Predictable Patterns in Stock Returns*

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In view of the limited historical data and conflicting evidence regarding mean reversion in stock returns, there is a need for more empirical studies using innovative methods and new data. This study employs block bootstraps to approximate the true distributions of returns and expand the sample size. Unlike previous studies, which use the value-weighted and equal-weighted returns of U.S. stocks as proxies for returns on large and small company stocks, respectively, this study uses returns on indexes of large and small company stocks provided by Ibbotson Associates. The variance ratios and regression results indicate fairly strong evidence of mean reversion in large company stock returns, particularly for three to four years, during 1926-66. During 1967-2007, large company stocks display very weak mean aversion for one year and mean reversion over five years. There is strong evidence of mean reversion for small company stocks over four to five years in the first subperiod, and weak evidence of mean reversion in 1-year returns, and moderate evidence of mean reversion in 5-year returns in the second subperiod. These findings indicate that, although mean reversion in stock returns has weakened in recent decades, it persists, particularly for small company stocks.

Keywords: Mean Reversion, Stock Returns

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INTRODUCTION

The issue of mean reversion in stock prices has been studied for two decades. Tversky and Kahneman (1981) present experimental evidence that people overreact to new information. Poterba and Summers (1988) observe that, if market values diverge from fundamental values, speculative forces may eventually eliminate the differences, causing stock prices to revert to their mean. This correction of departures from fundamental values implies negative serial correlations between returns at some intervals, although negative autocorrelations may also reflect time-varying risk factors. Fama and French (1988) also note that predictability of long-horizon returns due to slowly decaying price components is consistent with two alternative explanations. It may indicate that stock prices take long temporary swings away from fundamental values in irrational markets, or that rational pricing in efficient markets generates time-varying equilibrium expected returns.

Mean reversion in stock prices has important implications for the risk perceptions and asset allocation decisions of long-term investors. It provides a theoretical justification for time diversification, which suggests that investors should increase stock allocations with the investment horizon because stocks become less risky over longer periods. Poterba and Summers (1988, p. 53) note that "if stock price movements contain large transitory components, then for long-horizon investors the stock market may be less risky than it appears to be when the variance of single-period returns is extrapolated using the random-walk model." Samuelson (1988) shows that, if stock returns revert to the mean, investors with relative risk aversion greater than one will invest more in stocks than they would if returns were serially uncorrelated.

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Some researchers (Jegadeesh (1991) and McQueen (1992), for example) have disputed the evidence of mean reversion in stock returns, particularly after World War II. Other researchers (for example, Balvers et al. (2000) and Gropp (2004)) have conducted more powerful studies and found evidence supporting mean reversion. The issue remains unsettled and a matter of controversy. This study uses a powerful nonparametric block bootstrap method and new data to examine the issue. The results indicate that, although mean reversion in stock returns has weakened in recent decades, it persists, particularly for small company stocks.

LITERATURE REVIEW

Two studies discovered evidence of mean reversion in U.S. stock returns during 1926-85. Poterba and Summers (1988) find that returns have positive autocorrelations over periods of less than a year, and negative autocorrelations over periods of three to eight years, indicating transitory components in stock prices. They find negative autocorrelations for both real and excess returns. The variance of 8-year returns is only 4-times, not 8-times, the variance of 1-year returns. Fama and French (1988) show that there are large negative autocorrelations in stock returns for horizons beyond a year, indicating the presence of mean-reverting price components in the variation of real returns. They estimate that the predictable variation in 3-5 year returns due to mean reversion is 40 percent for small firms and 25 percent for large firms. They find that both the market portfolios, and all the deciles as well as industry portfolios, display a U-shaped pattern of slopes across return horizons, indicating that stock prices have random walk and slowly decaying stationary components. The first-order autocorrelations of the industry and decile portfolios turn negative for 2-year returns, become most negative for 3-5 year returns, and return toward zero over 8 to 10 years. The authors conclude that the negative autocorrelation of returns due to a slowly decaying price component strengthens as the return horizon increases from short to medium term, but the random-walk price components regain their influence on the variation of returns over longer horizons.

Interestingly, Lo and MacKinlay (1988) report evidence of mean aversion in short-horizon stock returns. Using variance estimators, they find significant positive serial correlation for weekly and monthly stock returns, which is not consistent with the random walk model, especially for smaller capitalization stocks. During 1962-85, the weekly first-order autocorrelation coefficients of NYSE-AMEX returns are a statistically significant 30 percent for the equal-weighted index and 8 percent for the value-weighted index. However, with a base interval of four weeks, the random walk model is not rejected even for the equal-weighted index.

