Internet Appendix: Can Individual Investors Time Bubbles?

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In this appendix, we present additional results not tabulated in the paper. Some results from the paper are also presented here to allow for easy comparison across timing measures.

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1 Timing Measures

In the paper, we focus on an investor's ability to time the market at the monthly frequency. The monthly timing measure is calculated:

$$MarketTiming_i = Correlation(Flow_{it}, MonthReturn_{t+1}), \tag{1}$$

where $Flow_{it}$ is the monthly flow for investor i in month t and $MonthReturn_{t+1}$ is the cash return on the HEX 25 in month t+1. We use cash returns so that both the flows and returns are in euros. We compare investors' timing measures in two equal length sub-periods: January 1995 to March 2002 and April 2002 to June 2009. There are 87 months in each sub-period. We also calculate this flow-return correlation in the two bubble periods in our sample. Bubble periods are defined around the two market peaks. The peak months on the HEX 25 were March 2000 and July 2007. We treat these two months as the beginning of a market crash and calculate whether an investor performed well in the 12 months before and 12 months after the market peak. Therefore, we have 25 months of data for each bubble period.

In this appendix, we will present results for a quarterly timing measure. This measure is calculated:

$$QuarterlyTiming_i = Correlation(Flow_{it}, QuarterlyReturn_{t+1}), \tag{2}$$

where $Flow_{it}$ is the monthly flow for investor i in month t and $QuarterlyReturn_{t+1}$ is the cash return on the HEX 25 from the beginning of month t+1 to the end of month t+3.

We focus on timing during the entire period and bubble periods in the paper. In the appendix, we also tabulate results for a "Normal Times" timing measure. This measure calculates a flow-return correlation according to equation 1 during months outside of the previously defined bubble periods.

2 Discussion of results

Table 1: We present summary statistics for the 2 measures calculated in the 3 market periods of interest (entire, bubble and normal times) for each half of the sample. For all measures, the average timing measure is close to zero. In normal times, investors' average timing measure is 0.01 in both periods. The quarterly timing measure displays a similar pattern as the monthly timing measure. Investors are not great timers on average. The average quarterly timing measure for the entire period is 0.02 in the first half and 0.01 in the second half. Investors were better at quarterly timing during the 2000 bubble than during the 2007 bubble. Investors were worse at quarterly timing in normal times in the first half of the sample than in the second half.

Tables 2 & 3: We present the cross-tabulations for the quarterly timing measure calculated over the entire period in Table 2. Results are similar to the monthly timing results presented in the paper. Investors that were in the top performing quintile in period 1 are much more likely to be in the top performing quintile in period 2. Similarly for the bottom performing quintile. The spearman rank correlation is 0.0745 and highly significant. The bubble period results are presented in Table 3. The results do not display quite as clean a pattern as the entire period measure, but there is still significant persistence. The spearman rank correlation is 0.0220 and is significant at the 0.01% level. These results show that the persistence results presented in the paper are robust to the time period in which future returns are calculated.

Tables 4 & 5: We present results for the entire period and bubble period monthly timing measures in the paper. Here we also tabulate the persistence in timing during normal times. Monthly timing results are presented in Table 4 and quarterly results are presented in Table 5. At the monthly frequency, there is some persistence in market timing ability during normal times. The spearman rank correlation is 0.0271. This is much smaller than the entire period measure correlation of 0.0726. It is comparable to the bubble period timing correlation of 0.0212. The quarterly timing measure exhibits much stronger persistence. For the top performing quintile in the first half, the percentages are monotonically decreasing across quintiles in the second half. The percentages are monotonically increasing for the bottom performing quintile. The spearman rank correlation is 0.0648 and is highly significant. This is close to the entire period quarterly timing measure correlation and much larger than the bubble period correlation. There appears to be more persistence in normal times timing when returns are measured over longer periods.

