

Internet Appendix

“Extraordinary acquirers”

This Internet Appendix presents the results of additional tests not reported in the paper.

Table A.1 presents the results of the placebo tests described in Section I.C

Table A.2 presents the results using firm-period interactions discussed in Section I.D

Table A.3 presents the results of persistence tests using transaction value-weighted CARs

Table A.4 presents the results of persistence regressions using residual CARs (*RETRES*)

Table A.5 presents the identities of the highest and lowest firm fixed effects acquirers

Table A.6 presents the analysis of determinants of acquirer CARs using within-firm variation

Table A.1**Placebo test of acquirer fixed effects**

This table presents the results of a placebo test of acquirer fixed effects. The estimated models are identical to those in Table 2 of the paper, but the data are scrambled such that deals are randomly allocated to firms. Occasional acquirers are defined as those having completed two or more deals over a three-year window. Frequent acquirers are defined as those having completed at least five deals over a three year window, consistent with Fuller, Netter, and Stegemoller (2002). We run these Monte Carlo permutations one thousand times and report the median value of the F-test for the joint significance of the estimated firm fixed effects and the associated p-values. Symbols ***, ** and * denote significance at the 1%, 5% and 10% level, respectively.

Controls		Acquirer FE F-test	p-value
<i>Panel A: Full sample</i>			
(1)	None	0.991	0.624
(2)	Year FE	0.992	0.618
(3)	Deal chars., year FE	0.998	0.533
(4)	Acquirer and deal chars., year FE	0.997	0.544
<i>Panel B: Occasional acquirers</i>			
(1)	None	0.998	0.519
(2)	Year FE	0.998	0.524
(3)	Deal chars, year FE	0.997	0.535
(4)	Acquirer and deal chars., year FE	0.998	0.525
<i>Panel C: Frequent acquirers</i>			
(1)	None	0.998	0.500
(2)	Year FE	0.998	0.502
(3)	Deal chars., year FE	0.999	0.499
(4)	Acquirer and deal chars., year FE	0.998	0.501

Table A.2**Time-invariant vs. time-varying firm-specific heterogeneity**

This table reports the joint significance of acquirer or acquirer-period fixed effects in the regression model of acquirer CARs for the full sample (Panel A), occasional acquirers sample (Panel B) and frequent acquirers sample (Panel C). Occasional acquirers are defined as those having completed two or more deals over a three-year window. Frequent acquirers are defined as those having completed at least five deals over a three-year window, consistent with Fuller, Netter, and Stegemoller (2002). Acquirer CARs are regressed on acquirer or acquirer-period fixed effects and the control variables specified in models (1) to (4). Deal characteristics include relative size, relatedness, tender, and hostile indicators, and full set of target listing status/payment method interactions. Acquirer characteristics include the natural logarithm of acquirer size, Tobin's Q, FCF, leverage, run-up and sigma. F-statistics for the joint significance of acquirer fixed effects are reported, along with their corresponding p-values and the number of firms or firm-periods (in parentheses). The R2, Adjusted R2, as well as the F-tests for the differences between the firm-only and firm-period interaction models are also shown. Symbols ***, ** and * denote significance at the 1%, 5% and 10% level, respectively. N denotes the number of observations.

