1-1-1992

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John W. Peavy III
Southern Methodist University

The author thanks Dan Asquith and Chris Barry for helpful comments and Allison for computational assistance.

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Working Paper 92-036*

John W. Peavy III

John W. Peavy III
Edwin L. Cox School of Business
Southern Methodist University
Dallas, Texas 75275
(214) 692-3148

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Abstract

One of the most persistent securities anomalies is the turn-of-the-year effect whereby significant positive abnormal returns occur during the first few days of the calendar year, especially among small capitalization stocks. I present the shareholder-composition hypothesis, a variation of the tax-loss-selling hypothesis, which posits that the type of shareholder and the year-to-date stock performance determine the magnitude of the turn-of-the-year effect. I detect a statistically and economically significant turn-of-the-year effect among a sample of closed-end stock funds that went public during the preceding calendar year. Because these funds are not small capitalization securities, I conclude that the abnormal positive returns at the beginning of the year are not attributable to a small firm effect. That the funds experiencing the greatest price declines show the largest turn-of-the-year effect lends further support to the hypothesis that year-end tax-loss-selling by individuals largely causes this anomaly.

Tax-Loss-Selling and Closed-End Stock Funds

Financial researchers have documented numerous "anomalies" among stock returns (see Jacobs and Levy (1988) for a summary of many of these anomalies). Of these anomalies, probably none has received more attention than the "turn-of-the-year" effect which refers to a phenomenon that the average returns for low capitalization (small) stocks are significantly higher than the returns on high capitalization (large) stocks in early January. First discovered by Keim (1983) and expanded upon by Blume and Stambaugh (1983) and Roll (1983), the effect occurs consistently and is economically significant (Ritter (1988)).

Several theories have been offered to explain the turn-of-the-year effect. Ritter (1988) groups these theories into the following four categories: (1) the omitted-risk-factor hypothesis, (2) the tax-loss-selling hypothesis, (3) the information-release/insider-trading hypothesis, and (4) the seasonality-of-the-risk-return hypothesis.[2] His "parking-the-proceeds" hypothesis, a generalization of the tax-loss-selling theory, posits that individuals sell stocks in which they have a loss through December, but wait until early January to invest the proceeds in other stocks. This hypothesis is the first to advance the argument that the buy/sell activities of a segment of market participants may be responsible for the occurrence of this effect.

However, none of these theories seems to completely explain the empirical regularities that have been documented in the literature. In this paper, I demonstrate that tax-loss-selling is not confined to small capitalization stocks, but rather is also associated with a January effect among certain large capitalization stocks. I propose the "shareholder-composition" hypothesis, a variation of the tax-loss-selling hypothesis, to explain the turn-of-the-year effect. By selling securities at year end in order to recognize capital losses to reduce taxable income, individual investors exert a downward

price pressure on these stocks. After the end of the year, the price pressure on these stocks abates thus allowing prices to adjust upward to their equilibrium level. On the other hand, most large institutional investors (e.g., retirement funds, endowment funds, charitable foundations) enjoy tax-exempt status and consequently do not participate in year-end tax-loss-selling. The shareholder-composition hypothesis postulates that stocks owned primarily by individuals, including large capitalization stocks, are tax-loss-selling candidates. This theory differs from Ritter's parking-the-proceeds hypothesis because it relies on year-end price selling pressure but not on the assumption that investors do not reinvest sales proceeds in the short run and, unlike Ritter, allows for the separation of the January effect from the size effect.

I examine closed-end stock funds whose shares are owned almost entirely by individuals (see, for example, Laing (1987), Quinn (1987), and Siconolfi (1987)). These funds which typically trade on the NYSE are not small capitalization stocks. The average closed-end fund observed in this analysis would fall in the fifth and sixth market capitalization deciles, respectively, if included in the Reinganum (1981) and Keim (1983) size rankings of listed stocks (where decile one contains the smallest firms) and would rank among the largest ten percent of firms (over-the-counter) investigated by Lamoureux and Sanger (1989). Peavy (1990) shows that closed-end fund initial public offerings (IPOs) typically experience negative returns in the immediate aftermarket. By observing closed-end fund initial public offerings (IPOs) from 1986 to 1990, I find that most share owners experienced a loss in the immediate aftermarket.[3] Therefore, these securities possess the two key attributes of ideal tax-loss-selling candidates: they are largely owned by individuals who have incentives to reduce income taxes, and they have experienced

recent significant price declines producing unrealized capital losses for investors.

I maintain that new funds provide the opportunity to estimate the approximate tax-cost-basis of investors. Because these shares are not of small-size firms, they provide the mechanism for distinguishing between the heretofore interrelated size effect and January effect. I detect a January seasonal among a sample of closed-end fund IPOs and a strong inverse relationship between the fund's rate of return since the IPO and the amount of the January seasonal return. The average market capitalization of those funds experiencing the greatest turn-of-the-year effect is similar to that of the other funds in the sample. I interpret these results to indicate that tax-loss-selling, rather than a size effect, explains the high January returns.

