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INVESTING IN WHAT YOU KNOW: THE CASE OF INDIVIDUAL INVESTORS AND LOCAL STOCKS

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This paper tests the performance of individuals' equity investments. We study over 40,000 accounts and 950,000 trades from a large discount broker. Individuals invest heavily in local stocks and put 14% more into these stocks than a market-neutral portfolio would suggest. Using holdings-based calendar-time portfolios, we find the local holdings do not generate positive alphas. Using the transactions data, we find local stocks bought actually underperform *local stocks sold (though the underperformance is more severe when considering remote stocks). We find no support for the folk wisdom that one should "invest in what you know."*

1 Introduction

Should individual investors follow advice such as: "Invest in what you know"? Certainly, there are many professions and pundits who espouse such sentiments. Wikipedia declares Peter Lynch's most famous investment principle to be: "Invest in what you know." The web-based encyclopedia claims he popularized the economic concept of "local knowledge." The idea behind such advice is that, by focusing on the stocks of local companies, investors can achieve abnormal returns (also known as "positive alpha").

On the other hand, individuals may not have superior information about local companies. That is, researchers may notice that individuals trade and hold stocks of nearby companies. However, after evaluating the performance of the local investments, a researcher might find that investors are not able to beat the market. In these cases, one can conclude that individuals may be familiar with local stocks, but they do not have value-relevant information about the stocks.

In this paper, we empirically evaluate the returns to investing locally.[1] Specifically, we test whether individuals generate positive alpha when

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investing in local companies. We study the investment decisions of a large number of individuals who invest through a discount broker. These data are from a well-known dataset that has been been the basis of many behavior studies.

We use two different types of portfolios when evaluating individual investors' performance. First, we form "Holdings-Based Calendar-Time Portfolios" (or HBCT portfolios). These portfolios use investors' holdings of local stocks at the end of each month. We employ a standard performance evaluation methodology in which the monthly excess returns of the local holdings are regressed on a constant, the market's excess return, and the standard Fama–French–Carhart factors. The factors help control for size-, value-, and momentum-based return differences. The regression's constant is the portfolio's alpha and one can easily test if it is economically and statistically different from zero.

Second, we form "Transactions-Based Calendar Time-Portfolios" (or TBCT portfolios). These portfolios are based on investors' actual purchases and sales of different stocks. We begin by dividing all transactions in our database into one of four categories: buys of local stocks, sells of local stocks, buys of remote stocks, and sells of remote stocks. Each of the four transaction categories results in a separate portfolio. For example, when an investor in our dataset buys a local stock, we place the same number of shares in our "local buy" portfolio for a set period of time. We can then easily test whether local buys outperform local sells (one needs only look at the difference of the two returns over time). We can also test if remote buys outperform remote sells.

Using TBCT portfolios, we can further subdivide the sample based on our (ex-ante) beliefs about the degree of information asymmetry across firms. Focusing on local stocks with high levels of information asymmetries produces some of our strongest results. These are the stocks that one would expect individuals to have the strongest informational advantage, but we find no evidence of such an advantage.

1.1 Current literature and debate

The academic literature is divided on whether individuals can earn positive alpha when investing in local stocks. Recent papers by Ivkovic and Weisbenner (2005) and Massa and Simonov (2006) suggest that individuals can exploit local information. Seasholes and Zhu (2011), on the other hand, find no evidence of individuals profiting based on geographic proximity.

The debate regarding individual investors stems, in part, from whether a researcher address four key areas: (1) when a dataset has many more investors than stocks, one has to be careful calculating the statistical power of performance tests.[2] (2) Small stocks can overly influence results. (3) Investors and/or firms may be clustered geographically. If a dataset contains a large number of investors from a region of the country, and firms in this region experiences abnormally high returns, one might incorrectly conclude that local investing results in abnormally high returns. (4) As with any performance evaluation, one must have a sufficiently long time-series of returns.

In this paper, our portfolio approach is capable of addressing each of the four, key areas outlined above. Overall, our current study, follows the Seasholes and Zhu (2011) paper most closely, though our research question is related to questions raised by Coval *et al.* (2003), Grinblatt and Keloharju (2001), Hau (2001), Huberman (2001), and Kumar (2004, 2009). We define "local" more narrowly than do existing papers in order to ensure individuals live very close to a company's headquarters. We also investigate different holding periods with our TBCT portfolios to allow any information advantages, if they exist, to reveal themselves.

