

# Online Appendix to “The Rate of Communication”

Section 1: Additional Analyses Utilizing the “Simple Diff-in-Diff”

Section 2: The Size of Contagion in the “Simple Diff-in-Diff”

Section 3: Additional Analyses Utilizing the “Dynamic Approach”

Table A1.1 The Number of Target Investors in the Neighborhood

This table reports coefficient estimates from analyses similar to those reported in Panel B of Tables 2 and 3 but consider alternative independent variables to analyze the effect of communication. The main independent variable, # *Target Investors*, is now the number of target investors in a three-mile radius. The dependent variable in columns (1) and (3) is the number of trades in the acquirer industry (excluding the acquirer firm) as a fraction of the total number of trades across all industries in months 7 through 18 after the M&A is announced. The dependent variable in columns (2) and (4) is the dollar value of trades in the acquirer industry (excluding the acquirer firm) as a fraction of the total dollar value of trades across all industries in months 7 through 18 after the M&A is announced. Investor-level controls include the account holder's income, number of children, number of family members, age, gender, and marital status. Zip-code-level controls include the zip-code population, fraction of male residents, average home value, average number of household members, and average household income. Standard errors, shown in brackets, are clustered at the zip-code- and the year-month-of-an-M&A-announcement level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% level, respectively.

	Stock-Financed M&As		Cash-Financed M&As	
	# Trades (1)	\$ Trades (2)	# Trades (3)	\$ Trades (4)
# <i>Target Investors</i>	0.0012*** [0.0005]	0.0010*** [0.0005]	0.0007 [0.0008]	0.0006 [0.0008]
Investor Controls	YES	YES	YES	YES
Zip Code Controls	YES	YES	YES	YES
M&A Fixed Effects	YES	YES	YES	YES
Adj. R <sup>2</sup>	1.65%	1.58%	2.37%	2.25%
# Obs	7,578,642	7,578,642	3,489,054	3,489,054

Table A1.2 Trading in the Same Direction?

This table reports coefficient estimates from regressions of target neighbor trading in the acquirer industry on target investor trading in the acquirer industry. The dependent variable in columns (1) and (3) is a target neighbor's number of buy (sell) trades in the acquirer industry (excluding the acquirer firm) as a fraction of the total number of buy (sell) trades across all industries in months 7 through 18 after the M&A is announced. The dependent variable in columns (2) and (4) is a target neighbor's dollar value of buy (sell) trades in the acquirer industry (excluding the acquirer firm) as a fraction of the total dollar value of buy (sell) trades across all industries in months 7 through 18 after the M&A is announced. The main independent variable, *Target Investor Trading*, is the corresponding target investor's total number or total dollar value of buy (sell) trades in the acquirer industry (excluding the acquirer firm) as a fraction of the total number or total dollar value of buy (sell) trades across all industries in months 7 through 18 after the M&A is announced. Investor-level controls include the account holder's income, number of children, number of family members, age, gender, and marital status. Zip-code-level controls include the zip-code population, fraction of male residents, average home value, average number of household members, and average household income. Standard errors, shown in brackets, are clustered at the zip-code- and the year-month-of-an-M&A-announcement level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% level, respectively.

	Buy		Sell	
	# Trades (1)	\$ Trades (2)	# Trades (3)	\$ Trades (4)
<i>Target Investor Trading</i>	0.0144*** [0.0051]	0.0138*** [0.0051]	0.0084** [0.0039]	0.0082** [0.0040]
Investor Controls	YES	YES	YES	YES
Zip Code Controls	YES	YES	YES	YES
M&A Fixed Effects	YES	YES	YES	YES
Adj. R <sup>2</sup>	1.52%	1.51%	0.95%	0.91%
# Obs	7,578,642	7,578,642	7,578,642	7,578,642

Table A1.3 Propensity versus Intensity of Trading in the Acquirer Industry

This table reports coefficient estimates from analyses similar to those reported in Table 2 but consider alternative dependent variables. The dependent variable is now an indicator variable, which takes the value of one if there is any trading in the acquirer industry in months 7 through 18 after the M&A is announced. We estimate both logit models (column (1)) and OLS regressions (columns (2)-(3)). For the logit models, the coefficient estimates are converted into marginal probabilities. Panel A reports coefficient estimates from regressions of investor trading in the acquirer industry on a target investor dummy, and Panel B reports coefficient estimates from regressions of investor trading in the acquirer industry on a target neighbor dummy. *Target Investor* is an indicator, which equals one if an investor possesses shares of the target stock at the end of the month prior to the M&A announcement. *Target Neighbor* is an indicator variable that takes the value of one if an investor lives within three miles of a target investor. Investor-level controls include the account holder's income, number of children, number of family members, age, gender, and marital status. Zip-code-level controls include the zip-code population, fraction of male residents, average home value, average number of household members, and average household income. Standard errors, shown in brackets, are clustered at the zip-code- and the year-month-of-an-M&A-announcement level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% level, respectively.

