Internet Appendix
for
How Important is the Financial Media in Global Markets?

Internet Appendix A. Date Checking

IA.1 Earnings announcement dates

This Appendix provides additional details about how we ensure the accuracy of earnings announcement event dates. Because firms in many countries announce earnings once a year, for consistency, in all countries we only examine reactions to annual earnings announcements. We begin by using Factiva news articles to hand-check earnings announcement dates inferred from I/B/E/S. We check all announcements for a sample of five firms per country (if available) and find I/B/E/S to be extremely inaccurate. In contrast, we find for a random sample of 10 hand-checked events per country that the first release of earnings news is within a [-1, 2] day window of the Bloomberg announcement date 56% of the time (as calculated in Internet Appendix Table IA.4), with Bloomberg dates typically earlier than I/B/E/S. We start with Bloomberg dates because of these findings.

However, we improve upon the accuracy of the full Bloomberg sample by using an automated procedure that isolates a subset of events for which the Bloomberg date corresponds to the first release of earnings news in Factiva. In addition to the firms described in Table 1, to expand our sample of news article confirmed Bloomberg earnings announcement dates, we also download articles tagged by Factiva as having earnings news from 90 days before to 30 days after the Bloomberg announcement date. We then search for an article within ± 3 days of the Bloomberg date that meets the following criteria: 1) the firm's name is in the headline or lead paragraph; 2) the article is tagged by Factiva as earnings news (tag c151); 3) the headline contains a character string (e.g., "vs", "q4," and "4q"), indicative of an earnings announcement

article;[1] or 4) there is no article meeting criteria 1-3 in the prior 60 days. The fourth criterion is extremely strict and causes us to drop valid dates, but it also makes it highly likely that our article is the first earnings news release on Factiva. We include only those earnings announcements passing the above criteria.[2] Because of Factiva download constraints and the news screening restrictions, the number of events that pass our Factiva date checking procedure is considerably smaller than the total Bloomberg announcements in each country shown in Internet Appendix Table IA.2. Our resulting sample is obviously tilted toward those firms covered by the media.

Factiva uses XML tags to indicate earnings-related news. Because earnings news tags are used infrequently prior to 2004, our earnings announcement sample is from January 2004 to September 2008.[3] While hand checks find Bloomberg dates to be 56% accurate, the accuracy of Bloomberg events verified by the automated checking procedure, shown in Internet Appendix Table IA.5, increases to 82%. We believe that this is an extremely conservative view of the accuracy. In the hand-checking procedure, we consider the true announcement to be the first day after the end of the fiscal year that the firm releases any information about results (profits, earnings, sales, cash flows, etc.). It turns out that most "inaccurate" dates that the automated filters did not screen out are in fact the official earnings event dates, but management released some form of guidance ahead of the earnings announcement.[4] Internet Appendix Figure IA1 examines the number of news articles per day from the 55 days before and 20 days after the

[1] Internet Appendix Table IA.1 lists additional language-specific character strings.
[2] Except in Poland and Korea, where the Factiva procedure returned few dates. We use manual searches of Factiva to create the Korean sample and supplement the Polish sample with dates found through an automated procedure discussed in Internet Appendix Table IA.1.
[3] The sample for Korea is not subject to this limitation and contains events from February 2001 to January 2008.
[4] Details on the reasons for inaccuracies can be found in the Internet Appendix Table IA.6.

earnings announcement. In most countries, the news article count is the highest on the announcement day, indicating that the earnings dates have more news coverage.

Market opening and closing times come from exchange websites, www.world-exchanges.org, and Wikipedia. We use the open and close of regular trading hours, and if the hours are different by season, we use winter hours.[5]

IA.2 Takeover Event dates

The language-specific merger keywords are Google translations of acquire, acquires, acquisition, bid, bids, buyout, deal, merge, merger, sell, takeover, and talks. One difficulty with searching for merger keywords in foreign languages is that, in some languages, the spelling of a word depends on context. Google translations provide many variations, but as an added check, we stem words using Martin Porter's Snowball algorithms (http://snowball.tartarus.org/) and compare root words rather than the entire character string. As a precaution to make sure the firm does have news coverage, we also require there to be at least one article for the firm from 60 calendar days before to two trading days before the merger. Prior to Factiva date accuracy restrictions, the sample contains 4,113 events from developed markets and 633 from emerging markets. Due to download constraints, we download news for the 633 emerging market mergers and 2,513 random developed market mergers. Other construction details are described in Table 2.

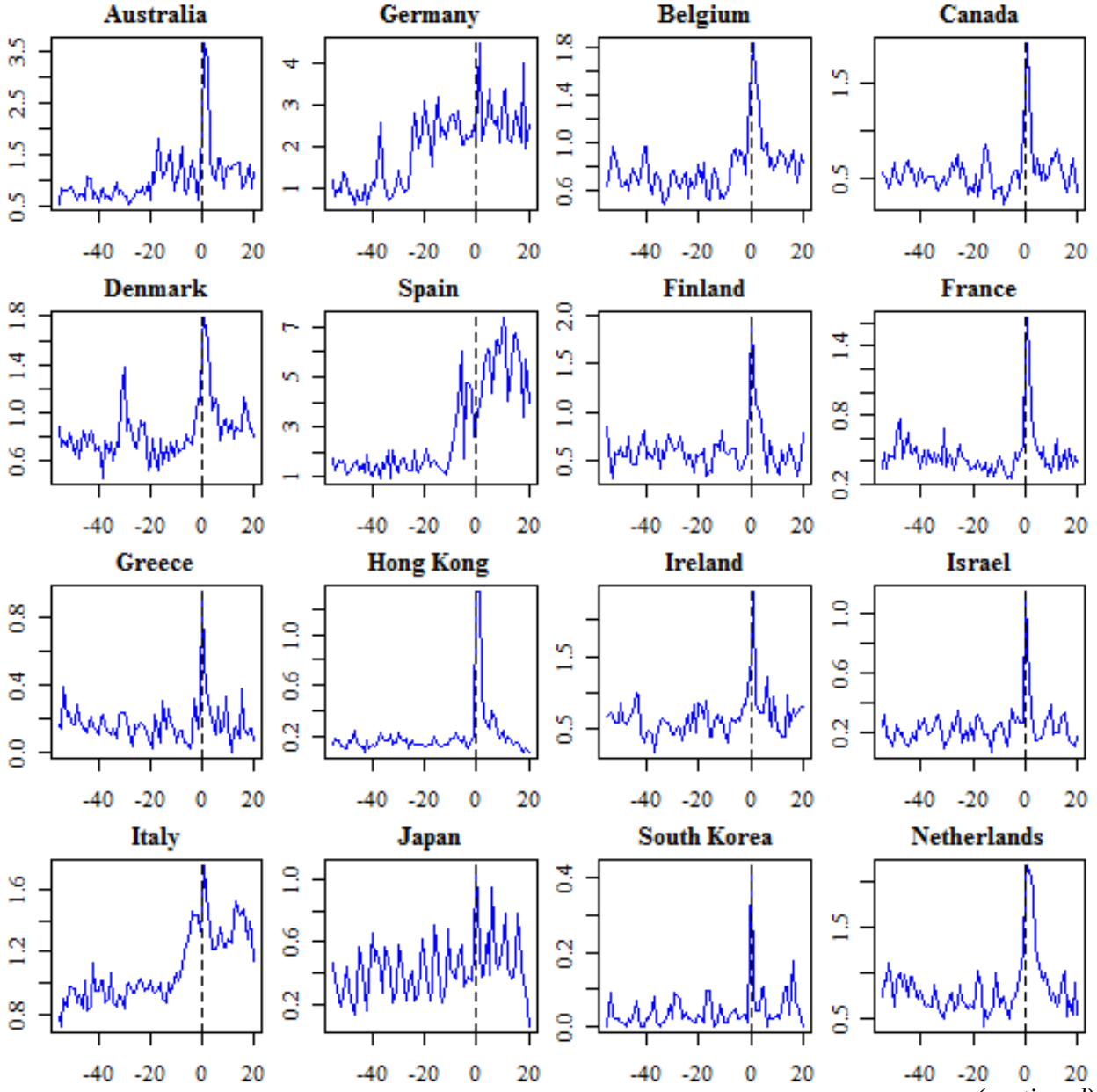
[5] Time zone information, accounting for daylight savings time changes, comes from the timeDate package developed for the R programming language, available at http://cran.r-project.org/web/packages/timeDate/index.html.

Internet Appendix Figures and Tables

Figure IA.1
Average Number of Articles around Earnings Announcements

This figure plots the average number of news articles each day from 55 days before an earnings announcement to 20 days afterwards. The articles are downloaded from Factiva and have the firm's name in either the headline or lead paragraph. The earnings announcement dates are Bloomberg event dates that were cross-checked with Factiva news articles. A Bloomberg event date is considered to have been confirmed by a Factiva news article if 1) the firm's name is in the headline or lead paragraph; 2) the article is tagged by Factiva as earnings news (tag c151); 3) the headline contains a character string indicative of an earnings announcement article; or 4) there is no article matching criteria 1-3 in the prior 60 days. We do not have articles for all South Korean events, because some events found by manual Factiva searches are in firm years for which we did not download any articles.

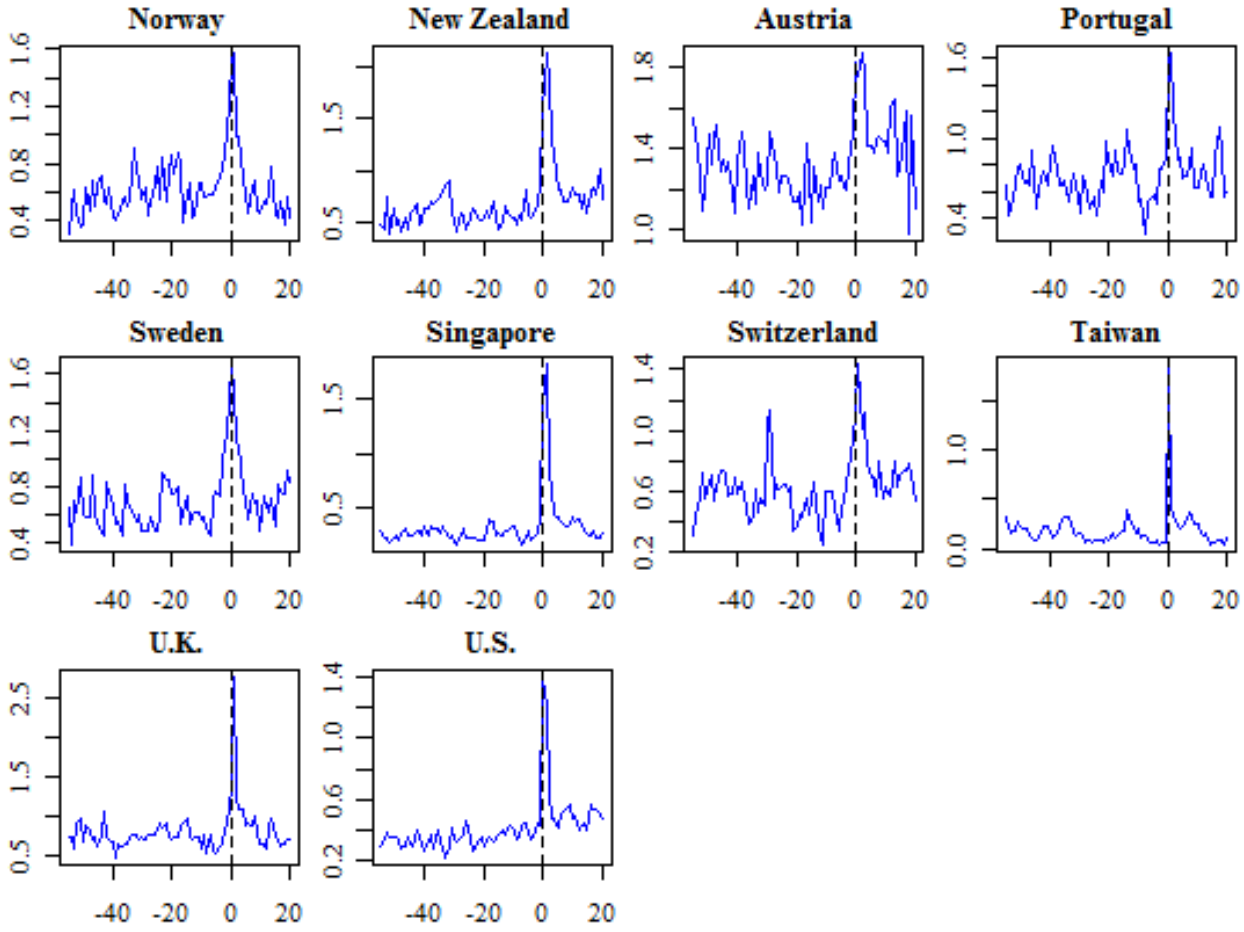
Panel A: Developed Markets



(continued)