2 Data

2.1 Individual investor data

We study individual investor holdings and trading data from a large, discount brokerage house. There are three data files. The first one contains monthly portfolio positions that start on January 31, 1991 and end on November 1, 1996. The second file contains transactions data that start on January 1, 1991 and end on November 30, 1996. The third file has limited demographic information about a subset of households including the five-digit zip code and state in which a household is located. Throughout this paper we use the terms "individual" and "household" interchangeably. Overall, there are 77,795 households in the data, but only 43,132 households have location information and stock holdings.

2.2 Stock price and return data

To evaluate the performance of our holdings-based calendar time portfolios, we use monthly returns from the Center for Research in Security Prices (CRSP). To evaluate the performance of our transactions-based calendar time portfolios, we use daily returns also from CRSP. The returns of the value-weighted market portfolio, the risk free rate, and Fama–French–Carhart factors are all from Ken French's website (both monthly and daily frequencies.)

2.3 Location data

Households' and firms' locations are identified by zip codes. We use the distance between a household's zip code and the zip code of a firm's headquarters to determine whether an investment is local or remote. Consider a given investor i, local stocks are those headquartered less than 100 km from the particular investor. Remote stocks are those headquartered 100 km or more from the particular investors.

Figure 1 shows the location of investors in our data. Notice the geographic clustering. We control for this clustering with passive zip code-level indices. The figure also shows the relative size of a 100 km radius (used in this paper) vs. a 250 mile radius (used in past work.) Figure 2 shows the location of the stocks that our investors hold.

Note that our identification of a local vs. a remote stock is the same for all investors in the same zip code. At the same time, a given stock can

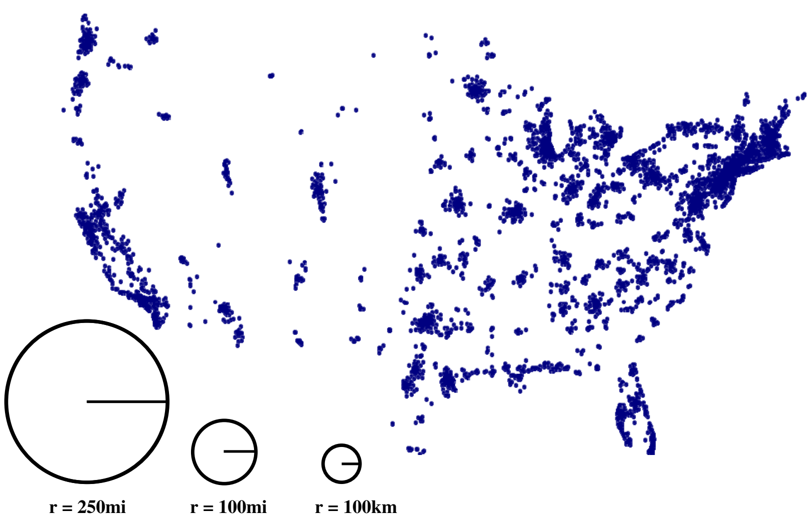

Figure 1 Distribution of retail investors in our dataset.

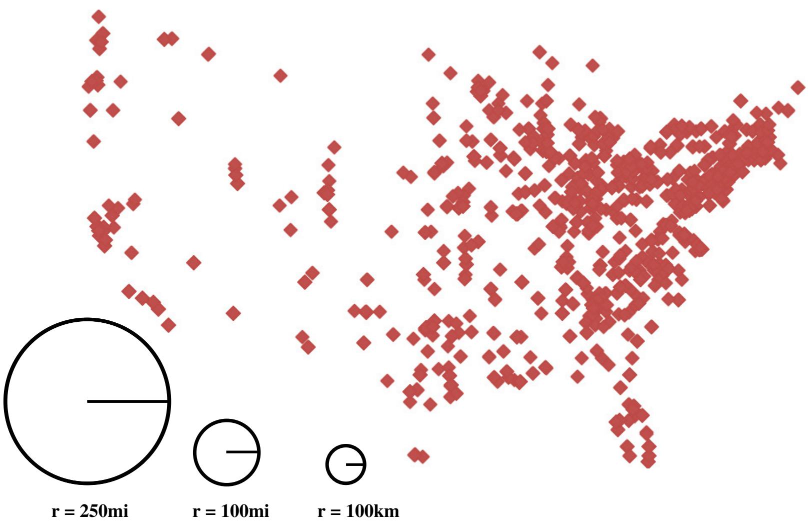

Figure 2 Distribution of US publically traded companies in our dataset.