	Logit (1)	OLS (2)	OLS (3)
Panel A: Target Investors' Likelihood of Trading in the Acquirer Industry			
<i>Target Investor</i>	0.0672*** [0.0051]	0.1028*** [0.0111]	0.0976*** [0.0109]
Investor Controls	YES	YES	YES
Zip Code Controls	YES	YES	YES
M&A Fixed Effects	NO	NO	YES
Adj. R <sup>2</sup>	0.11%	0.06%	2.39%
# Obs	7,580,930	7,580,930	7,580,930
Panel B: Target Neighbors' Likelihood of Trading in the Acquirer Industry			
<i>Target Neighbor</i>	0.0126*** [0.0017]	0.0133*** [0.0019]	0.0059*** [0.0017]
Investor Controls	YES	YES	YES
Zip Code Controls	YES	YES	YES
M&A Fixed Effects	NO	NO	YES
Adj. R <sup>2</sup>	0.11%	0.05%	2.38%
# Obs	7,578,642	7,578,642	7,578,642

Table A1.4 The Likelihood of Trading in the Acquirer Firm Itself

This table reports coefficient estimates from analyses similar to those reported in Panel B of Table 2. The dependent variable is now investor trading in the acquirer firm itself in months 7 through 18 after the M&A is announced. The dependent variable in column (1) is the number of trades in the acquirer firm in months 7 through 18 after the M&A is announced. The dependent variable in column (2) is the logarithm of the dollar value of trades in the acquirer firm in months 7 through 18 after the M&A is announced. The dependent variable in column (3) is an indicator variable, which takes the value of one if an investor places at least one trade in the acquirer firm itself in months 7 through 18 after the M&A is announced. Investor-level controls include the account holder's income, number of children, number of family members, age, gender, and marital status. Zip-code-level controls include the zip-code population, fraction of male residents, average home value, average number of household members, and average household income. Standard errors, shown in brackets, are clustered at the zip-code- and the year-month-of-an-M&A-announcement level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% level, respectively.

	# Trades (1)	\$ Trades (2)	I(Trades) (3)
<i>Target Neighbor</i>	0.0016*** [0.0006]	0.0074*** [0.0026]	0.0008*** [0.0003]
Investor Controls	YES	YES	YES
Zip Code Controls	YES	YES	YES
M&A Fixed Effects	YES	YES	YES
Adj. R <sup>2</sup>	0.49%	0.77%	0.75%
# Obs	7,578,642	7,578,642	7,578,642

Table A1.5 Alternative Definitions of *Target Neighbor* and Alternative Time Horizons

This table reports coefficient estimates from regressions of investor trading in the acquirer industry on a target investor dummy or a target neighbor dummy. We conduct analyses similar to Table 2 but consider alternate definitions of what constitutes a target neighbor in Panel A and examine trading over alternative time horizons in Panels B. In Panel A, *Target Neighbor* is an indicator variable that takes the value of one if an investor lives within three miles (three to seven miles; seven to fifteen miles; fifteen to thirty miles) of a target investor. In Panel B, we examine the trading activity of target investors/target neighbor in months 19 through 30 (or in months 31 through months 42) after the M&A is announced. In Panel C, we also consider differences in trading in months 7 through 18 versus trading in months 1 through 6 after the M&A is announced. Investor-level controls include the account holder's income, number of children, number of family members, age, gender, and marital status. Zip-code-level controls include the zip-code population, fraction of male residents, average home value, average number of household members, and average household income. Standard errors, shown in brackets, are clustered at the zip-code- and the year-month-of-an-M&A-announcement level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% level, respectively.

	# Trades (1)	\$ Trades (2)	# Trades (3)	\$ Trades (4)	# Trades (5)	\$ Trades (6)	# Trades (7)	\$ Trades (8)
Panel A: Neighbors of Different Distances to Target Investors								
	0 to 3 Miles		3 to 7 Miles		7 to 15 Miles		15 to 30 Miles	
<i>Target Neighbor</i>	0.0022*** [0.0007]	0.0021*** [0.0007]	0.0018*** [0.0005]	0.0018*** [0.0005]	0.0014*** [0.0003]	0.0015*** [0.0003]	0.0002 [0.0003]	0.0002 [0.0003]
Investor Controls	YES	YES	YES	YES	YES	YES	YES	YES
Zip Code Controls	YES	YES	YES	YES	YES	YES	YES	YES
M&A Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES
Adj. R <sup>2</sup>	1.66%	1.59%	1.66%	1.59%	1.65%	1.59%	1.65%	1.58%
# Obs	7,578,642	7,578,642	7,558,105	7,558,105	7,485,049	7,485,049	7,336,619	7,336,619

Table A1.5 Continued.

	# Trades (1)	\$ Trades (2)	# Trades (3)	\$ Trades (4)	# Trades (5)	\$ Trades (6)	# Trades (7)	\$ Trades (8)
Panel B: Alternative Time Horizons								
	Target Investors				Target Neighbors			
	Months 19 to 30		Months 31 to 42		Months 19 to 30		Months 31 to 42	
<i>Target Investor/ Target Neighbor</i>	0.0178*** [0.0030]	0.0130*** [0.0026]	0.0123*** [0.0035]	0.0107*** [0.0032]	0.0005 [0.0006]	0.0008 [0.0006]	0.0001 [0.0007]	0.0005 [0.0007]
Investor Controls	YES	YES	YES	YES	YES	YES	YES	YES
Zip Code Controls	YES	YES	YES	YES	YES	YES	YES	YES
M&A Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES
Adj. R <sup>2</sup>	1.47%	1.39%	1.28%	1.21%	1.47%	1.39%	1.28%	1.21%
# Obs	5,814,983	5,814,983	3,696,168	3,696,168	5,812,950	5,812,950	3,694,682	3,694,682

Table A1.5 Continued.