The remainder of this paper is organized as follows. The turn-of-the-year effect is discussed in Section I. In Section II, I present the shareholder-composition hypothesis, discuss the empirical implications of this hypothesis, and explain why closed-end fund IPOs provide the ideal sample for testing this hypothesis. Section III describes the data and the research methodology. In Section IV, I present empirical results that are consistent with the shareholder-composition hypothesis. The summary and conclusions appear in Section V.

I. The Turn-of-the-Year Effect

Rozeff and Kinney (1976) first observed a "January effect" whereby stock returns are higher, on average, in January than in other months. Over the 1904-1974 period, they found that NYSE stocks experienced a 3.48 percent average return for the month of January, compared to an average only 0.42 percent for each of the other eleven months. Ritter (1988) contends that no January effect would have been found if Rozeff and Kinney had used a

value-weighted index instead of an equally-weighted index. Ritter maintains that the seasonal rates of return differ between the two indices because small stocks display high average rates of return in January, but large stocks do not experience higher January returns.

Banz (1981) first reported that smaller firms on the NYSE had higher average rates of return than larger firms. He coined the term, "size effect," to explain this empirical regularity and concluded that the size effect was not due to a market inefficiency but was evidence of a pricing model misspecification. Reinganum (1981) also detected a size effect among NYSE and American Stock Exchange (AMEX) listed stocks and likewise suspected a pricing model misspecification. Subsequent research attempted to identify an omitted priced risk factor that primarily affected small stocks to explain this anomaly (see, for example, Roll (1983) and Brown, Kleidon, and Marsh (1983)).

Keim (1983) reported that nearly half of the abnormal returns experienced by small-size NYSE and AMEX stocks over the period 1963-1979 occurred in January, mostly during the early part of the month. Lamoureux and Sanger (1989) identified a similar return seasonal among a sample of NASDAQ over-the-counter stocks during 1973-1985. The January seasonal presents a serious challenge to the omitted-risk-factor argument because: "Even if part of the average size effect is due to an unspecified risk variable, however, the behavior observed in January cannot be due solely to this cause because risk alone cannot explain a return premium observed in the same month each year (Keim (1983), p. 14)."

Many researchers believed that the January effect and the size effect were interrelated. Roll (1983) labeled this phenomenon the "turn-of-the-year effect." The tax-loss-selling hypothesis which posits that investors sell securities in which they have experienced a loss in order to deduct capital

losses before the end of the tax year became the most oft-cited explanation for the combined January and small-firm effects (see Wachtel (1942), Branch (1977), and Dyl (1977)). As the selling pressure dissipates in January, stock prices rebound.

Empirical studies provide mixed results about the hypothesis. Roll (1983) reported that stocks with negative rates of return in the preceding year were the most likely tax-loss-selling candidates. He conjectured that small firms were most susceptible to tax-loss-selling because of their higher volatility and sparse ownership by tax-exempt institutions. Reinganum (1983) documented higher January returns for U.S. stocks that experienced large price declines in the previous year. Brauer and Chang (1990) detected a size-related January seasonal among a sample of seasoned closed-end funds over the period 1967-1983 and concluded that the results are consistent with tax-loss-selling. Givoly and Ovadia (1983) found a significant turn-of-the-year effect and conjectured that a more precise identification of tax-loss-selling candidates may prove that the January effect is entirely caused by tax-induced sales. Schultz (1985) found no evidence of a turn-of-the-year effect before the levy of personal income taxes in 1917, but detected a January effect from 1918 to 1929. However, Jones, Pearce, and Wilson (1987) in examining U.S. stock returns back to 1871 discovered a January effect before the imposition of income taxes.

Brown, Keim, Kleidon, and Marsh (1983) identified a year-round size effect, but no size seasonal -- results they interpret as inconsistent with the tax-loss-selling hypothesis. Constantinides (1984) argued that tax trading not only fails to explain, but exacerbates the small firm effect because investors possess a tax timing option that is more valuable for small than for large firms. Therefore, small firms should have lower, rather than higher, mean returns than large firms. Chan (1984) argues that rational

investors have little incentive to realize a capital loss near year end, presumably at depressed prices, and concludes that optimal tax selling does not explain the turn-of-the-year effect.

II. The Shareholder-Composition Hypothesis

Some researchers postulate that tax-loss-selling is more pronounced among small capitalization stocks because individuals own larger percentages of the outstanding shares of these companies. To reduce income tax liabilities, they often sell securities that have declined in price in order to recognize capital losses. This tax-loss-selling exerts a downward price pressure on these stocks toward year end followed by a price rebound at the beginning of the new year as the selling pressure abates. If tax-loss-selling is responsible for the turn-of-the-year effect, then a January seasonal should occur among securities, regardless of firm size, that have disproportionately large ownership by individuals subject to income tax consequences and have declined in price.