Row	Controls	Firm only			F-test for diff.	Firm X three-year periods			F-test for diff.
		Acquirer FE F-test	R2	Adj. R2		Acquirer-period FE F-test	R2	Adj. R2	
<i>Panel A: Full sample (N=12,491)</i>									
(1)	None	1.728*** (0.000,4128)	0.460	0.194	N/A	1.450***(0.000,7797)	0.707	0.219	1.704**
(2)	Year FE	1.729*** (0.000,4128)	0.464	0.197	N/A	1.452***(0.000,7797)	0.708	0.222	1.072**
(3)	Deal chars., year FE	1.725*** (0.000,4128)	0.478	0.217	N/A	1.437***(0.000,7797)	0.714	0.236	1.058**
(4)	Acquirer and deal chars., year FE	1.692*** (0.000,4128)	0.487	0.231	N/A	1.439***(0.000,7797)	0.723	0.285	1.082***
<i>Panel B: Occasional acquirers (N=9,373)</i>									
(1)	None	1.368*** (0.000,2219)	0.298	0.080	N/A	1.218***(0.000,4679)	0.548	0.098	1.058*
(2)	Year FE	1.363*** (0.000,2219)	0.302	0.083	N/A	1.220***(0.000,4679)	0.551	0.101	1.058*
(3)	Deal chars., year FE	1.272*** (0.000,2219)	0.319	0.104	N/A	1.166***(0.000,4679)	0.560	0.118	1.046*
(4)	Acquirer and deal chars., year FE	1.287*** (0.000,2219)	0.332	0.120	N/A	1.194***(0.000,4679)	0.573	0.143	1.076**
<i>Panel C: Frequent acquirers (N=2,611)</i>									
(1)	None	1.211*** (0.009,333)	0.150	0.026	N/A	1.143**(0.015,710)	0.299	0.037	1.070
(2)	Year FE	1.233*** (0.005,333)	0.165	0.035	N/A	1.165***(0.006,710)	0.309	0.045	1.063
(3)	Deal chars., year FE	1.101 (0.116,333)	0.178	0.046	N/A	1.083*(0.098,710)	0.317	0.050	1.028
(4)	Acquirer and deal chars., year FE	1.261*** (0.002,333)	0.199	0.068	N/A	1.196***(0.002,710)	0.341	0.081	1.088

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Table A.2 - continued

		Firm X 5.5-year periods				Firm X 11-year periods			
		Acquirer-period FE F-test	R2	Adj. R2	F-test for diff.	Acquirer-period FE F-test	R2	Adj. R2	F-test for diff.
<i>Panel A: Full sample (N=12,491)</i>									
(1)	None	1.507***(0.000,6441)	0.616	0.207	1.061**	1.600***(0.000,5125)	0.527	0.198	1.038
(2)	Year FE	1.507***(0.000,6441)	0.617	0.210	1.060**	1.601***(0.000,5125)	0.530	0.201	1.039
(3)	Deal chars., year FE	1.497***(0.000,6441)	0.628	0.228	1.049*	1.592***(0.000,5125)	0.541	0.219	1.022
(4)	Acquirer and deal chars., year FE	1.488***(0.000,6441)	0.636	0.245	1.067**	1.565***(0.000,5125)	0.550	0.233	1.019
<i>Panel B: Occasional acquirers (N=9,373)</i>									
(1)	None	1.232***(0.000,3587)	0.433	0.082	1.009	1.299***(0.000,2749)	0.350	0.081	1.008
(2)	Year FE	1.229***(0.000,3587)	0.437	0.084	1.008	1.292***(0.000,2749)	0.354	0.083	0.999
(3)	Deal chars., year FE	1.172***(0.000,3587)	0.450	0.105	1.006	1.215***(0.000,2749)	0.367	0.103	0.984
(4)	Acquirer and deal chars., year FE	1.195***(0.000,3587)	0.464	0.126	1.032	1.240***(0.000,2749)	0.383	0.122	1.029
<i>Panel C: Frequent acquirers (N=2,611)</i>									
(1)	None	1.211***(0.002,519)	0.231	0.040	1.179*	1.206***(0.007,389)	0.174	0.030	1.149
(2)	Year FE	1.238***(0.001,519)	0.247	0.051	1.215**	1.231***(0.003,389)	0.190	0.040	1.208
(3)	Deal chars., year FE	1.153***(0.018,519)	0.259	0.063	1.216**	1.122*(0.065,389)	0.203	0.051	1.230
(4)	Acquirer and deal chars., year FE	1.253***(0.000,519)	0.278	0.083	1.206**	1.285***(0.000,389)	0.226	0.076	1.380**