Several studies have challenged the evidence of mean reversion in stock prices on statistical and methodological grounds. Richardson and Stock (1989) indicate that correcting for small-sample bias may reverse the evidence of mean reversion. Cecchetti et al. (1990) show that negative serial correlation in long-horizon stock returns is consistent with an equilibrium model of asset pricing. They hypothesize that even if asset prices are determined in equilibrium and returns rationally reflect market fundamentals, they may have negative autocorrelations if investors display a moderate desire to smooth consumption. The authors find that the variance ratios and regression coefficients of actual Standard & Poors' returns for horizons of one to ten years are within the 60 percent confidence range of the median of the Monte Carlo distribution generated under the random walk model. They fail to reject the random walk model at the 5 percent significance level, but find much higher p-values when the distribution is generated assuming a concave utility function. The authors conclude that much of the autocorrelation in historical stock returns may be due to small sample bias, but the concave utility function model is a better fit for the evidence of serial correlation of returns.

Reinganum (1983) reports that stock returns in January are negatively related to returns in the previous year. DeBondt and Thaler (1987) find that January stock returns are negatively related to returns in the previous three to five years. Jegadeesh (1991) regresses monthly returns of NYSE stocks during 1926-88 and finds that mean reversion of equal-weighted returns can be attributed solely to the January returns. In the post-war period (1947-88), January exhibits stronger mean reversion although there is no evidence of return reversals for all months together. Further, equal-weighted returns on the London Stock Exchange also display mean reversions only in January.

McQueen (1992) argues that the evidence of mean reversion in long-horizon stock returns is overstated by ordinary least-squares tests, which give more weight to returns during the Depression and World War II years, which had larger error variances and stronger mean reversion. Generalized least-squares randomization tests on returns for 1926-87 fail to reject the random walk model for value- or equal-weighted real returns for horizons of one to ten years or for a joint test of all ten horizons.

Richardson and Simth (1991) argue that mean reversion tests should be based on a chi-square statistic that tests the joint significance of tests for all horizons. Daniel (2001), however, shows that a chi-square joint test has very low power even if the individual tests are all powerful. He suggests that researchers may test several horizons if their alternative hypothesis is that returns revert to the mean, but the extent and duration of mean reversion are uncertain. He empirically calculates the small-sample corrected distribution of the T-statistics from Fama and French (1988) and finds evidence of mean reversion in equal-weighted returns as well as deciles 2, 3, and 4.

The limited availability of historical data is a major constraint in testing for mean reversion in long-horizon stock returns. Summers (1986) observes that traditional statistical tests used to test whether financial markets rationally reflect fundamental values lack power against the alternative hypothesis that prices deviate from rational valuations. Noting that more precise estimates and more powerful tests require longer historical data, Cecchetti et al. (1990, p. 416) observe: "all we can do is wait." Rather than waiting for more historical data to become available, some researchers have devised more powerful tests and provided support for the evidence of mean reversion. Using annual data on a panel of stock market indexes of 18 countries for the years 1969-96, Balvers et al. (2000) report significant evidence of full mean reversion in national equity indexes, with a reversion speed of 18 to 20 percent per year, implying a half-life of three to three-and-a-half years. Gropp (2004) employs a panel method with equal-weighted industry portfolios and finds evidence of mean reversion for NYSE, AMEX, and NASDAQ stocks during the periods 1926-98, 1963-98, and 1973-98, respectively. The AMEX and NASDAQ results indicate that mean reversion persists after Word War II. This study indicates that, after temporary shocks, stock prices revert half-way toward fundamental values in about 4 to 8 years. Further, a parametric contrarian investment strategy, which forecasts returns based on mean reversion, provides risk-adjusted excess returns that outperform other common investment strategies.

In view of the conflicting evidence regarding mean reversion in stock returns, there is a need for more empirical studies using innovative methods and new data. This study employs a novel method and uses fresh data to examine the issue.

DATA AND METHODOLOGY

Unlike previous studies, which use the value-weighted and equal-weighted returns of U.S. stocks as proxies for returns on large and small company stocks, respectively, this study uses data from Ibbotson Associates (2008), which provides separate returns on indexes of large and small company stocks. The study is based on real returns. As McQueen (1991) notes, mean reversion tests implicitly assume that ex ante returns are constant, and it is more reasonable to assume that required real returns are constant.