Table 6: We have shown that there is persistence in the timing ability of investors over time and this persistence exists for the entire period, bubble periods and normal times. Although investors can persistently time during different market conditions, this does not necessarily mean investors that can time bubbles can time during normal times. In Table 6, we present correlations between the timing measures calculated during different market conditions. In Panel A, we provide the correlations between the first period measures. We find that investors that are better timers in the bubble period are also better timers during normal times. The correlation between monthly measures is 0.0255 and the correlation between quarterly measures is 0.0332. Both are highly statistically significant. In Panel B, we provide the correlations for the second half measures. Once again, we see a positive and significant correlation of 0.0542 between the monthly bubble and normal times timing measures. There is a significant positive relationship of 0.0353 between

the quarterly bubble and normal times measures. Overall, it appears that investors that time well in bubbles are also better timers in normal times.

Tables 7 & 8: Finland is a relatively unique market in that Nokia makes up approximately 50% of the market capitalization during our sample period. Although the market weight of Nokia in our index is capped (at 20% until August 1, 2001 and 10% thereafter), one possible explanation for our results is that investors$'$ timing movements in Nokia are driving our results. To address this concern we run two tests. First, we test whether investors can persistently time Nokia, by correlating investor monthly flows into and out of the market with Nokia returns over the next month. The results from this test are presented in Table 7 and they are similar to the results using market returns, with a nearly monotonic relationship between first and second period performance. Because Nokia's returns are correlated with market returns, this result may not be surprising and does not necessarily mean Nokia is driving our results. To determine whether investors are timing the market, not solely Nokia, we run a similar test, but omit flows into and out of Nokia and exclude Nokia's returns from the index. These persistence results are in Table 8. Once again, we see a near monotonic relationship between first and second period performance and very significant departures from the null of no timing, so it is highly unlikely Nokia alone is driving the timing persistence we observe.

Table 9: Another concern may be the observed autocorrelation in our index over time, which is 0.30 during our sample period. Trading on this autocorrelation could still be considered market timing, but it is less interesting if investors are following a simple strategy based solely on this apparent predictability in returns. We address the concern that auto-correlation in the market return is driving our results in two ways. First, in the paper, we present return predictability results using investor flows and show that controlling for past market return does not affect the relationship between flows and future market returns. Additionally, we create a market timing measure that controls for auto-correlation in returns. To adjust for autocorrelation, we forecast returns based on five year rolling regressions of the form: $return_{t+1} = \beta * return_t + \epsilon_{t+1}$. For each month, we run this regression on the 60 months prior to the month of interest. We then multiply the estimated β by the $month_t$ return to get the forecasted return. Next we regress individuals flows on the forecasted returns and use the residuals to calculate our monthly timing measure. This orthogonalized flow should be independent of the simple autocorrelation strategy. In Table 9, we present our monthly timing results. We continue to see very significant persistence in timing ability with a near monotonic relationship between first and second half performance and a rank correlation of 0.056.

Table 10: We examine whether our sample selection process affects our inferences by performing the main market timing test with investors that are active (having at least 15 months with nonzero flows) in both sample halves instead of classifying based on just first half activity. The results in Table 10 are very similar to the main result of the paper, so we conclude that our sample selection procedure is reasonable.

Table 11: We examine whether our choice of the market index affects our results. We re-run our analysis using the general market index for the Finnish stock exchange (HEX). The results in Table 11 are very similar to the main result of the paper, so we conclude that the choice of

index does not materially affect our results.

3 Results

Table 1: Summary Statistics of Monthly and Quarterly Timing Measures

Time Period	Mean	Std. Dev.	25th	Median	75th	N
Monthly Timing Measure:						
Entire Period						
1995-2002	0.03	0.18	-0.07	0.01	0.13	68,937
2002-2009	0.00	0.10	-0.06	0.00	0.07	66,840
Bubble Period						
1995-2002	0.03	0.25	-0.12	0.01	0.19	68,717
1995-2002	0.00	0.19	-0.13	0.00	0.13	51,061
Normal Times						
1995-2002	0.01	0.15	-0.08	0.01	0.09	72,552
2002-2009	0.01	0.12	-0.07	0.01	0.09	68,702
Quarterly Timing Measure:						
Entire Period						
1995-2002	0.02	0.13	-0.07	0.02	0.10	68,937
2002-2009	0.01	0.10	-0.06	0.00	0.07	66,840
Bubble Period						
1995-2002	0.01	0.19	-0.11	0.02	0.14	68,717
1995-2002	-0.01	0.19	-0.16	-0.02	0.13	51,061
Normal Times						
1995-2002	0.02	0.17	-0.09	0.02	0.12	72,552
2002-2009	0.01	0.12	-0.07	0.01	0.10	68,702