be classified as “local” for some investors, but “remote” for others. The tech company Apple is considered local for investors in Palo Alto, CA but remote for those in Cambridge, MA.

2.4 Firm-level information asymmetries

We use S&P 500 inclusion to identify stocks that are likely to have low levels of information asymmetry. Stocks not in the S&P 500 index are likely to have high levels of information asymmetry. Not being in the index is positively correlated with other indicators of high information asymmetry including being followed by few analysts, having a small market capitalization, and experiencing low trading volume.

2.5 Overview statistics

Table 1 provides overview statistics of our data. Panel A shows the number of households that we analyze. These are households with both location data and at least one common stock at the end of each year. The panel also shows that total holdings are between US$ 1.0 billion and US$ 1.7 billion throughout our sample period. Panel B shows the numbers and values of the transactions data. There are 983,322 total transactions of which 534,345 involve buys. The value of all purchases is US$ 6.1 billion. Panel C divides transactions into those that involve local stocks and those that involve remote stocks. Local buys outnumber local sells (85,963 vs. 74,165) though local sales have higher value.

2.6 Investing locally

We confirm that individual investors do, in fact, invest locally. At the end of each year in our data, we calculate the fraction of an investor’s portfolio that is invested locally. We also calculate the fraction of total market capitalization that is headquartered in the same 100 km circle around where the investor lives.

Table 2 presents results based on year-end holdings. The table shows that investors hold approximately 19% of their portfolios in stocks located within a 100 km radius of their home (Column “A”). Approximately 5.5% of the market is headquartered within the same radius (Column “B”).

Our measure of local overweighing is the difference between the value in columns A and B. For example, in 1991 the difference is 14.1%

Table 1 Summary statistics.

Panel A: Households and holdings per year

Portfolio date	Number of households	Value of holdings ($ mil)
Dec-1991	32,723	1,012.0
Dec-1992	33,483	1,701.9
Dec-1993	28,736	1,592.4
Dec-1994	21,021	1,187.6
Dec-1995	16,738	1,069.9

Panel B: Transactions per year

	Number of transactions			Value ($ million)		
Year	Buys	Sells	Total	Buys	Sells	Total
1991	92,164	68,434	160,598	885	828	1,712
1992	88,962	68,209	157,171	902	864	1,765
1993	84,791	75,177	159,968	913	943	1,855
1994	72,268	62,678	134,946	784	800	1,584
1995	93,268	85,092	178,360	1,221	1,297	2,518
1996	102,892	89,387	192,279	1,426	1,512	2,938
Total	534,345	448,977	983,322	6,130	6,243	12,373

Panel C: Transactions by locations location based on 100 km radius; all years together

	Number of transactions			Value ($ million)		
Stock type	Buys	Sells	Total	Buys	Sells	Total
Locals	85,963	74,165	160,128	1,061	1,189	2,250
Remote	448,382	374,812	823,194	5,069	5,054	10,123
Total	534,345	448,977	983,322	6,130	6,243	12,373

This table shows overview statistics of our data. Investor data come from a large, discount brokerage. Location is based on each household's zip code. Firm-location information is based on the county and state of the headquarters as reported by Compustat. Panel A shows the number of households and value of holdings over time. Panel B shows the number of transactions over time. Panel C classifies transactions as either local or remote. Local stocks are defined as being headquartered within a 100 km radius of a household. Remote stocks are defined as being headquartered outside the 100 km radius.

indicating that investors put 14.1% more weight in local stocks than a passive market-tracking would put in the same stocks. The final column in Table 2 show that local overweighing ranges between 13.4% and 14.4% with little variation over the five years.[3]

3 Results

3.1 *Holdings-based calendar-time portfolios*

We test whether individuals' local investments earn superior returns using standard performance

Table 2 Holdings, location, and local bias.

