

Internet Appendix for “Institutional Trade Persistence and Long-term Equity Returns”

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Abstract

In this document we provide supplementary material and robustness tests on the relationship between institutional trade persistence and the cross-section of stock returns. This document is organized as follows. Section I presents returns to equally weighted portfolios based on institutional trade persistence. Section II contains a set of robustness tests that use alternative measures of institutional trading and alternative measures of institutional herding. Section III presents CAPM alphas for equally weighted and value-weighted portfolios of stocks characterized by different institutional trade persistence. Section IV contains regression and portfolio tests of the link between institutional trade persistence and stock returns, after excluding the month of January from the analysis. Finally, Section V briefly describes a set of tables with additional results from regression and portfolio tests.

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I. Equally Weighted Portfolio Returns

Table IA.I presents five-factor alphas and DGTW returns to equally weighted portfolios based on institutional trade persistence. The portfolios buy stocks persistently sold by institutions and sell stocks persistently bought by them. The equally weighted returns to these strategies are generally large and statistically significant. For a holding period of two years or more, for example, the abnormal returns vary between 19 and 34 basis points for trade persistence of three quarters, and between 31 and 48 basis points for trade persistence of four quarters. A trading strategy based on longer trade persistence (-5,5) is also significantly profitable and yields average monthly returns ranging between 39 and 66 basis points.

II. Robustness to Alternative Measures of Trading and Herding

A. *Alternative Trading Measures*

In our analysis of trade persistence we define institutional net trading as the percentage change in the number of stocks in the institutional portfolio in quarter t , $d_{i,t}$. We now check whether our results still hold using alternative measures of net trade. In particular, we consider two alternative measures:

1. The change in the number of shares of security i in the institutional aggregate portfolio scaled by the number of shares outstanding, $d_{i,t}^{Out} = \frac{S_{i,t} - S_{i,t-1}}{Out_{i,t-1}}$.
2. The change in the number of shares of security i in the institutional aggregate portfolio scaled by trading volume, $d_{i,t}^{Vol} = \frac{S_{i,t} - S_{i,t-1}}{Vol_{i,t-1}}$.

Similar to our main measure of net trade, $d_{i,t}$, we define institutional buys and sells based on the value of these new measures with respect to their cross-sectional median, and measure trade persistence by counting the number of consecutive quarters in which a stock is bought or sold by institutional investors. Table IA.II shows descriptive statistics of persistence portfolios based on these alternative measures of net trade. The portfolios exhibit very similar characteristics to those formed according to our original measure of trade persistence and illustrated in Table I of the published article.

Next, we estimate Fama-MacBeth (1973) cross-sectional regressions of two-year future returns on trade persistence, where persistence is defined using $d_{i,t}^{Out}$ and $d_{i,t}^{Vol}$, respectively. The coefficient estimates are reported in Table IA.III and show that the estimates are comparable to those obtained using our original measure of net trade. We conclude that our results are not sensitive to the definition of institutional buying or selling activity.

B. *Alternative Herding Measures*

To reconcile our results with the existing literature on institutional herding, we first check whether a short-term version of our trade persistence measure yields the positive correlation with future short-term returns that is often found in the literature. Wermers (1999) examines returns to equally weighted portfolios of stocks ranked into quintiles of buy and sell herding. His measure of signed herding is based on Lakonishok, Shleifer, and Vishny (1992) and captures the imbalance in the number of institutions buying a stock as a proportion of all institutions actively trading the stock. We partially compare our results to Wermers (1999) using our data on institutional managers. We first separate stocks with positive and negative institutional net trade in quarter t , $d_{i,t}$, and rank the stocks in each group into quintiles. We then compute market-adjusted equally weighted quarterly returns for stocks heavily bought and stocks heavily sold by institutions. When we truncate our time series to 1994 (the sample period studied in Wermers (1999) is 1975 to 1994), we find that the difference in returns between stocks heavily bought and stocks heavily sold is 1.15% after one quarter, 0.5% after two quarters, and becomes negative afterwards. While the two samples are not directly comparable, as they refer to different time periods, different institutional traders, and different measures of net trading, our empirical results are consistent with those of Wermers (1999). Wermers (1999) finds that the size-adjusted return differential is 2.25% in the first quarter, 1.35% in the second quarter, and not significant in the third and fourth quarters.

We next check whether a long-horizon version of commonly used one-period herding measures yields the negative correlation with future long-term returns that we find in our study. We adopt two widely used herding measures based on Lakonishok, Shleifer, and Vishny (1992). First, we consider the number of buyers of stock i in quarter t as a fraction of the total number of active traders in the stock:

$$p_{i,t} = \frac{\text{number of buyers}}{\text{numbers of buyers} + \text{number of sellers}}.$$

This variable represents a measure of trade imbalance. Each quarter, we rank $p_{i,t}$ into two groups and consider values of $p_{i,t}$ above the median as an imbalance of buys and values of $p_{i,t}$ below the median as an imbalance of sells.

We also use signed herding as defined in Wermers (1999). Specifically, we construct a measure of buy herding as

$$BHM_{i,t} = (|p_{i,t} - E[p_{i,t}]|) - AF_{i,t} \mid p_{i,t} > E[p_{i,t}],$$

and a measure of sell herding as

$$SHM_{i,t} = (|p_{i,t} - E[p_{i,t}]|) - AF_{i,t} \mid p_{i,t} < E[p_{i,t}],$$

where $p_{i,t}$ is the proportion of buyers among all institutions trading stock i in quarter t and $E[p_{i,t}]$ is the expected proportion of buys for stock i during quarter t , estimated as the fraction of all

trades across all stocks that are buys during quarter t . $AF_{i,t}$ is an adjustment factor that allows for random variation around the expected proportion of buys and sells under the null hypothesis that institutions trade randomly and independently. This quantity is computed by assuming a binomial process for the number of buys for stock i and quarter t , where the parameters are n (the number of trades for each stock in each quarter) and p (the average proportion of all trades across all stocks that are buys during quarter t). The factor is computed separately for the buy and sell herding measures, conditional on $p_{i,t} > E[p_{i,t}]$ or $p_{i,t} < E[p_{i,t}]$. As in Wermers (1999) we require that a stock is traded by at least five institutions in any given quarter. We rank these measures into two groups to define different degrees of intensity of buy and sell herding.

We then construct measures of “herding persistence” by counting the number of consecutive quarters during which a stock exhibits buy or sell herding, using both the raw herding measure $p_{i,t}$ and the signed herding measures $BHM_{i,t}$ and $SHM_{i,t}$. As with our original measure of trade persistence, we define herding persistence between -5 and 5. For trading persistence based on raw herding, a value of -5 indicates that a stock exhibits persistent sell herding (low $p_{i,t}$) for five or more consecutive quarters, and a value of 5 indicates that a stock exhibits buy herding (high $p_{i,t}$) for five or more consecutive quarters. For trading persistence based on the signed herding measures, a value of -5 indicates low buy or sell herding (low $BHM_{i,t}$ or low $SHM_{i,t}$) for five or more consecutive quarters, while a value of 5 indicates intense buy or sell herding (high $BHM_{i,t}$ or high $SHM_{i,t}$) for five or more consecutive quarters.