This table gives the summary statistics (mean, standard deviation, 25th percentile, median and 75th percentile) for the monthly and quarterly timing measures. The monthly timing measure is calculated according to equation (1) and the quarterly timing measure is calculated according to equation (2). For the entire period measure, we calculate the flow measures during two equal length sub-periods: January 1995 - March 2002 and April 2002 - June 2009. For the "Bubble Period" measures, we center our analysis around the market peak during the relevant half of our sample. Once we have determined the peak month, we calculate each investor's performance during the time period from 12 months before the peak to 12 months after (e.g. for the 2000 bubble, the HEX25 peaked in February 2000, so the performance period is February 1999 to February 2001. For the 2007 bubble, the HEX25 peaked in July 2007, so the performance period is July 2006 to July 2008). The "Normal Times" time periods are the months outside of the "Bubble Period" in each half of our sample. Our original sample of individual investor transaction data contains 1,386,540 investors. To capture active traders we only include investors in our sample that have absolute flows greater than a minimum: for the entire period ("Bubble Period" and "Normal Times") measure, an investor must have absolute monthly flows greater than zero in at least 15 (8) months during the first period. N is the number of investors that meet the criteria and have enough flows to calculate a correlation.

Table 2: Two Period Cross-Tab of the Entire Period Quarterly Timing Measure

	Second Period					
First Period	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Total**
Q1	24.20%***	20.86%***	19.20%***	18.51%***	17.22%***	100%
Q2	21.73%***	20.29%	19.49%	19.49%	19.00%***	100%
Q3	18.97%***	19.86%	20.90%***	20.40%	19.88%	100%
Q4	17.74%***	19.60%	20.79%**	20.44%	21.43%***	100%
Q5	17.36%***	19.39%**	19.62%	21.16%***	22.47%***	100%
Total	20.00%	20.00%	20.00%	20.00%	20.00%	100%

*** p<0.01, ** p<0.05, * p<0.1. Null: Cell%=20%

This table provides frequencies of investors sorted and grouped by their quarterly timing measure in each of the two sample sub-periods (January 1995 - March 2002 and April 2002 - June 2009). The quarterly timing measure is calculated using equation (2). The January 1995 - March 2002 (April 2002 - June 2009) percentile rank is along the vertical (horizontal) axis. The timing measures are grouped into quintiles. **Q1** is the top performance quintile. We present row percentages. If the two periods were independent, we would expect row percentages of 20%. The p-values are calculated using OLS regressions. The sample size is 66,840 investors.

The pairwise correlation between the first and second period monthly timing measures is 0.0705 and is significant at the 0.01% level. The spearman rank correlation coefficient is 0.0745 and is significant at the 0.01% level.

Table 3: Two Period Cross-Tab of the Bubble Period Quarterly Timing Measure

	2007 Bubble					
2000 Bubble	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Total**
Q1	21.20%***	19.87%	19.53%	19.74%	19.67%*	100%
Q2	20.62%*	20.31%	19.84%	19.01%*	20.22%	100%
Q3	20.09%	20.15%	20.29%	19.69%	19.78%	100%
Q4	19.55%	19.68%	20.14%	20.27%*	20.36%	100%
Q5	18.57%***	19.99%	20.19%	19.74%	21.52%***	100%
Total	20.00%	20.00%	20.00%	20.00%	20.00%	100%

*** p<0.01, ** p<0.05, * p<0.1. Null: Cell%=20%

This table provides frequencies of investors sorted and grouped by their 2000 and 2007 market bubble quarterly timing measure. The quarterly timing measure is calculated using equation (2). The 2000 (2007) percentile rank is along the vertical (horizontal) axis. The timing measures are grouped into quintiles. **Q1** is the top performance quintile. We present row percentages. If the two periods were independent, we would expect row percentages of 20%. The p-values are calculated using OLS regressions. The sample size is 51,061 investors.

The pairwise correlation between the first and second period monthly timing measures is 0.0208 and is significant at the 0.01% level. The spearman rank correlation coefficient is 0.0220 and is significant at the 0.01% level.