Figure IA.1—*continued*

Panel A: Developed Markets (continued)



(continued)

Figure IA.1—*continued*

Panel B: Emerging Markets

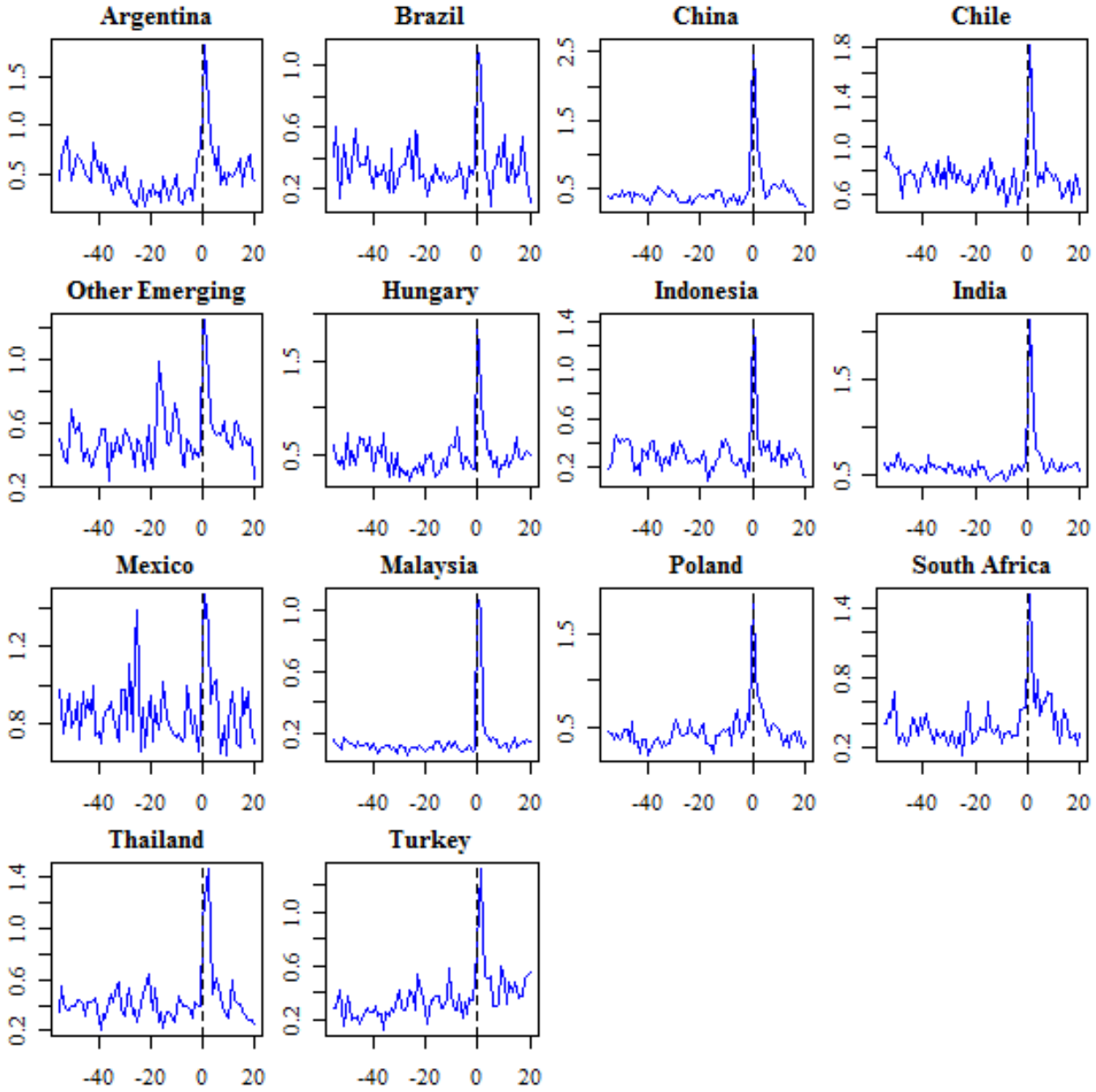


Figure IA.2
Average Turnover Around Earnings Announcements

This figure plots average turnover for earnings announcements from 20 days before an announcement through 20 days after an announcement. Turnover is volume as a percent of shares outstanding. Events are divided according to whether the firm's home country has an average combined earnings announcement sample normalized volatility reaction above or below the median for all countries with at least 20 earnings announcements and SUEs. There are 2,954 events in the high-reaction group and 2,536 events in the low reaction group. In order for an event to be included, the stock must have 50% of trading days with price changes in the calendar year prior to the event. The shaded region in each panel marks the [-1, 2] event window.

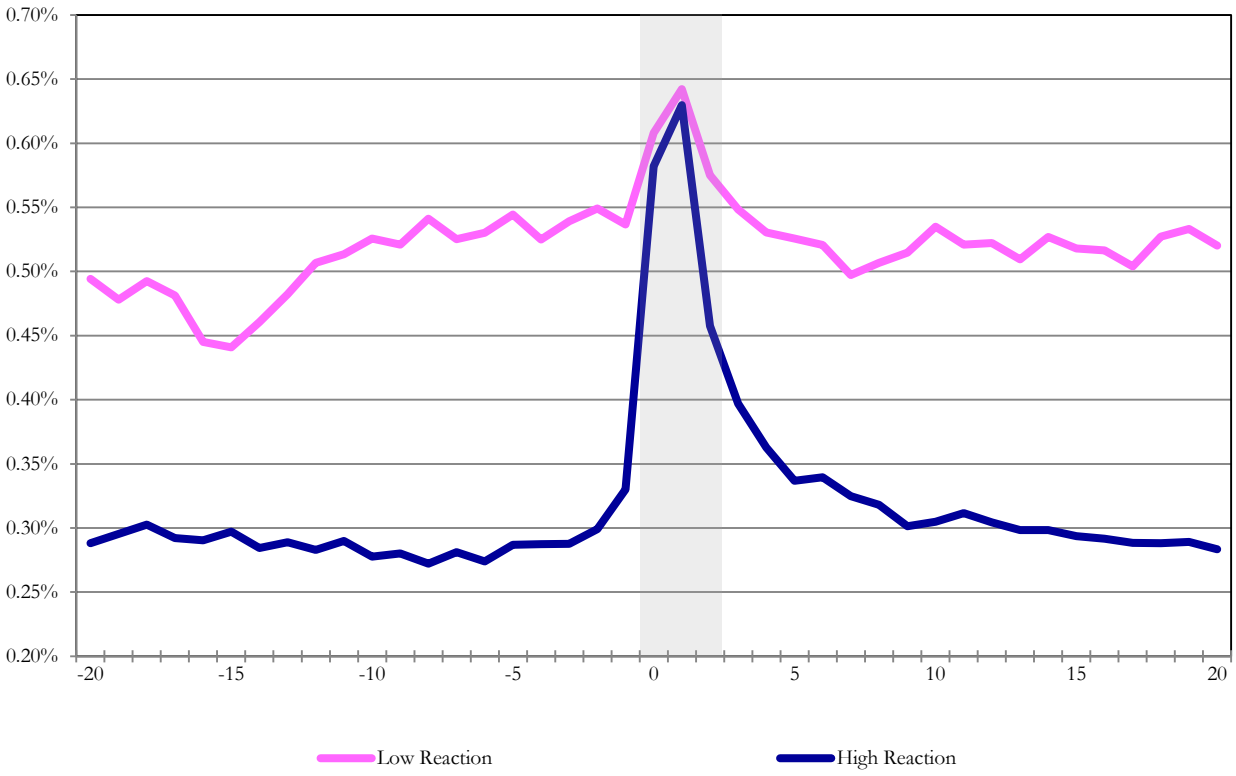


Figure IA.3
Merger Buy-and-Hold Abnormal Returns (BHARs) as a Percentage of BHARs for the Entire Period

This figure is identical to Figure 4, but does not require there to be at least one news article about the target firms. The figure shows buy-and-hold abnormal returns (BHARs) for mergers from 55 days before an announcement through two days after an announcement as a percent of the BHAR for the entire [-55, 2] period. The sample of merger announcements is collected from Bloomberg, Mergerstat, and SDC. We restrict the sample to initial bids (no bids for the target in the prior two years) and mergers where the target has no merger-related articles written about it between 60 calendar days and two trading days prior to the announcement (even if there are no articles written about the target). A merger event in any of the three sources is considered the same event as one from another source if the bids are for the same target and within two years of each other. We take the earliest announcement date for each event from the union of all three sources. Events are divided according to whether the firm's home country has an average combined earnings announcement sample normalized volatility reaction above or below the median for all countries with at least 20 earnings announcements and SUEs. There are 680 events in the high reaction group and 621 events in the low-reaction group. Abnormal returns are market adjusted, which means they are the buy-and-hold return for a stock minus the buy-and-hold return for the market. In order for an event to be included, the stock must have 50% of trading days with price changes in the calendar year prior to the event. The shaded region in each panel marks the [-1, 2] event window. 95% confidence intervals for the BHARs are marked with smaller, lighter circles or triangles.

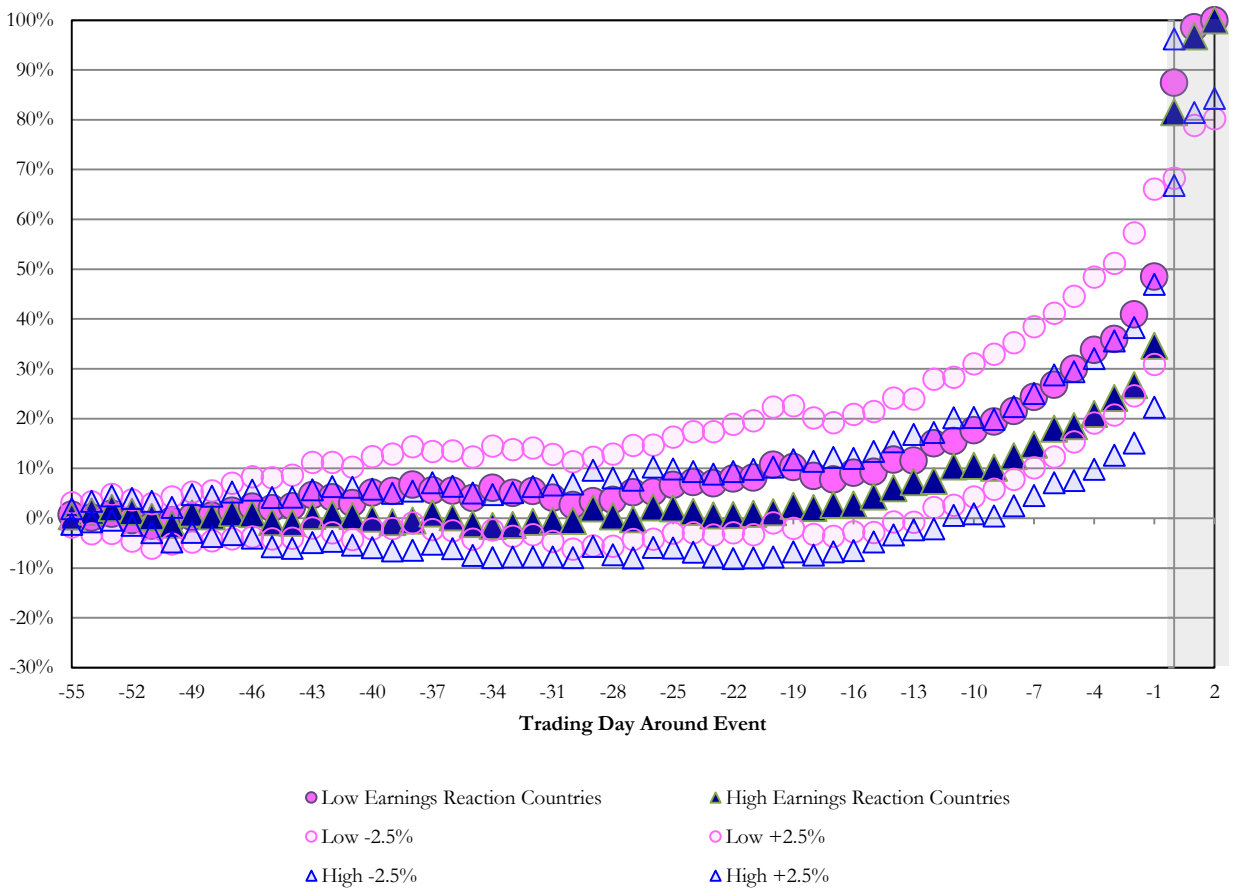
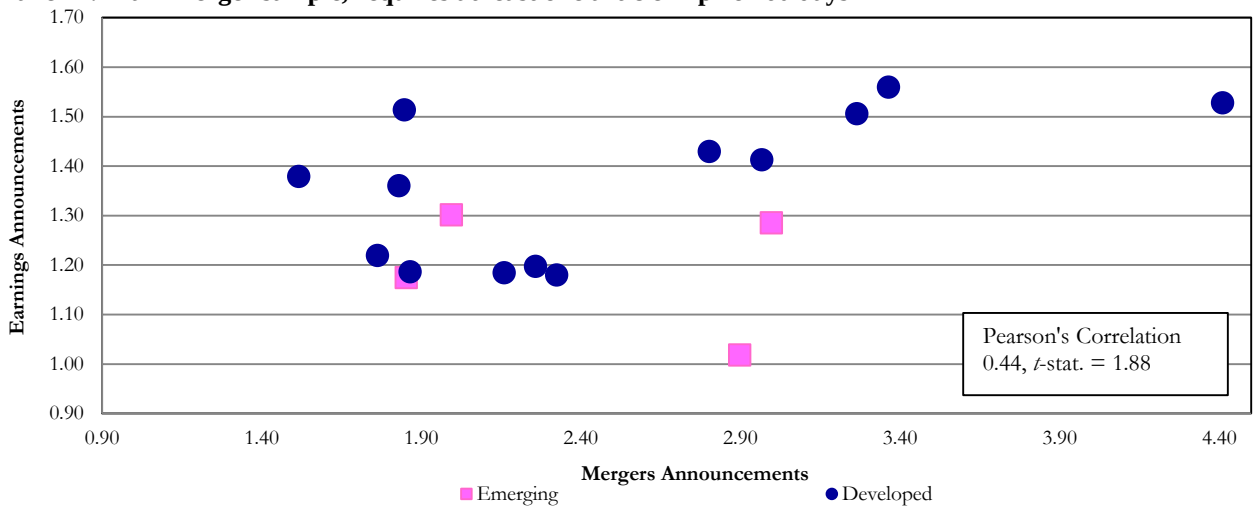