New closed-end fund shares provide a unique opportunity to identify and explain the cause of the January effect. If the January seasonal results from a small firm effect, then such a seasonal should not occur among these relatively large capitalization funds. However, if tax-loss-selling by individuals primarily causes the January effect, then a turn-of-the-year effect should occur because these shares are prone to year end tax-loss-selling. Prior research has not distinguished between these two potential causes of the turn-of-the-year anomaly. However, the identification of the shareholder composition of these securities allows for the separation of these competing causes of the turn-of-the-year effect.

III. Data and Research Methodology

A. Data

The sample in this study consists of the 71 closed-end stock funds that went public from 1986 to 1990 (see Appendix).[4] The offering date, number of shares offered, and the offering price per share were obtained from the final offering prospectus. Table 1 indicates that these funds went public at an average price of $11.94 per share and were typically listed on the NYSE (61 funds, or 85.9 percent). The number of new funds gradually declined from 20 in 1986 to only 5 in 1989, but rebounded to 25 in 1990, largely as a result of 23 international stock fund IPOs. The average market capitalization of these funds was $142.6 million, ranging from an average of $122.2 million in 1988 to $198.6 million in 1987. The median fund size over this period was $90.0 million, ranging from a median of $80.6 million in 1989 to $120.0 million in 1988.

(Table 1 goes here)

I obtained closing stock prices for each fund and for the Standard & Poor's (S&P) 500 Stock Index from S&P's *Daily Stock Price Record*. Dividend payment data also came from this source. The *S&P Stock Guide* provided the number of shares outstanding, exchange listing, and institutional ownership data.

B. Research Methodology

Because the portfolio composition of new funds is changing and unknown, it is unclear how to adjust returns for risk. Barry and Peavy (1990) report that the average Scholes-Williams adjusted beta for closed-end stock funds newly issued during 1986-1987 increased from 0.306 during the initial 84 aftermarket trading days to 0.692 over the next 84 days' trading. Therefore, in an

attempt to bound the range of possible betas for new funds, two series of abnormal returns were computed for each fund. The first, AR^0_{it}, was calculated by subtracting the risk-free rate from the fund return each day,

$$AR^0_{it} = R_{it} - RF_t, \tag{1}$$

where R_{it} is the return of fund i on day t relative to the offering date (t = 1), and RF_t is the risk-free rate on day t. The 91-day U.S. Treasury-bill rate was obtained from various issues of the *Federal Reserve Bulletin* and was used as a proxy for the risk-free rate.

The second series of abnormal returns, AR^1_{it}, was calculated by subtracting the market return from the security return,

$$AR^1_{it} = R_{it} - M_t, \tag{2}$$

where M_t is the return on the S&P 500 Stock Index. These two respective measures effectively provide adjusted returns ranging from an assumed beta equal to zero (Treasury-bill-adjusted) to an assumed beta equal to unity (market-adjusted). For both series the mean abnormal return is defined by[5]

$$\overline{AR_t} = \sum_{i=1}^{n} \frac{AR_{it}}{n_t}, \tag{3}$$

where n_t is the number of securities included on day t. The cumulative average abnormal return $\overline{CAR}^{t2}_{t1}$ at time t_2 relative to time t_1 is computed as

$$\overline{CAR}^{t2}_{t1} = \sum_{t_1}^{t_2} \overline{AR}_t. \tag{4}$$

The statistical significance of the event-period abnormal returns based on each method is assessed. The null hypothesis to be tested is that the mean day t abnormal return is equal to zero. To test whether the abnormal portfolio return on event day t, $\overline{AR}_t$, is statistically different from zero, I calculate the t-statistic

$$t = \overline{AR}_t / \bar{\sigma}(AR_t), \tag{5}$$

where $\bar{\sigma}(AR_t)$, the standard deviation of the sample mean on day t, is defined as

$$\bar{\sigma}(AR_t) = \sigma(AR_t)/n_t^{1/2}, \tag{6}$$

where $\sigma(AR_t)$ is the estimated cross-sectional standard deviation on day t.[6]

To test whether the cumulative abnormal return from day t_1 through day t_2 is significantly different from zero, I compute the t-statistic,

$$t = \overline{CAR}_{t1}^{t2} / \bar{\sigma}(CAR_{t1}^{t2}), \tag{7}$$

where $\bar{\sigma}(CAR_{t1}^{t2}) = \bar{\sigma}(AR_t) \cdot (t_2 - t_1 + 1)^{1/2}$. Assuming that abnormal returns are independently distributed in event time, portfolio returns will follow a standard normal distribution under the null hypothesis. Only 14 funds (19.7 percent) experienced positive returns from issue date until the end of the initial year.

IV. Empirical Results

Closed-end fund IPOs have ideal tax-loss-selling attributes. Table 1 shows that the mean cumulative unadjusted return for these funds from IPO date until November 30 of the respective issue year equals -19.05 percent. Fifty-six funds (78.9 percent) had price declines over this period indicating that new fund owners experienced a substantial losses over a relatively short time period. Because, according to the year end (December) issues of the *S&P Stock Guide*, institutional investors owned an average of only 3.63 percent of the outstanding shares of these funds at the end of the fund's first calendar year, it appears that most fund shares are owned by individuals.