We next analyze long-term stock returns using the new persistence measures. We regress two-year future returns on past herding persistence and control variables. The Fama-MacBeth (1973) cross-sectional regression results are reported in Table IA.IV. The persistence measure based on raw herding shows a predictive ability that is comparable to our original measure of trade persistence and confirms the negative relation between herding persistence and stock returns. The coefficient is comparable to the estimate obtained in Table II of the published article, both in magnitude and statistical significance. Furthermore, for the signed herding measures, the persistence of intense buy herding predicts negative future returns, although not significantly. The persistence of intense sell herding, however, predicts positive and significant future returns. These results are consistent with the findings presented using our original trade persistence measure, and show that the link between trade persistence and returns is not specific to our definition of institutional trading.

III. CAPM Alphas

Table IA.V presents CAPM alphas for portfolios of different trade persistence (-5 to +5) and holding periods of three months to 30 months. The table also shows the return differentials between negative and positive persistence portfolios. Panel A presents value-weighted returns and Panel B presents equal-weighted returns. The return differentials are generally positive and significant. For

a holding period of two years, for example, the value-weighted returns (Panel A) vary between 31 basis points and 54 basis points per month, depending on the trade persistence strategy considered. It is worth noting that these positive return differentials between sell and buy persistence are mostly due to the large and significant returns of stocks that have been persistently sold by institutional investors. For instance, the return differential for the (-3,3) strategy, 31 basis points, is due almost entirely to the corresponding return of the negative persistence portfolio, 25 basis points. Short-sale constraints would not limit the profitability of such a strategy, which earns most of its returns from buying stocks that institutions have been selling for a number of quarters in the past.

IV. January Returns

In this section we check that our results on the predictability of institutional trade persistence are not driven by a value benchmark misspecification issue (see Loughran (1997), for example). We perform both the portfolio and the regression tests after excluding the month of January from the computation of returns. Table IA.VI contains average monthly DGTW returns for trade persistence portfolios computed excluding January months and with January-only months. This table shows that non-January returns are very similar to those obtained using all calendar months (see Table III in the published article). If anything, the returns outside of January are slightly larger. The January-only returns are insignificant and generally negative. We interpret these findings as evidence that our results are not driven by a value benchmark misspecification issue.

Table IA.VII presents coefficient estimates for Fama-MacBeth (1973) regressions of two-year stock returns on the persistence of institutional trading and control variables after excluding January returns. We also estimate the same regressions for two separate sample periods, 1984 to 1993 and 1994 to 2004 (see Table II in the published article). The regression results for the entire sample period show that the coefficient on trade persistence is not significant, but the interaction term between persistence and institutional ownership is significant and of a similar magnitude to the estimate obtained using all calendar months. This finding implies that, for stocks with high levels of institutional ownership, excluding January months from the analysis does not alter the link between trade persistence and future returns. When we analyze the two halves of our sample period separately, the results confirm the pattern obtained with all calendar months. During the period 1983 to 1993 we find that trade persistence is significant and strong when interacted with institutional ownership. For the more recent half of the sample period, 1984 to 2004, the coefficient estimate on trade persistence is now significant while the interaction term is not important, suggesting that institutional trade persistence predicts return reversals for stocks of all levels of institutional ownership. As we observe for our main set of results, this finding may be related to the considerable growth in institutional ownership during the more recent sample period.

We note that, for the later sample period, the coefficient on book-to-market is no longer signif-

icant when we exclude January returns. Moreover, changes in analyst coverage are not important in explaining future returns. Therefore, when we exclude January months from the computation of stock returns, we find that trade persistence is the only significant variable that predicts the cross-section of future stock returns. Finally, our general finding that the predictability of trade persistence is stronger when institutional ownership is higher further suggests that the effect of trade persistence on returns is distinct from a value effect. As shown in Nagel (2005), the value effect is generally stronger for stocks with lower institutional ownership.

In summary, we find that i) our regression results are robust to excluding the month of January from the computation of stock returns, ii) our effect is stronger for high institutional ownership stocks, and iii) our effect is stronger in the later subperiod. As all of these findings are in stark contrast to stylized facts about the value effect, we conclude that our results are not driven by a bad value benchmark problem but represent a distinct phenomenon.

V. Additional Results

In this section we present a set of tables containing descriptive statistics, further results on the predictability of institutional trade persistence, and further robustness tests. We describe these tables briefly. Table IA.VIII reports descriptive statistics on the sample of institutional investors used in our study. Table IA.IX contains estimates from cross-sectional regressions of future returns on institutional trade persistence; the dependent variable is the non-overlapping quarterly return of a stock measured over a period of one to eight quarters in the future. Table IA.X contains five-factor alphas (value-weighted) for trade persistence portfolios sorted by NYSE market capitalization; the returns are computed for the two sample periods 1983 to 1993 and 1994 to 2004. Table IA.XI displays coefficient estimates from predictive regressions of two-year stock returns on trade persistence and control variables, both by tercile of NYSE market capitalization and by subperiod. Finally, Table IA.XII reports one-year and two-year raw returns for trade persistence portfolios; the returns are computed for each year in the sample.

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Table IA.I
**Adjusted Return Differentials for Institutional Trade Persistence Portfolios
Equally Weighted Portfolios**

This table reports average monthly return differentials between portfolios of stocks persistently sold by institutions for n quarters and portfolios of stocks persistently bought by institutions for n quarters $(-n, n)$. The portfolios are equally weighted. Institutional trade persistence is measured over three, four, and five or more quarters. Holding periods are three months to 30 months. Five-factor alphas are estimated intercepts from the five-factor model, which includes the three Fama-French (1993) factors, the Carhart (1997) momentum factor, and the Pastor and Stambaugh (2003) liquidity factor. DGTW returns are measured using characteristic-matched benchmarks (size, book-to-market, and momentum) as in Daniel et al. (1997). Estimates are reported in % per month. t -statistics are in parentheses. *, **, *** indicates statistical significance at the 10%, 5%, and 1% level, respectively.