	# Trades (1)	\$ Trades (2)	# Trades (3)	\$ Trades (4)	# Trades (5)	\$ Trades (6)	# Trades (7)	\$ Trades (8)
Panel C: Trading in Months 7-18 minus Trading in Months 1-6								
	Target Investors				Target Neighbors			
	Stock-Financed M&As		Cash-Financed M&As		Stock-Financed M&As		Cash-Financed M&As	
<i>Target Investor/ Target Neighbor</i>	0.0122*** [0.0038]	0.0118*** [0.0038]	0.0089* [0.0051]	0.0091* [0.0051]	0.0025*** [0.0007]	0.0026** [0.0007]	0.0008 [0.0011]	0.0006 [0.0011]
Investor Controls	YES	YES	YES	YES	YES	YES	YES	YES
Zip Code Controls	YES	YES	YES	YES	YES	YES	YES	YES
M&A Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES
Adj. R <sup>2</sup>	1.42%	1.38%	2.06%	1.99%	1.41%	1.37%	2.06%	1.98%
# Obs	4,892,588	4,892,588	2,283,907	2,283,907	4,890,872	4,890,872	2,283,329	2,283,329



Table A1.6 Pseudo-Target Investors and Pseudo-Target Neighbors

This table reports coefficient estimates from analyses similar to those reported in Tables 2 and 3. Rather than examining the trading behavior of target investors and target neighbors, we now consider the trading behavior of pseudo-target investors in Panel A and consider pseudo-target neighbors in Panel B. Specifically, for each M&A, we identify the industry peer that has the closest market capitalization and book-to-market ratio to the actual target firm and that is not being acquired itself ( $\equiv$  “pseudo target firm”). We then examine whether current shareholders of the pseudo target firm and their neighbors change their trading behavior vis-à-vis the acquirer industry. In Panels C and D, we consider only investors (target investors or target investors’ neighbors) who trade or hold stocks in the acquirer industry within the year prior to the M&A announcement (and, as a result, are much less likely to be positively “shocked” by the endowment of acquirer firm shares). Investor-level controls include the account holder’s income, number of children, number of family members, age, gender, and marital status. Zip-code-level controls include the zip-code population, fraction of male residents, average home value, average number of household members, and average household income. Standard errors, shown in brackets, are clustered at the zip-code- and the year-month-of-an-M&A-announcement level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% level, respectively.

	Stock-Financed M&A		Cash-Financed M&A	
	# Trades (1)	\$ Trades (2)	# Trades (3)	\$ Trades (4)
Panel A: Pseudo Target Investors’ Trading in the Acquirer Industry				
<i>Pseudo Target Investor</i>	0.0006 [0.0018]	-0.0006 [0.0019]	-0.0009 [0.0028]	-0.0003 [0.0030]
Investor Controls	YES	YES	YES	YES
Zip Code Controls	YES	YES	YES	YES
M&A Fixed Effects	YES	YES	YES	YES
Adj. R <sup>2</sup>	1.66%	1.59%	2.36%	2.25%
# Obs	7,558,105	7,558,105	3,476,999	3,476,999
Panel B: Pseudo Target Neighbors’ Trading in the Acquirer Industry				
<i>Pseudo Target Neighbor</i>	-0.0003 [0.0006]	-0.0003 [0.0006]	0.0005 [0.0008]	0.0004 [0.0008]
Investor Controls	YES	YES	YES	YES
Zip Code Controls	YES	YES	YES	YES
M&A Fixed Effects	YES	YES	YES	YES
Adj. R <sup>2</sup>	1.66%	1.59%	2.36%	2.25%
# Obs	7,555,604	7,555,604	3,475,477	3,475,477

Table A1.6 Continued.

	Stock-Financed M&A		Cash-Financed M&A	
	# Trades (1)	\$ Trades (2)	# Trades (3)	\$ Trades (4)
Panel C: Target Investors' Trading in the Acquirer Industry among Investors who Trade or Hold Stocks in the Acquire Industry in the Year prior the M&A				
<i>Target Investor</i>	0.0048 [0.0050]	0.0009 [0.0052]	-0.0015 [0.0096]	-0.0040 [0.0098]
Investor Controls	YES	YES	YES	YES
Zip Code Controls	YES	YES	YES	YES
M&A Fixed Effects	YES	YES	YES	YES
Adj. R <sup>2</sup>	8.83%	8.68%	9.87%	9.68%
# Obs	1,551,059	1,551,059	587,642	587,642
Panel D: Target Neighbors' Trading in the Acquirer Industry among Investors who Trade or Hold Stocks in the Acquire Industry in the Year prior the M&A				
<i>Target Neighbor</i>	-0.0034 [0.0029]	-0.0040 [0.0030]	0.0026 [0.0055]	0.0044 [0.0059]
Investor Controls	YES	YES	YES	YES
Zip Code Controls	YES	YES	YES	YES
M&A Fixed Effects	YES	YES	YES	YES
Adj. R <sup>2</sup>	8.83%	8.68%	9.87%	9.68%
# Obs	1,549,568	1,549,568	587,323	587,323

Table A1.7 “Target Investors” Instrumented via Lagged One-Year Holdings

This table reports coefficient estimates from analyses similar to those reported in Tables 2 and 3 but consider alternative definitions of target investors. *Target Investor* in Panel A is now an indicator, which equals one if an investor possesses shares of the target stock *one year prior to the M&A announcement*. *Target Neighbor* in Panel B is an indicator variable that takes the value of one if an investor lives within three miles of such a target investor. The dependent variable in columns (1)-(3) is the number of trades in the acquirer industry (excluding the acquirer firm) as a fraction of the total number of trades across all industries in months 7 through 18 after the M&A is announced. The dependent variable in columns (2)-(4) is the dollar value of trades in the acquirer industry (excluding the acquirer firm) as a fraction of the total dollar value of trades across all industries in months 7 through 18 after the M&A is announced. Investor-level controls include the account holder’s income, number of children, number of family members, age, gender, and marital status. Zip-code-level controls include the zip-code population, fraction of male residents, average home value, average number of household members, and average household income. Standard errors, shown in brackets, are clustered at the zip-code- and the year-month-of-an-M&A-announcement level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% level, respectively.