However, these funds are not small capitalization securities. Table 1 shows that the average (median) fund size is $142.6 million ($90.0 million), an amount large enough to rank among the largest half of market capitalization groups reported by Reinganum (1981) and Keim (1983) and in the largest size decile of over-the-counter stocks according to Lamoureaux and Sanger (1989).

A significant turn-of-the-year effect occurs among the sample funds. Table 2 shows that the mean daily Treasury-bill-adjusted return for the first trading day of the calendar year (event day 0) equals 1.96 percent (significant at the .01 level) and, on a market-adjusted basis, the day 0 mean return is 1.15 percent (significant at the .05 level). The day 0 rate of return is the highest of any day during the day -5 to +9 observation period on both Treasury-bill-adjusted and market-adjusted bases and is positive in each year from 1986 to 1990 on a Treasury-bill-adjusted basis, and in each year except 1986 (-0.28 percent) using a market-adjustment procedure.

(Table 2 goes here)

If the turn-of-the-year effect is related to year-end tax-loss-selling, a more pronounced effect should occur among those funds that experienced the largest price declines from issue date until near year end. The empirical findings conform to this expectation. Table 3 shows that the day 0 return for the 14 worst performing funds (quintile 5) was 4.96 percent on a Treasury-bill-adjusted basis and 2.73 percent on a market-adjusted basis. Not only are these day 0 returns both statistically (.01 level) and economically significant, they exceed the respective day 0 returns for each of the other four quintiles by a statistically significant (.01 level) amount. The day 0 abnormal return is even larger for the seven poorest performing funds (lowest decile). The respective single day returns of 6.80 percent (Treasury-bill-adjusted) and 3.41 percent (market-adjusted) are both statistically (.01

level) and economically significant and exceed the return for any other day over the 15 day observation period in this study.

(Table 3 goes here)

A similar phenomenon for quintile 5 funds occurs on day +1 when both the Treasury-bill-adjusted (2.65 percent) and the market-adjusted (2.30 percent) returns are statistically (.01 level) and economically significant. These returns exceed the respective returns for any other performance quintile. On a market-adjusted basis, the day +1 return is exceeded only by the day 0 return. The funds comprising the lowest performance decile achieved even greater day +1 positive abnormal returns using both Treasury-bill (4.26 percent) and market (4.15 percent) adjustment procedures. Each of these day +1 returns exceeds the return for any other day during the observation period with the exception of day 0.

Roll (1983) conjectures that abnormal returns associated with the turn-of-the-year effect may occur as early as the last trading day of December. Therefore, I observed the day -1 to +1 event period to capture any such abnormal return. Table 4 shows that both the day -1 to +1 cumulative Treasury-bill-adjusted return of 3.11 percent and the cumulative market-adjusted return of 1.90 percent are statistically (.01 level) and, economically significant. The day -1 to + 1 rate of return is positive in each year using Treasury-bill adjustment and in each year except 1986 (-1.16 percent) employing market adjustment. Also, a substantial percentage of these funds experienced positive day -1 to + 1 cumulative returns on both Treasury-bill-adjusted (76.1 percent were positive) and market-adjusted (71.8 percent were positive) bases.

(Table 4 goes here)

The magnitude of the turn-of-the-year effect among the new funds with the poorest year-to-date performance is more visible when observing cumulative returns. Table 5 shows that the quintile 5 cumulative rate of return for the day -1 to +1 period is statistically (.01 level) and economically significant both on a Treasury-bill-adjusted basis (8.51 percent) and on a market-adjusted basis (6.03 percent). The effect is more pronounced for the decile of worst performing funds where the day -1 to +1 cumulative rate return is 11.67 percent on a Treasury-bill-adjusted basis and 8.52 percent on a market-adjusted basis. Both rates of return are statistically (.01 level) and economically significant and exceed the respective rates of return for any of the performance quintiles by a statistically significant (.01 level) amount. To my knowledge, these abnormal returns are larger than those reported in any other turn-of-the-year research. Quintile 1 which is the only group containing funds that, on average, experienced positive rates of return from IPO date until the end of their first November 30 is the only group with a negative (-0.77 percent) day -1 to +1 market-adjusted return.

(Table 5 goes here)

The one-week turn of the year rates of return of 4.06 percent (Treasury-bill-adjusted) and 3.09 percent (market-adjusted) are similar to the 3.55 percent one-week rate of return for all NYSE stocks from 1962 to 1980, as reported by Roll (1983), but is approximately double the one-week turn of the year rate of return for seasoned closed-end funds (Brauer and Chang, 1990).[7] Rates of return for the day +4 to +9 event period are not significant on either a Treasury-bill-adjusted basis (1.77 percent) or a market-adjusted basis (0.53 percent).