Figure IA.4
Comparisons Between Earnings and Merger Reactions

This figure compares earnings announcement normalized volatility reactions to merger announcement normalized volatility reactions. A country is plotted at the point where its average merger reaction (x-coordinate) intersects with its average earnings reaction (y-coordinate). Developed markets are marked with blue circles and emerging markets are marked with pink squares. The earnings announcement dates are Bloomberg event dates that were cross-checked with Factiva news articles. A Bloomberg event date is considered to have been confirmed by a Factiva news article if 1) the firm's name is in the headline or lead paragraph; 2) the article is tagged by Factiva as earnings news (tag c151); 3) the headline contains a character string indicative of an earnings announcement article; or 4) there is no article matching criteria 1-3 in the prior 60 days. Merger announcements are the first date for an event in the union of the Bloomberg, SDC, and Mergerstat databases that have no merger-related article from 60 calendar to two trading days prior to the announcement. Panel A requires there to also be at least one non-merger related article from 60 calendar to two trading days prior to the announcement. Panel B has more countries because it does not include this final restriction. There must be 10 merger events in a country for it to be in either panel.

Panel A: Main merger sample, requires at least one article in prior 60 days



Panel B: Alternate merger sample, allows no articles in prior 60 days

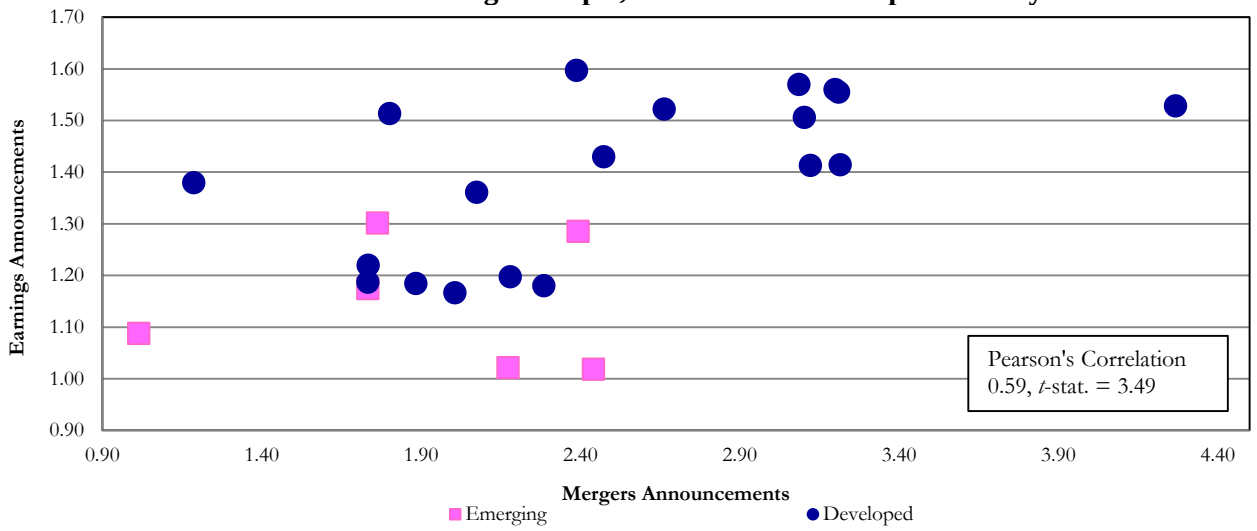
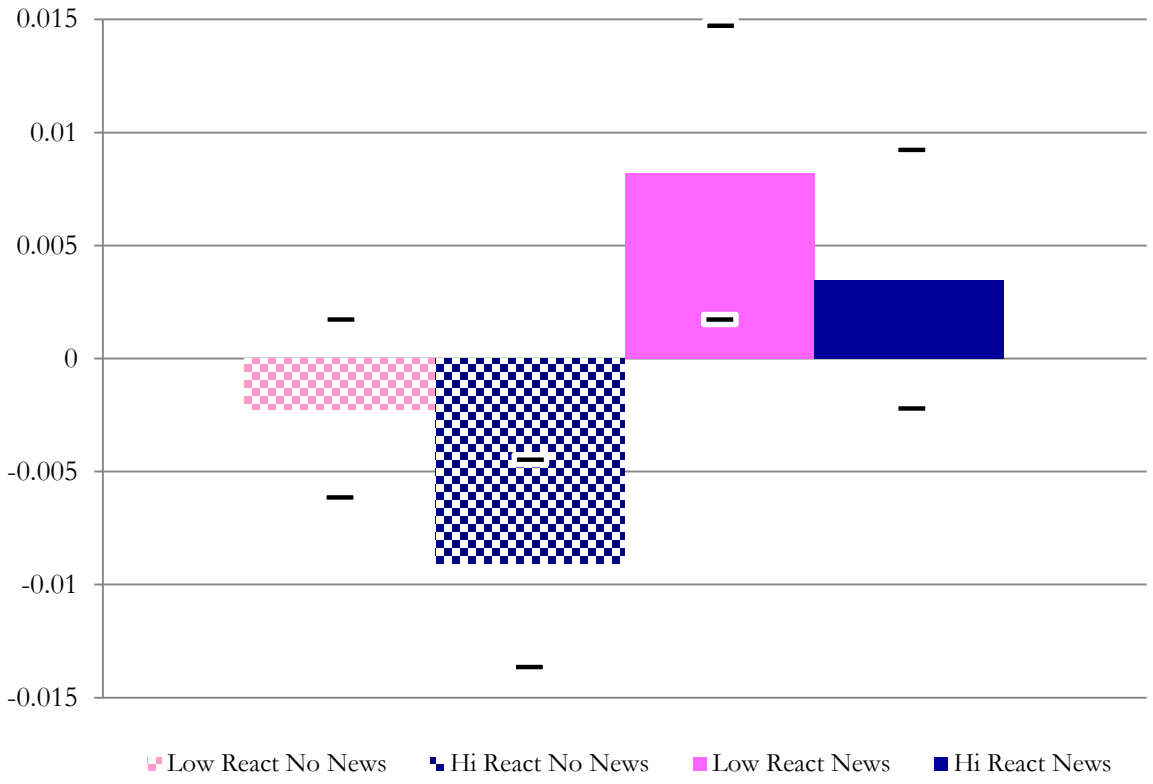


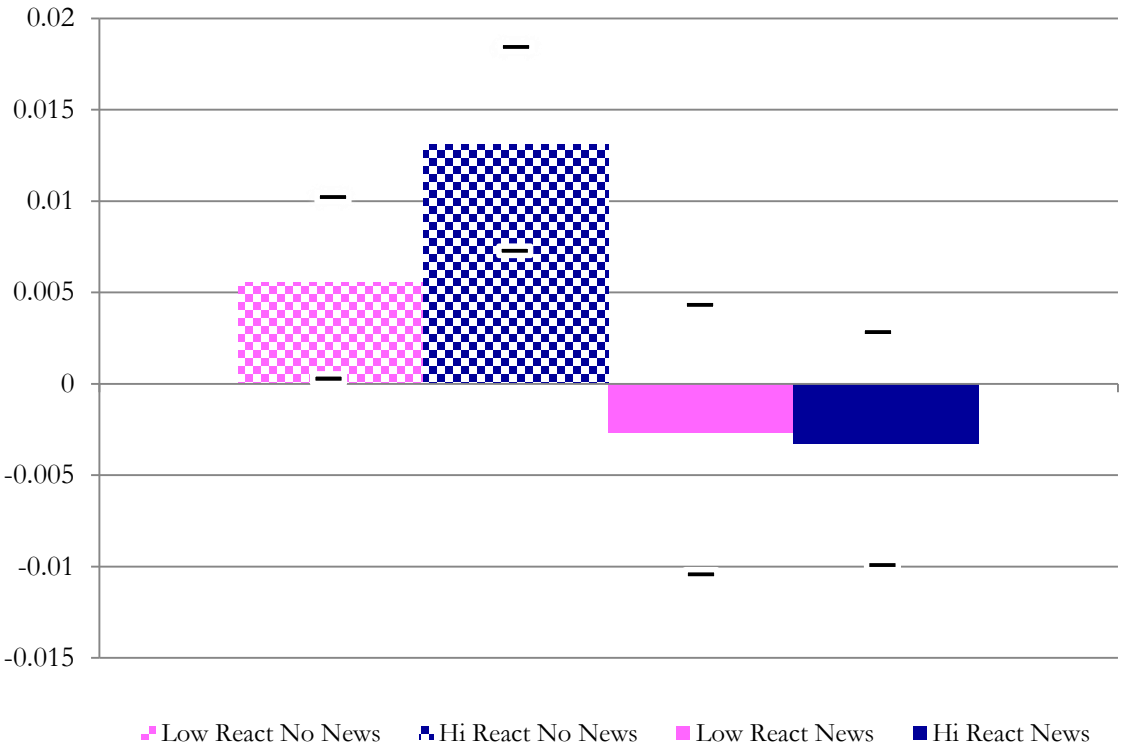
Figure IA.5
Buy-and-Hold Excess Returns from Days +1 to +20 Following Extreme Return Events

Constructed in a similar manner to the data in Tables 9 and IA.11, this figure plots the buy-and-hold abnormal returns following days with extreme returns in excess of the value-weighted market portfolio, at least two standard deviations away from the mean excess return compared to the previous 250 trading days of excess returns. We require all stocks to have at least one news article in the prior 60 trading days to ensure that these are firms covered by our news sources and no other extreme returns in the 20 days prior to the observed extreme return event. Panel A is without liquidity bins, but in Panel B we sort stocks into liquidity bins based on the percentage of days with non-zero price changes in the prior 250 trading days. The lowest liquidity bin is 50% to 75% non-zero price changes, 75% to 90% is the middle, and greater than 90% is the highest liquidity bin. Bars indicate the 95% confidence bounds.