Portfolio date	(A) Average % of household's portfolio ≤100 km	(B) Average % of market ≤100 km	Local bias measure A – B
Dec-1991	19.8	5.7	14.1
Dec-1992	19.0	5.6	13.4
Dec-1993	19.7	5.5	14.2
Dec-1994	19.5	5.6	13.9
Dec-1995	19.9	5.5	14.4

This table shows the degree to which households overweigh local stocks. We report averages across households. Here, we calculate the fraction of each household's portfolio invested within a 100 km radius of the family home. Distance is measured from the household's zip code to the zip code of the firm's headquarters. For each household, we also calculate the fraction of the market (all stocks) within the same radius. The difference or ratio of Columns A and B represents a measure of local bias.

analysis. For each individual, we calculate the value-weighted return of his local holdings. Our holdings data are monthly and each individual produces a single time-series with up to 71 months of local returns.

Table 3, Panel A shows overview statistics for the monthly returns. Our data produce 650,512 individual-month observations. We report means and standard deviations across all 650,512 observations. Table 3, Panel B, we regress an individual's excess local returns ($R_{\text{local},i} - R_{\text{f}}$) on the market's excess return ($R_{\text{m}}^{*} - R_{\text{f}}$), the excess returns of passive zip code-level index ($R_{z,i} - R_{\text{f}}$), and the Fama–French–Carhart factors (SMB, HML, and MOM). Estimation is by pooled ordinary least squares. Since individual i's return in a given month may be correlated with individual j's return in the same month, we compute standard errors that are robust to heteroscedasticity and contemporaneous correlation (clustered by month).

To reduce the influence of small stocks, we winsorize local portfolio returns at the 0.5% and 99.5% levels.) The market's return is denoted R_{m}^{*} and is defined as the value-weighted return of all CRSP stocks with zip code information. Each household in our data is located within one of 7832 zip codes.

To address geographic selection biases, we also test whether individuals' local investments outperform a passive zip code-level index. This index ($R_{z,i}$) is calculated as the value-weighted return of all stocks headquartered within a 100 km radius of the given zip code. Individuals who live in different zip codes are associated with different passive zip code-level indices.

Table 3, Panel B, Regression 1 shows the average excess return is 113.6 basis points (bp) per month. Regression 2 shows that investors' portfolios of local holdings outperform the market (R_{m}^{*}) by only 11.9 bp per month after adjusting for market beta. Regression 3 shows the local holdings outperform the respective passive, zip code-level index ($R_{z,i}$) by 10.5 bp per month with 0.6 t-statistic.

The last regression in Table 3, Regression 7, contains all control variables and shows an alpha of 9.8 bp per month. An outperformance of 9.8 bp per month translates to an alpha of 1.2% per annum which is not economically significant. The t-statistic of 0.8 indicates the result is not statistically significant at conventional levels.

3.2 *Transactions-based calendar-time portfolios*

We test whether purchases of local stocks predict future positive returns and whether sales predict future negative returns. Our methodology uses transactions-based calendar-time (TBCT) portfolios to aggregate the trades of many individuals and control for cross-sectional correlation

Table 3 Holdings-based calendar-time portfolios.

Panel A: Overview statistics of monthly returns

	Mean (%)	Std. dev (%)
$R_{\text{local},i}$	1.4834	11.10
R_{m}^{*}	1.2529	2.88
$R_{z,i}$	1.3617	3.60
R_{f}	0.3462	0.09
$R_{\text{local},i} - R_{\text{f}}$	1.1362	11.10
$R_{\text{local},i} - R_{\text{m}}^{*}$	0.2295	10.63
$R_{\text{local},i} - R_{z,i}$	0.1207	10.49

Panel B: Regressions with $R_{\text{local},i} - R_{\text{f}}$ as the dependent variable