Cumulative rates of return for the first two trading weeks of the year (days 0 to +9) are generally positive and significant. Over this period the

Treasury-bill-adjusted return averages 5.37 percent ranging from -4.22 percent in 1990 to 13.27 percent in 1989, and the market-adjusted return averages 3.11 percent, ranging from -4.13 percent in 1986 to 17.95 percent in 1989. Both cumulative returns are statistically (.01 level) and economically significant. Under both adjustment procedures, eight of the first 10 trading days in January experienced positive rates of return and additionally each of the last two days in December had positive rates of return. Beginning with day -2, the sample of funds recorded eight consecutive days of positive market-adjusted returns.

As hypothesized under the tax-loss-selling, the poorest performing funds typically experienced greater year-end sell-offs. The days -5 to -1 cumulative Treasury-bill-adjusted returns decline monotonically from the highest (3.90 percent) to the lowest (-1.83 percent) performance quintile. The lowest performance decile exhibits the greatest year-end sell-off as the days -5 to -1 cumulative Treasury-bill-adjusted return equals -2.88 percent (significant at the .05 level).

Brauer and Chang (1989) found that among seasoned funds small funds had significantly larger rates of return at the turn-of-the-year than large-fund shares and that the funds turn-of-the-year rates of return were negatively correlated with their preceding year rate of return. However, as shown in Table 3, no size-related effect occurs among this sample of closed-end fund IPOs. The median market capitalization for funds comprising the lowest performance quintile ($85.1 million) and the lowest performance decile ($84.1) are approximately the same as the median value for the highest performance quintile ($85.0 million) and for the overall sample ($90.0 million). I interpret these findings to indicate that the amount of loss experienced by a fund during the previous year is a more important contributor to the fund's turn-of-the year rate of return than is the size of the fund.

V. Summary and Conclusion

I detect a significant January seasonal among a sample of closed-end stock fund IPOs. These findings are unique because prior research does not identify a turn-of-the-year effect among larger capitalization stocks. I agree that because these shares are owned primarily by individuals, they are prime tax-loss-selling candidates, especially due to the sudden and significant price declines experienced by most of these new funds. The fact that the funds that experienced the largest price declines through the end of their first calendar year show the greatest turn-of-the-year effect provides further evidence supporting a year-end tax-loss-selling effect. That the funds recording the largest turn-of-the-year rates of return do not have smaller market capitalizations than those funds not showing a January effect suggests that this seasonal anomaly is not size-related.

The findings support the shareholder-composition hypothesis which attributes the turn-of-the-year effect to year-end tax-loss-selling by individual investors. These results suggest that the January effect cannot be entirely attributed to a size effect. Rather, the magnitude of the loss experienced by investors seems to be a better predictor of the amount of the turn-of-the-year rate of return. An explanation for the persistence of this effect is reserved for future research.

Footnotes

[1]During the 1971-1985 period, Ritter (1988) reports that the average rate of return for the stocks representing the smallest decile of market value of the New York Stock Exchange (NYSE) exceeded the average rate of return for the stocks among the highest decile by 8.17 percent for the first nine trading days of the year.

[2]See Ritter (1988) for a discussion of these alternative hypotheses.

[3]Only two new closed-end stock funds went public during the preceding 15 years and thus, until the proliferation of these fund IPOs, it was not possible to test this hypothesis with this type of stock.

[4]The only non-listed fund that was newly issued during this period (Southeastern Savings Institutions Fund) was excluded from the sample because of its relatively small market capitalization. I selected this time period because it includes the only years since 1970 in which closed-end fund IPOs actively occurred.

[5]The appropriate adjusted return measure for fund i on day t is as follows:

$$AR_{it} = (1-\beta_{it})\ AR^{0}_{it} + \beta_{it}\ AR^{1}_{it},$$

where $1 - \beta_{it}$ is the fraction of the portfolio in cash. However, because the cash fraction on day t is unknown (except day t=0 when the fund consists of 100 percent cash), I report a range of adjusted returns.

[6]In order to estimate the typical daily variability of the sample funds, I used the average daily standard deviation of the sample funds computed over the 20 trading day period beginning on the first trading day of the February following the observed turn of the year as a proxy for the cross-sectional standard deviation on day t.

[7]I used the same one-week period as Roll (1983) which contains the last trading day of December and the first four trading days of January.

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Table 1

Selected Characteristics of Closed-End Fund IPOs
Over the Period from 1986 to 1990

	Total	1990	1989	1988	1987	1986
Number of fund IPOs	71	25	5	8	13	20
Mean market capitalization[1,2]	$142.6	$127.7	$142.4	$122.2	$198.6	$133.2
Median market capitalization[1]	$90.0	$90.0	$80.6	$120.0	$87.1	$90.0
Mean unadjusted return Since IPO[3]	-19.05%	-26.88%	+3.86%	-12.19%	-33.59%	-8.30%
Number (percent) returns positive	14 (19.7)*	0 (0.0)*	3 (60.0)	2 (25.0)	1 (7.7)*	8 (40.0)
Number (percent) returns negative	56 (78.9)*	25 (100.0)*	2 (40.0)	6 (75.0)	12 (92.3)*	11 (55.0)
Mean IPO price	$11.94	$12.98	$13.71	$11.06	$10.65	$11.40
Number (percent) AMEX listed	10 (14.1)	3 (12.0)	0 (0.0)	2 (25.0)	2 (15.4)	3 (15.0)
Number (percent) NYSE listed	61 (85.9)	22 (88.0)	5 (100.0)	6 (75.0)	11 (84.6)	17 (85.0)
Percent institutional ownership[4]	3.63%	3.52%	2.94%	6.02%	5.77%	1.59%

[1]In millions.