Monthly returns are obtained on the following large- and small-cap U.S. stock indices, and U.S. inflation rates, during 1926-2007:

Large company stocks: the Standard and Poor's 500 stock composite index.

Small company stocks: the fifth capitalization quintile portfolio of stocks on the New York Stock Exchange for 1926-81, the DFA U.S. 9-10 Small Company Portfolio during January 1982 to March 2001, and the DFA U.S. Micro Cap Portfolio from April 2001 to December 2007.

Inflation rate: the rate of change in consumer prices, represented by the Consumer Price Index (CPI), not seasonally adjusted, from January 1926 to December 1977, and the Consumer Price Index for All Urban Consumers (CPI-U), not seasonally adjusted, from January 1978 to December 2007, constructed by the U.S. Department of Labor, Bureau of Labor Statistics, Washington.

Since the 984 months of data available contain only eight independent 10-year returns, this study employs block bootstraps, which retain serial correlation as well as cross-sectional correlations within the blocks, to approximate the true distributions of returns and expand the sample size. The long-horizon returns are estimated by drawing 1,000 independent samples of 120-month blocks of returns with replacement from the real monthly returns for 1926-2007, and separately for two subperiods: 1926-1966 and 1967-2007. The selected block size is just long enough to cover the cycle of mean reversion over 5-year periods reported in earlier studies. The blocks are limited to 120 months because, as the block size is lengthened, the blocks begin to resemble the full data, which consist of only 492 months in each subperiod. Since the blocks begin in random months, the results will not be influenced by the January effect in stock returns.

The natural logs of (1 + monthly returns) on the stock indexes are summed for 12 to 120 months to derive continuously compounded monthly returns over one to ten years. Continuously compounded real returns for these periods are calculated by subtracting the continuously compounded inflation rates from the continuously compounded nominal returns. The impacts of lengthening the investment period on returns, risk, and the risk-return tradeoff, are examined by computing mean returns, variance of returns, variance ratios, standard deviations of returns, and coefficients of variation over periods of one to ten years. Since the other statistics are fairly standard, only the variance ratio (VR) is defined below:

$$VR(k) = 1/k \, Var(R_{t,k}) / Var(R_{t,}) \quad (1)$$

where $R_{t,k}$ are the continuously compounded monthly returns for years t through k. In a random walk model, where investors have linear utility, the variance of returns will be proportional to the return horizon, implying that the variance of 10-year returns should be ten times the variance of 1-year returns. If returns do not have any serial correlation, the VR will be 1. As Daniel (2001) notes, if transitory price movements due to fads result in positive returns being followed by negative returns, the variance of short-horizon returns will be proportionally higher. If returns for longer periods have negative autocorrelations, the VR for those periods will be less than 1.

In testing for mean reversion, the first five years of the 10-year blocks are considered the previous returns, and the last five years are the subsequent returns. As Balvers et al. (2000) observe, mean reversion is equivalent to stationarity in mean; price shocks are temporary and stock returns are negatively autocorrelated at some horizons, implying that returns can be predicted by lagged prices. The regression models for k-period returns are:

$$R_{t,t+k} = \alpha_k + \beta_k R_{t-k,t} + \varepsilon_t \quad (2)$$

where $R_{t,t+k}$ and $R_{t-k,t}$ are the continuously compounded real monthly returns for months t through t+k, and t-k through t, respectively, α_k is the intercept, β_k is the first-order autocorrelation of k-year returns, and ε_t is the error term of the regression.

The relationships between subsequent and previous returns are investigated by conducting the following regressions with continuously compounded monthly returns over periods of one to five years from the 1,000 blocks of 10-year returns:

Dependent Variable	Independent Variable
1-year return (year 6)	1-year return (year 5)
2-year return (years 6-7)	2-year return (years 4-5)
3-year return (years 6-8)	3-year return (years 3-5)
4-year return (years 6-9)	4-year return (years 2-5)
5-year return (years 6-10)	5-year return (years 1-5)

