDAQLN)
Observations: 10

R-squared	0.844201	Mean dependent var	-0.021351
Adjusted R-squared	0.824726	S.D. dependent var	0.242392
S.E. of regression	0.101479	Sum squared resid	0.082384
Durbin-Watson stat	1.634408		

Equation: D(LNF167)=C(333)+C(334)*D(NASDAQLN)
Observations: 10

R-squared	0.828198	Mean dependent var	-0.078630
Adjusted R-squared	0.806723	S.D. dependent var	0.320265
S.E. of regression	0.140799	Sum squared resid	0.158595
Durbin-Watson stat	2.129000		

Equation: D(LNF168)=C(335)+C(336)*D(NASDAQLN)
Observations: 10

R-squared	0.832107	Mean dependent var	-0.022655
Adjusted R-squared	0.811120	S.D. dependent var	0.219982
S.E. of regression	0.095605	Sum squared resid	0.073122
Durbin-Watson stat	1.355927		

Equation: D(LNF169)=C(337)+C(338)*D(NASDAQLN)
Observations: 10

R-squared	0.509192	Mean dependent var	0.047727
Adjusted R-squared	0.447842	S.D. dependent var	0.222392
S.E. of regression	0.165253	Sum squared resid	0.218469
Durbin-Watson stat	1.255140		

Equation: D(LNF170)=C(339)+C(340)*D(NASDAQLN)
Observations: 10

R-squared	0.572749	Mean dependent var	0.039454
Adjusted R-squared	0.519342	S.D. dependent var	0.205672

S.E. of regression	0.142592	Sum squared resid	0.162659
Durbin-Watson stat	0.880725		

Equation: D(LNF171)=C(341)+C(342)*D(NASDAQLN)
Observations: 10

R-squared	0.695685	Mean dependent var	-0.011662
Adjusted R-squared	0.657646	S.D. dependent var	0.307144
S.E. of regression	0.179713	Sum squared resid	0.258374
Durbin-Watson stat	2.368963		

Equation: D(LNF172)=C(343)+C(344)*D(NASDAQLN)
Observations: 10

R-squared	0.513299	Mean dependent var	0.019016
Adjusted R-squared	0.452461	S.D. dependent var	0.319714
S.E. of regression	0.236575	Sum squared resid	0.447741
Durbin-Watson stat	1.272944		

Equation: D(LNF173)=C(345)+C(346)*D(NASDAQLN)
Observations: 10

R-squared	0.648229	Mean dependent var	0.026052
Adjusted R-squared	0.604258	S.D. dependent var	0.288726
S.E. of regression	0.181632	Sum squared resid	0.263922
Durbin-Watson stat	1.436827		

Equation: D(LNF174)=C(347)+C(348)*D(NASDAQLN)
Observations: 10

R-squared	0.882351	Mean dependent var	-0.009081
Adjusted R-squared	0.867645	S.D. dependent var	0.208371
S.E. of regression	0.075807	Sum squared resid	0.045973
Durbin-Watson stat	2.638111		

Equation: D(LNF175)=C(349)+C(350)*D(NASDAQLN)
Observations: 10

R-squared	0.797322	Mean dependent var	-0.046388
Adjusted R-squared	0.771987	S.D. dependent var	0.253978
S.E. of regression	0.121276	Sum squared resid	0.117664
Durbin-Watson stat	1.867207		

Equation: D(LNF176)=C(351)+C(352)*D(NASDAQLN)
Observations: 10

R-squared	0.577733	Mean dependent var	-0.029859
Adjusted R-squared	0.524950	S.D. dependent var	0.274298
S.E. of regression	0.189057	Sum squared resid	0.285940
Durbin-Watson stat	2.194949		

Equation: D(LNF177)=C(353)+C(354)*D(NASDAQLN)
Observations: 10

R-squared	0.482251	Mean dependent var	0.013748
Adjusted R-squared	0.417532	S.D. dependent var	0.314032
S.E. of regression	0.239668	Sum squared resid	0.459527
Durbin-Watson stat	1.241535		