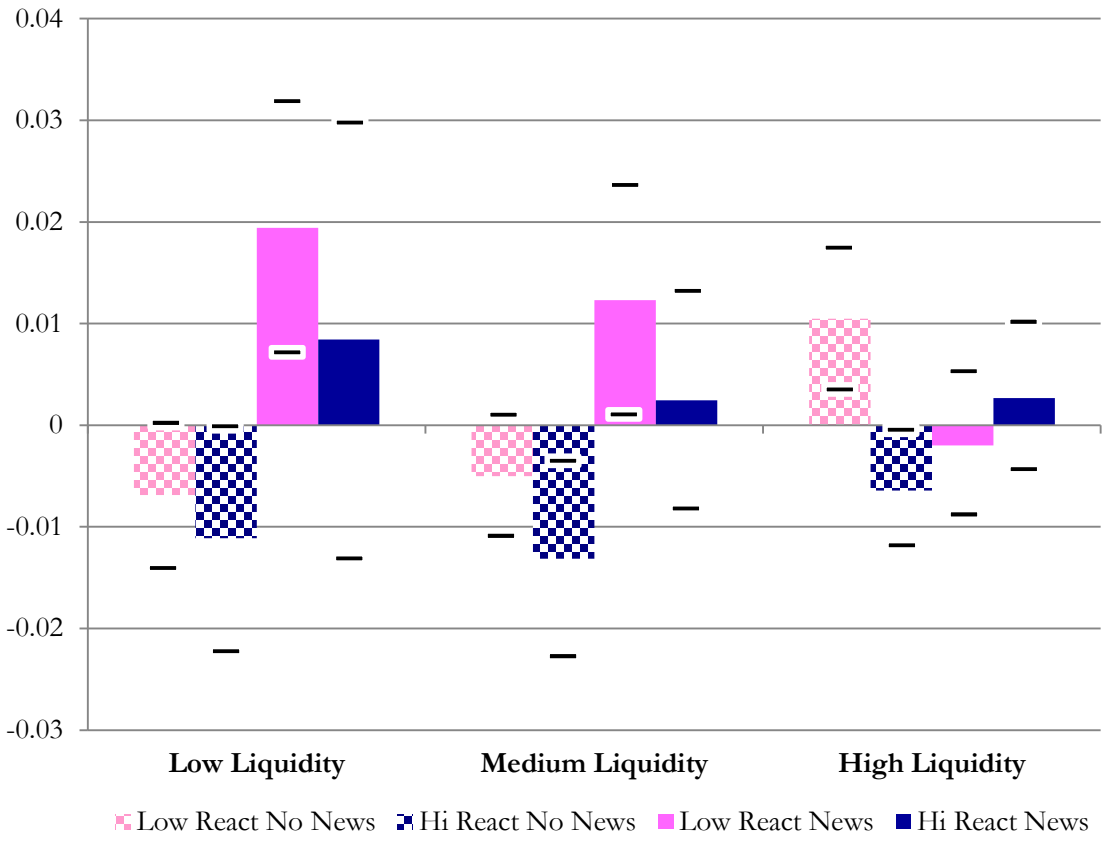
Panel A1: BHAR following positive extreme return events



Panel A2: BHAR following negative extreme return events



Panel B1: Liquidity-sorted BHAR following positive extreme return events



Panel B2: Liquidity-sorted BHAR following negative extreme return events

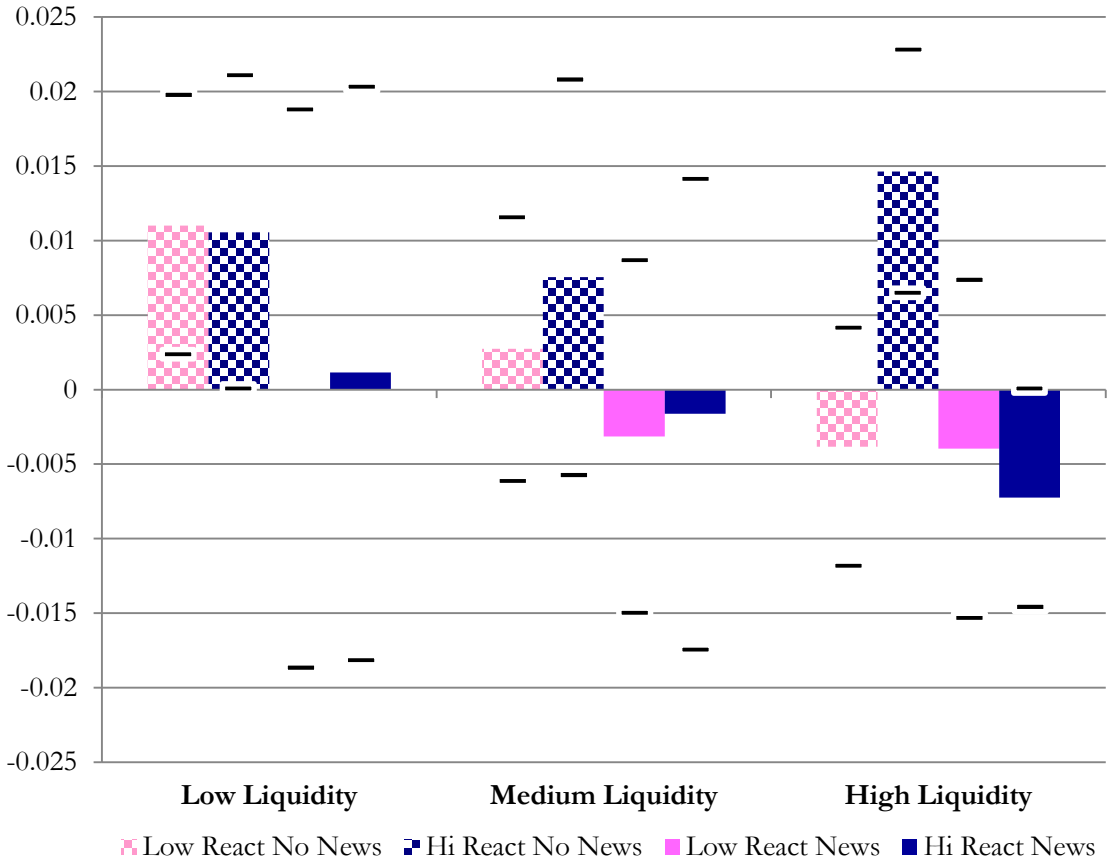


Table IA.1
Factiva Earnings Date Checking Procedure

We check the accuracy of Bloomberg earnings announcement dates against Factiva news articles. The check is based on an automated procedure that looks for articles published around the Bloomberg announcement date that are likely to be reporting earnings results. Bloomberg dates near such articles are considered accurate.

We download earnings announcement dates from Bloomberg using SEDOL identifiers. We choose the annual announcement date for each firm's fiscal year from among the end of year announcement dates returned by Bloomberg (e.g., Annual, Q4, S2, and C4). For most events, all end of year periods have the same announcement date, so the annual announcement date is unambiguous. When there is more than one possible end of year announcement date, for example, if the annual date is not the same as the Q4 date, we use the following algorithm to choose the date that is most likely to be correct. The purpose of the algorithm is to choose the earliest date, except for times when the earliest date appears to be a data error.[6] Say Firm X has two annual dates to choose from in fiscal year 2005. We calculate the median day of the year that Firm X's end of year announcements come out using all available fiscal years. We compare the earliest FY2005 date to the median date for all years. If the earliest FY2005 date is more than 60 days earlier than Firm X's median annual report date, then we assume it is an error and choose the second earliest FY2005 date as the actual date. If the first FY2005 is less than 60 days earlier than Firm X's median annual report date, then we assume it is valid and choose it as the actual date. In a random sample of 40 cases where there were multiple dates from which to choose, the algorithm chose the same dates that the authors would choose if they were choosing by hand.

We then verify Bloomberg dates using news articles downloaded from the Factiva news service. We consider a Bloomberg date accurate if it is within ± three days of a Factiva article that meets the following criteria: 1) the firm's name is in the headline or lead paragraph; 2) the article is tagged by Factiva as earnings news (tag c151); 3) the headline contains a character string indicative of an earnings announcement article; or 4) there is no article meeting criteria 1-3 in the prior 60 days. Strings that meet the third criteria for all languages include "vs," "q4," and "4q." The following table lists additional language-specific strings. If the language of the article was in a language other than those in the table below, we searched for the English strings. To allow for different endings to the words in the table below, we used Martin Porter's word stemming procedure when possible to check the root of the words in the table against the roots of the word in the article headline.[7] We stem the headlines of articles written in French, English, Spanish, Portuguese, German, Dutch, Swedish, Norwegian, Danish, Russian, and Finnish.

We employ an additional procedure specific to Poland to allow us to more accurately identify announcement dates in that country. We search all Polish firm articles for those that 1) have the firm's name in the headline, 2) have "raport okresowy" in the headline, and 3) have "4 / 200[:digit:]" in the lead paragraph, where there can be any amount of whitespace around the slash and "[:digit:]" can be any number from 0:9. We take the date of such articles as earnings announcements, regardless of their proximity to Bloomberg announcement dates.

(continued)

[7] http://snowball.tartarus.org/

Table IA.1—*continued*

Language	English Phrase	Translation	Langauge	English Phrase	Translation
Dutch	profit	Winst	Polish	profit	zysku
Dutch	net profit	Nettowinst	Polish	profit	zysk
Dutch	loss	Verlies	Polish	profit	zysków
Dutch	net loss	Nettoverlies	Polish	profit	zyski
Filipino	profit	Profit	Polish	profit	zyskiem
French	profit	Benefice	Polish	loss	strata
French	loss	Perte	Polish	loss	straty
German	profit	Gewinn	Polish	loss	strat
German	net profit	Nettogewinn	Polish	loss	stratami
German	loss	Verlust	Polish	loss	stratach
Hungarian	profit	Nyeresége	Polish	loss	strate
Hungarian	profit	Nyereség	Portuguese	profit	lucro
Hungarian	profit	Profit	Portuguese	loss	perda
Hungarian	profit	Nyereséget	Portuguese	loss	perdas
Hungarian	profit	Nyereséges	Slovak	profit	zisk
Hungarian	profit	Nyereséggel	Slovak	profit	zisku
Hungarian	profit	Nyereségbe	Slovak	profit	ziskom
Hungarian	profit estimates	nyereségbecslés	Slovak	profit	zisky
Hungarian	profit growth	nyereségnövekedés	Slovak	profit	ziskem
Hungarian	profit	Nyereségre	Slovak	loss	strata
Hungarian	profit	Nyereségét	Slovak	loss	straty
Hungarian	profit	Nyereségesség	Slovak	loss	strat
Hungarian	profit	hasznot	Slovak	loss	stratami
Hungarian	profit	Nyersbevétel	Slovak	loss	stratach
Hungarian	net profit	tiszta haszon	Slovak	loss	strate
Hungarian	loss	Veszteség	Spanish	profit	beneficio
Hungarian	loss	Veszteséges	Spanish	profit	ganancia
Hungarian	loss	Veszteséget	Spanish	profit	utilidad
Hungarian	loss	Vesztesége	Spanish	loss	pérdida
Hungarian	loss	Veszteséggel	Swedish	profit	vinst
Hungarian	loss	Vesztesek	Swedish	net profit	nettoresultat
Hungarian	loss	Veszteségét	Swedish	loss	förlust
Hungarian	loss	Veszteségben	Turkish	profit	kâri
Hungarian	loss	Veszteségek	Turkish	profit	kâr
Hungarian	loss	Vesztesei	Turkish	profits(losses)	kâr(zarar)
Italian	profit	Profitto	Turkish	profit	kazanç
Italian	profit	Utile	Turkish	loss	zarar
Italian	loss	Perdita	English	net	net
			English	profit	profit

Table IA.2
Detailed Summary of Earnings Announcement Sample Construction

This table presents summary data for the earnings announcement sample. The sample for Korea contains events from February, 2001 to January, 2008. The earnings announcement sample for all other countries contains events from January, 2004 to September, 2008. The Bloomberg column reports the number of events from our set of Bloomberg earnings announcements that we can merge to Datastream. The two Factiva columns report first the number of randomly selected Bloomberg earnings announcement dates for which we automated a date-checking process and then the number of those Bloomberg dates that were confirmed by this process. The Factiva confirmed subgroup consists of all events of those in the Bloomberg sample we checked that are within ± three days of a Factiva article that meets the following criteria: 1) the firm's name is in the headline or lead paragraph; 2) the article is tagged by Factiva as earnings news (tag c151); 3) the headline contains a character string indicative of an earnings announcement article; or 4) there is no article meeting requirements 1-3 in the prior 60 days. See the Internet Appendix Table IA.1 for a list of character strings that identify an announcement article. The final sample is the union of the subset of Factiva confirmed events with returns that pass our filters and a set of hand-checked Korean dates.