Panel A: Five-factor alphas (EW)										
Persistence	Holding period									
	3m	6m	9m	12m	15m	18m	21m	24m	27m	30m
(-3,3)	0.52*** (3.09)	0.46**** (3.22)	0.41*** (3.33)	0.42*** (3.71)	0.38*** (3.58)	0.38*** (3.63)	0.35*** (3.46)	0.34*** (3.65)	0.34*** (3.76)	0.34*** (3.93)
(-4,4)	0.52** (2.43)	0.50*** (2.65)	0.60*** (3.49)	0.50*** (3.22)	0.54*** (3.53)	0.48*** (3.27)	0.49*** (3.52)	0.48*** (3.71)	0.48*** (3.95)	0.44*** (3.81)
(-5,5)	1.04*** (4.34)	0.92*** (3.97)	0.86*** (3.89)	0.79*** (3.73)	0.75*** (3.71)	0.73*** (3.79)	0.69*** (3.76)	0.66*** (3.79)	0.63*** (3.76)	0.59*** (3.72)

Panel B: DGTW returns (EW)										
Persistence	Holding period									
	3m	6m	9m	12m	15m	18m	21m	24m	27m	30m
(-3,3)	0.13 (1.10)	0.17* (1.85)	0.18** (2.13)	0.25*** (3.19)	0.22*** (3.08)	0.21*** (3.06)	0.21*** (3.24)	0.21*** (3.45)	0.21*** (3.58)	0.19*** (3.58)
(-4,4)	0.35** (2.05)	0.33** (2.35)	0.45*** (3.69)	0.38*** (3.53)	0.39*** (3.80)	0.39*** (3.94)	0.38*** (4.02)	0.36*** (4.15)	0.34*** (4.15)	0.31*** (3.97)
(-5,5)	0.66*** (4.01)	0.62*** (4.06)	0.57*** (3.91)	0.52*** (3.74)	0.50*** (3.68)	0.48*** (3.62)	0.46*** (3.68)	0.45*** (3.75)	0.42*** (3.76)	0.39*** (3.66)

Table IA.II

Characteristics of Persistence Portfolios Based on Alternative Measures of Institutional Net Trade

This table reports time-series averages of quarterly cross-sectional means and medians for characteristics of portfolios based on institutional trade persistence, constructed from alternative measures of institutional net trade. All variables are defined in Table I of the main article, except for net trade. The measures of net trade used in this analysis are as follows: $d_{i,t}^{Out}$ is the change in the number of shares of stock i in the institutional aggregate portfolio from the end of quarter $t - 1$ to the end of quarter t , scaled by shares outstanding. $d_{i,t}^{Vol}$ is the change in the number of shares of stock i in the institutional aggregate portfolio from the end of quarter $t - 1$ to the end of quarter t , scaled by trading volume.

$Persistence^{Out}$	Number of stocks	$d_{i,t}^{Out}$ (median)	Mkt Cap (mean)	Mkt Cap (median)	NYSE Cap Decile	B/M	Share Turnover	Inst. Ownership	Past Return
-5	178	-0.005	449.19	26.66	2.02	1.09	0.39	0.14	-0.024
-4	136	-0.008	800.66	46.09	2.57	1.16	0.46	0.19	-0.028
-3	258	-0.009	862.91	60.14	2.87	1.01	0.50	0.21	-0.034
-2	514	-0.010	1,003.58	80.31	3.23	0.90	0.53	0.25	-0.033
0	2256	0.002	1,094.86	95.31	3.57	0.74	0.54	0.28	-0.005
2	505	0.020	1,186.76	164.87	4.04	0.63	0.61	0.33	0.037
3	256	0.023	1,259.29	198.95	4.31	0.57	0.67	0.36	0.039
4	139	0.026	1,353.06	234.36	4.51	0.53	0.74	0.39	0.042
5	190	0.029	1,419.94	314.63	4.97	0.46	0.82	0.45	0.042

$Persistence^{Vol}$	Number of stocks	$d_{i,t}^{Vol}$ (median)	Mkt Cap (mean)	Mkt Cap (median)	NYSE Cap Decile	B/M	Share Turnover	Inst. Ownership	Past Return
-5	166	-0.017	730.06	29.62	2.32	1.04	0.49	0.17	-0.030
-4	137	-0.021	916.22	50.83	2.78	1.10	0.55	0.21	-0.035
-3	259	-0.024	989.95	63.75	3.04	1.01	0.57	0.23	-0.037
-2	518	-0.025	1,070.52	83.05	3.32	0.89	0.56	0.26	-0.036
0	2262	0.008	1,093.07	94.93	3.58	0.74	0.55	0.28	-0.003
2	510	0.059	1,116.51	150.51	3.95	0.64	0.57	0.32	0.039
3	258	0.063	1,100.79	177.32	4.14	0.58	0.60	0.34	0.039
4	139	0.065	1,136.12	203.52	4.25	0.56	0.63	0.36	0.042
5	181	0.069	1,251.10	250.11	4.54	0.52	0.65	0.40	0.038

Table IA.III
Cross-sectional Predictive Regressions of Long-term Stock Returns
Alternative Measures of Institutional Net Trade

This table reports coefficient estimates from predictive regressions of cumulative eight-quarter market-adjusted returns on past trade persistence, past returns, and control variables. The independent variables are defined in Tables I and II of the main article. Institutional trade persistence $P_{i,t}^{Out}$ is computed from net trade, where the change in shares is scaled by shares outstanding ($d_{i,t}^{Out}$). Institutional trade persistence $P_{i,t}^{Vol}$ is computed from net trade, where the change in shares is scaled by trading volume ($d_{i,t}^{Vol}$). The regression estimates are time-series averages of quarterly cross-sectional coefficients, following Fama-MacBeth (1973). Standard errors are adjusted for autocorrelation as in Newey-West (1987). t -statistics are in parentheses. *, **, *** indicates statistical significance at the 10%, 5%, and 1% level, respectively.

	Shares Outstanding			Trading Volume	
$P_{i,t}^{Out}$	-0.018*** (-4.50)	-0.023*** (-5.04)	$P_{i,t}^{Vol}$	-0.018*** (-3.63)	-0.023*** (-4.27)
$R_{i,t:t-15}$	-0.039* (-1.83)		$R_{i,t:t-15}$	-0.039* (-1.84)	
$R_{i,t-4:t-15}$		-0.020 (-1.28)	$R_{i,t-4:t-15}$		-0.020 (-1.29)
$cap_{i,t}$	-0.038* (-1.91)	-0.038* (-1.88)	$cap_{i,t}$	-0.038* (-1.91)	-0.039* (-1.89)
$bm_{i,t}$	0.045** (2.37)	0.062*** (2.86)	$bm_{i,t}$	0.045** (2.39)	0.063*** (2.87)
$own_{i,t}$	-0.014 (-1.33)	-0.011 (-1.10)	$own_{i,t}$	-0.015 (-1.45)	-0.012 (-1.23)
$turn_{i,t}$	0.033 (1.37)	0.021 (0.93)	$turn_{i,t}$	0.031 (1.33)	0.019 (0.87)