EMPIRICAL RESULTS

Table 1 shows that the VR, which is the proportion of multi-year variance to one-year variance, falls to 0.67 in five years and 0.61 in ten years, for large company stocks (LCS) during the study period. The mean return rises almost twelve-fold, while the standard deviation (SD) increases a little over two-fold, resulting in a 78 percent decline in the coefficient of variation (CV) between one and ten years. In the first subperiod, the VR drops sharply to 0.40 in six years and 0.31 in ten years, and the mean return rises ten times whereas the SD increases less than two times, causing the CV to decrease by 82 percent. In the second subperiod, the VR declines slightly to 0.90 in three years before rising to 1.13 in seven years and falling back to 1.00 in ten years. The mean return rises almost eleven-fold, and the SD increases more than three times, resulting in a 71 percent fall in the CV. These results indicate that the proportionate variance of LCS declined with the investment period in the first subperiod, but not in the second subperiod. However, in both subperiods, mean returns increased far more than the SD, substantially improving the risk-return tradeoff over longer investment periods. While this improvement is due to both increase in returns and decline in proportionate variance in the first subperiod, it may be attributed solely to increase in returns in the second subperiod.

Table 2 indicates that the VR declines consistently to 0.29 in ten years for small company stocks (SCS) during the study period. The mean return rises more than thirteen times, whereas the SD increases less than two times, reducing the CV by 88 percent between one and ten years. In the first subperiod, the VR shrinks to 0.17 in ten years, and the mean return rises more than twelve-fold, while the SD increases by only 29 percent, resulting in an 89 percent decline in the CV. In the second subperiod, the VR decreases to 0.83 in two years, rises to 0.90 in six years, and drops to 0.43 in ten years. The mean return rises eleven times, whereas the SD only doubles, reducing the CV by 81 percent. In contrast to the results for LCS, the proportionate variance falls, and the risk-return tradeoff improves, due to both an increase in mean returns and decline in proportionate variance over longer investment periods, in both subperiods, for SCS.

Regressions of subsequent returns against previous returns of LCS in Table 3 show significant negative relations between returns for periods of two to four years during the study period. However, the explanatory power is fairly low, ranging from 0.98 percent for three years to 2.05 percent for four years. There are consistent significant relations between subsequent and previous returns for periods of one to five years in the first subperiod. The adjusted R-square rises from 3.02 percent for one year to 15.51 percent for four years before falling to 9.29 percent for five years. In the second subperiod, 1-year returns are significantly positively related and 5-year returns are significantly negatively related, with weak explanatory power in both regressions. These findings provide moderate evidence of mean reversion in LCS returns, particularly for three to four years, in the first subperiod. In the second subperiod, there is very weak evidence of mean aversion for one year and mean reversion over five years.

Table 4 indicates that SCS returns are consistently significantly negatively related for periods of one to five years during the study period as well as the first subperiod. The explanatory power increases from 1.50 percent for one year to 25.22 percent for five years in the study period. In the first subperiod, the adjusted R-square rises from 2.90 percent for one year to 53.75 percent for four years before falling slightly to 50.36 percent for five years. In the second subperiod, there are significant negative relations between returns only for periods of one, four, and five years; 5-year returns have the highest explanatory power of 13.78 percent. These results provide strong evidence of mean reversion for SCS over four to five years in the first subperiod, and weak evidence of mean reversion in 1-year and 4-year returns, and moderate evidence of mean reversion in 5-year returns, in the second subperiod.

In view of the evidence that 5-year returns have significant negative autorrelations in both subperiods, but the autocorrelations are weaker for both large and small company stocks in the second subperiod, we conduct a graphical analysis of the data in Figures 1 through 4. All the figures are drawn to the same scales, and the trend lines, regression equations, and R-squares (which are slightly higher than the adjusted R-squares in the Tables) are displayed in the figures for the purpose of comparison.

Since 5-year returns are generally positive, most of the observations lie in the top right quadrant, and there are hardly any observations in the bottom left quadrant, in all the Figures. The main indicators of mean reversion are the data points in the top left and bottom right quadrants, i.e., negative returns followed by positive returns and positive returns followed by negative returns, although observations in the top left and bottom right of the top right quadrant may also contribute to mean reversion, since they represent low positive returns followed by high positive returns and high positive returns followed by low positive returns.

LCS exhibit greater mean reversion in the first subperiod (Figure 1) because the observations are more spread out, with some large negative returns followed by high positive returns, and some high positive returns followed by fairly large negative returns. Figure 2 shows that the plots are confined to a narrower range and the regression slope is much flatter in the second subperiod. SCS display a much wider dispersion of data points than LCS, with many large negative returns followed by high positive returns and several high positive returns followed by fairly large negative returns in the first subperiod (Figure 3). The observations tighten considerably in the second subperiod, but there are still quite a few data points in the top left quadrant, i.e., negative returns followed by positive returns, resulting in a fairly negative slope.