[2]The inclusion of the $1.2 billion Duff & Phelps Utility Fund (DNP), issued in 1987, skews upward the mean. Excluding DNP, the mean market capitalization for the total sample equals $127.5 million and the mean for the 1987 subsample equals $115.2 million.

[3]Computed from IPO date through November 30 of the fund's initial issue year.

[4]Number of shares owned by institutional investors divided by number of shares outstanding (Source: *S&P Stock Guide*).

*Significantly different from 50% at the .01 level.

Table 2

Turn-of-the-Year Daily Returns by Issue Year
for Closed-End Fund IPOs from 1986 to 1990[1]

Event Day[2]	1986	1987	1988	1989	1990	1986 -1990
-5	0.73%	0.45%	-0.03%	0.69%	-0.75%	0.08%
	(0.56)	(0.88)	(-0.39)	(-0.08)	(-0.19)	(0.21)
-4	0.26	-3.63*	-0.14	3.74*	0.61	-0.14
	(0.19)	(-1.05)**	(0.23)	(3.92)*	(0.32)	(0.28)
-3	0.00	-1.64**	-0.32	2.69*	-1.41**	-0.63
	(0.91)	(-1.24)**	(-0.48)	(2.11)*	(-0.64)	(-0.09)
-2	1.02**	2.16*	-0.47	3.25*	0.05	0.89
	(1.55)**	(0.82)	(-1.31)**	(2.72)*	(-0.08)	(0.61)
-1	0.05	0.16	-0.71	1.25**	1.18**	0.46
	(0.54)	(0.48)	(-0.11)	(0.47)	(0.73)	(0.51)
0	1.49**	6.23*	1.43**	2.37*	0.14	1.96*
	(-0.28)	(2.64)*	(2.30)*	(0.59)	(1.28)**	(1.15)**
+1	0.90	3.11*	0.74	-0.08	-0.42	0.69
	(-1.42)**	(2.06)*	(-0.75)	(0.18)	(0.97)	(0.23)
+2	0.28	1.31**	1.10**	2.78*	0.56	0.84
	(0.05)	(1.21)**	(0.89)	(3.64)*	(0.85)	(0.89)
+3	0.91	0.20	0.17	2.77*	-1.20**	0.10
	(-0.09)	(-0.64)	(-0.06)	(3.75)*	(0.53)	(0.30)
+4	-0.46	-3.89*	1.56**	2.39*	-1.20**	-0.92
	(-1.23)**	(2.88)*	(1.45)**	(1.94)*	(-1.03)	(0.13)
+5	0.62	-0.80	-0.37	1.57**	1.99*	0.78
	(0.05)	(-2.48)	(-0.16)	(2.74)*	(1.28)**	(0.17)
+6	0.36	-2.16*	1.44**	-0.85	3.18*	0.89
	(-0.25)	(-1.33)**	(0.86)	(-0.19)	(-0.66)	(-0.46)
+7	0.54	-0.16	0.33	3.34*	0.32	0.51
	(0.67)	(-0.32)	(-0.08)	(2.99)*	(-0.19)	(0.33)
+8	0.40	1.43**	0.78	-4.50*	-2.43*	-0.69
	(-0.63)	(1.40)**	(0.54)	(-2.04)*	(-1.56)**	(-0.54)
+9	0.09	4.68*	1.03	3.47*	-0.22	1.19**
	(0.99)	(2.17)*	(0.93)	(4.34)*	(-0.62)	(0.89)
Number	20	13	8	5	25	71

[1]The Treasury-bill-adjusted return is given in the main rows. The market-adjusted return is given in parentheses.

[2]Day 0 is the first trading day of the calendar year.

*Significantly different from zero at the .01 level.
**significantly different from zero at the .05 level.

Table 3

Daily Returns by Performance Quintile
for Closed-End Fund IPOs from 1986 to 1990[1]