Table A.3**Persistence of transaction value-weighted acquirer returns**

This table presents univariate tests of persistence in transaction value-weighted acquirer returns for occasional and frequent acquirers. Occasional acquirers are defined as those having completed two or more deals over a three-year window. Frequent acquirers are defined as those having completed at least five deals over a three-year window, consistent with Fuller, Netter, and Stegemoller (2002). Acquirers are sorted into quintiles based on their average transaction value-weighted CARs (denoted RET) over the last three calendar years, where the weights are the ratios of deal value to the sum of deals values of the that acquirer over the period in which performance is measured. Q1 and Q5 represent acquirers with the lowest and highest RET, respectively. The average value-weighted CARs to acquisitions made by all the acquirers in Q1 and Q5 over the next k calendar years are then computed, where k = (1, 2, 3, 4, 5) and denoted as Future RET. Panel B repeats the analysis where residual value-weighted CARs obtained from regressions estimated in Table 1 are used to sort acquirers into performance quintiles (RETRES) and to measures subsequent performance (Future RETRES). The t-statistics for the differences in means between Q5 and Q1 are reported in parentheses. Symbols ***, ** and * denote significance at the 1%, 5% and 10% level, respectively.

Panel A: Persistence in transaction value-weighted CARs

Quintiles measured over 3yr RET	Future RET measured over				
	1yr	2yr	3yr	4yr	5yr
<i>Occasional acquirers</i>					
Q1	0.25%	-0.40%	-0.34%	-0.35%	-0.39%
Q5	1.09%	1.13%	1.04%	1.22%	1.24%
Q5-Q1	0.84%	1.53%	1.38%	1.57%	1.63%
	(1.64)	(3.67***)	(3.65***)	(4.53***)	(4.80***)
<i>Frequent acquirers</i>					
Q1	0.25%	-0.34%	-0.40%	-0.42%	-0.52%
Q5	0.53%	0.39%	0.47%	0.97%	0.94%
Q5-Q1	0.28%	0.73%	0.87%	1.39%	1.45%
	(0.49)	(1.47)	(1.89*)	(3.63***)	(3.86***)

Panel B: Persistence in transaction value-weighted residual CARs

Quintiles measured over 3yr RETRES	Future RETRES measured over				
	1yr	2yr	3yr	4yr	5yr
<i>Occasional acquirers</i>					
Q1	-0.31%	-0.94%	-0.62%	-0.64%	-0.72%
Q5	0.74%	0.37%	0.11%	0.43%	0.62%
Q5-Q1	1.05%	1.31%	0.74%	1.06%	1.34%
	(1.72*)	(2.60***)	(1.58)	(2.52**)	(3.21***)
<i>Frequent acquirers</i>					
Q1	0.14%	-0.25%	-0.18%	-0.15%	-0.21%
Q5	-0.01%	-0.42%	-0.51%	-0.51%	-0.41%
Q5-Q1	-0.15%	-0.17%	-0.33%	-0.36%	-0.20%
	(0.20)	(0.23)	(0.47)	(0.52)	(0.29)

Table A.4**Regression analysis of persistence in residual returns**

This table presents the results of OLS and quantile regressions of future residual returns on past residual returns for occasional and frequent acquirer subsamples. Occasional acquirers are defined as those having completed two or more deals over a three-year window. Frequent acquirers are defined as those having completed at least five deals over a three-year window, consistent with Fuller, Netter and Stegemoller (2002). Panels A, B, and C estimate the mean (OLS), 20th percentile, and 80th percentile of the future residual returns distribution, respectively. The dependent variable is RETRES measured as the average residual CARs to all the acquisitions made by an acquirer over the next k calendar years, where $k = (1, 2, 3, 4, 5)$. The explanatory variable 'Past RETRES' is the average residual CAR to all acquisitions over the last three calendar years. For the OLS regressions the t-statistics in parentheses are adjusted for clustering by acquirer. Symbols ***, ** and * denote significance at the 1%, 5% and 10% level, respectively.