Table IA.IV
Cross-sectional Predictive Regressions of Long-term Stock Returns
Alternative Measures of Herding

This table reports coefficient estimates from predictive regressions of cumulative eight-quarter market-adjusted returns on past trade persistence, past returns, and control variables. The independent variables are defined in Tables I and II of the main article, except for trade persistence. Institutional trade persistence $P_{i,t}$ is constructed using the following three alternative measures of herding: (1) “*p herding*”: Trade persistence is based on trade imbalance $p_{i,t}$, the ratio of buyers of stock i in quarter t to the total number of active traders in the stock. Buys and sells are defined each quarter relative to the median. (2) “*BHM herding*”: Trade persistence is based on the buy herding measure $BHM_{i,t}$. (3) “*SHM herding*”: Trade persistence is based on the sell herding measure $SHM_{i,t}$. The signed herding measures are constructed as in Wermers (1999) and are described in the text. Trade persistence varies between -5 and 5. For trade persistence based on trade imbalance, a value of -5 indicates that a stock exhibits persistent sell herding (low $p_{i,t}$) for five or more consecutive quarters, and a value of 5 indicates that a stock exhibits buy herding (high $p_{i,t}$) for five or more consecutive quarters. For trade persistence based on the signed herding measures, a value of -5 indicates low buy or sell herding (low $BHM_{i,t}$ or low $SHM_{i,t}$) for five or more consecutive quarters, while a value of 5 indicates intense buy or sell herding (high $BHM_{i,t}$ or high $SHM_{i,t}$) for five or more consecutive quarters. The regression estimates are time-series averages of quarterly cross-sectional coefficients, following Fama-MacBeth (1973). Standard errors are adjusted for autocorrelation as in Newey-West (1987). t -statistics are in parentheses. *, **, *** indicates statistical significance at the 10%, 5%, and 1% level, respectively.

	<i>p herding</i>		<i>BHM herding</i>		<i>SHM herding</i>	
$P_{i,t}$	-0.020*** (-3.88)	-0.025*** (-3.46)	-0.006 (-0.79)	-0.009 (-1.05)	0.011** (2.00)	0.013** (2.15)
$R_{i,t:t-15}$	-0.019 (-0.95)		-0.028 (-1.50)		-0.013 (-0.61)	
$R_{i,t-4:t-15}$		-0.008 (-0.54)		-0.020 (-1.46)		-0.003 (-0.17)
$cap_{i,t}$	-0.025 (-1.15)	-0.026 (-1.13)	-0.033 (-1.57)	-0.033 (-1.46)	-0.024 (-1.02)	-0.025 (-1.01)
$bm_{i,t}$	0.091** (2.43)	0.103** (2.44)	0.071 (1.36)	0.090 (1.56)	0.101** (2.90)	0.111** (2.83)
$own_{i,t}$	-0.017* (-1.64)	-0.016 (-1.61)	-0.002 (-0.17)	0.000 (0.01)	-0.028** (-2.10)	-0.027** (-2.10)
$turn_{i,t}$	0.030 (1.39)	0.021 (1.03)	0.012 (0.58)	0.001 (0.04)	0.047* (1.87)	0.039* (1.69)

Table IA.V
Estimated CAPM Alphas for Institutional Trade Persistence Portfolios

This table reports average monthly estimated intercepts (alphas) from the CAPM model for portfolios of stocks persistently traded by institutions for n consecutive quarters. Negative persistence numbers denote portfolios of stocks sold by institutions for n consecutive quarters, positive persistence numbers denote portfolios of stocks bought by institutions for n consecutive quarters. Persistence=0 denotes portfolios of stocks bought or sold for one quarter. Persistence= $(-n, n)$ denotes return differentials between stocks sold by institutions for n quarters and stocks bought by institutions for n quarters. Holding periods are three months to 30 months. Estimates are reported in % per month. t -statistics are in parentheses. *, **, *** indicates statistical significance at the 10%, 5%, and 1% level, respectively. The portfolios are equally weighted in Panel A and value-weighted in Panel B.

Panel A: Equally weighted portfolios										
Persistence	Holding period									
	3 m	6 m	9 m	12 m	15 m	18 m	21 m	24 m	27 m	30 m
-5	0.70** (2.29)	0.74** (2.50)	0.74*** (2.63)	0.76*** (2.78)	0.77*** (2.92)	0.76*** (2.90)	0.75*** (2.91)	0.75*** (2.95)	0.73*** (2.96)	0.72*** (2.96)
-4	0.39 (1.34)	0.42 (1.56)	0.52** (2.01)	0.48** (1.96)	0.57** (2.32)	0.56** (2.37)	0.57** (2.41)	0.56** (2.47)	0.57** (2.52)	0.56** (2.53)
-3	0.27 (1.03)	0.31 (1.21)	0.35 (1.46)	0.42* (1.81)	0.40* (1.80)	0.46** (2.05)	0.48** (2.18)	0.48** (2.19)	0.48** (2.26)	0.49** (2.33)
-2	0.11 (0.50)	0.18 (0.82)	0.24 (1.08)	0.27 (1.27)	0.31 (1.48)	0.31 (1.47)	0.33 (1.61)	0.35* (1.71)	0.36* (1.75)	0.37* (1.82)
0	0.11 (0.55)	0.12 (0.63)	0.14 (0.73)	0.16 (0.86)	0.18 (0.95)	0.20 (1.04)	0.21 (1.09)	0.22 (1.17)	0.23 (1.26)	0.24 (1.33)
2	0.13 (0.65)	0.10 (0.53)	0.07 (0.42)	0.06 (0.34)	0.07 (0.38)	0.09 (0.50)	0.11 (0.60)	0.12 (0.68)	0.13 (0.76)	0.15 (0.85)
3	0.07 (0.37)	0.01 (0.07)	-0.01 (-0.04)	-0.01 (-0.03)	-0.01 (-0.04)	0.02 (0.12)	0.04 (0.24)	0.04 (0.24)	0.06 (0.33)	0.07 (0.42)
4	-0.02 (-0.12)	-0.06 (-0.32)	-0.12 (-0.63)	-0.12 (-0.65)	-0.11 (-0.61)	-0.09 (-0.53)	-0.09 (-0.53)	-0.08 (-0.45)	-0.07 (-0.40)	-0.04 (-0.21)
5	-0.28 (-1.43)	-0.24 (-1.29)	-0.25 (-1.40)	-0.26 (-1.41)	-0.25 (-1.38)	-0.25 (-1.43)	-0.24 (-1.33)	-0.22 (-1.22)	-0.19 (-1.05)	-0.15 (-0.87)
(-3,3)	0.20 (0.98)	0.29* (1.73)	0.35** (2.42)	0.42*** (3.33)	0.41*** (3.59)	0.44*** (4.04)	0.44*** (4.24)	0.43*** (4.45)	0.43*** (4.58)	0.42*** (4.81)
(-4,4)	0.41* (1.74)	0.48** (2.29)	0.63*** (3.45)	0.60*** (3.66)	0.67*** (4.29)	0.66*** (4.40)	0.66*** (4.62)	0.64*** (4.83)	0.64*** (5.12)	0.60*** (5.08)
(-5,5)	0.97*** (3.52)	0.98*** (3.90)	1.00*** (4.29)	1.02*** (4.63)	1.02*** (4.88)	1.01*** (5.06)	0.99*** (5.16)	0.96*** (5.30)	0.92*** (5.31)	0.87*** (5.33)