	Stock-Financed M&As		Cash-Financed M&As	
	# Trades (1)	\$ Trades (2)	# Trades (3)	\$ Trades (4)
Panel A: Target Investors				
<i>Target Investor</i>	0.0142*** [0.0034]	0.0120*** [0.0033]	0.0013 [0.0033]	0.0013 [0.0033]
Investor Controls	YES	YES	YES	YES
Zip Code Controls	YES	YES	YES	YES
M&A Fixed Effects	YES	YES	YES	YES
Adj. R <sup>2</sup>	1.50%	1.44%	2.35%	2.24%
# Obs	6,943,336	6,943,336	3,220,313	3,220,313
Panel B: Target Neighbors				
<i>Target Neighbor</i>	0.0014** [0.0006]	0.0015** [0.0007]	-0.0001 [0.0009]	-0.0001 [0.0009]
Investor Controls	YES	YES	YES	YES
Zip Code Controls	YES	YES	YES	YES
M&A Fixed Effects	YES	YES	YES	YES
Adj. R <sup>2</sup>	1.50%	1.45%	2.35%	2.24%
# Obs	6,941,105	6,941,105	3,219,641	3,219,641

## A2.1 Descriptions of Results in Tables A2.2-A2.5

A key strength of our setting is that we can point to what *triggered* word-of-mouth communication. In this section, we take advantage of this feature and examine how the “size of contagion,” that is, how much target neighbors trade in the acquirer industry, varies with conditions of the environment, characteristics of the trigger, and investor characteristics.

### a. “Sociable Communities”

To further assess whether word of mouth is stronger in more sociable communities, we follow prior work (Brown, Ivković, Smith and Weisbenner 2008) and consider three complementary measures at the state level: seminar or class attendance, club meeting attendance, and community project participation. The data are from [www.bowlingalone.com/data.php3](http://www.bowlingalone.com/data.php3). In Panel A of Table A2.2, we sort target neighbors based on whether the corresponding target investor resides in a state with above-median sociability, or below-median sociability. We then re-estimate regression equation (2) in each of the two subsamples. In short, we find that while the size of contagion is strong in the more sociable states, it is indistinguishable from zero in the less sociable states.

In additional analyses, we test whether the size of contagion varies with how long investors have lived in their respective areas and how densely populated their respective areas are. A target investor’s tendency to interact with her neighbors should increase with the number of years such investor has lived in her neighborhood. We label all target investors who have lived in the same neighborhood for more than five years as long-term residents, and those who have lived in the neighborhood for less than five years as short-term residents. We then sort target neighbors based on whether the corresponding target investor is a long-term resident or a short-term resident. We use the five-year cutoff to ensure that we have similar numbers of investors across the two groups. As can be seen in Panel B of Table A2.2, we find that the size of contagion is about three to five times larger when the corresponding target investor is a long-term resident than when the corresponding target investor is a short-term resident.

We also conjecture that an investor pair living within a three-mile radius in a less populated area is more likely to interact with one another than an investor pair living within a three-mile radius in a more populated area (e.g., certain areas in Upstate New York versus Manhattan). To test this idea, we contrast the behavior of investors residing in metropolitan areas that are in the top quartile in terms of population to that of investors residing in metropolitan areas that are below the 75<sup>th</sup> percentile in terms of population. Again, we use the top quartile cutoff to ensure that we have similar numbers of investors across the two groups. Consistent with our conjecture, we find that the size of contagion in the less-populated areas is more than twice as large as that in the more populated areas (Panel C of Table A2.2).

## **b. Market Uncertainty and Investor Sentiment**

We now turn to the determinants that we believe are new to the literature. First, we hypothesize that in times of high uncertainty about the overall market and low investor sentiment, investors are wary of new investment ideas and less likely to act on such ideas. This makes it harder for new investment ideas to propagate among investors. To test this hypothesis, we sort M&As into halves based on the Chicago Board Options Exchange Volatility Index or based on the latest available University of Michigan Consumer Sentiment Index, both as of the week prior to the M&A announcement. We then re-estimate regression equation (2) separately in each half.

As can be seen from Panel A of Table A2.3, the size of contagion in periods of low market uncertainty is nearly twice as large as that in periods of high market uncertainty. Panel B shows further that the size of contagion in periods of high investor sentiment is nearly four times as large as that in periods of low investor sentiment.

## **c. Extraneous News Events**

Next, we turn to extraneous news events that vary not only at the aggregate market level, but also in the cross-section of investors. As argued in Hirshleifer, Lim and Teoh (2009), attention is finite and investors can focus only on a small subset of signals at a time. We build on this argument and conjecture that investors are less likely to discuss investment ideas if there are important distractions. We focus on two types of distractions: NFL playoff games and weather-related emergencies (e.g., blizzards, tornados, or wildfires).

In Panel A of Table A2.4, we sort target neighbors based on whether the corresponding target investor resides in a metropolitan area with a local NFL team playing in the playoffs in the week before or after the corresponding M&A announcement (“Distracted”), or not (“Not Distracted”). In Panel B, we sort target neighbors based on whether the corresponding target investor resides within 100 miles of the focal point of a weather-related emergency in the week before or after the corresponding M&A announcement (“Distracted”), or not (“Not Distracted”). Our data source for weather-related emergencies is the National Centers for Environmental Information (<https://www.ncdc.noaa.gov>).<sup>1</sup>

As shown in Panel A of Table A2.4, our estimate for the size of contagion is highly significant when target investors and their neighbors are not distracted by an NFL playoff game, but insignificant and close to zero when target investors and their neighbors are distracted. Similarly, Panel B of the same table shows that there is sizeable contagion when target investors and their neighbors are not distracted by a

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<sup>1</sup> We consider the following weather-related emergencies: Winter storm, blizzard, heavy snow, flood, ice storm, tornado, avalanche, excessive heat, wildfire, dust storm, exceptional drought, tropical storm, and hurricane.

weather-related emergency. There is zero contagion when target investors and their neighbors are in no such luck.