Panel A: OLS regressions

	Future RETRES measured over				
	1yr	2yr	3yr	4yr	5yr
<i>Occasional acquirers</i>					
Intercept	-0.0033 (-1.3862)	-0.0029 (-1.4646)	-0.0018 (-0.9747)	-0.0008 (-0.4845)	-0.0001 (-0.0580)
Past RETRES	0.0024 (0.0400)	0.0225 (0.4980)	0.0042 (0.1145)	0.022 (0.8330)	0.0289 (1.1520)
N	2,144	2,911	3,259	3,370	3,457
R^2 (Adj. R^2)	0.000 (-0.000)	0.001 (0.000)	0.000 (0.000)	0.001 (0.000)	0.001 (0.001)
<i>Frequent acquirers</i>					
Intercept	-0.0036 (-1.0618)	-0.0035 (-1.0738)	-0.0027 (-0.8625)	-0.002 (-0.6562)	-0.0016 (-0.5241)
Past RETRES	-0.0864 (-0.5651)	-0.0516 (-0.4057)	-0.0512 (-0.4003)	-0.0589 (-0.4660)	-0.062 (-0.4911)
N	1,179	1,322	1,338	1,343	1,348
R^2 (Adj. R^2)	0.005 (0.005)	0.003 (0.002)	0.003 (0.002)	0.004 (0.003)	0.004 (0.004)

Panel B: 20th percentile

	Future RETRES measured over				
	1yr	2yr	3yr	4yr	5yr
<i>Occasional acquirers</i>					
Intercept	-0.0400*** (-32.1028)	-0.0383*** (-28.2320)	-0.0363*** (-35.6739)	-0.0342*** (-25.7760)	-0.0327*** (-25.1983)
Past RETRES	0.0734*** (3.8352)	0.0225 (1.1016)	0.0223 (1.4365)	0.0304 (1.5992)	0.0332* (1.7623)
N	2,144	2,911	3,259	3,370	3,457
pseudo R^2	0.002	0.001	0.000	0.001	0.002
<i>Frequent acquirers</i>					
Intercept	-0.0370*** (-17.4425)	-0.0329*** (-16.5406)	-0.0314*** (-15.7787)	-0.0284*** (-16.0943)	-0.0270*** (-15.2527)
Past RETRES	0.0961** (2.2141)	0.0248 (0.6969)	0.0191 (0.4192)	0.0502 (1.5618)	0.0497 (1.2188)
N	1,179	1,322	1,338	1,343	1,348
pseudo R^2	0.003	0.001	0.000	0.001	0.002

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Table A.4 - continued

Panel C: 80th percentile

	Future RETRES measured over				
	1yr	2yr	3yr	4yr	5yr
<i>Occasional acquirers</i>					
Intercept	0.0376*** (20.8531)	0.0353*** (27.4209)	0.0343*** (29.7314)	0.0340*** (30.8533)	0.0344*** (32.5781)
Past RETRES	-0.0044 (-0.1569)	0.0561*** (2.9194)	0.0592*** (3.9029)	0.0488*** (3.3541)	0.0495*** (3.5551)
<i>N</i>	2,144	2,911	3,259	3,370	3,457
pseudo R^2	0.000	0.003	0.003	0.004	0.005
<i>Frequent acquirers</i>					
Intercept	0.0300*** (17.4799)	0.0276*** (19.8019)	0.0273*** (24.2799)	0.0270*** (23.4781)	0.0270*** (28.8150)
Past RETRES	-0.0282 (-0.8064)	0.0578*** (2.5912)	0.0610*** (3.3244)	0.0800*** (4.3131)	0.0803*** (5.3122)
<i>N</i>	1,179	1,322	1,338	1,343	1,348
pseudo R^2	0.001	0.002	0.003	0.004	0.005