Event Day[2]	Quintile[3] 1	2	3	4	5	Lowest Decile
Return[4]	12.56%	-8.09%	-20.41%	-30.10%	-46.93%	-53.80%
-5	0.35 (0.07)	0.33 (0.26)	-0.17 (-0.01)	-0.67 (-0.31)	0.57 (1.04)	0.95 (1.25)
-4	0.71 (0.94)	0.48 (0.45)	0.62 (0.71)	0.67 (0.70)	-3.48* (-1.42)**	-3.84* (-0.89)
-3	0.58 (1.00)	0.15 (0.66)	-0.65 (0.03)	-1.60** (-0.97)	-1.65** (-1.14)	-1.95** (-1.26)**
-2	1.54** (1.51)**	0.73 (0.73)	0.42 (0.34)	0.22 (-0.05)	1.53** (0.53)	1.37** (0.60)
-1	0.72 (0.95)	-0.29 (-0.24)	0.20 (0.29)	0.76 (0.58)	0.90 (1.00)	0.59 (0.96)
0	0.91 (-0.61)	1.75** (1.19)	1.40 (1.13)	0.79 (1.35)**	4.96* (2.73)*	6.80* (3.41)*
+1	0.45 (-1.11)	0.24 (-0.53)	0.98 (0.46)	-0.48 (0.06)	2.65* (2.30)*	4.26* (4.15)*
+2	0.60 (0.61)	1.20 (1.27)	0.56 (0.56)	1.44** (1.59)**	0.41 (0.42)	1.11 (1.80)
+3	1.09 (0.63)	0.25 (0.42)	-0.17 (0.11)	-0.79 (0.28)	0.15 (0.04)	1.13 (0.77)
+4	-0.49 (-0.55)	0.77 (0.41)	-0.73 (-0.45)	-0.78 (-0.24)	-3.36* (1.53)**	-5.37* (0.92)
+5	0.46 (0.30)	-0.66 (-0.39)	0.20 (0.38)	1.49** (2.13)**	-0.67 (-1.56)**	-1.96** (-3.97)*
+6	0.31 (0.08)	0.01 (-0.52)	0.71 (0.05)	0.40 (-0.37)	-1.86** (-1.54)**	-2.65* (-1.89)**
+7	0.52 (0.45)	0.45 (0.33)	-0.06 (-0.17)	0.75 (0.53)	0.40 (0.22)	0.97 (0.60)
+8	-0.16 (-0.26)	0.16 (-0.04)	1.61** (-1.64)**	-1.69** (-1.18)	0.19 (0.42)	0.86 (0.98)
+9	1.63** (1.01)	1.23 (0.76)	0.44 (-0.31)	-0.96 (-1.52)	3.59* (1.68)**	4.31* (2.16)**
Number	14	14	15	14	14	7
Size[5]	$85.0	$125.0	$100.0	$84.3	$85.1	$84.1

[1]The Treasury-bill-adjusted return is given in the main rows. The market-adjusted return is given in parentheses.

[2]Day 0 is the first trading day of the calendar year.

[3]Quintile one contains the funds with the highest cumulative returns from IPO price until the close on November 30 of the respective issue year.

[4]Cumulative mean return from IPO date until November 30 of the respective issue year.

[5]Size is defined as the median market capitalization for the quintile (in millions).

*Significantly different from zero at the .01 level.
**Significantly different from zero at the .05 level.

Table 4

Cumulative Returns by Issue Year for Closed-End Fund IPOs from 1986 to 1990[1]

Event Period[2]	Cumulative Return						Percent Positive[3]
	1986	1987	1988	1989	1990	1986-1990	
-5 to -1	2.05%**	-2.50%*	-1.67%	11.62%*	-0.31%	0.66%	54.9%
	(3.75)*	(-0.11)	(-1.98)**	(9.14)*	(0.15)	(1.53)	(59.2)
-1 to +1	2.44**	9.50*	1.47**	3.54*	0.90	3.11*	76.1#
	(-1.16)	(5.18)*	(2.19)**	(1.24)	(2.98)*	(1.90)*	(71.8)#
0 to +1	2.39*	9.34*	2.18*	2.29*	-0.28	2.66*	70.4#
	(-1.70)	(3.12)*	(1.44)	(1.06)	(2.25)*	(1.39)	(67.6)#
-1 to +3	3.64*	11.01*	2.74**	9.10*	0.27	4.06*	80.3#
	(-1.21)	(5.74)*	(2.27)**	(8.63)*	(4.36)*	(3.09)*	(76.1)#
+4 to +9	1.54	-0.90	4.77*	5.42*	1.64	1.77**	60.6##
	(-0.39)	(2.25)**	(3.70)*	(9.79)*	(-2.77)*	(0.53)	(54.9)
-5 to +9	7.18*	7.44*	6.56*	24.89*	-4.53*	6.03*	66.2#
	(-0.38)	(7.47)*	(3.94)*	(27.09)*	(1.00)	(4.64)*	(62.0)##

[1]The Treasury-bill-adjusted return is given in the main rows. The market-adjusted return is given in parentheses.

[2]Day 0 is the first trading day of the calendar year.

[3]Percentage of total funds with positive returns over the respective event period during 1986-1990.

*Significantly different from zero at the .01 level (t-statistic).
**Significantly different from zero at the .05 level (t-statistic).

#Significantly different from 50% at the .01 level (Z-score).
##Significantly different from 50% at the .05 level (Z-score).