#### **d. Valence**

A large body of work argues and provides evidence that individuals prefer to share positive stories over negative stories (Berger and Milkman, 2012; Berger 2014). While we do not directly observe the stories that target investors share with their neighbors, we conjecture that the valence of their stories is more likely to be positive if they are triggered by a positive event. We consider two measures for the positivity of a trigger: the corresponding target firm's announcement-day return and whether the relevant M&A is considered a friendly deal or a hostile takeover.

In Panel A of Table A2.5, we report results from sorting M&As into halves based on target-firm-announcement-day returns. We find that the size of contagion within the subsample of above-median announcement-day returns is nearly three times as large as that within the subsample of below-median announcement-day returns. Similarly, Panel B shows that while there is strong contagion ensuing friendly M&As, there is no reliable contagion following hostile takeovers.

#### **e. Saliency**

Retail investors generally hold a small number of stocks in their portfolios. In our sample, the median retail investor holds three stocks. Any change in one stock position should therefore have a material impact on retail investors' attention and subsequent information-gathering activity. However, there is wide variation in portfolio size across retail investors and we suspect that our effect becomes weaker the more stocks a target investor holds in her portfolio.

In Panel C of Table A2.4, we compute for each target investor the number of stocks in her portfolio ("portfolio size"). We then sort target neighbors into halves based on the corresponding target investor's portfolio size. In line with expectations, we observe strong contagion when a target investor has a below-median portfolio size and no reliable contagion when a target investor has an above-median portfolio size.

Table A2.2 Determinants of the Size of Contagion: Social Characteristics

This table reports coefficient estimates from regressions of investor trading in the acquirer industry on a target neighbor dummy. The regressions are identical to those in Panel B of Table 2 where the key independent variable is *Target Neighbor*, but we now estimate the regressions separately for various subsamples. *Target Neighbor* is an indicator variable that takes the value of one if an investor lives within three miles of a target investor. In Panel A, we consider three indices of sociability from Putnam (2000): (1) seminar or class attendance; (2) club meeting attendance; (3) community project participation. We sort investors based on whether the corresponding investors reside in a state with above-median sociability, or below-median sociability. In Panel B, we sort target neighbors based on whether the corresponding target investor's length of residency at his/her current address is above five years ("High"), or below ("Low"). We choose the five-year cutoff to ensure that we have roughly the same number of observations in each group. In Panel C, we focus on target neighbors residing in metropolitan areas (those with a valid primary metropolitan statistical area number) and we sort target neighbors based on whether the corresponding target investor's metropolitan area has a population size that sits above the 75<sup>th</sup> percentile of its distribution ("High"), or below ("Low"). We choose the 75<sup>th</sup>-percentile cutoff to ensure that we have roughly the same number of observations in each group. Investor-level controls include the account holder's income, number of children, number of family members, age, gender, and marital status. Zip-code-level controls include the zip-code population, fraction of male residents, average home value, average number of household members, and average household income. Standard errors, shown in brackets, are clustered at the zip-code- and the year-month-of-an-M&A-announcement level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% level, respectively.

	Above Median		Below Median	
	# Trades (1)	\$ Trades (2)	# Trades (3)	\$ Trades (4)
Panel A1: Seminar or Class Attendance				
<i>Target Neighbor</i>	0.0028*** [0.0009]	0.0027*** [0.0009]	-0.0008 [0.0011]	-0.0008 [0.0011]
Adj. R <sup>2</sup>	1.80%	1.73%	1.52%	1.46%
# Obs	3,334,639	3,334,639	1,718,047	1,718,047
Panel A2: Club Meeting Attendance				
<i>Target Neighbor</i>	0.0039*** [0.0011]	0.0039*** [0.0011]	0.0003 [0.0009]	0.0002 [0.0009]
Adj. R <sup>2</sup>	1.72%	1.65%	1.67%	1.61%
# Obs	2,847,664	2,847,664	2,205,022	2,205,022
Panel A3: Community Project Participation				
<i>Target Neighbor</i>	0.0030*** [0.0009]	0.0030*** [0.0009]	0.0005 [0.0010]	0.0004 0.0010
Adj. R <sup>2</sup>	1.76%	1.70%	1.62%	1.56%
# Obs	2,817,378	2,817,378	2,235,308	2,235,308

Table A2.2 Continued.

	High		Low	
	# Trades (1)	\$ Trades (2)	# Trades (3)	\$ Trades (4)
Panel B: Target Investors' Length at Current Residence				
<i>Target Neighbor</i>	0.0026*** [0.0008]	0.0027*** [0.0008]	0.0010 [0.0020]	0.0006 [0.0021]
Investor control	YES	YES	YES	YES
Zip Code control	YES	YES	YES	YES
M&A Fixed Effects	YES	YES	YES	YES
Adj. R <sup>2</sup>	1.73%	1.66%	1.73%	1.56%
# Obs	6,711,168	6,711,168	6,689,865	6,689,865
Panel C: Population				
<i>Target Neighbor</i>	0.0010 [0.0010]	0.0009 [0.0010]	0.0025** [0.0012]	0.0024** [0.0012]
Investor control	YES	YES	YES	YES
Zip Code control	YES	YES	YES	YES
M&A Fixed Effects	YES	YES	YES	YES
Adj. R <sup>2</sup>	2.00%	1.93%	1.75%	1.66%
# Obs	1,432,760	1,432,760	1,506,281	1,506,281



Table A2.3 Determinants of the Size of Contagion: Market Uncertainty and Investor Sentiment