Table 4: Two Period Cross-Tab of the Normal Times Monthly Timing Measure

	Second Period					
First Period	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Total**
Q1	18.37%***	20.00%	20.80%***	20.31%	20.52%*	100%
Q2	20.96%***	20.65%**	20.84%***	19.65%	17.90%***	100%
Q3	23.64%***	20.31%	18.92%***	18.76%***	18.38%***	100%
Q4	20.20%	19.69%	19.49%*	19.93%	20.69%**	100%
Q5	16.88%***	19.34%**	19.92%	21.34%***	22.52%***	100%
Total	20.00%	20.00%	20.00%	20.00%	20.00%	100%

*** p<0.01, ** p<0.05, * p<0.1. Null: Cell%=20%

This table provides frequencies of investors sorted and grouped by their "Normal Times" monthly timing measure in each of the two sample sub-periods (January 1995 - March 2002 and April 2002 - June 2009). The monthly timing measure is calculated using equation (1). "Normal Times" are the 62 months in each sample half that lie outside of the bubble. The January 1995 - March 2002 (April 2002 - June 2009) percentile rank is along the vertical (horizontal) axis. The timing measures are grouped into quintiles. **Q1** is the top performance quintile. We present row percentages. If the two periods were independent, we would expect row percentages of 20%. The p-values are calculated using OLS regressions. The sample size is 68,702 investors.

The pairwise correlation between the first and second period monthly timing measures is 0.0273 and is significant at the 0.01% level. The spearman rank correlation coefficient is 0.0271 and is significant at the 0.01% level.

Table 5: Two Period Cross-Tab of the Normal Times Quarterly Timing Measure

	Second Period					
First Period	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Total**
Q1	24.42%***	19.83%	19.07%***	18.94%***	17.74%***	100%
Q2	20.47%	20.84%***	19.81%	19.71%	19.17%***	100%
Q3	19.24%**	20.62%**	20.09%	19.85%	20.20%	100%
Q4	18.68%***	19.62%	20.47%	20.65%**	20.58%*	100%
Q5	17.11%***	19.09%***	20.59%*	20.87%***	22.35%***	100%
Total	20.00%	20.00%	20.00%	20.00%	20.00%	100%

*** p<0.01, ** p<0.05, * p<0.1. Null: Cell%=20%

This table provides frequencies of investors sorted and grouped by their "Normal Times" quarterly timing measure in each of the two sample sub-periods (January 1995 - March 2002 and April 2002 - June 2009). The quarterly timing measure is calculated using equation (2). "Normal Times" are the 62 months in each sample half that lie outside of the bubble. The January 1995 - March 2002 (April 2002 - June 2009) percentile rank is along the vertical (horizontal) axis. The timing measures are grouped into quintiles. **Q1** is the top performance quintile. We present row percentages. If the two periods were independent, we would expect row percentages of 20%. The p-values are calculated using OLS regressions. The sample size is 68,702 investors.

The pairwise correlation between the first and second period monthly timing measures is 0.0603 and is significant at the 0.01% level. The spearman rank correlation coefficient is 0.0648 and is significant at the 0.01% level.

Table 6: Correlations Between Timing Measures

Panel A: First Period Measures			
	Bubble-Monthly	**Normal-Monthly**	**Bubble-Quarterly**
Normal-Monthly	0.0255	-	-
	(0.0000)	-	-
Bubble-Quarterly	0.7399	0.0350	-
	(0.0000)	(0.0000)	-
Normal-Quarterly	0.0241	0.6412	0.0332
	(0.0000)	(0.0000)	(0.0000)
Panel B: Second Period Measures			
	Bubble-Monthly	**Normal-Monthly**	**Bubble-Quarterly**
Normal-Monthly	0.0542	-	-
	(0.0000)	-	-
Bubble-Quarterly	0.6062	0.0721	-
	(0.0000)	(0.0000)	-
Normal-Quarterly	0.0255	0.7047	0.0353
	(0.0000)	(0.0000)	(0.0000)

This table provides pairwise correlations between the timing measures. The monthly timing measure is calculated using equation (1). The quarterly timing measure is calculated using equation (2). In Panel A, we present the correlations between the first half (January 1995 - March 2002) measures. In Panel B, we present the correlations between the second half (April 2002 - June 2009) measures. **Bubble-Monthly** stands for the bubble period monthly timing measure. **Normal-Monthly** stands for the normal times monthly timing measure. **Bubble-Quarterly** stands for the bubble period quarterly timing measure. **Normal-Quarterly** stands for the normal times quarterly timing measure. p-values are provided in parentheses. We only present the correlations between the bubble period measures and the normal times measures. The entire period measures are highly correlated with the sub-period measures.