Panel A: Developed Market Earnings Announcements

	Bloomberg	Factiva		Final
Country	**Total Events**	**Sampled Events**	**Confirmed**	**Events/Firms**
Australia	7,031	323	57	39/25
Austria	334	217	65	48/26
Belgium	652	293	137	100/48
Canada	6,079	197	74	60/34
Denmark	862	322	121	83/45
Finland	685	354	136	106/57
France	2,932	234	89	78/44
Germany	3,047	251	42	37/21
Greece	1,312	374	52	50/33
Hong Kong	4,251	2,449	858	516/319
Ireland	258	154	69	44/23
Israel	1,812	891	60	48/34
Italy	1,323	344	156	129/64
Japan	18,313	504	274	250/105
Netherlands	649	327	165	130/65
New Zealand	621	335	179	99/41
Norway	981	283	101	77/42
Portugal	289	169	67	62/29
Singapore	3,056	1,640	693	325/188
South Korea	8,258	226	13	100/74
Spain	655	295	113	105/55
Sweden	1,958	308	86	77/48
Switzerland	1,052	307	112	81/47
Taiwan	5,777	3,047	409	371/290
U.K.	4,521	347	194	74/36
U.S.	19,138	1,202	480	415/210
Total	76,708	14,191	4,322	3,504/2,003
Average	3,068	568	173	135/77

(continued)

Table IA.2—*continued*

Panel B: Emerging Market Earnings Announcements

	Bloomberg	Factiva		Final
Country	**Total Events**	**Sampled Events**	**Confirmed**	**Events/Firms**
Argentina	336	324	98	66/29
Brazil	1,148	502	70	34/20
Chile	726	499	105	63/30
China	7,426	3,953	349	270/167
Colombia	212	181	13	4/4
Croatia	747	476	37	3/1
Czech Republic	137	137	5	1/1
Egypt	376	267	27	18/15
Estonia	65	64	6	4/4
Hungary	191	186	53	37/19
India	5,494	2,619	402	307/224
Indonesia	1,520	783	105	76/44
Kenya	78	71	10	9/8
Latvia	124	123	5	3/2
Lithuania	144	143	4	3/3
Malaysia	4,493	2,392	1,061	709/414
Mexico	597	433	127	47/22
Morocco	110	96	4	2/2
Pakistan	393	311	4	4/4
Peru	338	320	48	12/5
Philippines	1,016	641	38	15/9
Poland	1,735	805	95	133/89
Romania	190	174	13	7/7
Slovakia	74	74	9	2/1
Slovenia	166	157	3	1/1
South Africa	1,329	684	84	68/48
Sri Lanka	118	82	1	1/1
Thailand	2,489	1,313	198	100/62
Turkey	1,231	671	91	76/62
Venezuela	93	83	6	4/2
Total	32,760	18,240	2,973	2,079/1,300
Average	1,130	629	103	69/43

Table IA.3
I/B/E/S Earnings Announcement Date Accuracy

A random sample of five firms per country was chosen. For each firm, all available I/B/E/S earnings announcement dates were compared to those found through Factiva to check for accuracy. The number to the right of the "/" represents the number of announcements in the country sample for which data could be found in Factiva. The number to the left is the number of those announcements that fall within the [-1, +1] window relative to a Factiva article reporting earnings results. Among these same events, the fraction of Bloomberg's announcement dates falling within the [-1, +1] window is 456/608 in developed markets and 323/738 in emerging markets. The accuracy checks in other tables use more stringent criteria for determining date accuracy.

Developed Markets		**Emerging Markets**			
Australia	3/27	Argentina	4/37	Morocco	0/10
Austria	9/23	Brazil	0/33	Pakistan	0/19
Belgium	4/28	Chile	1/39	Peru	0/22
Canada	3/20	China	5/17	Philippines	1/16
Denmark	10/26	Columbia	0/22	Poland	0/25
Finland	12/30	Croatia	4/18	Romania	0/10
France	7/31	Cyprus	0/11	Singapore	4/35
Germany	1/23	Czech Republic	2/32	South Africa	0/23
Greece	0/10	Egypt	0/15	Sri Lanka	0/11
Iceland	0/14	Ghana	0/3	Taiwan	2/15
Ireland	0/20	Hong Kong	11/47	Thailand	3/41
Italy	2/17	Hungary	5/26	Turkey	0/11
Japan	16/42	India	1/24	Venezuela	1/24
Luxembourg	1/22	Indonesia	1/9	Zimbabwe	0/9
Netherlands	18/46	Israel	1/21		
New Zealand	5/26	Jordan	0/8		
Norway	4/17	Kenya	0/10		
Portugal	2/36	Kuwait	0/6		
Spain	7/25	Lithuania	0/11		
Sweden	2/33	Malaysia	4/31		
Switzerland	16/43	Mauritius	0/5		
U.K.	18/49	Mexico	12/37		
Total	140/608			Total	62/738

Table IA.4
Raw Bloomberg Accuracy

This table reports the accuracy of raw Bloomberg earnings announcement dates. In each country we randomly selected max (10, # events in country) events. For each of those events, we check Factiva by hand for the first day after the end of the fiscal year that the firm releases any information about results (profits, earnings, sales, cash flows, etc.). *Events Sampled* is the number of sampled events. *Dates Found* is the number of sampled events for which articles announcing results could be found. *Dates Accurate* is the number of events for which the first article reporting results falls within the [-1, 2] trading day window relative to the date in Bloomberg. The percentage is *Dates Accurate* divided by *Dates Found*.

Developed Countries	Events Sampled	Dates Found	Dates Accurate	Emerging Countries	Events Sampled	Dates Found	Dates Accurate
Australia	10	9	5 (56%)	Argentina	10	5	4 (80%)
Austria	10	10	5 (50%)	Bangladesh	2	0	-
Belgium	10	9	6 (67%)	Brazil	10	7	5 (71%)
Canada	10	8	7 (88%)	Bulgaria	10	8	0 (0%)
Cyprus	10	4	2 (50%)	Chile	10	7	4 (57%)
Denmark	10	10	7 (70%)	China	10	8	7 (88%)
Finland	10	9	8 (89%)	Croatia	10	6	1 (17%)
France	10	8	3 (38%)	Czech Republic	10	6	2 (33%)
Germany	10	6	2 (33%)	Egypt	10	8	5 (63%)
Greece	10	6	3 (50%)	Estonia	9	6	2 (33%)
Hong Kong	10	9	7 (78%)	Hungary	10	9	7 (78%)
Iceland	3	2	2 (100%)	India	10	7	6 (86%)
Ireland	9	9	9 (100%)	Indonesia	10	4	3 (75%)
Israel	10	1	0 (0%)	Jordan	3	0	-
Italy	10	8	4 (50%)	Kenya	10	5	1 (20%)
Japan	10	10	9 (90%)	Latvia	10	8	1 (13%)
Luxembourg	10	6	5 (83%)	Lithuania	10	9	1 (11%)
Netherlands	10	8	5 (63%)	Malaysia	9	8	6 (75%)
New Zealand	10	8	6 (75%)	Mauritius	10	2	1 (50%)
Norway	10	8	7 (88%)	Mexico	10	5	2 (40%)
Portugal	9	5	3 (60%)	Morocco	10	4	1 (25%)
Singapore	9	7	6 (86%)	Pakistan	10	4	1 (25%)
South Korea	10	1	1 (100%)	Peru	10	6	2 (33%)
Spain	10	9	7 (78%)	Philippines	10	9	4 (44%)
Sweden	10	9	8 (89%)	Poland	10	8	1 (13%)
Switzerland	10	10	7 (70%)	Romania	10	8	0 (0%)
Taiwan	10	8	1 (13%)	Slovakia	10	9	2 (22%)
U.K.	10	8	5 (63%)	Slovenia	10	7	0 (0%)
				South Africa	10	7	5 (71%)
				Sri Lanka	10	2	0 (0%)
				Thailand	10	8	8 (100%)
				Turkey	10	7	5 (71%)
				Venezuela	10	3	1 (33%)
				Zimbabwe	10	5	2 (40%)
Developed Markets	270	205	140 (68%)	Emerging Markets	323	205	90 (44%)
All Markets	593	410	230 (56%)				

Table IA.5
Earnings Accuracy using Factiva Check

This table reports accuracy of the automated Factiva date-checking procedure. The Factiva date-checking procedure considers a Bloomberg date accurate if it is within ± three days of a Factiva article that meets the following criteria: 1) the firm's name is in the headline or lead paragraph; 2) the article is tagged by Factiva as earnings news (tag c151); 3) the headline contains a character string indicative of an earnings announcement article; or 4) there is no article matching criteria 1-3 in the prior 60 days. Accuracy of these dates is determined by hand checks against Factiva news articles. A date is considered wrong if the firm releases any information about results (profits, earnings, sales, cash flows, etc.) between the end of the fiscal year and our earnings announcement date. *Total* is the number of Factiva dates checked. *Correct* is the number of dates that the automated procedure correctly flagged as being valid.

Developed	**Total**	**Correct**	**% Correct**	**Emerging**	**Total**	**Correct**	**% Correct**
Australia	10	4	40%	Argentina	10	10	100%
Austria	10	10	100%	Brazil	10	9	90%
Belgium	10	8	80%	Chile	10	9	90%
Canada	10	10	100%	China	10	8	80%
Denmark	10	7	70%	Egypt	10	9	90%
Finland	10	10	100%	Hungary	10	10	100%
France	10	1	10%	India	10	8	80%
Germany	10	7	70%	Indonesia	10	9	90%
Greece	10	9	90%	Malaysia	10	10	100%
Hong Kong	10	10	100%	Mexico	10	9	90%
Ireland	10	9	90%	Peru	10	10	100%
Israel	10	10	100%	Philippines	10	9	90%
Italy	10	9	90%	Poland	10	8	80%
Japan	10	8	80%	South Africa	10	8	80%
Netherlands	10	8	80%	Thailand	10	10	100%
New Zealand	10	8	80%	Turkey	10	5	50%
Norway	10	9	90%				
Portugal	10	10	100%				
Singapore	10	10	100%				
South Korea	10	8	80%				
Spain	10	8	80%				
Sweden	10	8	80%				
Switzerland	10	7	70%				
Taiwan	10	1	10%				
U.K.	10	8	80%				
U.S.	27	27	100%				
Dev. Markets (ex. US)	250	197	78.80%	Emg. Markets	160	141	88.13%
All Markets (ex. US)	410	338	82.44%				

Table IA.6
Explanation for Factiva Checking Inaccuracies

For the first six earnings announcements checked in each country, when a date is wrong we record the reason for the inaccuracy. A date is considered wrong if the firm releases any information about results (profits, earnings, sales, cash flows, etc.) between the end of the fiscal year and our earnings announcement date. *Our date is incorrect* is the number of earnings announcements for which there was information about profits before our announcement date. *Our date is official announcement* is the number of incorrect dates for which the actual earnings announcement was in the [-1, 2] window relative to our date. *#--Explanation of earlier announcemen*t explains why the dates were marked incorrect and gives the number of events for which this was the explanation.

Country	Our date is incorrect	Our date is official announcement	#--Explanation of earlier announcement
Australia	3	3	2--Cash flow statement released prior to earnings announcement
			1--Guidance after FY end date
Belgium	1	1	1--Guidance after FY end date
Chile	1	1	1--Market share announced
China	1	1	1--Parent company announcement
Denmark	1	1	1--Guidance after FY end date
France	5	5	4--Revenue announcement
			1--Guidance in CEO interview
Germany	1	1	1--Guidance after FY end date
Japan	2	2	2--Guidance after FY end date
Sweden	1	1	1--Revenue announcement
Switzerland	1	1	1--Guidance in Exec. interview
Taiwan	6	4 (2 are q1 dates)	6--Revenue announcement
Turkey	5	5	3--Government announcement of taxable income
			1--Guidance after FY end date
			1--Management commentary
U.K.	1	1	1--Guidance after FY end date

Table IA.7
News Day to Non-news Day Return Volatility

This table presents measures which relate average news day volatility to non-news day volatility minus one, where volatility, $|AR_{i,t}|$, is calculated as described in section 3.1. As described in Table 1 we download all articles from 2003 through 2008 for randomly selected firms. If an article with the firm's name in the headline or lead paragraph appeared between the close of market on the previous day and the open of the market on the current day, we count that day as a "News Day" with "Pre-Trade" news in Panel A. Panel A2 presents averages over country-firm-years where we have confirmed earnings dates. Panel A3 presents averages over country-firm-years where we exclude earnings dates. Panel B includes articles with local time stamps, but we count the day as a news day if the news occurs from the previous close to the close of the current local day. Panel C is a larger set and includes articles even if we do not have the local time stamps and uses the date, based on Greenwich Mean Time, as the date of the article. Panel D is the same as C, except that a news day is counted, only if the article is from Dow Jones, Reuters, *Financial Times*, or *The Wall Street Journal*. If an article occurs on a non-trading day, it is associated with the next trading day if a trading day occurs no more than 4 days later. Volatility is averaged separately for news and no-news days to the firm-year level. The left-most column is the count of the number of countries in the cross-section. The next column is the "Median Percentile News Rank," which is calculated in the following manner: we rank average firm-year news and non-news volatility from lowest to highest and report the mean rank of the news-day firm-year averages. We divide each rank by the total number of observations to convert the ranks to a percentile for comparability across markets. In the next column titled, "Abs. Mkt. Adj. Vol. Ratio," we average across firm years to get country average news day and no-news day volatility, then report the ratio of average news day to no-news day volatility minus one. The last column titled, "Median Abs. Mkt. Adj. Vol. Ratio," is the same as the previous column, except using medians. A firm year is included if there are at least 100 trading days with returns, and 20 firm years per country, at least one news article, but no more than 75% of the trading days may have a news article, and the stock has a price change on at least 50% of the trading days in the prior calendar year. Market-adjusted returns are Winsorized at the 1st and 99th percentile. The difference in means tests use pooled/unpooled *t*-test where the null of equal averages between emerging and developed markets is tested. A pooled *t*-test is used when a folded *F*-test indicates that sample variances are insignificantly different at the 5% significance level, otherwise an unpooled *t*-test is used. The difference in median test for column "Median Abs. Mkt. Adj. Vol. Ratio" is the Fligner-Policello difference in central tendency test. Countries with fewer than 20 firm-year observations are grouped into the category "Other Emerg." before averaging.