This table reports coefficient estimates from regressions of investor trading in the acquirer industry on a target neighbor dummy. The regressions are identical to those in Panel B of Table 2 where the key independent variable is *Target Neighbor*, but we now estimate the regressions separately for various subsamples. *Target Neighbor* is an indicator variable that takes the value of one if an investor lives within three miles of a target investor. In Panel A, we sort M&As into halves based on the Chicago Board Options Exchange Volatility Index as of the week prior to the M&A announcement. In Panel B, we sort M&As into halves based on the latest available University of Michigan Consumer Sentiment Index. “High” and “Low” represent top- and bottom-half observations, respectively. Investor-level controls include the account holder’s income, number of children, number of family members, age, gender, and marital status. Zip-code-level controls include the zip-code population, fraction of male residents, average home value, average number of household members, and average household income. Standard errors, shown in brackets, are clustered at the zip-code- and the year-month-of-an-M&A-announcement level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% level, respectively.

	High		Low	
	# Trades (1)	\$ Trades (2)	# Trades (3)	\$ Trades (4)
Panel A: Market Uncertainty				
<i>Target Neighbor</i>	0.0015* [0.0009]	0.0016* [0.0009]	0.0028*** [0.0010]	0.0025** [0.0010]
Investor Controls	YES	YES	YES	YES
Zip Code Controls	YES	YES	YES	YES
M&A Fixed Effects	YES	YES	YES	YES
Adj. R <sup>2</sup>	1.62%	1.54%	1.67%	1.61%
# Obs	3,690,916	3,690,916	3,887,726	3,887,726
Panel B: Investor Sentiment				
<i>Target Neighbor</i>	0.0038*** [0.0011]	0.0032*** [0.0011]	0.0010 [0.0008]	0.0013 [0.0009]
Investor Controls	YES	YES	YES	YES
Zip Code Controls	YES	YES	YES	YES
M&A Fixed Effects	YES	YES	YES	YES
Adj. R <sup>2</sup>	1.76%	1.69%	1.55%	1.49%
# Obs	3,743,758	3,743,758	3,834,884	3,834,884

Table A2.4 Determinants of the Size of Contagion: Sports- and Weather-Related Distractions

This table reports coefficient estimates from regressions of investor trading in the acquirer industry on a target neighbor dummy. The regressions are identical to those in Panel B of Table 2 where the key independent variable is *Target Neighbor*, but we now estimate the regressions separately for various subsamples. *Target Neighbor* is an indicator variable that takes the value of one if an investor lives within three miles of a target investor. In Panel A, we sort target neighbors based on whether the corresponding target investor resides in a metropolitan area with a local NFL team playing in the playoffs in the week before or after the corresponding M&A announcement (“Distracted”), or not (“Not Distracted”). In Panel B, we sort target neighbors based on whether the corresponding target investor resides within 100 miles of the focal point of a weather-related emergency in the week before or after the corresponding M&A announcement (“Distracted”), or not (“Not Distracted”). Investor-level controls include the account holder’s income, number of children, number of family members, age, gender, and marital status. Zip-code-level controls include the zip-code population, fraction of male residents, average home value, average number of household members, and average household income. Standard errors, shown in brackets, are clustered at the zip-code- and the year-month-of-an-M&A-announcement level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% level, respectively.

	Distracted		Not Distracted	
	# Trades (1)	\$ Trades (2)	# Trades (3)	\$ Trades (4)
Panel A: Sports-Related Distractions				
<i>Target Neighbor</i>	-0.0009 [0.0033]	-0.0008 [0.0035]	0.0023*** [0.0007]	0.0022*** [0.0007]
Investor Controls	YES	YES	YES	YES
Zip Code Controls	YES	YES	YES	YES
M&A Fixed Effects	YES	YES	YES	YES
Adj. R <sup>2</sup>	1.65%	1.58%	1.65%	1.59%
# Obs	7,542,361	7,542,361	7,576,766	7,576,766
Panel B: Weather-Related Distractions				
<i>Target Neighbor</i>	0.0007 (0.0014)	0.0009 (0.0015)	0.0026*** (0.0008)	0.0023*** (0.0008)
Investor Controls	YES	YES	YES	YES
Zip Code Controls	YES	YES	YES	YES
M&A Fixed Effects	YES	YES	YES	YES
Adj. R <sup>2</sup>	1.65%	1.58%	1.65%	1.58%
# Obs	7,548,038	7,5548,038	7,571,089	7,571,089

Table A2.5 Determinants of the Size of Contagion: Characteristics of the Trigger

This table reports coefficient estimates from regressions of investor trading in the acquirer industry on a target neighbor dummy. The regressions are identical to those in Panel B of Table 2 where the key independent variable is *Target Neighbor*, but we now estimate the regressions separately for various subsamples. *Target Neighbor* is an indicator variable that takes the value of one if an investor lives within three miles of a target investor. In Panel A, we sort M&As into halves based on the target firm’s announcement day returns. “High” and “Low” represent top- and bottom-half observations, respectively. In Panel B, we sort M&As - for which we have the relevant data - based on whether they represent friendly M&As or hostile takeovers. “High” and “Low” represent friendly M&As and hostile takeovers, respectively. In Panel C, we sort target neighbors based on whether the corresponding target investor’s portfolio size - in terms of number of stocks - is in the bottom half of its distribution or in the top half of its distribution. As any stock replacement in an investor’s portfolio should be more salient when such investor has fewer stocks in her portfolio, bottom-half observations are allocated to the “High”-salience columns and top-half observations are allocated to the “Low”-salience columns. Investor-level controls include the account holder’s income, number of children, number of family members, age, gender, and marital status. Zip-code-level controls include the zip-code population, fraction of male residents, average home value, average number of household members, and average household income. Standard errors, shown in brackets, are clustered at the zip-code- and the year-month-of-an-M&A-announcement level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% level, respectively.