Table IA.V, continued
Estimated CAPM Alphas for Institutional Trade Persistence Portfolios

Panel B: Value-weighted portfolios										
Persistence	Holding period									
	3 m	6 m	9 m	12 m	15 m	18 m	21 m	24 m	27 m	30 m
-5	0.21 (1.19)	0.39** (2.37)	0.35** (2.30)	0.32** (2.10)	0.30** (2.00)	0.30** (2.10)	0.32** (2.28)	0.31** (2.33)	0.33** (2.46)	0.32** (2.46)
-4	0.14 (0.67)	0.09 (0.58)	0.24* (1.89)	0.19* (1.65)	0.23** (2.14)	0.24** (2.49)	0.23** (2.53)	0.27*** (3.13)	0.24*** (2.94)	0.28*** (3.50)
-3	0.19 (1.16)	0.19 (1.45)	0.23** (2.09)	0.32*** (3.17)	0.28*** (2.95)	0.26*** (2.99)	0.25*** (3.13)	0.25*** (3.18)	0.24*** (3.24)	0.23*** (3.21)
-2	0.11 (0.93)	0.13 (1.29)	0.12 (1.46)	0.13* (1.83)	0.19*** (2.82)	0.17*** (2.76)	0.16*** (2.72)	0.16*** (2.94)	0.16*** (3.05)	0.16*** (3.00)
0	0.00 (0.05)	0.01 (0.21)	0.00 (0.14)	0.02 (0.55)	0.02 (0.68)	0.03 (0.81)	0.03 (0.98)	0.03 (0.96)	0.04 (1.18)	0.04 (1.28)
2	-0.16 (-1.20)	-0.13 (-1.43)	-0.05 (-0.73)	-0.05 (-0.76)	-0.08 (-1.55)	-0.04 (-0.79)	-0.03 (-0.61)	0.02 (0.39)	0.01 (0.34)	0.00 (-0.05)
3	-0.15 (-0.89)	-0.07 (-0.65)	-0.07 (-0.68)	-0.14* (-1.67)	-0.13 (-1.56)	-0.12 (-1.53)	-0.05 (-0.70)	-0.06 (-0.91)	-0.06 (-0.97)	-0.06 (-0.96)
4	0.04 (0.25)	-0.10 (-0.69)	-0.13 (-1.07)	-0.12 (-1.14)	-0.13 (-1.35)	-0.08 (-0.85)	-0.09 (-1.02)	-0.11 (-1.27)	-0.11 (-1.37)	-0.11 (-1.32)
5	-0.19 (-0.97)	-0.25 (-1.45)	-0.28* (-1.68)	-0.26* (-1.64)	-0.23 (-1.52)	-0.25* (-1.70)	-0.23* (-1.64)	-0.22* (-1.65)	-0.24* (-1.79)	-0.25** (-1.98)
(-3,3)	0.34 (1.36)	0.26 (1.48)	0.30* (1.87)	0.46*** (3.23)	0.41*** (3.02)	0.38*** (3.13)	0.30*** (2.74)	0.31*** (2.90)	0.30*** (2.91)	0.29*** (2.89)
(-4,4)	0.09 (0.32)	0.18 (0.82)	0.36** (1.91)	0.31* (1.76)	0.36** (2.21)	0.32** (2.10)	0.32** (2.24)	0.38*** (2.78)	0.35*** (2.74)	0.38*** (3.09)
(-5,5)	0.40 (1.31)	0.64** (2.29)	0.63** (2.40)	0.58** (2.24)	0.53** (2.08)	0.55** (2.24)	0.55** (2.28)	0.54** (2.31)	0.56** (2.46)	0.57*** (2.59)

Table IA.VI
DGTW Return Differentials for Institutional Trade Persistence Portfolios
Excluding January Months and January-only Months

This table reports average monthly return differentials between portfolios of stocks persistently sold by institutions for n quarters and portfolios of stocks persistently bought by institutions for n quarters $(-n, n)$. The portfolios are value-weighted. Institutional trade persistence is measured over three, four, and five or more quarters. Holding periods are three months to 30 months. DGTW returns are measured using characteristic-matched benchmarks (size, book-to-market, and momentum) as in Daniel et al. (1997). In Panel A returns are computed excluding January months; in Panel B returns are for January only. Estimates are reported in % per month. t -statistics are in parentheses. *, **, *** indicates statistical significance at the 10%, 5%, and 1% level, respectively.

Panel A: Excluding January months										
Persistence	Holding period									
	3m	6m	9m	12m	15m	18m	21m	24m	27m	30m
(-3,3)	0.00 (0.02)	0.10 (0.83)	0.12 (1.09)	0.24** (2.42)	0.22** (2.47)	0.20** (2.43)	0.19** (2.41)	0.20*** (2.71)	0.20*** (2.85)	0.19*** (2.70)
(-4,4)	0.22 (0.93)	0.14 (0.79)	0.21 (1.45)	0.15 (1.18)	0.17 (1.50)	0.20* (1.83)	0.23** (2.20)	0.26** (2.57)	0.23** (2.44)	0.24*** (2.72)
(-5,5)	-0.04 (-0.20)	0.09 (0.48)	0.15 (0.85)	0.15 (0.88)	0.15 (0.88)	0.19 (1.13)	0.22 (1.34)	0.20 (1.27)	0.20 (1.34)	0.20 (1.37)

Panel B: January-only months										
Persistence	Holding period									
	3m	6m	9m	12m	15m	18m	21m	24m	27m	30m
(-3,3)	0.42 (0.98)	-0.22 (-1.02)	-0.40 (-1.46)	-0.22 (-0.74)	-0.23 (-0.73)	-0.17 (-0.56)	-0.25 (-0.95)	-0.24 (-0.97)	-0.29 (-1.32)	-0.26 (-1.13)
(-4,4)	-0.45 (-0.87)	-0.75 (-1.40)	-0.52 (-1.03)	-0.39 (-0.87)	-0.08 (-0.22)	-0.13 (-0.38)	-0.26 (-0.72)	-0.35 (-1.05)	-0.27 (-0.87)	-0.25 (-0.93)
(-5,5)	-0.47 (-0.55)	0.19 (0.25)	0.28 (0.41)	0.20 (0.26)	0.02 (0.02)	0.09 (0.12)	0.12 (0.17)	0.12 (0.19)	0.17 (0.28)	0.20 (0.34)