	Count	Mean Percentile News Rank	Mean Abs. Mkt. Adj. Vol. Ratio Minus One	Median Abs. Mkt. Adj. Vol. Ratio Minus One
Panel A1: Pre-Trading Day News Only				
Developed	26	57.0	0.35	0.31
Emerging	25	53.1	0.24	0.12
Difference		3.9	0.11	0.19
(*t*-stat.)		(3.96)	(2.49)	(4.63)
Panel A2: Pre-Trading Day News: Sample with Factiva confirmed earnings announcements				
Developed	18	59.8	0.39	0.39
Emerging	13	57.5	0.29	0.23
Difference		2.3	0.11	0.16
(*t*-stat.)		(1.82)	(1.77)	(3.67)
Panel A3: Pre-Trading Day News: Excluding -1 to +2 around earnings announcements				
Developed	18	58.9	0.34	0.34
Emerging	13	57.7	0.30	0.16
Difference		1.2	0.05	0.17
(*t*-stat.)		(0.93)	(0.88)	(2.16)

(continued)

Table IA.7—*continued*

Panel A4: Pre-Trading Day News in article count bins

	Mean Percentile News Rank			Mean Abs. Mkt. Adj. Vol. Ratio Minus One		
	5 to 15	15 to 25	≥ 25	5 to 15	15 to 25	≥ 25
Developed	59.2	62.6	59.4	0.33	0.37	0.22
Emerging	57.4	59.8	57.0	0.20	0.21	0.14
Difference	1.8	2.8	2.3	0.12	0.16	0.08
(*t*-stat.)	(1.13)	(1.87)	(2.09)	(2.03)	(3.21)	(3.68)

	Count	Mean Percentile News Rank	Mean Abs. Mkt. Adj. Vol. Ratio Minus One	Median Abs. Mkt. Adj. Vol. Ratio Minus One
Panel B: Local Time-Stamped News				
Developed	26	57.2	0.36	0.32
Emerging	25	53.8	0.25	0.12
Difference		3.4	0.11	0.19
(*t*-stat.)		(3.63)	(2.54)	(4.62)
Panel C: All Available Articles (not time-zone adjusted)				
Developed	26	56.8	0.28	0.25
Emerging	29	54.7	0.21	0.14
Difference		2.1	0.07	0.12
(*t*-stat.)		(2.34)	(2.53)	(2.69)
Panel D: Dow Jones, Reuters, *Financial Times*, and *The Wall Street Journal*, GMT Date Stamp				
Developed	25	57.9	0.45	0.33
Emerging	23	54.6	0.32	0.22
Difference		3.3	0.13	0.10
(*t*-stat.)		(3.03)	(2.65)	(3.02)

Table IA.8

Correlation Heat Map Among Cross-Country Variables Described in Appendix A.1

This table presents Pearson correlations of the country-level measures described in Appendix Table A1 and the natural log of the earnings volatility ratios described in Table 6 and the standardized news rank variable described in Table 7.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) ln Earnings Volatility Ratio	1											
(2) Standardized News Rank	0.71	1										
Pre-Event Public Information Dissemination												
(3) ln Announcement Order	-0.04	-0.05	1									
(4) Financial Press Article Before Event	0.23	0.15	0.04	1								
(5) In-depth Article Before Event	0.27	0.03	-0.01	0.32	1							
Insider Trading												
(6) Insider Trading Enforced	0.11	0.09	0.19	-0.21	-0.12	1						
(7) Prevalence of Insider Trading	-0.79	-0.64	0.12	-0.31	-0.43	-0.01	1					
News Transmission												
(8) Financial Press Article During Event	0.36	0.32	0.00	0.90	0.42	-0.29	-0.44	1				
(9) News Clustering	0.49	0.37	-0.07	0.59	0.60	-0.08	-0.58	0.66	1			
(10) In-depth Article During Event	0.44	0.17	-0.12	0.49	0.71	-0.13	-0.62	0.53	0.67	1		
(11) Free Press	0.61	0.32	-0.02	0.53	0.16	0.02	-0.50	0.51	0.44	0.51	1	
(12) Technological Development	0.78	0.65	0.06	0.19	0.37	0.20	-0.74	0.34	0.35	0.42	0.44	1
Accounting Quality												
(13) Accounting Standards	0.80	0.50	-0.18	0.29	0.43	0.03	-0.78	0.38	0.43	0.62	0.61	0.78
(14) Pct. Intl. GAAP	0.38	0.31	-0.12	0.41	0.14	0.12	-0.44	0.31	0.37	0.43	0.49	0.24
(15) Only Annual Earn. Ann.	0.04	0.00	0.29	-0.11	0.01	0.08	0.15	-0.12	-0.02	-0.07	0.11	0.02
(16) Financial Disclosure	0.78	0.41	-0.16	0.32	0.39	0.11	-0.81	0.39	0.43	0.60	0.62	0.73
(17) Disclosure Index	-0.20	-0.28	0.03	0.18	-0.05	0.18	0.18	0.06	0.15	-0.06	0.08	-0.29
Regulation & Governance												
(18) UK Law	0.17	0.00	-0.16	-0.29	0.34	-0.11	-0.20	-0.14	-0.06	0.32	-0.11	0.25
(19) Cost to Enforce Contracts	-0.31	-0.34	0.20	-0.11	-0.27	0.07	0.44	-0.23	-0.31	-0.25	-0.01	-0.34
(20) Investor Protection Rank	-0.26	-0.15	0.20	-0.16	0.10	0.09	0.29	-0.22	-0.04	-0.20	-0.44	-0.33
(21) Investor Protection Index	0.42	0.37	-0.18	-0.18	0.10	-0.11	-0.43	-0.05	-0.01	0.21	0.14	0.38
(22) Anti-Self-Dealing Index	0.14	0.05	-0.08	-0.40	0.21	0.02	-0.13	-0.25	-0.13	0.08	-0.37	0.21
(23) Shareholder Lawsuits Index	0.30	0.12	-0.04	-0.03	0.13	0.01	-0.30	0.10	-0.03	0.32	0.09	0.40
(24) Director Liability Index	-0.04	0.05	0.02	-0.34	0.07	-0.19	0.02	-0.24	-0.23	-0.09	-0.44	0.01
(25) Short Sales Legal	0.23	0.12	-0.11	0.38	0.08	-0.10	-0.18	0.39	0.28	0.30	0.69	0.00
(26) Short Sales Feasible	0.34	0.36	0.04	0.44	0.43	-0.14	-0.42	0.54	0.43	0.35	0.32	0.37
Trading Costs												
(27) LOT Trading Cost	0.05	0.05	-0.14	-0.33	0.03	0.20	-0.01	-0.29	-0.08	-0.05	-0.25	0.07
(28) Pct. Days Non-Zero Price Chg.	0.05	-0.03	0.31	0.32	0.16	-0.03	-0.02	0.28	0.10	0.18	0.35	0.04

Table IA.8--*continued*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Equity Market Characteristics												
(29) Financial Market Sophistication	0.81	0.50	-0.16	0.25	0.45	0.04	-0.80	0.38	0.46	0.64	0.62	0.77
(30) GDP per Capita	0.67	0.47	-0.12	0.35	0.34	-0.03	-0.74	0.48	0.42	0.48	0.53	0.65
(31) Market Turnover/GDP x 100	0.56	0.42	0.00	0.04	0.50	0.23	-0.47	0.20	0.37	0.41	0.23	0.59
(32) Average Log Firm Size	0.06	-0.03	-0.03	0.48	0.10	-0.38	-0.06	0.49	0.31	0.25	0.26	-0.11
(33) Average Firm-Level P/E	0.07	-0.05	0.23	-0.02	-0.13	0.11	-0.02	-0.09	-0.13	-0.15	0.14	0.22
(34) ln Transform MYY R2	-0.24	-0.03	0.09	0.00	-0.03	-0.14	0.18	0.03	0.00	-0.17	-0.20	-0.12
(35) Country Risk	0.73	0.57	-0.17	0.38	0.46	0.00	-0.77	0.46	0.50	0.57	0.57	0.68

	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
Accounting Quality														
(13) Accounting Standards	1													
(14) Pct. Intl. GAAP	0.32	1												
(15) Only Annual Earn. Ann.	0.05	-0.14	1											
(16) Financial Disclosure	0.81	0.41	-0.08	1										
(17) Disclosure Index	-0.29	0.32	0.05	-0.26	1									
Regulation & Governance														
(18) UK Law	0.44	-0.23	0.17	0.28	-0.61	1								
(19) Cost to Enforce Contracts	-0.33	-0.01	0.53	-0.20	0.07	0.01	1							
(20) Investor Protection Rank	-0.48	-0.01	-0.10	-0.43	0.27	-0.31	0.01	1						
(21) Investor Protection Index	0.48	0.05	-0.06	0.43	-0.68	0.64	-0.06	-0.29	1					
(22) Anti-Self-Dealing Index	0.27	-0.42	-0.03	0.18	-0.70	0.81	-0.17	-0.04	0.50	1				
(23) Shareholder Lawsuits Index	0.47	-0.08	-0.12	0.41	-0.56	0.57	-0.18	-0.45	0.49	0.52	1			
(24) Director Liability Index	0.03	-0.52	-0.06	0.01	-0.79	0.53	-0.14	0.03	0.33	0.77	0.22	1		
(25) Short Sales Legal	0.21	0.28	0.10	0.26	0.17	-0.21	-0.01	-0.33	0.03	-0.44	-0.23	-0.34	1	
(26) Short Sales Feasible	0.44	0.16	-0.19	0.38	-0.21	0.05	-0.31	-0.26	0.10	0.05	0.08	0.11	0.38	1
Trading Costs														
(27) LOT Trading Cost	0.14	-0.38	-0.25	-0.02	-0.32	0.27	-0.36	-0.17	0.20	0.45	0.29	0.39	-0.28	0.03
(28) Pct. Days Non-Zero Price Chg.	-0.07	0.40	0.31	0.11	0.28	-0.21	0.38	0.20	-0.17	-0.46	-0.23	-0.38	0.29	0.01
Equity Market Characteristics														
(29) Financial Market Sophistication	0.90	0.33	-0.04	0.84	-0.26	0.39	-0.36	-0.55	0.42	0.21	0.53	-0.04	0.28	0.49
(30) GDP per Capita	0.62	0.47	-0.42	0.75	-0.03	-0.02	-0.42	-0.30	0.35	-0.09	0.24	-0.20	0.32	0.51
(31) Market Turnover/GDP x 100	0.47	0.21	0.02	0.46	0.02	0.23	-0.30	-0.08	0.13	0.20	0.21	-0.09	0.10	0.34
(32) Average Log Firm Size	0.03	0.04	-0.03	0.10	0.05	-0.09	-0.03	-0.10	-0.30	-0.12	0.10	-0.08	0.13	0.09
(33) Average Firm-Level P/E	0.07	0.10	-0.05	0.14	-0.08	0.01	0.23	0.03	0.12	-0.01	0.17	-0.14	-0.32	-0.21
(34) ln Transform MYY R2	-0.41	-0.09	0.09	-0.22	0.31	-0.41	0.15	0.33	-0.24	-0.29	-0.39	-0.20	0.05	-0.05
(35) Country Risk	0.72	0.54	-0.19	0.74	-0.05	0.03	-0.34	-0.15	0.33	-0.02	0.20	-0.17	0.30	0.50