Equation: D(LNF178)=C(355)+C(356)*D(NASDAQLN)
Observations: 10

R-squared	0.537756	Mean dependent var	0.064318
Adjusted R-squared	0.479976	S.D. dependent var	0.174492
S.E. of regression	0.125831	Sum squared resid	0.126667
Durbin-Watson stat	1.374484		

Equation: D(LNF179)=C(357)+C(358)*D(NASDAQLN)
Observations: 10

R-squared	0.719317	Mean dependent var	-0.037065
Adjusted R-squared	0.684232	S.D. dependent var	0.255327
S.E. of regression	0.143476	Sum squared resid	0.164684

Durbin-Watson stat	1.611401		

Equation: D(LNF180)=C(359)+C(360)*D(NASDAQLN)
Observations: 10

R-squared	0.781726	Mean dependent var	0.003896
Adjusted R-squared	0.754442	S.D. dependent var	0.259851
S.E. of regression	0.128766	Sum squared resid	0.132646
Durbin-Watson stat	1.464326		

Equation: D(LNF181)=C(361)+C(362)*D(NASDAQLN)
Observations: 10

R-squared	0.859701	Mean dependent var	-0.032999
Adjusted R-squared	0.842164	S.D. dependent var	0.262147
S.E. of regression	0.104147	Sum squared resid	0.086773
Durbin-Watson stat	1.577324		

Equation: D(LNF182)=C(363)+C(364)*D(NASDAQLN)
Observations: 10

R-squared	0.849342	Mean dependent var	0.011570
Adjusted R-squared	0.830510	S.D. dependent var	0.297431
S.E. of regression	0.122450	Sum squared resid	0.119952
Durbin-Watson stat	1.819542		

Equation: D(LNF183)=C(365)+C(366)*D(NASDAQLN)
Observations: 10

R-squared	0.548081	Mean dependent var	0.060681
Adjusted R-squared	0.491591	S.D. dependent var	0.225779
S.E. of regression	0.160987	Sum squared resid	0.207335
Durbin-Watson stat	0.525204		

Equation: D(LNF184)=C(367)+C(368)*D(NASDAQLN)
Observations: 10

R-squared	0.414310	Mean dependent var	0.104642
Adjusted R-squared	0.341098	S.D. dependent var	0.196950
S.E. of regression	0.159870	Sum squared resid	0.204467
Durbin-Watson stat	1.099890		

Equation: D(LNF185)=C(369)+C(370)*D(NASDAQLN)
Observations: 10

R-squared	0.395001	Mean dependent var	0.098842
Adjusted R-squared	0.319376	S.D. dependent var	0.186932
S.E. of regression	0.154219	Sum squared resid	0.190268
Durbin-Watson stat	1.228217		

Equation: D(LNF186)=C(371)+C(372)*D(NASDAQLN)
Observations: 10

R-squared	0.408942	Mean dependent var	0.037386
Adjusted R-squared	0.335060	S.D. dependent var	0.170812
S.E. of regression	0.139287	Sum squared resid	0.155207
Durbin-Watson stat	1.529756		

Equation: D(LNF187)=C(373)+C(374)*D(NASDAQLN)
Observations: 10

R-squared	0.507349	Mean dependent var	0.085635
Adjusted R-squared	0.445768	S.D. dependent var	0.239912
S.E. of regression	0.178607	Sum squared resid	0.255204
Durbin-Watson stat	0.834057		

Equation: D(LNF188)=C(375)+C(376)*D(NASDAQLN)
Observations: 10

R-squared	0.876365	Mean dependent var	-0.011324
Adjusted R-squared	0.860911	S.D. dependent var	0.283990
S.E. of regression	0.105913	Sum squared resid	0.089741
Durbin-Watson stat	2.129790		