CONCLUSION

This study employs a novel method and uses new data to examine the unresolved issue of mean reversion in stock returns. Block bootstraps are used to approximate the true distributions of returns and expand the sample size. Further, unlike previous studies, which use the value-weighted and equal-weighted returns of U.S. stocks as proxies for returns on large and small company stocks, respectively, this study uses data from Ibbotson Associates, which provides separate returns on indexes of large and small company stocks. The variance ratios and regression results indicate moderate evidence of mean reversion in large company stock returns, particularly for three to four years, during 1926-66. During 1967-2007, there is very weak evidence of mean aversion for one year and mean reversion over five years. Large company stocks exhibit greater mean reversion in the first subperiod because the observations are more spread out, with some large negative returns followed by high positive returns, and some high positive returns followed by fairly large negative returns. The plots are confined to a narrower range and the regression slope is much flatter in the second subperiod. There is strong evidence of mean reversion for small company stocks over four to five years in the first subperiod, and weak evidence of mean reversion in 1-year returns, and moderate evidence of mean reversion in 5-year returns, in the second subperiod. Small company stocks display a much wider dispersion of data points than large company stocks, with many large negative returns followed by high positive returns and several high positive returns followed by fairly large negative returns in the first subperiod. The observations tighten considerably in the second subperiod, but there are still quite a few negative returns followed by positive returns, resulting in a fairly negative slope. Overall, these findings indicate that, although mean reversion in stock returns has weakened in recent decades, it persists, particularly for small stocks.

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Table 1
Risk-Return Tradeoffs of Large Company Stocks over Different Periods

Number of Years	Mean (%)	Variance (%)	Variance Ratio	Standard Devn. (%)	Coefficient of Variation
Panel A. Study Period: 1926-2007					
1	6.21	4.40	1.00	20.98	3.38
2	14.69	7.89	0.90	28.09	1.91
3	22.02	10.65	0.81	32.64	1.48
4	29.27	13.24	0.75	36.38	1.24
5	36.17	14.77	0.67	38.44	1.06
6	43.09	16.61	0.63	40.76	0.95
7	49.99	18.81	0.61	43.37	0.87
8	57.05	21.18	0.60	46.03	0.81
9	64.02	23.33	0.59	48.30	0.75
10	71.12	26.71	0.61	51.68	0.73
Panel B. First Subperiod: 1926-1966					
1	8.11	7.19	1.00	26.81	3.30
2	15.79	13.83	0.96	37.19	2.36
3	23.22	17.66	0.82	42.03	1.81
4	29.80	18.51	0.64	43.02	1.44
5	36.27	19.27	0.54	43.90	1.21
6	44.26	17.35	0.40	41.65	0.94
7	54.30	17.02	0.34	41.26	0.76
8	62.41	18.76	0.33	43.32	0.69
9	72.89	20.07	0.31	44.80	0.61
10	81.30	22.38	0.31	47.30	0.58
Panel C. Second Subperiod: 1967-2007					
1	6.44	2.75	1.00	16.57	2.57
2	13.39	5.21	0.95	22.83	1.70
3	21.11	7.44	0.90	27.28	1.29
4	28.03	10.15	0.92	31.85	1.14
5	34.54	14.36	1.04	37.89	1.10
6	40.40	17.85	1.08	42.26	1.05
7	46.23	21.81	1.13	46.70	1.01
8	53.63	23.60	1.07	48.57	0.91
9	61.72	25.84	1.04	50.83	0.82
10	69.41	27.40	1.00	52.34	0.75