Table 7: Two Period Cross-Tab of the Monthly Timing Measure - Nokia Returns

	Second Period					
First Period	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Total**
Q1	24.47%***	19.65%	18.89%***	19.03%***	17.95%***	100%
Q2	20.42%	20.21%	19.71%	20.02%	19.64%	100%
Q3	19.44%*	19.62%	20.59%*	19.90%	20.45%	100%
Q4	18.62%***	20.17%	20.76%**	19.71%	20.74%**	100%
Q5	17.05%***	20.34%	20.06%	21.33%***	21.23%***	100%
Total	20.00%	20.00%	20.00%	20.00%	20.00%	100%

*** p<0.01, ** p<0.05, * p<0.1. Null: Cell%=20%.

This table provides frequencies of investors sorted and grouped by their monthly timing measure (see equation (1)) in each of the two sample sub-periods (January 1995 - March 2002 and April 2002 - June 2009) where the return used is the monthly return on Nokia's common stock (instead of the HEX25 index). The January 1995 - March 2002 (April 2002 - June 2009) percentile rank is along the vertical (horizontal) axis. The timing measures are grouped into quintiles. **Q1** is the top performance quintile. We present row percentages. If the two periods were independent, we would expect row percentages of 20%. The p-values are calculated using OLS regressions. The sample size is 66,840 investors

The pairwise correlation between the first and second period monthly timing measures is 0.0667 and is significant at the 0.01% level. The spearman rank correlation coefficient is 0.0577 and is significant at the 0.01% level.

Table 8: Two Period Cross-Tab of the Monthly Timing Measure - Omitting Nokia Flows and Returns

	Second Period					
First Period	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Total**
Q1	23.05%***	21.05%***	19.19%**	19.14%***	17.58%***	100%
Q2	20.61%*	20.68%**	19.68%	19.28%**	19.74%	100%
Q3	20.00%	20.02%	20.16%	20.26%	19.55%	100%
Q4	18.55%***	19.56%	20.56%*	20.31%	21.03%***	100%
Q5	17.73%***	18.67%***	20.44%	21.03%***	22.14%***	100%
Total	20.00%	20.00%	20.00%	20.00%	20.00%	100%

*** p<0.01, ** p<0.05, * p<0.1. Null: Cell%=20%.

This table provides frequencies of investors sorted and grouped by their monthly timing measure (see equation (1)) in each of the two sample sub-periods (January 1995 - March 2002 and April 2002 - June 2009) where flows into and out of Nokia common stock are omitted from the flow measure and returns on Nokia common stock are omitted from the market index (HEX25). The January 1995 - March 2002 (April 2002 - June 2009) percentile rank is along the vertical (horizontal) axis. The timing measures are grouped into quintiles. **Q1** is the top performance quintile. We present row percentages. If the two periods were independent, we would expect row percentages of 20%. The p-values are calculated using OLS regressions. The sample size is 57,852 investors.

The pairwise correlation between the first and second period monthly timing measures is 0.0620 with a p-value of 0.01%. The spearman rank correlation coefficient is 0.0618 with a p-value of 0.01%.

Table 9: Two Period Cross-Tab of the Monthly Timing Measure - Adjusted for Autocorrelation

	Second Period					
First Period	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Total**
Q1	21.69%***	21.58%***	20.33%	19.12%***	17.28%***	100%
Q2	20.22%	20.11%	20.39%	20.04%	19.24%**	100%
Q3	20.67%**	20.16%	20.04%	19.82%	19.31%**	100%
Q4	19.25%**	19.64%	19.66%	20.58%*	20.87%***	100%
Q5	18.19%***	18.52%***	19.58%	20.44%	23.27%***	100%
Total	20.00%	20.00%	20.00%	20.00%	20.00%	100%