Table IA.VII
**Cross-sectional Predictive Regressions of Long-term Stock Returns
Excluding January Months**

This table reports Fama-MacBeth (1973) coefficient estimates from predictive regressions of cumulative eight-quarter market-adjusted returns, constructed after excluding January returns. Past returns are measured during four years up to quarter t ($R_{i,t-15:t}$) or during three years skipping a year before quarter t ($R_{i,t-15:t-4}$). The independent variables are described in Tables I and II of the main article. All independent variables are standardized using their quarterly cross-sectional mean and standard deviation. t -statistics (in parentheses) are adjusted following Newey-West (1987). *, **, *** indicates statistical significance at the 10%, 5%, and 1% level, respectively.

	Entire sample		1983 to 1993		1994 to 2004	
$Pers_{i,t}$	-0.002 (-0.71)	-0.003 (-0.90)	0.003 (0.78)	0.004 (1.03)	-0.009** (-2.49)	-0.012** (-2.45)
$Pers_Rown_{i,t}$	-0.010** (-2.17)	-0.010** (-2.09)	-0.018*** (-2.68)	-0.018** (-2.54)	-0.001 (-0.23)	-0.001 (-0.20)
$R_{i,t-15:t}$	0.008 (0.48)		0.029 (1.50)		-0.017 (-0.77)	
$R_{i,t-15:t-4}$		-0.004 (-0.37)		0.000 (-0.00)		-0.009 (-0.61)
$cap_{i,t}$	0.004 (0.24)	0.005 (0.30)	0.028 (1.40)	0.029 (1.50)	-0.023 (-0.86)	-0.023 (-0.86)
$bm_{i,t}$	0.026 (0.60)	0.005 (0.11)	0.015 (0.20)	-0.024 (-0.31)	0.038 (1.14)	0.040 (1.30)
$own_{i,t}$	0.005 (0.50)	0.004 (0.42)	0.006 (0.59)	0.004 (0.38)	0.004 (0.21)	0.005 (0.25)
$turn_{i,t}$	0.006 (0.34)	0.005 (0.28)	-0.017 (-1.09)	-0.016 (-0.95)	0.033 (1.11)	0.029 (0.95)
$dcoverage_{i,t}$	-0.015*** (-2.78)	-0.013*** (-2.60)	-0.025*** (-3.07)	-0.021** (-2.56)	-0.004 (-0.99)	-0.005 (-1.17)
$issuance_{i,t}$	-0.009* (-1.79)	-0.008 (-1.17)	-0.011** (-2.33)	-0.006 (-1.13)	-0.008 (-0.72)	-0.012 (-0.79)
$e/p_{i,t}$	-0.022 (-0.91)	-0.014 (-0.54)	-0.004 (-0.16)	0.007 (0.22)	-0.043 (-1.07)	-0.039 (-0.90)
$cf/p_{i,t}$	0.013 (0.45)	0.011 (0.36)	-0.025 (-0.96)	-0.030 (-1.07)	0.057 (1.18)	0.058 (1.16)
$s/p_{i,t}$	0.030 (0.96)	0.033 (1.02)	0.046** (2.25)	0.047** (2.14)	0.011 (0.19)	0.016 (0.26)
$e\ growth_{i,t}$	0.034 (0.48)	0.026 (0.41)	0.106 (1.57)	0.086 (1.61)	-0.050 (-0.39)	-0.043 (-0.36)

Table IA.VIII
Descriptive Statistics: Sample of Institutional Investors

The sample consists of quarterly observations for firms listed on NYSE, Amex, and NASDAQ during the period 1983 to 2004. Each quarter, we compute the total number of managers reporting their holdings in each security; the mean and median value of managers' equity holdings; the aggregate value managed by all institutions; and the share of market value represented by the aggregate institutional portfolio (calculated as the ratio between the value of stocks in the institutional portfolio and the value of all stocks in CRSP). Portfolio turnover for manager j is calculated as the sum of the absolute values of buys and sells in stock i in a given quarter, divided by the value of the manager's stock holdings: $Turnover_t^j = \frac{\sum_i |n_t^{i,j} - n_{t-1}^{i,j}| p_t^i}{\sum_i n_t^{i,j} p_t^i}$. This table reports summary statistics for the last quarter of each year in the sample.

Year	Number of managers	Holdings per mgr		Aggregate stock holdings (\$bill.)	Market share %	Turnover	
		Mean (\$mill.)	Median (\$mill.)			Mean	Median
1983	640	762.19	257.55	487.80	28	0.30	0.21
1984	692	704.73	217.93	487.68	29	0.29	0.19
1985	768	854.08	261.46	655.93	31	0.33	0.23
1986	809	918.17	266.37	742.80	32	0.34	0.24
1987	881	851.33	225.29	750.02	32	0.35	0.25
1988	882	947.19	248.48	835.42	33	0.26	0.18
1989	927	1,093.68	284.94	1,024.78	34	0.36	0.23
1990	976	998.08	234.83	974.13	34	0.27	0.17
1991	1,009	1,331.40	291.49	1,343.38	36	0.31	0.20
1992	1,098	1,425.03	285.46	1,564.68	38	0.28	0.19
1993	1,044	1,603.42	297.79	1,673.97	36	0.44	0.21
1994	1,135	1,619.14	281.58	1,837.72	40	0.29	0.20
1995	1,299	2,049.37	299.68	2,662.13	42	0.35	0.24
1996	1,307	2,508.74	327.86	3,278.92	43	0.50	0.24
1997	1,461	3,062.10	372.76	4,473.73	45	0.34	0.24
1998	1,629	3,540.10	345.03	5,766.82	47	0.40	0.25
1999	1,703	4,386.91	405.83	7,470.91	47	0.39	0.25
2000	1,899	3,989.36	324.21	7,575.79	53	0.39	0.25
2001	1,751	3,864.52	319.54	6,766.77	53	0.36	0.21
2002	1,912	2,988.33	231.20	5,713.68	58	0.42	0.21
2003	2,023	3,581.46	309.92	7,245.30	56	0.37	0.23
2004	2,056	4,078.51	335.25	8,385.41	64	0.30	0.20
Average	1,133	2,108.43	301.88				

Table IA.IX
Cross-sectional Predictive Regressions of Quarterly Stock Returns

This table reports coefficient estimates from predictive regressions of stock returns on past trade persistence, past returns, and control variables. The dependent variables are the non-overlapping quarterly stock returns during eight quarters from $t + 1$ to $t + 8$ (R_{Q1} to R_{Q8}). Past returns are measured during four years up to quarter t ($R_{i,t:t-15}$) or during three years skipping a year before quarter t ($R_{i,t-4:t-15}$). All variables are defined in Tables I and II of the main article. The regression estimates are time-series averages of quarterly cross-sectional coefficients, following Fama-MacBeth (1973). Standard errors are adjusted for autocorrelation as in Newey-West (1987). t -statistics are in parentheses. *, **, *** indicates statistical significance at the 10%, 5%, and 1% level, respectively.