Table 2

Risk-Return Tradeoffs of Small Company Stocks over Different Periods

Number of Years	Mean (%)	Variance (%)	Variance Ratio	Standard Devn. (%)	Coefficient of Variation
Panel A. Study Period: 1926-2007					
1	6.82	9.39	1.00	30.65	4.49
2	16.74	17.90	0.95	42.31	2.53
3	25.16	23.58	0.84	48.56	1.93
4	32.99	28.96	0.77	53.81	1.63
5	41.83	30.70	0.65	55.41	1.32
6	51.14	31.75	0.56	56.35	1.10
7	61.31	29.60	0.45	54.41	0.89
8	71.66	27.56	0.37	52.50	0.73
9	82.47	27.26	0.32	52.21	0.63
10	93.57	27.05	0.29	52.01	0.56
Panel B. First Subperiod: 1926-1966					
1	8.33	16.27	1.00	40.33	4.84
2	16.51	29.64	0.91	54.44	3.30
3	24.27	40.00	0.82	63.25	2.61
4	32.90	49.88	0.77	70.62	2.15
5	42.73	54.86	0.67	74.07	1.73
6	53.81	44.99	0.46	67.07	1.25
7	67.89	32.76	0.29	57.24	0.84
8	78.54	28.33	0.22	53.23	0.68
9	91.72	25.05	0.17	50.05	0.55
10	103.15	27.23	0.17	52.18	0.51
Panel C. Second Subperiod: 1967-2007					
1	8.44	5.13	1.00	22.64	2.68
2	15.29	9.26	0.90	30.43	1.99
3	22.91	12.79	0.83	35.76	1.56
4	31.32	17.41	0.85	41.72	1.33
5	40.53	23.16	0.90	48.13	1.19
6	47.60	27.84	0.90	52.77	1.11
7	57.66	30.91	0.86	55.60	0.96
8	69.25	27.68	0.67	52.61	0.76
9	80.69	25.05	0.54	50.05	0.62
10	92.19	22.02	0.43	46.92	0.51

Table 3

Regressions of Subsequent Returns against Previous Returns of Large Company Stocks for Different Periods

Number of Years	Intercept (T-stat)	Slope (T-stat)	Adjusted R-square
	Panel A. Study Period: 1926-2007		
1	0.0732**	-0.0573	0.26%
	(11.31)	(-1.89)	
2	0.1567**	-0.1306**	1.84%
	(17.38)	(-4.44)	
3	0.2296**	-0.0967**	0.98%
	(20.64)	(-3.31)	
4	0.3199**	-0.1381**	2.05%
	(23.39)	(-4.68)	
5	0.3682**	-0.0517	0.19%
	(23.13)	(-1.71)	
	Panel B. First Subperiod: 1926-1966		
1	0.0909**	-0.1713**	3.02%
	(11.61)	(-5.67)	
2	0.2051**	-0.1905**	6.49%
	(23.31)	(-8.39)	
3	0.3149**	-0.2614**	13.04%
	(32.24)	(-12.28)	
4	0.4532**	-0.3090**	15.51%
	(38.25)	(-13.58)	
5	0.5404**	-0.2484**	9.29%
	(38.84)	(-10.16)	
	Panel C. Second Subperiod: 1967-2007		
1	0.0522**	0.0982**	0.84%
	(9.17)	(3.07)	
2	0.1130**	0.0290	-0.02%
	(12.27)	(0.87)	
3	0.1793**	0.0546	0.16%
	(14.94)	(1.61)	
4	0.2741**	-0.0080	-0.09%
	(18.96)	(-0.24)	
5	0.3737**	-0.0724*	0.40%
	(22.50)	(-2.23)	

*Significant at the 5 percent level.
**Significant at the 1 percent level.

Table 4

Regressions of Subsequent Returns against Previous Returns of Small Company Stocks for Different Periods

Number of Years	Intercept (T-stat)	Slope (T-stat)	Adjusted R-square
	Panel A. Study Period: 1926-2007		
1	0.1040**	-0.1230**	1.50%
	(11.34)	(-4.03)	
2	0.2204**	-0.1532**	2.63%
	(17.74)	(-5.29)	
3	0.3469*	-0.1937**	5.35%
	(25.28)	(-7.58)	
4	0.5309**	-0.3556**	17.56%
	(34.04)	(-14.62)	
5	0.7003**	-0.4371**	25.22%
	(42.43)	(-18.38)	
	Panel B. First Subperiod: 1926-1966		
1	0.1281**	-0.1770**	2.90%
	(10.51)	(-5.55)	
2	0.3032**	-0.2796**	12.06%
	(21.59)	(-11.75)	
3	0.4616**	-0.3947**	31.60%
	(35.55)	(-21.50)	
4	0.6743**	-0.5362**	53.75%
	(53.09)	(-34.09)	
5	0.8257**	-0.5184**	50.36%
	(59.35)	(-31.85)	
	Panel C. Second Subperiod: 1967-2007		
1	0.0879**	-0.1874**	3.09%
	(12.31)	(-5.73)	
2	0.1804**	-0.0522	0.14%
	(17.43)	(-1.56)	
3	0.2749**	0.0484	0.21%
	(23.38)	(1.76)	
4	0.4240**	-0.0701**	0.90%
	(35.98)	(-3.17)	
5	0.6179**	-0.2501**	13.78%
	(49.80)	(-12.68)	

*Significant at the 5 percent level.
**Significant at the 1 percent level.