Table A.5**The highest and lowest fixed effect acquirers**

This table reports the top and bottom ten acquirers ranked by acquirer fixed effects estimated in model (4) of Table 2 of the paper for occasional and frequent acquirers. Occasional acquirers are defined as those having completed two or more deals over a three-year window. Frequent acquirers are defined as those having completed at least five deals over a three-year window, consistent with Fuller, Netter, and Stegemoller (2002). RET (RETRES) is measured as the average CAR (residual CAR) over the respective samples for individual acquirers.

Panel A: The top and bottom ten acquirers in the occasional acquirers sample

	Acquirer FE	RET	RETRES	N	FF48
<i>Top ten acquirers</i>					
e-MedSoft.com	76.07%	83.26%	75.59%	2	Business Services
Met Capital Corp.	40.49%	48.88%	42.65%	2	Trading
E For M Corp.	38.80%	45.73%	40.29%	2	Recreation
PolyVision Corp.	35.50%	21.72%	12.49%	2	Meas. & Control Equipment
Ask Jeeves Inc.	32.02%	36.72%	33.82%	2	Business Services
Catalytica Inc.	30.14%	36.49%	31.13%	2	Chemicals
Capitol Multimedia Inc.	26.42%	36.35%	30.64%	3	Entertainment
Star Technologies Inc.	26.10%	37.92%	30.22%	2	Computers
THT Inc.	25.10%	30.46%	25.58%	2	Business Supplies
Evans Inc.	24.27%	34.34%	27.56%	2	Retail
<i>Bottom ten acquirers</i>					
GlobeSpan Inc.	-30.82%	-17.72%	-32.09%	2	Electronic Equipment
OrthoLogic Corp.	-29.45%	-14.89%	-17.30%	2	Pharmaceutical Products
Socrates Technologies Corp.	-28.84%	-20.36%	-25.51%	2	Meas. & Control Equipment
Unica Corp.	-24.34%	-8.30%	-21.11%	2	Business Services
L90 Inc.	-24.29%	-15.94%	-20.33%	2	Business Services
ATEC Group Inc.	-24.05%	-14.69%	-19.40%	3	Computers
Digitas Inc.	-21.96%	-7.90%	-20.57%	2	Business Services
Trinzic Corp.	-20.30%	-14.31%	-19.16%	2	Business Services
Price Communications Corp.	-20.25%	-7.65%	-21.69%	2	Communication
Deltagen Inc.	-19.96%	-16.50%	-18.24%	2	Pharmaceutical Products

Panel B: The top and bottom ten acquirers in the frequent acquirers sample

	Acquirer FE	RET	RETRES	N	FF48
<i>Top ten acquirers</i>					
Veeco Instruments Inc.	16.78%	13.69%	12.96%	5	Meas. & Control Equipment
AT&T Corp.	15.52%	1.16%	5.10%	5	Communication
Medtronic Inc.	14.72%	0.63%	3.10%	5	Medical Equipment
PMC-Sierra Inc.	13.94%	3.07%	3.38%	6	Electronic Equipment
Coram Healthcare Corp.	13.35%	2.71%	10.41%	14	Healthcare
Chattem Inc.	13.21%	17.24%	15.41%	5	Pharmaceutical Products
Envirofil Inc.	12.69%	9.67%	10.38%	5	Business Services
Guidant Corp.	10.35%	1.84%	3.19%	5	Medical Equipment
Cisco Systems Inc.	9.94%	-1.05%	-0.23%	6	Computers
Comerica Inc.	9.84%	0.89%	2.31%	6	Banking
<i>Bottom ten acquirers</i>					
Digital River Inc.	-15.05%	-4.31%	-4.67%	5	Business Services
Questron Technology Inc.	-14.91%	-3.42%	-7.87%	9	Business Services
Cedar Income Fund Ltd.	-13.74%	-0.82%	-3.66%	19	Trading
Ultralife Corp.	-12.89%	-4.21%	-5.81%	5	Electrical Equipment
Kratos Defense & Security.	-12.68%	-4.76%	-5.43%	8	Communication
AdCare Health Systems Inc.	-12.23%	0.89%	-1.00%	6	Healthcare
Eltrax Systems Inc.	-11.71%	-3.90%	-5.52%	16	Computers
Interland Inc.	-11.22%	-4.96%	-5.31%	7	Computers
Manatron Inc.	-10.16%	2.00%	-0.56%	5	Business Services
Alarmguard Holdings Inc.	-9.95%	0.99%	-2.90%	5	Business Services