	R_{Q1}	R_{Q2}	R_{Q3}	R_{Q4}	R_{Q5}	R_{Q6}	R_{Q7}	R_{Q8}
$P_{i,t}$	-0.001 (-0.63)	-0.001 (-1.31)	-0.002** (-2.33)	-0.002** (-2.00)	-0.003*** (-2.78)	-0.003*** (-2.63)	-0.002** (-2.45)	-0.001 (-1.57)
$R_{i,t:t-15}$	-0.003 (-0.76)	-0.003 (-0.86)	-0.004 (-1.15)	-0.004 (-1.28)	-0.005 (-1.47)	-0.003 (-1.01)	-0.004 (-1.35)	-0.004 (-1.42)
$cap_{i,t}$	-0.003 (-0.93)	-0.004 (-1.22)	-0.005 (-1.34)	-0.005 (-1.49)	-0.004 (-1.10)	-0.004 (-1.32)	-0.004 (-1.27)	-0.005 (-1.40)
$bm_{i,t}$	0.002 (0.90)	0.000 (-0.15)	-0.001 (-0.44)	0.002 (0.80)	0.007*** (2.91)	0.004 (1.54)	0.006 (1.39)	0.001 (0.47)
$own_{i,t}$	0.000 (-0.03)	0.000 (0.11)	0.000 (-0.20)	0.000 (0.13)	-0.001 (-0.53)	0.000 (-0.17)	0.000 (-0.19)	0.000 (-0.17)
$turn_{i,t}$	0.001 (0.32)	-0.001 (-0.19)	0.001 (0.16)	0.001 (0.36)	0.004 (1.13)	0.002 (0.61)	0.003 (0.85)	0.005 (1.09)
$P_{i,t}$	-0.001 (-0.95)	-0.002 (-1.55)	-0.003*** (-2.66)	-0.002** (-2.50)	-0.004*** (-3.01)	-0.003*** (-2.66)	-0.003*** (-2.63)	-0.002* (-1.89)
$R_{i,t-4:t-15}$	-0.007** (-2.40)	-0.005* (-1.69)	-0.003 (-0.92)	0.000 (-0.16)	-0.001 (-0.27)	0.001 (0.38)	0.000 (0.19)	0.000 (0.05)
$cap_{i,t}$	-0.001 (-0.43)	-0.003 (-0.89)	-0.004 (-1.20)	-0.006 (-1.53)	-0.004 (-1.25)	-0.005 (-1.43)	-0.005 (-1.34)	-0.005 (-1.53)
$bm_{i,t}$	0.002 (0.89)	0.000 (0.00)	-0.001 (-0.25)	0.003 (1.13)	0.010*** (3.27)	0.007** (2.13)	0.008* (1.74)	0.004 (1.26)
$own_{i,t}$	0.000 (-0.12)	0.000 (0.14)	0.000 (-0.13)	0.001 (0.31)	-0.001 (-0.51)	0.000 (-0.04)	0.000 (0.07)	0.000 (0.16)
$turn_{i,t}$	0.001 (0.25)	-0.002 (-0.41)	-0.001 (-0.28)	0.000 (-0.12)	0.003 (0.92)	0.001 (0.30)	0.001 (0.38)	0.004 (0.77)

Table IA.X

**Five-factor Alphas for Institutional Trade Persistence Portfolios
By NYSE Market Capitalization and Subperiods**

This table reports average monthly return differentials between portfolios of stocks persistently sold by institutions for n quarters and portfolios of stocks persistently bought by institutions for n quarters ($-n, n$) during two sample periods of equal length: 1983 to 1993 and 1994 to 2004. Portfolios are value-weighted. Institutional trade persistence is measured over three, four, and five or more quarters. Holding periods are three months to 30 months. Five-factor alphas are estimated intercepts from the five-factor model, which includes the three Fama-French (1993) factors, the Carhart (1997) momentum factor, and the Pastor and Stambaugh (2003) liquidity factor. Cap is the tercile of NYSE market capitalization to which the stock belongs in any given month. Estimates are reported in % per month. t -statistics are in parentheses. *, **, *** indicates statistical significance at the 10%, 5%, and 1% level, respectively.

Cap	Pers	1983 to 1993						1994 to 2004					
		Holding period						Holding period					
		3m	6m	12m	18m	24m	30m	3m	6m	12m	18m	24m	30m
1	(-3,3)	-0.41*	-0.15	-0.03	-0.12	-0.05	0.01	0.18	0.21	0.51***	0.47***	0.52***	0.53***
		(-1.80)	(-0.84)	(-0.23)	(-1.01)	(-0.42)	(0.08)	(0.73)	(1.11)	(3.31)	(3.43)	(4.48)	(5.38)
	(-4,4)	-0.20	-0.08	-0.06	-0.11	0.01	0.06	-0.50	0.24	0.62***	0.78***	0.73***	0.63***
2	(-5,5)	(-0.63)	(-0.29)	(-0.26)	(-0.54)	(0.04)	(0.37)	(-1.34)	(0.84)	(2.88)	(4.13)	(4.53)	(4.44)
		0.17	0.17	0.16	0.26	0.36	0.39*	0.97***	0.98***	1.09***	1.14***	0.94***	0.84***
		(0.52)	(0.53)	(0.55)	(0.98)	(1.52)	(1.87)	(2.61)	(3.21)	(4.46)	(4.87)	(4.32)	(4.44)
3	(-3,3)	-0.18	0.01	-0.09	-0.02	0.01	-0.01	0.59**	0.63***	0.56***	0.48***	0.35***	0.30***
		(-0.74)	(0.03)	(-0.64)	(-0.17)	(0.09)	(-0.09)	(2.12)	(3.08)	(3.50)	(3.72)	(3.09)	(3.01)
	(-4,4)	0.01	-0.34	-0.17	-0.13	0.08	0.02	0.83***	0.54*	0.51**	0.22	0.22	0.23
3	(-5,5)	(0.03)	(-1.43)	(-1.01)	(-0.80)	(0.48)	(0.15)	(2.18)	(1.82)	(2.26)	(1.19)	(1.30)	(1.45)
		0.13	0.08	-0.01	0.00	-0.01	-0.01	1.78***	1.36***	0.87***	0.57***	0.48**	0.34*
		(0.32)	(0.23)	(-0.04)	(-0.01)	(-0.04)	(-0.07)	(4.17)	(3.64)	(3.16)	(2.54)	(2.40)	(1.80)
3	(-3,3)	0.49*	0.28	0.04	-0.04	0.05	0.09	0.82**	0.61**	0.84***	0.54***	0.26*	0.21
		(1.76)	(1.37)	(0.26)	(-0.36)	(0.49)	(0.90)	(2.12)	(2.40)	(3.89)	(2.95)	(1.68)	(1.49)
	(-4,4)	0.27	-0.21	-0.11	-0.05	0.11	0.11	-0.20	0.47	0.39	0.26	0.32	0.40*
3	(-5,5)	(0.59)	(-0.64)	(-0.48)	(-0.26)	(0.65)	(0.70)	(-0.40)	(1.31)	(1.39)	(1.06)	(1.37)	(1.95)
		-0.98**	-0.50	-0.45	-0.19	-0.19	-0.14	1.00**	1.00**	0.77**	0.36	0.24	0.16
		(-2.20)	(-1.33)	(-1.38)	(-0.65)	(-0.73)	(-0.59)	(2.18)	(2.50)	(2.19)	(1.15)	(0.84)	(0.62)