	Reg 1	Reg 2	Reg 3	Reg 4	Reg 5	Reg 6	Reg 7
Alpha (bp)	113.62	11.88	10.48	9.03	10.07	15.37	9.78
(t-stat)	*(2.46)*	*(0.48)*	*(0.55)*	*(0.45)*	*(0.66)*	*(1.29)*	*(0.78)*
$R_{\text{m}}^{*} - R_{\text{f}}$		1.1221		0.0717	1.1697		0.2303
(t-stat)		*(11.66)*		*(0.58)*	*(26.51)*		*(4.90)*
$R_{z,i} - R_{\text{f}}$			1.0156	0.9659		1.0161	0.8648
(t-stat)			*(20.30)*	*(15.38)*		*(36.29)*	*(24.87)*
SMB					0.5873	0.4747	0.4913
(t-stat)					*(8.03)*	*(8.11)*	*(8.34)*
HML					0.0906	0.0509	0.0803
(t-stat)					*(1.27)*	*(1.01)*	*(1.48)*
MOM					−0.2368	−0.2094	−0.2295
(t-stat)					*(−4.66)*	*(−5.18)*	*(−5.89)*
# of Obs	650,512	650,512	650,512	650,512	650,512	650,512	650,512
# of Months	71	71	71	71	71	71	71

This table shows results from analysis using holdings-based calendar-time portfolios. Panel A shows overview statistics of monthly return variables. Panel B shows pooled regression results with $R_{\text{local},i} - R_{\text{f}}$ as the dependent variable. $R_{\text{local},i} - R_{\text{f}}$ is the monthly excess return of an individual's local holdings. Local stocks are defined as being headquartered within 100 km of an investor's home. R_{f} is the riskfree return from Ken French's website. $R_{\text{m}}^{*} - R_{\text{f}}$ is the value-weighted excess market return for all stocks with zip-code information. $R_{z,i} - R_{\text{f}}$ is the excess return of a passive, zip-code level index. t-Statistics are based on Rogers (1993) standard errors (clustered by month) and are robust to heteroscedasticity.

of stock returns. Stocks are held in the portfolios for one year, which is close to the average holding period of the investors in our sample. At any point in time, a TBCT portfolio contains thousands of stocks and returns are calculated on a daily basis. A TBCT portfolio mimics the trades of individuals in our data and holds stocks for a set period of time (i.e., 1 year). In Section 3.4, we also consider holding periods of one month, three months, and six months.

Table 4 Transactions-based calendar-time portfolios.

	Average returns (bp/day)			Annual diff		Alpha	
	Buys	Sells	Diff	%	*t*-Stat	%	*t*-Stat
Panel A: All stocks							
All	6.083	6.889	−0.805	−2.01	*−2.50*	−2.16	*−2.66*
Panel B: Sorted by location							
Local	7.300	7.850	−0.550	−1.38	*−1.29*	−1.20	*−1.11*
Remote	6.055	6.872	−0.817	−2.04	*−2.48*	−2.27	*−2.75*
Panel C: S&P500 stocks and location							
Local	7.606	7.893	−0.287	−0.72	*−0.43*	−0.60	*−0.36*
Remote	6.357	7.160	−0.803	−2.00	*−1.62*	−42.22	*−1.77*
Panel D: Non-S&P500 stocks and location							
Local	7.208	7.941	−0.733	−1.83	*−1.68*	−1.58	*−1.42*
Remote	5.950	6.796	−0.846	−2.11	*−2.82*	−2.33	*−3.13*

This table shows average returns of transactions-based calendar-time portfolios. Portfolios are formed by mimicking the trades of all investors in our sample between 1991 and 1996. Stocks are held in a calendar-time portfolio for one year. For a given group of stocks, we form one calendar-time portfolio based on stocks bought ("Buys") and another portfolio based on stocks sold ("Sells"). We show the difference of returns between the Buys and Sells portfolios ("Diff") in both basis points per day and annualized in percentages. The "Alpha" reports the annualized constant from a regression of the Buys-minus-Sells portfolio returns on the market's excess returns. Local stocks are defined as being headquartered within a 100 km radius of an investor's home. In Panels C and D, we consider whether or not a stock is part of the S&P500 Index. *t*-Statistics are based on Newey–West standard errors with five lags and robust to heteroscedasticity and serial correlation of residuals.