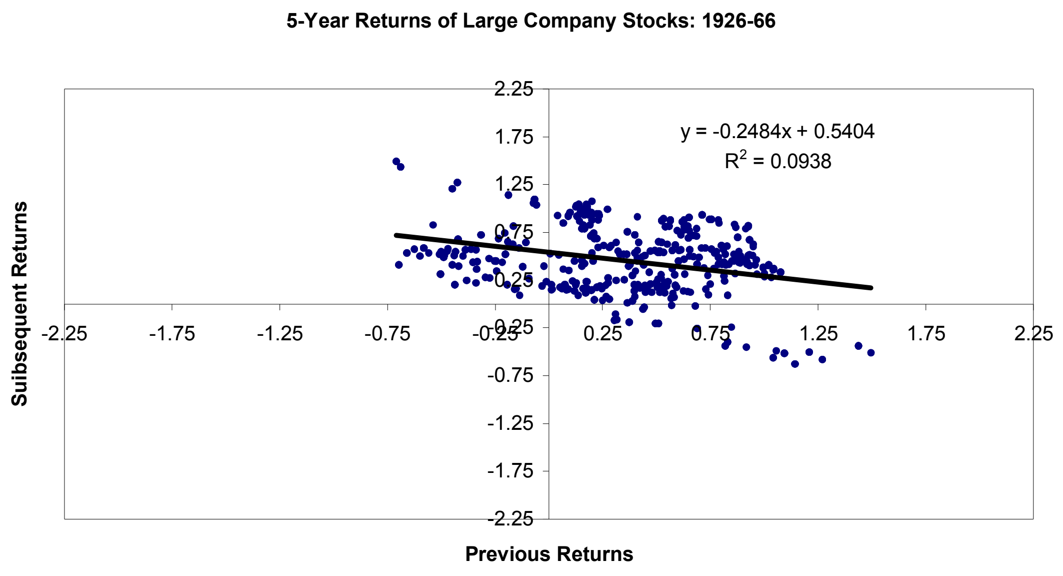

Figure 1. Previous and Subsequent 5-Year Returns of Large Company Stocks in First Subperiod

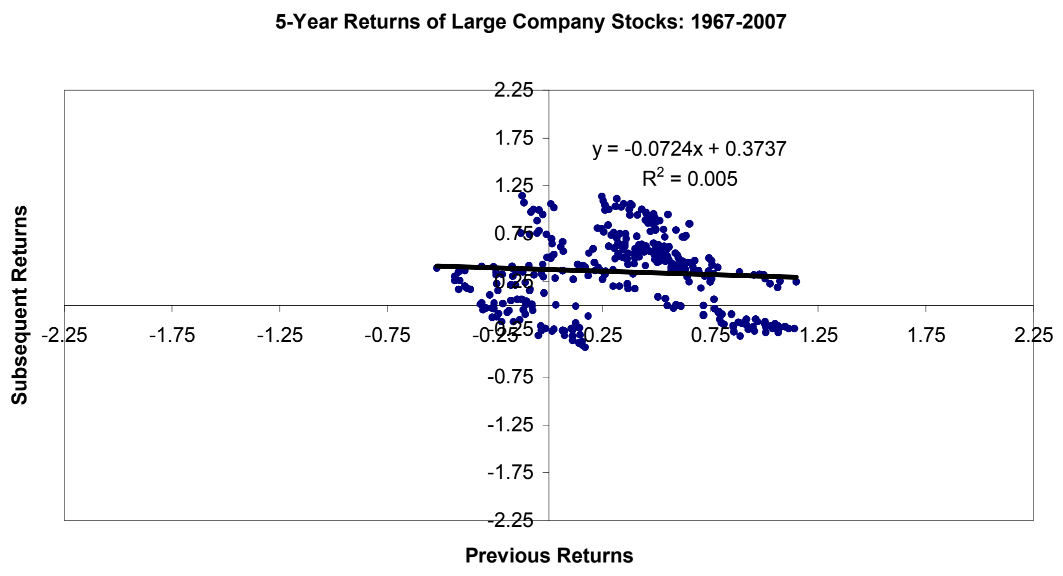

Figure 2. Previous and Subsequent 5-Year Returns of Large Company Stocks in Second Subperiod