	High		Low	
	# Trades (1)	\$ Trades (2)	# Trades (3)	\$ Trades (4)
Panel A: Positivity (“High versus Low Announcement Day Return”)				
<i>Target Neighbor</i>	0.0034*** [0.0010]	0.0034*** [0.0010]	0.0013 [0.0009]	0.0011 [0.0009]
Investor Controls	YES	YES	YES	YES
Zip Code Controls	YES	YES	YES	YES
M&A Fixed Effects	YES	YES	YES	YES
Adj. R <sup>2</sup>	1.83%	1.76%	1.47%	1.41%
# Obs	3,744,500	3,744,500	3,834,142	3,834,142
Panel B: Positivity (“Friendly versus Hostile Takeover”)				
<i>Target Neighbor</i>	0.0025*** [0.0007]	0.0024** [0.0008]	-0.0020 [0.0016]	-0.0021 [0.0017]
Investor Controls	YES	YES	YES	YES
Zip Code Controls	YES	YES	YES	YES
M&A Fixed Effects	YES	YES	YES	YES
Adj. R <sup>2</sup>	1.60%	1.53%	2.92%	2.87%
# Obs	7,251,071	7,251,071	244,852	244,852

Table A2.5 Continued.

	High		Low	
	# Trades (1)	\$ Trades (2)	# Trades (3)	\$ Trades (4)
Panel C: Saliency				
<i>Target Neighbor</i>	0.0026*** [0.0009]	0.0023** [0.0009]	0.0013 [0.0010]	0.0015 [0.0010]
Investor Controls	YES	YES	YES	YES
Zip Code Controls	YES	YES	YES	YES
M&A Fixed Effects	YES	YES	YES	YES
Adj. R <sup>2</sup>	1.65%	1.58%	1.65%	1.58%
# Obs	7,563,367	7,563,367	7,560,366	7,560,366

Table A3.1 Baseline Communication Rate and Variation in Communication Rate tied to Differences in Investor Characteristics: Two-Stage Estimation

This table reports the results of a two-stage estimation of a transmission matrix. The estimation procedure is detailed in Section 5. In essence, we assess how trading activity in the acquirer industry percolates across investors from quarter to quarter and how any such “contagion rate” varies with differences in income, age, and gender between the sender of acquirer-industry information and the receiver of acquirer-industry information. The dependent variable is investor  $i$ 's actual trading in quarter  $t+1$ .  $\widehat{Trade}_{i,t}$  is investor  $i$ 's own instrumented trading in quarter  $t$ ;  $\widehat{Trade}_{j,t}$  is the average instrumented trading across neighboring investors  $j$  in quarter  $t$ . Bootstrapped standard errors are shown in brackets. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% level, respectively.

	(1)	(2)	(3)	(4)	(5)
Panel A: # Trades					
$\widehat{Trade}_{i,t}$	0.475*** [0.042]	0.472*** [0.042]	0.475*** [0.042]	0.476*** [0.042]	0.474*** [0.042]
$\widehat{Trade}_{j,t}$	0.416*** [0.042]	0.543*** [0.043]	0.469*** [0.043]	0.438*** [0.043]	0.587*** [0.044]
$\widehat{Trade}_{j,t} \times  Age_i - Age_j $		-0.009*** [0.001]			-0.008*** [0.001]
$\widehat{Trade}_{j,t} \times  Income_i - Income_j $			-0.029*** [0.004]		-0.020*** [0.004]
$\widehat{Trade}_{j,t} \times  Gender_i - Gender_j $				-0.123*** [0.016]	-0.108*** [0.016]
# Obs	2,076,790	2,076,790	2,076,790	2,076,790	2,076,790
Panel B: \$ Trades					
$\widehat{Trade}_{i,t}$	0.476*** [0.042]	0.474*** [0.042]	0.477*** [0.042]	0.478*** [0.042]	0.476*** [0.042]
$\widehat{Trade}_{j,t}$	0.411*** [0.043]	0.543*** [0.044]	0.463*** [0.043]	0.434*** [0.043]	0.587*** [0.044]
$\widehat{Trade}_{j,t} \times  Age_i - Age_j $		-0.009*** [0.001]			-0.009*** [0.001]
$\widehat{Trade}_{j,t} \times  Income_i - Income_j $			-0.029*** [0.004]		-0.019*** [0.004]
$\widehat{Trade}_{j,t} \times  Gender_i - Gender_j $				-0.130*** [0.016]	-0.115*** [0.016]
# Obs	2,076,790	2,076,790	2,076,790	2,076,790	2,076,790

Table A3.2 Baseline Communication Rate and Variation in Communication Rate tied to Differences in Investor Characteristics: Varying the Set of Investors

This table replicates Table 4 but rather than track the trading activity of investors that live within a 30-mile radius of any target investor, we now consider investors that live within a 20- or 50-mile radius of any target investors \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% level, respectively.