Table IA.8--*continued*

Trading Costs										
(27) LOT Trading Cost	1									
(28) Pct. Days Non-Zero Price Chg.	-0.86	1								
Equity Market Characteristics										
(29) Financial Market Sophistication	0.14	-0.03	1							
(30) GDP per Capita	0.02	0.04	0.70	1						
(31) Market Turnover/GDP x 100	0.11	0.04	0.65	0.46	1					
(32) Average Log Firm Size	-0.39	0.32	0.11	-0.04	-0.08	1				
(33) Average Firm-Level P/E	-0.28	0.28	0.05	0.06	-0.13	0.12	1			
(34) ln Transform MYY R2	-0.23	0.17	-0.40	0.01	0.02	-0.15	-0.13	1		
(35) Country Risk	-0.02	0.07	0.71	0.85	0.52	-0.04	-0.05	0.06	1	

Table IA.9
Autometrics Regressions of Volatility Ratios on Cross-Country Characteristics

Panel A contains regressions of average natural log of earnings reactions for 39 countries on the 27 country characteristics listed in Table IA.10 and described in Table A1. Panel B contains regressions of the average of four standardized measures of general news: Mean Percentile Rank of News Day Volatility, Ratio of Mean News to No-News Volatility, Ratio of Median News to No-News Volatility, and Adj. News R^2 which are standardized to a mean of zero and a standard deviation of one for 42 countries on the same 27 country characteristics as in Panel A. The regressions are performed using the Autometrics routine (for exact details see Doornik (2007, 2009)). First, Autometrics estimate a regression with all independent variables, called the "general unrestricted model." Then, the procedure performs a multi-path search for terminal models. If there are k insignificant variables at α=0.05 there will be k paths. The first step of each path is to eliminate one of the statistically insignificant variables, re-estimate the model, and then run an F-test to determine whether the model without the variable has a significantly worse fit at α=0.01. If it does not have worse fit, Autometrics continues down this path and Autometrics drops the least significant of the remaining insignificant variables and the F-test is run. Once no variable can be dropped without resulting in a model with statistically significantly worse fit, Autometrics performs back testing and diagnostic testing. If these tests reject a model, then the previously tested model (with the last variable dropped) is used as the terminal model. In this way there will be as many as k unique terminal models (there can be fewer than k models, if multiple paths lead to the same model). The Autometrics procedure selects the terminal model with the lowest Schwartz criterion as the best fitting model. Standard errors are White (1980) heteroskedasticity robust standard errors. Models are ordered for the best fitting to the worst in Panels A and B.

Panel A: Log Earnings Reactions Regressions - Terminal Models

	1	2	3	4	5	6	7	8	9
Financial Market Sophistication		0.08		0.09					
		(4.50)		(5.56)					
Prevalence of Insider Trade	-0.03		-0.07				-0.10		
	(-3.50)		(-3.07)				(-6.36)		
Technological Development	0.06	0.06			0.07	0.08			0.11
	(3.34)	(3.52)			(4.67)	(5.80)			(8.61)
Accounting Standards			0.09						
			(3.37)						
Investor Protection Index									0.01
									(1.38)
Anti-Self-Dealing Index						0.11			
						(2.25)			
Free Press	0.07					0.06	0.04		
	(2.98)					(3.99)	(2.52)		
Pct. Days Non-Zero Price Chg.							-0.14		
							(-0.68)		
Country Risk x 100				0.24				0.22	
				(2.75)				(3.22)	
Financial Disclosure					0.11			0.12	
					(4.59)			(5.82)	
Adj. R^2	0.728	0.702	0.699	0.692	0.686	0.686	0.669	0.636	0.578
log likelihood	50.34	48.01	47.79	47.35	46.96	47.55	46.50	44.11	41.20
Akaike information criterion	-2.38	-2.31	-2.30	-2.27	-2.25	-2.23	-2.18	-2.11	-1.96
Hannan-Quinn criterion	-2.32	-2.26	-2.25	-2.23	-2.21	-2.17	-2.12	-2.06	-1.91
Schwarz criterion	-2.21	-2.18	-2.17	-2.15	-2.13	-2.06	-2.01	-1.98	-1.83

(continued)

Table IA.9 – *continued*

Panel B: General News Reaction Regressions - Terminal Models

	1	2	3	4	5
Financial Disclosure					0.63
					(4.03)
ln GDP per Capita				-0.01	
				(-0.10)	
Prevalence of Insider Trade	-0.59				
	(-6.46)				
Cost to Enforce Contractsx100		-0.04			
		(-1.32)			
Pct. Days Non-Zero Price Chg.			-0.50		
			(-0.62)		
Country Risk		0.02	0.03	0.03	
		(5.85)	(6.79)	(4.15)	
Adj. R^2	0.466	0.399	0.380	0.377	0.224
log likelihood	-32.69	-34.66	-35.30	-35.40	-40.55
Akaike information criterion	1.65	1.79	1.82	1.83	2.03
Hannan-Quinn criterion	1.68	1.84	1.87	1.87	2.06
Schwarz criterion	1.73	1.92	1.95	1.95	2.11

Table IA.10
Robustness of Autometrics Compared to SSVS

We present a comparison of the Autometrics and Stochastic Search Variable Selection (SSVS) procedures to evaluate how small changes in the set of independent variables included affects model selection. If the variable selection procedure is robust, removing less important variables should not dramatically affect the results. We do this using country-level data from 39 countries for both earnings reactions and general news reactions. Panel A contains results for Autometrics following the methodology described in Table IA.9, and Panel B contains results for SSVS following the methodology described in Table 6 and using the standard default $p = 0.5$ prior. In Panel A, an "X" indicates that the variable is in one of the terminal models, and an "XX" indicates the variable is in the model with the lowest Schwartz criterion. In Panel B, an "X" indicates the variable is in one of the four models with the highest posterior proabilities, and an "XX" indicates the variable is in the model with the highest posterior probability. There are two sub panels in each panel, on the left for earnings reactions and right for general news. The first column in each sub panel is the result of running the variable selection procedure using all 27 candidate independent variables. The remaining two columns in each sub panel drop either the four least correlated variables or the 13th through 16th least correlated before running either SSVS or Autometrics.

Panel A: Autometrics

	Earnings Reaction			**News Reaction**		
Variables	**All 27 variables**	**Drop 4 least correlated**	**Drop 13th - 16th least correlated**	**All 27 variables**	**Drop 4 least correlated**	**Drop 13th - 16th least correlated**
Accounting						
Accounting Standards	X	**XX**	X			X
Financial Disclosure	X			X	**XX**	**XX**
Pct. Intl. GAAP		X				
Only Annual Earn. Ann.						
Econ. & Fin. Development						
GDP per Capita				X	X	X
Market Turnover/GDP x 100		**XX**	X		X	X
Technological Development	**XX**	X	X		**XX**	**XX**
Financial Market Sophistication	X	X	**XX**			
Free Press	**XX**					
Ln Firm's Prior Dec. USD MV		X				
Regulatory Environment						
Insider Trading Enforced		X			X	
Prevalence of Insider Trading	**XX**	X	X	**XX**	**XX**	**XX**
Short Sales Legal						
Short Sales Feasible						
UK Law		**XX**	**XX**			
Cost to Enforce Contracts				X	X	
Governance						
Investor Protection Rank						
Investor Protection Index	X	X	**XX**			
Anti-Self-Dealing Index	X	X			X	
Shareholder Lawsuits Index						
Director Liability Index						
Disclosure Index		X			X	
Trading Costs						
LOT Trading Cost						X
Pct. Days Non-Zero Price Chg.	X		X	X		X
Char. of Equity Markets						
Average Firm-Level P/E						
ln Transform MYY R^2						
Country Risk	X		X	X	X	X

Table IA.10—*continued*

Panel B: SSVS

Variables	Earnings Reaction			News Reaction		
	All 27 variables	**Drop 4 least correlated**	**Drop 13th - 16th least correlated**	**All 27 variables**	**Drop 4 least correlated**	**Drop 13th - 16th least correlated**
Accounting						
Accounting Standards	X	X	X			
Financial Disclosure				X	X	X
Pct. Intl. GAAP						
Only Annual Earn. Ann.						
Econ. & Fin. Development						
GDP per Capita						
Market Turnover/GDP x 100						
Technological Development	X	X	X	**XX**	**XX**	**XX**
Financial Market Sophistication	**XX**	**XX**	**XX**			
Free Press						
Ln Firm's Prior Dec. USD MV						
Regulatory Environment						
Insider Trading Enforced						
Prevalence of Insider Trading	X	X	**XX**	X	X	X
Short Sales Legal						
Short Sales Feasible						
UK Law						
Cost to Enforce Contracts						
Governance						
Investor Protection Rank						
Investor Protection Index						
Anti-Self-Dealing Index						
Shareholder Lawsuits Index						
Director Liability Index						
Disclosure Index						
Trading Costs						
LOT Trading Cost						
Pct. Days Non-Zero Price Chg.						
Char. of Equity Markets						
Average Firm-Level P/E						
ln Transform MYY R^2						
Country Risk						

Table IA.11

Buy-and-Hold Excess Returns (Days +1 to +20) Following Extreme Return Events by Liquidity Bin

This table presents the buy-and-hold abnormal returns following days with extreme returns in excess of the value-weighted market portfolio, at least two standard deviations away from the mean excess return compared to the previous 250 trading days of excess returns. We require all stocks to have at least one news article in the prior 60 trading days to ensure that these are firms covered by our news sources and no other extreme returns in the 20 days prior to the observed extreme return event. We sort stocks into liquidity bins based on the percent of days with non-zero price changes in the prior 250 trading days. The lowest liquidity bin is 50% to 75% non-zero price changes, 75% to 90% is the middle, and greater than 90% is the highest liquidity bin. For "All" we do not sort stocks into liquidity bins. Panel A presents the raw day +1 to +20 buy-and-hold abnormal returns following days with extreme returns in percent. Panel B presents the average portfolio day +1 to +20 buy-and-hold abnormal returns as a percent of the average portfolio day zero returns. High and low reaction country groupings are defined as in Figure 4. The difference in means tests use pooled/unpooled *t*-test where the null of equal averages between emerging and developed markets is tested. A pooled *t*-test is used when a folded *F*-test indicates that sample variances are insignificantly different at the 5% significance level, otherwise an unpooled *t*-test is used. * indicates significance at *alpha*=0.05.

Panel A: BHAR

Panel A1: High Liquidity				
Extreme Return with	No News		News	
	Neg. Ret (—)	Pos. Ret (+)	Neg. Ret (—)	Pos. Ret (+)
High Reaction	1.46*	-0.64*	-0.72	0.27
Low Reaction	-0.38	1.05*	-0.40	-0.20
Difference	1.85	-1.69	-0.33	0.46
t-test	3.17	-3.66	-0.48	0.89
p-value	(0.00)	(0.00)	(0.63)	(0.37)
Panel A2: Medium Liquidity				
Extreme Return with	No News		News	
	Neg. Ret (—)	Pos. Ret (+)	Neg. Ret (—)	Pos. Ret (+)
High Reaction	0.75	-1.31*	-0.16	0.24
Low Reaction	0.27	-0.50	-0.31	1.23*
Difference	0.48	-0.81	0.15	-0.99
t-test	0.60	-1.44	0.15	-1.23
p-value	(0.55)	(0.15)	(0.88)	(0.22)
Panel A3: Low Liquidity				
Extreme Return with	No News		News	
	Neg. Ret (—)	Pos. Ret (+)	Neg. Ret (—)	Pos. Ret (+)
High Reaction	1.06*	-1.11*	0.12	0.84
Low Reaction	1.10*	-0.69	0.00	1.94*
Difference	-0.05	-0.43	0.11	-1.10
t-test	-0.06	-0.63	0.08	-0.87
p-value	(0.95)	(0.53)	(0.93)	(0.38)