Table 4 presents the TBCT portfolio results. In Panel A, the calendar-time "Buys" portfolio has an average return of 6.1 bp per day. The calendar-time "Sells" portfolio has an average return of 6.9 bp per day. The difference of returns (Buys-minus-Sells) are −0.8 bp per day which works out to −2.0% per annum. This difference is statistically significant with a −2.5 *t*-statistic.

We calculate abnormal returns (or "Alpha") for the TBCT portfolios by regressing the returns of the Buys-minus-Sells portfolio on a constant and the market's excess returns. The regression contains a single time series and *t*-statistics are based on Newey–West standard errors with five lags. In Panel A, the alpha is −2.2% per annum with a −2.7 *t*-statistic.

Table 4, Panel B classifies stocks by location. Local buys minus local sells have an average return of −1.4% per annum with a −1.3 *t*-statistic. We conclude that local buys underperform local sells though the difference is not statistically different from zero at conventional levels. Interestingly, remote buys underperform remote sells by −2.0% per annum with a −2.5 *t*-statistic.

3.3 Stocks with lower/higher levels of information asymmetries

We test whether trades of individual investors have value-relevant information for stocks with lower/higher levels of information asymmetry. As discussed in Section 2.4, the S&P 500 index is used to help identify stocks with different levels of information asymmetry. Stocks not in the index are identified as those with higher levels of information asymmetry.

Table 4, Panel D shows the average return difference between buys and sells of local non-S&P 500 stocks is −1.8% per annum with a −1.7 *t*-statistic.

As noted in Section 1, results involving local non-S&P 500 stocks are some of our most important findings. If individuals have any valuable information, we hypothesize that the information is likely to be about local stocks with high-levels of information asymmetries. However, when we focus only on these types of stocks, individual buys do not predict future price increases. Individual sells do not predict future price decreases. In fact, we see the opposite.

3.4 Different holding periods

We evaluate the transactions-based results for different holding periods. Table 5 shows the average daily return in basis points assuming we hold stocks for one month, three months, six months, and one year.

As Table 5 clearly shows, the difference between buys and sells is (essentially) independent of the holding period used in the TBCT portfolios. For example, when looking at local stocks, the alphas for the four holding periods are −1.3%, −1.2%, −1.5% and −1.2%. When

Table 5 Different holding periods.

	Average returns (bp/day)			Annual diff		Alpha	
	Buys	Sells	Diff	%	*t*-Stat	%	*t*-Stat
Panel A: One (1) month							
Local	6.623	7.084	−0.461	−1.15	−1.04	−1.29	−1.17
Remote	5.045	5.996	−0.951	−2.40	−2.55	−2.56	−2.68
Panel B: Three (3)-month holding period							
Local	6.787	7.223	−0.436	−1.09	−1.02	−1.20	−1.20
Remote	5.297	6.224	−0.927	−2.34	−2.39	−2.48	−2.55
Panel C: Six (6)-month holding period							
Local	6.974	7.502	−0.528	−1.33	−1.49	−1.45	−1.54
Remote	5.592	6.421	−0.829	−2.10	2.56	−2.20	−2.48
Panel D: One (1)-year holding period							
Local	7.300	7.850	−0.550	−1.38	*−1.29*	−1.20	*−1.11*
Remote	6.055	6.872	−0.817	−2.04	*−2.48*	−2.27	*−2.75*

This table shows average returns of transactions-based calendar-time portfolios for different holding periods. Portfolios are formed by mimicking the trades of all investors in our sample between 1991 and 1996. Stocks are held in a calendar-time portfolio for one month, 3 months, 6 months, or one year. For a given group of stocks, we form one calendar-time portfolio based on stocks bought ("Buys") and another portfolio based on stocks sold ("Sells"). We show the difference of returns between the Buys and Sells portfolios ("Diff") in both basis points per day and annualized in percentages. The "Alpha" reports the annualized constant from a regression of the Buys-minus-Sells portfolio returns on the market's excess returns. Local stocks are defined as being headquartered within a 100 km radius of an investor's home. In Panels C and D, we consider whether or not a stock is part of the S&P500 Index. *t*-Statistics are based on Newey–West standard errors with five lags and robust to heteroscedasticity and serial correlation of residuals.

looking at remote stocks, the alphas are −2.6%, −2.5%, −2.2%, and −2.3%.