Equation: D(LNF189)=C(377)+C(378)*D(NASDAQLN)
Observations: 10

R-squared	0.431574	Mean dependent var	0.065233
Adjusted R-squared	0.360521	S.D. dependent var	0.239560
S.E. of regression	0.191570	Sum squared resid	0.293592
Durbin-Watson stat	1.108821		

Equation: D(LNF190)=C(379)+C(380)*D(NASDAQLN)
Observations: 10

R-squared	0.510115	Mean dependent var	0.071328
Adjusted R-squared	0.448880	S.D. dependent var	0.250530
S.E. of regression	0.185987	Sum squared resid	0.276729
Durbin-Watson stat	1.157040		

Equation: D(LNF191)=C(381)+C(382)*D(NASDAQLN)
Observations: 10

R-squared	0.691717	Mean dependent var	-0.008037
Adjusted R-squared	0.653181	S.D. dependent var	0.208642
S.E. of regression	0.122872	Sum squared resid	0.120780
Durbin-Watson stat	1.945930		

Equation: D(LNF192)=C(383)+C(384)*D(NASDAQLN)
Observations: 10

R-squared	0.686431	Mean dependent var	-0.021121
Adjusted R-squared	0.647234	S.D. dependent var	0.241716
S.E. of regression	0.143565	Sum squared resid	0.164887
Durbin-Watson stat	1.350595		

Equation: D(LNF193)=C(385)+C(386)*D(NASDAQLN)
Observations: 10

R-squared	0.771408	Mean dependent var	-0.067855
Adjusted R-squared	0.742834	S.D. dependent var	0.361444
S.E. of regression	0.183294	Sum squared resid	0.268773
Durbin-Watson stat	1.863036		

Equation: D(LNF194)=C(387)+C(388)*D(NASDAQLN)
Observations: 10

R-squared	0.567238	Mean dependent var	0.020758
Adjusted R-squared	0.513143	S.D. dependent var	0.201984
S.E. of regression	0.140935	Sum squared resid	0.158900
Durbin-Watson stat	1.474362		

Equation: D(LNF195)=C(389)+C(390)*D(NASDAQLN)
Observations: 10

R-squared	0.434605	Mean dependent var	0.060081
Adjusted R-squared	0.363930	S.D. dependent var	0.213541
S.E. of regression	0.170308	Sum squared resid	0.232038
Durbin-Watson stat	1.212324		

Equation: D(LNF196)=C(391)+C(392)*D(NASDAQLN)
Observations: 10

R-squared	0.739893	Mean dependent var	-0.024589
Adjusted R-squared	0.707379	S.D. dependent var	0.225592
S.E. of regression	0.122033	Sum squared resid	0.119136
Durbin-Watson stat	1.395184		

Equation: D(LNF197)=C(393)+C(394)*D(NASDAQLN)
Observations: 10

R-squared	0.853564	Mean dependent var	-0.000782
Adjusted R-squared	0.835259	S.D. dependent var	0.268431
S.E. of regression	0.108952	Sum squared resid	0.094964
Durbin-Watson stat	1.859079		

Equation: D(LNF198)=C(395)+C(396)*D(NASDAQLN)
Observations: 10

R-squared	0.573604	Mean dependent var	0.050420
Adjusted R-squared	0.520304	S.D. dependent var	0.234408
S.E. of regression	0.162351	Sum squared resid	0.210863
Durbin-Watson stat	1.122526		

Equation: D(LNF199)=C(397)+C(398)*D(NASDAQLN)
Observations: 10

R-squared	0.884348	Mean dependent var	-0.075882
Adjusted R-squared	0.869891	S.D. dependent var	0.283963
S.E. of regression	0.102427	Sum squared resid	0.083931
Durbin-Watson stat	2.356893		

Equation: D(LNF200)=C(399)+C(400)*D(NASDAQLN)
Observations: 10

R-squared	0.745544	Mean dependent var	-0.002492
Adjusted R-squared	0.713738	S.D. dependent var	0.263628
S.E. of regression	0.141050	Sum squared resid	0.159161
Durbin-Watson stat	1.003652		