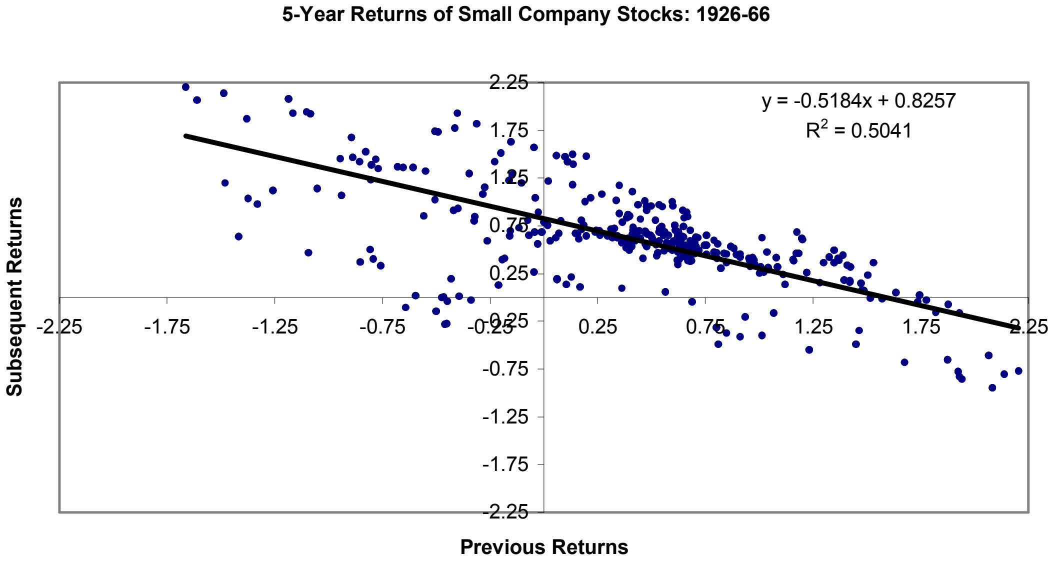

Figure 3. Previous and Subsequent Returns of Small Company Stocks in First Subperiod

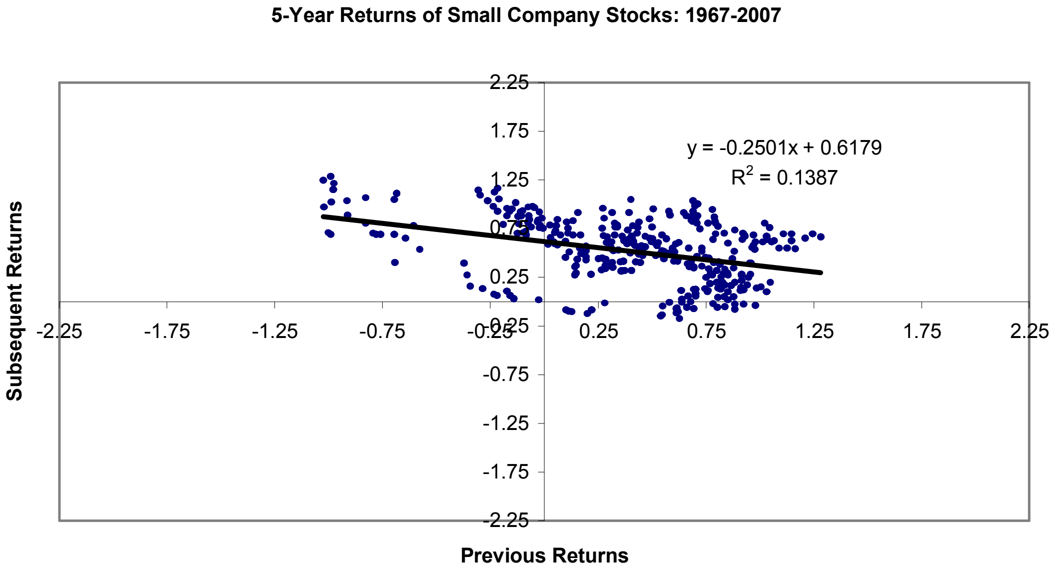

Figure 4. Previous and Subsequent Returns of Small Company Stocks in Second Subperiod