4 Conclusions

We confirm that individuals tilt their portfolios towards locally-headquartered stocks. We define a local investment to be a holding or purchase of a stock whose headquarters are within a 100 km radius of where an investor lives. In our data, individuals invest 14% more in local stocks than a passive market index portfolio prescribes.

The local investments, however, do not do particularly well. Using holdings-based calendar-time portfolios, we find no evidence of positive alpha. Using transaction-based calendar-time portfolios, we find purchases of local stocks actually underperform sales of local stocks.

We begin this paper by repeating an often-heard bit of investment advice. The idea to "invest in what you know" is seemingly logical. If individual have any chance in beating the market, local stocks are the obvious place to look. We do not find any evidence that the average individual benefits from this advice. In fact, we even limit ourselves to looking at local stocks with high levels of information asymmetry. In these cases, investors still do not earn positive alpha in their local investments.

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Notes

[1] In this paper, we define "local" based on the distance between where an investor lives and where a firm is headquartered. Coval and Moskowitz (2001) provide a formula to convert latitudes and longitudes to kilometers in footnote 3, p. 815 of their paper. In our paper, all results are based on a 100 km radius. Ideally we would also like to measure the distance from each investor's home to each stock's closest branch office or subsidiary. Although we do not have such data, Massa and Simonov (2006, p. 652) are able to construct this measure using Swedish data. They find results do not differ materially when using a measure based on firm headquarters compared with a measure based on the closest branch office/subsidiary.

[2] Consider a world with 10 different stocks. While there may be infinite ways to combine the 10 stocks in a portfolio, there are at most 10 independent return series. This simple example highlights the need to control for cross-sectional return dependence and not simply count the number of individuals in a dataset.

[3] Rather than calculating the difference between columns A and B, one could calculate a ratio. In our sample, the ratio of local holdings to available local holdings ranges between 2.39 and 2.62 each year (after subtracting 1). The natural log of the previous ratio ranges between 1.22 and 1.29 each year. All local overweighing measures generate consistent results that households tilt their portfolios towards local stocks.

References

Barber, B. M. and Odean, T. (2000). "Trading is Hazardous to Your Wealth: The Common Stock Investment Performance of Individual Investors," *Journal of Finance* **55**(2) April, 773–806.

Coval, J. D., Hirshleifer, D., and Shumway, T. (2003). "Can Individual Investors Beat the Market," Harvard Business School Working Paper, No. 04-025.

Coval, J. D. and Moskowitz, T. J. (2001). "The Geography of Investment: Informed Trading and Asset Prices," *Journal of Political Economy* **109**(4), 811–841.

Grinblatt, M. and Keloharju, M. (2001). "How Distance, Language, and Culture Influence Stockholdings and Trades," *Journal of Finance* **56**(3), June, 1053–1073.

Hau, H. (2001). "Location Matters: An Examination of Trading Profits," *Journal of Finance* **56**(5), October, 1959–1983.

Huberman, Gur (2001). "Familiarity Breeds Investment," *Review of Financial Studies* **14**(3), 659–680.

Ivkovic, Z. and Weisbenner S. (2005). "Local Does as Local Is: Information Content of the Geography of Individual Investors' Common Stock Investments," *Journal of Finance* **60**(1), February, 267–306.

Kumar, A. (2004). "Is the Local Bias of Individual Investors Induced by Familiarity or Information-Asymmetry?," Working Paper Notre Dame University.

Kumar, A. (2009). "Dynamic Style Preferences of Individual Investors and Stock Returns," *Journal of Financial and Quantitative Analysis* **44**(3), 607–640.

Massa, M. and Simonov, A. (2006). "Hedging, Familiarity, and Portfolio Choice," *Review of Financial Studies* **19**(2), 633–685.

Rogers, W. H. (1993). "Regression Standard Errors in Clustered Samples," *Stata Technical Bulletin* **13**, 19–23.

Seasholes, M. S. and Zhu, N. (2011). "Individual Investors and Local Bias," *Journal of Finance* **65**(5), 1987–2011.

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