	Investors within 20 miles of target investors		Investors within 50 miles of target investors	
	# Trades	\$ Trades	# Trades	\$ Trades
	(1)	(2)	(3)	(4)
$\widehat{Trade}_{i,t}$	0.548*** [0.066]	0.530*** [0.068]	0.572*** [0.077]	0.560*** [0.070]
$\widehat{Trade}_{j,t}$	0.472*** [0.071]	0.488*** [0.076]	0.449*** [0.079]	0.459*** [0.078]
$\widehat{Trade}_{j,t} \times  Age_i - Age_j $	-0.005*** [0.001]	-0.006*** [0.001]	-0.004*** [0.001]	-0.004*** [0.001]
$\widehat{Trade}_{j,t} \times  Income_i - Income_j $	-0.012** [0.005]	-0.010** [0.005]	-0.010** [0.004]	-0.010** [0.004]
$\widehat{Trade}_{j,t} \times  Gender_i - Gender_j $	-0.065*** [0.021]	-0.067*** [0.021]	-0.059*** [0.016]	-0.063*** [0.013]
# Obs	1,564,720	1,564,720	2,711,661	2,711,661

Table A3.3 Variation in Communication Rate tied to Differences in Lifestyle - 1

This table reports the results of a three-stage estimation of a transmission matrix. The estimation procedure is detailed in Section 5. In essence, we assess how trading activity in the acquirer industry percolates across investors from quarter to quarter and how any such “contagion rate” varies with differences in lifestyle. Here, we capture similarity in lifestyle through same-type-of-unique-vehicle ownership. In particular, we consider whether both the sender and receiver own a truck (or not), a recreational vehicle (RV) (or not), or a motorcycle (or not). The dependent variable is investor  $i$ 's actual trading in quarter  $t+1$ .  $\widehat{Trade}_{i,t}$  is investor  $i$ 's own instrumented trading in quarter  $t$ ;  $\widehat{Trade}_{j,t}$  is the average instrumented trading across neighboring investors  $j$  in quarter  $t$ . Bootstrapped standard errors are shown in brackets. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% level, respectively.

	# Trades			\$ Trades		
	(1)	(2)	(3)	(4)	(5)	(6)
$\widehat{Trade}_{i,t}$	0.554*** [0.070]	0.566*** [0.062]	0.585*** [0.073]	0.533*** [0.080]	0.544*** [0.079]	0.562*** [0.074]
$\widehat{Trade}_{j,t}$	0.394*** [0.070]	0.374*** [0.064]	0.349*** [0.073]	0.410*** [0.082]	0.391*** [0.079]	0.368*** [0.072]
$\widehat{Trade}_{j,t} \times  Truck_i - Truck_j $	-0.114*** [0.018]			-0.112*** [0.019]		
$\widehat{Trade}_{j,t} \times  RV_i - RV_j $		-0.092*** [0.021]			-0.091*** [0.024]	
$\widehat{Trade}_{j,t} \times  Motor_i - Motor_j $			-0.071 [0.044]			-0.076 [0.047]
# Obs	2,076,790	2,076,790	2,076,790	2,076,790	2,076,790	2,076,790

Table A3.4 Variation in Communication Rate tied to Differences in Lifestyle - 2

This table reports the results of a three-stage estimation of a transmission matrix. The estimation procedure is detailed in Section 5. In essence, we assess how trading activity in the acquirer industry percolates across investors from quarter to quarter and how any such “contagion rate” varies with differences in lifestyle. Here, we capture similarity in lifestyle through marital- and parental status. In particular, we consider whether the sender and receiver have the same marital status (married or single) or the same parental status (with children or without children). The dependent variable is investor  $i$ 's actual trading in quarter  $t+1$ .  $\widehat{Trade}_{i,t}$  is investor  $i$ 's own instrumented trading in quarter  $t$ ;  $\widehat{Trade}_{j,t}$  is the average instrumented trading across neighboring investors  $j$  in quarter  $t$ . Bootstrapped standard errors are shown in brackets. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% level, respectively.

	# Trades		\$ Trades	
	(1)	(2)	(3)	(4)
$\widehat{Trade}_{i,t}$	0.622*** [0.069]	0.665*** [0.072]	0.599*** [0.093]	0.618*** [0.079]
$\widehat{Trade}_{j,t}$	0.368*** [0.071]	0.273*** [0.072]	0.382*** [0.091]	0.313*** [0.080]
$\widehat{Trade}_{j,t} \times  Child_i - Child_j $	0.002 [0.008]		0.004 [0.007]	
$\widehat{Trade}_{j,t} \times  Marital_i - Marital_j $		0.013 [0.018]		0.020 [0.018]
# Obs	2,076,790	1,707,729	2,076,790	1,707,729



Table A3.5 State-Level Communication Rates

This table reports the ranking of the residual communication rate for each state (with 1 being the lowest) as well as the ranking of the sociability index based on Putnam's (2000) survey regarding the frequency at which respondents visit their friends (with, again, 1 being the lowest). Columns (1) and (4) show the communication-rate ranking based on the number of trades. Columns (2) and (5) show the communication-rate ranking based on the dollar value of trades. Columns (3) and (6) show the sociability-index ranking.

State	# Trades	\$ Trades	Social Index	State	# Trades	\$ Trades	Social Index
	(1)	(2)	(3)		(4)	(5)	(6)
AK	34	35	NA	MO	22	22	41
AL	3	3	7	MS	6	6	3
AR	18	15	29	MT	46	46	39
AZ	28	27	22	NC	19	19	30
CA	40	40	27	NE	16	20	31
CO	38	41	38	NH	4	8	1
CT	27	24	42	NJ	25	28	18
DC	2	2	35	NM	30	12	4
FL	15	17	14	NV	10	11	2
GA	36	33	8	NY	37	37	21
HI	42	42	NA	OH	29	32	6
IA	17	16	26	OK	33	36	20
ID	8	9	16	OR	35	31	33
IL	20	23	32	PA	31	34	19
IN	13	10	25	RI	45	44	43
KS	12	21	44	SC	5	13	11
KY	11	4	12	TN	9	7	10
LA	44	45	23	TX	32	30	24
MA	41	38	37	UT	23	29	17
MD	39	39	9	VA	21	18	36
ME	1	1	5	WA	14	14	13
MI	43	43	28	WI	24	25	34
MN	26	26	40	WV	7	5	15