*** p<0.01, ** p<0.05, * p<0.1. Null: Cell%=20%.

This table provides frequencies of investors sorted and grouped by their monthly timing measure (see equation (1)) in each of the two sample sub-periods (January 1995 - March 2002 and April 2002 - June 2009) where the investor flow measure used is the residual from regressing the individuals flows during the period on forecasted returns. The forecasted returns are estimates from an OLS regression, $return_{t+1} = \beta * return_t + \epsilon_{t+1}$, using the 60 months prior to the flow month. The first order auto-correlation during the entire sample is 0.30. The January 1995 - March 2002 (April 2002 - June 2009) percentile rank is along the vertical (horizontal) axis. The timing measures are grouped into quintiles. **Q1** is the top performance quintile. We present row percentages. If the two periods were independent, we would expect row percentages of 20%. The p-values are calculated using OLS regressions. The sample size is 66,840 investors.

The pairwise correlation between the first and second period monthly timing measures is 0.0520 and is significant at the 0.01% level. The spearman rank correlation coefficient is 0.0559 and is significant at the 0.01% level.

Table 10: Two Period Cross-Tab of the Entire Period Monthly Timing Measure (Active Investor in Both Periods)

	Second Period					
First Period	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Total**
Q1	23.39%***	20.11%	19.41%	18.48%***	18.61%***	100%
Q2	20.69%*	20.84%**	19.88%	19.77%	18.82%***	100%
Q3	19.28%*	20.40%	20.64%	19.48%	20.21%	100%
Q4	19.53%	19.46%	20.29%	20.10%	20.61%	100%
Q5	17.10%***	19.20%**	19.79%	22.16%***	21.75%***	100%
Total	20.00%	20.00%	20.00%	20.00%	20.00%	100%

*** p<0.01, ** p<0.05, * p<0.1. Null: Cell%=20%.

This table focuses on the timing persistence of investors with at least 15 non-zero flows in each of the sample halves (40,057 total). The table provides frequencies of investors sorted and grouped by their monthly timing measure in each of the two sample sub-periods (January 1995 - March 2002 and April 2002 - June 2009). The monthly timing measure is calculated using equation (1). The January 1995 - March 2002 (April 2002 - June 2009) percentile rank is along the vertical (horizontal) axis. The timing measures are grouped into quintiles. **Q1** is the top performance quintile. We present row percentages. If the two periods were independent, we would expect row percentages of 20% in each cell. p-values are from OLS regressions. The sample size is 39,444 investors.

The pairwise correlation between the first and second period monthly timing measures is 0.0626 and is significant at the 0.01% level. The spearman rank correlation coefficient is 0.0604 and is significant at the 0.01% level.

Table 11: Two Period Cross-Tab of the Entire Period Monthly Timing Measure (General Market Index)

	Second Period					
First Period	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Total**
Q1	24.92%***	20.17%	18.29%***	18.50%***	18.12%***	100%
Q2	20.32%	20.11%	19.80%	20.37%	19.40%*	100%
Q3	18.79%***	20.00%	20.94%***	20.41%	19.85%	100%
Q4	18.56%***	20.12%	20.71%**	19.59%	21.01%***	100%
Q5	17.38%***	19.61%	20.19%	21.20%***	21.61%***	100%
Total	20.00%	20.00%	20.00%	20.00%	20.00%	100%

*** p<0.01, ** p<0.05, * p<0.1. Null: Cell%=20%.

This table provides frequencies of investors sorted and grouped by their monthly timing measure in each of the two sample sub-periods (January 1995 - March 2002 and April 2002 - June 2009). The monthly timing measure is calculated using equation (1). The proxy for the return on the market is HEX, the general market index with 130 stocks. HEX does not cap the weight of each stock. The January 1995 - March 2002 (April 2002 - June 2009) percentile rank is along the vertical (horizontal) axis. The timing measures are grouped into quintiles. **Q1** is the top performance quintile. We present row percentages. If the two periods were independent, we would expect row percentages of 20% in each cell. p-values are from OLS regressions. The sample is 66,840 investors.

The pairwise correlation between the first and second period monthly timing measures is 0.0771 and is significant at the 0.01% level. The spearman rank correlation coefficient is 0.0646 and is significant at the 0.01% level.