Table 5

Turn-of-the-Year Cumulative Returns by Performance Quintile for Closed-End Fund IPOs from 1986 to 1990[1]

Event Period[2]	Quintile[3] 1	2	3	4	5	Lowest Decile
-5 to -1	3.90%*	1.40%	0.42%	-0.62%	-1.83%**	-2.88%*
	(4.47)*	(1.86)**	(1.36)	(-0.24)	(1.00)	(0.66)
-1 to +1	2.08**	1.70**	2.58*	1.07	8.51*	11.67*
	(-0.77)	(0.42)	(1.88)**	(1.99**)	(6.03)*	(8.52)*
0 to +1	1.36	1.99**	2.38**	0.31	7.61*	11.08*
	(-1.72)**	(0.66)	(1.59)**	(1.41)**	(5.03)*	(7.56)*
-1 to +3	3.77*	3.15*	2.97**	1.72**	9.07*	13.89*
	(0.47)	(2.11)**	(2.55)**	(3.86)*	(6.49)*	(11.09)*
+4 to +9	2.27	1.96**	2.17**	-0.79	-1.71	-3.84*
	(1.03)	(0.55)	(-2.14)**	(-0.65)	(0.75)	(-1.20)
-5 to +9	9.22*	6.80*	3.99*	-0.45	4.63*	6.60*
	(5.02)*	(4.76)*	(2.47)**	(2.39)**	(7.24)*	(9.59)*

[1]The Treasury-bill-adjusted return is given in the main rows. The market-adjusted return is given in parentheses.

[2]Day 0 is the first trading day of the calendar year.

[3]Quintile one contains the funds with the highest cumulative returns from IPO price until the close on November 30 of the respective issue year.

*Significantly different from zero at the .01 level.
**Significantly different from zero at the .05 level.

Appendix

Closed-End Stock Fund Initial Public Offerings
January 1986 - December 1990

Name of Fund	Market	Issue Date
Alliance Global Environmental	NYSE	5-23-90
Alliance New Europe	NYSE	3-27-90
Asia Pacific	NYSE	4-24-87
Austria	NYSE	9-21-89
Blue Chip	NYSE	4-15-87
Brazil	NYSE	3-31-88
Chile	NYSE	9-26-89
Clemente Global	NYSE	6-23-87
Counselors Tandem	NYSE	10-12-86
Cypress	NYSE	10-23-86
Decision Capital	NYSE	7-9-86
Duff & Phelps Utility	NYSE	1-21-87
Ellsworth Convertible	NYSE	6-20-86
Emerging Germany	NYSE	3-29-90
Emerging Mexico	NYSE	10-2-90
EquityGuard Stock	AMEX	8-14-86
Europe	NYSE	4-27-90
Financial News	NYSE	9-18-87
First Financial	NYSE	5-1-86
First Iberian	AMEX	4-13-88
First Philippine	NYSE	11-8-89
France	NYSE	5-30-86
France Growth	NYSE	5-11-90
Gabelli Equity	NYSE	8-14-86
Germany	NYSE	7-18-86
Global Utility	NYSE	12-22-89
Growth Fund of Spain	NYSE	2-14-90
Growth Stock Outlook	NYSE	3-6-88
GT Greater Europe	NYSE	3-22-90
H&O Healthcare	NYSE	4-23-87
Hampton Utility	AMEX	3-7-88
Helvetia	NYSE	8-19-87
India Growth	NYSE	8-12-88
Indonesia	NYSE	3-1-90
Inefficient Market	AMEX	1-18-90
Irish Investment	NYSE	3-30-90
Italy	NYSE	2-26-86
Jakarta Growth	NYSE	4-10-90
Japan OTC Equity	NYSE	3-14-90
Latin America	NYSE	7-25-90
Liberty All-Star	NYSE	10-24-86
Lincoln National Convertible	NYSE	6-19-86
Malaysia	NYSE	5-8-87
Mexico Equity	NYSE	8-15-90
Morgan Grenfeld SMALLcap	NYSE	5-7-87

New Germany	NYSE	1-24-90
Nicholas-Applegate Growth	NYSE	4-10-87
Pacific Europe Growth	AMEX	4-20-90
Patriot Premium Dividend	NYSE	1-1-88
Patriot Select Dividend	NYSE	7-24-90
Pilgrim Regional Bancshares	NYSE	1-24-86
Portugal	NYSE	11-1-89
Regional Financial Shares	NYSE	5-14-86
Royce Value Trust	NYSE	11-19-86
Scandinavia	NYSE	6-17-86
Schafer Value Trust	NYSE	10-1-86
Scudder New Asia	NYSE	6-18-87
Scudder New Europe	NYSE	2-9-90
Singapore	NYSE	7-24-90
Spain	NYSE	6-21-88
TCW Convertible Securities	NYSE	2-26-87
Taiwan	NYSE	12-16-86
Templeton Emerging Markets	AMEX	2-16-87
Templeton Global Utility	AMEX	5-23-90
Templeton Value	NYSE	10-1-88
Thai	NYSE	2-17-88
Thai Capital	NYSE	5-22-90
Turkish Investment	NYSE	12-5-89
United Kingdom	NYSE	8-6-87
Worldwide Value	NYSE	8-19-86
Zweig	NYSE	9-25-86

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