Table A.6**Determinants of acquirer CARs - using within-firm variation**

This table presents the results of OLS regressions of acquirer CARs on acquirer and deal characteristics, for the full sample as well as for occasional and frequent acquirers subsamples controlling for firm fixed effects. The full sample includes all domestic M&A transactions completed during the period 1990-2011 from the Thomson Financial SDC M&A Database. Occasional acquirers are defined as those having completed two or more deals over a three-year window. Frequent acquirers are defined as those having completed at least five deals over a three-year window. The dependent variable in all the specifications is the cumulative abnormal returns of the acquiring firm stock over the event window (-2, +2) surrounding the announcement date. The return is based on the market model with the benchmark being the CRSP value-weighted index. The t-statistics in parentheses are adjusted for heteroskedasticity. Symbols ***, ** and * denote significance at the 1%, 5% and 10% level, respectively. The variables are defined in the Appendix of the paper.

	Full sample	Occasional acquirers	Frequent acquirers
Intercept	0.0804*** (4.3852)	0.0793*** (4.0614)	0.1177*** (2.8491)
Ln (Acquirer Size)	-0.0152*** (-5.3632)	-0.0174*** (-5.4350)	-0.0247*** (-2.9999)
Tobin's Q	-0.0024** (-2.0448)	-0.0027** (-2.2512)	-0.0024 (-1.0554)
Run-Up	-0.0078** (-2.1354)	-0.0061 (-1.6316)	-0.0016 (-0.2692)
Free Cash Flow	0.0067 (0.3750)	-0.0021 (-0.1010)	-0.0060 (-0.2052)
Leverage	-0.0087 (-0.5011)	-0.0172 (-0.9038)	0.0030 (0.0808)
Sigma	0.2788 (1.4630)	0.2067 (1.0370)	-0.2969 (-0.8235)
Relative Size	0.0143*** (3.2362)	0.0103*** (2.5878)	0.0031 (0.6720)
Relatedness	0.0020 (0.7377)	0.0041 (1.4524)	-0.0046 (-0.7896)
Tender Offer	-0.0008 (-0.1404)	-0.0023 (-0.3727)	-0.0005 (-0.0426)
Hostile	-0.0134 (-0.8861)	-0.0174 (-1.1950)	-0.0162 (-0.6070)
Public X All-Cash	-0.0079 (-1.6387)	-0.0087* (-1.8554)	-0.0153* (-1.8743)
Public X Stock	-0.0331*** (-8.7869)	-0.0341*** (-9.1557)	-0.0266*** (-4.4081)
Private X All-Cash	-0.0024 (-0.6716)	-0.0042 (-1.1828)	-0.0050 (-0.8354)
Private X Stock	0.0056 (1.5554)	0.0054 (1.4838)	0.0000 (0.0026)
Subsidiary X All-Cash	0.0018 (0.5243)	0.0004 (0.1066)	-0.0065 (-1.0636)
Acquirer FE	YES	YES	YES
Year FE	YES	YES	YES
N	12,491	9,373	2,611
R2 (Adj. R2)	0.487 (0.231)	0.332 (0.120)	0.199 (0.068)