Table IA.XI
**Cross-sectional Predictive Regressions of Long-term Stock Returns
By NYSE Market Capitalization and Subperiods**

This table reports coefficient estimates from predictive regressions of cumulative eight-quarter market-adjusted returns on past trade persistence, past returns, and control variables. All variables are defined in Tables I and II of the main article. The regressions are estimated for three subsamples of stocks belonging to terciles of market capitalization defined using NYSE cutoff points. The regression estimates are obtained from quarterly cross-sectional regressions and then averaged over time, as in Fama-MacBeth (1973). Standard errors are adjusted for autocorrelation as in Newey-West (1987). t -statistics are in parentheses. *, **, *** indicates statistical significance at the 10%, 5%, and 1% level, respectively. Panel A presents estimates for the entire sample period; Panel B reports estimates for the two subperiods 1983 to 1993 and 1994 to 2004.

Entire sample						
Cap	1		2		3	
$P_{i,t}$	-0.019***	-0.025***	-0.008	-0.011*	-0.001	-0.002
	(-3.53)	(-4.66)	(-1.35)	(-1.66)	(-0.12)	(-0.31)
$R_{i,t:t-15}$	-0.051**		-0.006		0.006	
	(-2.20)		(-0.25)		(0.27)	
$R_{i,t-4:t-15}$		-0.022		0.000		0.002
		(-1.32)		(-0.00)		(0.13)
$cap_{i,t}$	-0.139***	-0.145***	-0.024	-0.024	0.015	0.014
	(-4.13)	(-4.26)	(-0.97)	(-0.97)	(0.53)	(0.50)
$bm_{i,t}$	0.013	0.034*	0.132***	0.145**	0.197**	0.201**
	(0.62)	(1.67)	(2.93)	(2.54)	(2.45)	(2.45)
$own_{i,t}$	-0.020	-0.012	0.001	0.002	-0.006	-0.006
	(-1.28)	(-0.88)	(0.10)	(0.19)	(-0.49)	(-0.48)
$turn_{i,t}$	0.046	0.030	0.025	0.018	0.033	0.031
	(1.23)	(0.83)	(1.33)	(1.00)	(1.29)	(1.19)
1983 to 1993						
Cap	1		2		3	
$P_{i,t}$	-0.011	0.001	0.005	-0.029***	-0.018**	-0.008
	(-1.38)	(0.11)	(0.59)	(-5.63)	(-2.22)	(-0.88)
$R_{i,t:t-15}$	-0.036	0.007	0.011	-0.068***	-0.021	0.000
	(-0.98)	(0.23)	(0.39)	(-2.76)	(-0.68)	(-0.01)
$cap_{i,t}$	-0.124***	0.027	0.020	-0.156***	-0.082**	0.009
	(-2.66)	(1.23)	(0.97)	(-3.23)	(-2.45)	(0.15)
$bm_{i,t}$	0.026	0.087**	0.242*	-0.002	0.184**	0.145**
	(1.60)	(2.31)	(1.79)	(-0.05)	(2.19)	(2.08)
$own_{i,t}$	0.002	0.007	0.014	-0.045***	-0.006	-0.028
	(0.09)	(0.59)	(1.29)	(-3.44)	(-0.56)	(-1.50)
$turn_{i,t}$	-0.004	0.000	-0.001	0.106	0.056*	0.072
	(-0.21)	(-0.03)	(-0.06)	(1.48)	(1.71)	(1.53)

Table IA.XII
Return Differentials for Institutional Trade Persistence Portfolios, By Year

This table reports cumulative return differentials between portfolios of stocks persistently sold by institutions for n quarters and stocks persistently bought by institutions for n quarters $(-n, n)$. The portfolios are equally weighted. The cumulative returns in the table are sums of quarterly returns over one-year and two-year periods (Hold), averaged over a given year.

Hold	Pers	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
2 yr	(-5,5)	0.049	0.095	0.113	0.085	0.020	-0.050	0.050	0.211	0.302	0.075	0.138
	(-4,4)	0.109	-0.028	-0.040	0.126	-0.021	-0.047	-0.017	0.165	0.314	0.007	0.084
	(-3,3)	0.038	-0.108	-0.032	0.066	-0.003	-0.040	-0.113	0.159	0.184	0.044	0.061
1 yr	(-5,5)	0.109	0.018	0.019	0.078	0.022	-0.020	-0.094	0.026	0.174	0.005	0.088
	(-4,4)	0.077	-0.049	-0.080	0.108	-0.039	-0.059	-0.084	0.013	0.163	0.001	0.062
	(-3,3)	0.045	-0.085	-0.046	0.046	-0.006	-0.021	-0.050	0.058	0.072	0.027	0.052
Hold	Pers	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
2 yr	(-5,5)	0.004	0.108	0.161	0.092	0.173	0.206	0.632	0.323	0.338	0.275	0.043
	(-4,4)	0.079	0.129	0.097	0.091	0.176	0.025	0.491	0.154	0.233	0.219	0.041
	(-3,3)	0.088	0.055	0.076	0.030	0.129	-0.009	0.366	0.074	0.223	0.148	0.078
1 yr	(-5,5)	0.049	0.078	0.096	0.053	0.053	0.051	0.425	0.216	0.281	0.293	0.036
	(-4,4)	0.035	0.060	0.049	0.003	0.120	-0.083	0.289	0.074	0.184	0.220	0.046
	(-3,3)	0.040	0.020	0.034	0.021	0.039	-0.112	0.252	0.025	0.198	0.148	0.033