Table IA.11—*continued*

Panel B: BHAR as a Percentage of Day Zero Returns

Panel B1: High Liquidity				
Extreme Return with	No News		News	
	Neg. Ret (—)	Pos. Ret (+)	Neg. Ret (—)	Pos. Ret (+)
High Reaction	-24.25*	-8.87*	9.64	3.36
Low Reaction	7.38	18.20*	8.07	-3.68
Difference	-31.63	-27.07	1.57	7.04
t-test	-3.01	-3.65	0.12	0.86
p-value	(0.00)	(0.00)	(0.90)	(0.39)
Panel B2: Medium Liquidity				
Extreme Return with	No News		News	
	Neg. Ret (—)	Pos. Ret (+)	Neg. Ret (—)	Pos. Ret (+)
High Reaction	-11.16	-15.41*	1.87	2.94
Low Reaction	-4.63	-7.40	4.94	17.94*
Difference	-6.53	-8.01	-3.08	-15.00
t-test	-0.52	-1.12	-0.23	-1.40
p-value	(0.60)	(0.26)	(0.82)	(0.16)
Panel B3: Low Liquidity				
Extreme Return with	No News		News	
	Neg. Ret (—)	Pos. Ret (+)	Neg. Ret (—)	Pos. Ret (+)
High Reaction	-13.15*	-12.48*	-1.31	7.67
Low Reaction	-15.74*	-8.55	-0.03	25.12*
Difference	2.59	-3.92	-1.27	-17.45
t-test	0.28	-0.51	-0.07	-1.32
p-value	(0.78)	(0.61)	(0.94)	(0.19)

Table IA.12
Return Reversal and Persistence in High and Low-Reaction Markets with and without News

Similar to the Fama and MacBeth (1973) methodology, this table shows times-series averages of coefficients from daily (in Panel A) or weekly (in Panel B) cross-sectional regressions of the following form:

$$exRt_{i,t\to t+n}=\alpha_i+\beta_{1,i}exRt_{i,t-1}+\beta_{2,i}Hi/Lo \times exRt_{i,t-1}+\beta_{3,i}News_{i,t-1} \times exRt_{i,t-1}+\beta_{4,i}Hi/Lo \times News_{i,t-1}\times exRt_{i,t-1}$$
$$+\beta_{5,i}News_{i,t-1}+\beta_{6,i}Hi/Lo+\beta_{7,i}Hi/Lo \times News_{i,t-1}+\varepsilon_{i,t},$$

where $exRt_{i,t\to t+n}$ is the buy-and-hold return from day/week t to day/week $t + n$, where n is either 10 days or 2 weeks, minus the buy-and-hold value-weighted country portfolio return over the same period. $exRt_{i,t-1}$ is a stock's excess return on day/week t - 1. *Hi/Lo* is a dummy that is one for high reaction countries as defined in Figure 4 and zero otherwise. $News_{i,t-1}$ is an indicator if an article with the firm's name in the headline or lead paragraph appeared during day or week t-1, using the GMT date. If an article occurs on a non-trading day, it is associated with the next trading day if a trading day occurs no more than 4 days later. The remaining variables are interaction terms. A firm year is included if there are at least 100 trading days with returns per year (26 weeks when using weekly data), and 20 firm years per country; at least one news article, but no more than 75% of the trading days (weeks) may have a news article, and the stock has a price change on at least 50% of the trading days in the prior calendar year. Market Adjusted Returns are Winsorized at the 1st and 99th percentile. t-statistics are calculated using Newey and West (1987) corrected standard errors with optimal bandwidth selected following Newey and West (1994). Weighted indicates that we follow Ferson and Harvey (1999) in weighting the cross-sectional regression coefficients by the inverse of their variance. Unweighted indicates that we follow a 1/n weighting scheme, similar to Fama and MacBeth (1973). All coefficients are multiplied by 100 to convert to percentage.

	Int. α	**exRt** β_1	**exRt x Hi/Lo** β_2	**exRt x News** β_3	**exRt x News x Hi/Lo** β_4	**News Dummy** β_5	**Hi/Lo Dummy** β_6	**News x Hi/Lo** β_7	**Hi Reaction News Day Reversals** $\beta_1+\beta_2+\beta_3+\beta_4$	**Lo Reaction News Day Reversals** $\beta_1+\beta_3$	**R^2**
Panel A: Dependent is Ten Day Leading Excess Return, Independent are Day *t* – 1 Variables											
Weighted	-0.03	-2.78	-8.17	3.94	2.44	-0.01	0.01	-0.09	-3.76	2.06	
(*t*-statistic)	(-0.37)	(-2.81)	(-7.59)	(2.26)	(1.00)	(-0.21)	(0.15)	(-1.03)	(-2.41)	(1.12)	
Unweighted	-0.04	-2.50	-8.55	4.90	2.02	0.11	0.18	-0.31	-4.13	2.40	0.02
	(-0.47)	(-2.41)	(-7.05)	(2.50)	(0.66)	(1.49)	(1.70)	(-2.55)	(-1.89)	(1.21)	
Panel B: Dependent is Two Week Leading Excess Return, Independent are Week *t* – 1 Variables											
Weighted	-0.13	-3.36	-2.98	3.35	-1.33	0.03	0.04	-0.19	-4.44	-0.71	
(*t*-statistic)	(-1.19)	(-3.22)	(-2.69)	(2.43)	(-0.76)	(0.41)	(0.28)	(-1.98)	(-4.95)	(-0.13)	
Unweighted	-0.13	-3.77	-2.45	3.38	-2.16	0.14	0.13	-0.36	-5.00	-0.39	0.02
	(-1.12)	(-3.16)	(-1.89)	(2.28)	(-1.17)	(1.42)	(0.87)	(-3.04)	(-4.82)	(-0.29)	

Table IA.13

Return Reversal and Persistence in High and Low-Reaction Markets with and without News with Longer Horizons and Liquidity Controls

Similar to the Fama and MacBeth (1973) methodology, this table shows times-series averages of coefficients from daily (Panel A1) or weekly (Panel A2) cross-sectional regressions of the following form:

$$exRt_{i,t\to t+n}=\alpha_i+\beta_{1,i}exRt_{i,t-1}+\beta_{2,i}Hi/Lo \times exRt_{i,t-1}+\beta_{3,i}News_{i,t-1} \times exRt_{i,t-1} +\beta_{4,i}Hi/Lo \times News_{i,t-1}\times exRt_{i,t-1}$$
$$+\beta_{5,i}News_{i,t-1}+\beta_{6,i}Hi/Lo+\beta_{7,i}Hi/Lo \times News_{i,t-1}+\varepsilon_{i,t},$$

where $exRt_{i,t\to t+n}$ is the buy-and-hold return from day/week t to day/week $t + n$, where n is either 10 days or 2 weeks, minus the buy-and-hold value-weighted country portfolio return over the same period. $exRt_{i,t-1}$ is a stock's excess return on day/week t - 1. *Hi/Lo* is a dummy that is one for high reaction countries as defined in Figure 4 and zero otherwise. $News_{i,t-1}$ is an indicator if an article with the firm's name in the headline or lead paragraph appeared during day or week t-1, using the GMT date. If an article occurs on a non-trading day, it is associated with the next trading day if a trading day occurs no more than four days later. Panel B adds a liquidity dummy and associated interaction terms. The liquidity dummy, *Liq*., is one if more than 75% of the trading days in the prior calendar year have non-zero price changes and zero otherwise. The remaining variables are interaction terms. The remaining variables are interaction terms. A firm year is included if there are at least 100 trading days with returns per year (26 weeks when using weekly data), and 20 firm years per country, at least one news article, but no more than 75% of the trading days (weeks) may have a news article, and the stock has a price change on at least 50% of the trading days in the prior calendar year. Market Adjusted Returns are Winsorized at the 1st and 99th percentile. *t*-statistics are calculated using Newey and West (1987) corrected standard errors with optimal bandwidth selected following Newey and West (1994). Weighted indicates that we follow Ferson and Harvey (1999) in weighting the cross-sectional regression coefficients by the inverse of their variance. Unweighted indicates that we follow a 1/*n* weighting scheme, similar to Fama and MacBeth (1973). All coefficients are multiplied by 100.

Panel A

	Int. α	exRt β_1	exRt x Hi/Lo β_2	exRt x News β_3	exRt x News x Hi/Lo β_4	News Dummy β_5	Hi/Lo Dummy β_6	News x Hi/Lo β_7	Hi Reaction News Day Reversals $\beta_1+\beta_2+\beta_3+\beta_4$	Lo Reaction News Day Reversals $\beta_1+\beta_3$	R^2
Panel A1: Dependent is Twenty Day Leading Excess Return, Independent are Day t – 1 Variables											
Weighted	-0.06	-1.50	-8.68	2.05	5.21	0.05	0.02	-0.18	-2.11	2.61	
(t-statistic)	(-0.45)	(-1.07)	(-5.41)	(0.92)	(1.67)	(0.54)	(0.10)	(-1.41)	(-0.94)	(1.01)	
Unweighted	-0.05	-0.78	-9.07	4.22	2.50	0.22	0.29	-0.51	-3.13	3.44	0.02
	(-0.36)	(-0.54)	(-4.97)	(1.63)	(0.65)	(2.04)	(1.66)	(-3.13)	(-1.15)	(1.39)	
Panel A2: Dependent is Four Week Leading Excess Return, Independent are Week t – 1 Variables											
Weighted	-0.25	-3.76	-0.63	5.91	-3.96	0.09	0.06	-0.36	- 3.55	1.78	
(t-statistic)	(-1.31)	(-2.40)	(-0.40)	(2.99)	(-1.60)	(0.83)	(0.25)	(-2.43)	(-2.67)	(0.94)	
Unweighted	-0.23	-3.19	-0.65	4.29	-3.58	0.26	0.28	-0.71	-3.12	1.11	0.02
	(-1.15)	(-1.81)	(-0.33)	(1.82)	(-1.29)	(1.73)	(1.07)	(-3.51)	(-2.31)	(0.65)	

Table IA.13—*continued*

Panel B: Including Liquidity Controls

	Ten Day Leading Excess Return		Two Week Leading Excess Return	
	Weighted	Unweighted	Weighted	Unweighted
Intercept	0.08	0.04	-0.05	-0.07
(t-statistic)	(1.16)	(0.34)	(-0.50)	(-0.37)
exRt	-12.28	-10.91	-7.41	-6.44
	(-10.22)	(-8.37)	(-5.80)	(-2.16)
exRt x Hi/Lo	-5.96	-5.28	-0.95	-1.18
	(-3.87)	(-2.59)	(-0.53)	(-0.36)
exRt x News	10.90	17.53	5.48	4.79
	(3.43)	(3.49)	(2.46)	(0.53)
exRt x Liq.	14.95	13.21	5.84	4.67
	(10.78)	(7.88)	(4.10)	(1.58)
exRt x News x Hi/Lo	-8.47	-12.15	-7.21	-4.95
	(-1.65)	(-1.18)	(-2.48)	(-0.52)
exRt x News x Liq.	-11.57	-17.20	-3.77	-3.33
	(-3.00)	(-3.03)	(-1.44)	(-0.36)
exRt x Liq x Hi/Lo	-3.55	-4.79	-2.42	-2.11
	(-1.75)	(-1.91)	(-1.10)	(-0.63)
exRt x News x Liq x Hi/Lo	14.01	17.47	8.53	4.16
	(2.44)	(1.64)	(2.60)	(0.41)
News Dummy	-0.01	0.17	0.11	0.70
	(-0.16)	(0.99)	(1.25)	(1.51)
Hi/Lo Dummy	-0.05	0.12	-0.06	0.03
	(-0.46)	(0.77)	(-0.38)	(0.14)
Liq. Dummy	-0.14	-0.13	-0.10	-0.11
	(-1.54)	(-0.91)	(-0.69)	(-0.52)
News x Hi/Lo	-0.12	-0.26	-0.34	-0.95
	(-0.97)	(-1.10)	(-2.35)	(-1.99)
News x Liq.	0.03	-0.01	-0.11	-0.54
	(0.26)	(-0.07)	(-0.95)	(-1.18)
Liq. x Hi/Lo	0.15	0.11	0.18	0.18
	(0.97)	(0.58)	(0.89)	(0.73)
News x Liq x Hi/Lo	-0.02	-0.14	0.17	0.50
	(-0.15)	(-0.59)	(0.95)	(1.03)
R^2	0.03		0.04	

Table IA.14
Regressions of ln Earnings Reactions on Country Characteristics with Alternate Thresholds of Economic Significance

This table examines which of 27 country characteristics are important for explaining variation among countries in the average natural log of earnings reactions. Since the number of potential regressors is large, we use the Stochastic Search Variable Selection (SSVS) methodology of George and McCulloch (1993, 1997) to select the important subset of explanatory variables. SSVS embeds standard multiple regression in a hierarchical Bayesian model that can be used to identify the important subset of independent variables:

$$Y=X\beta+\epsilon,\ \epsilon\sim N(0,\sigma^2 I), \quad (1)$$

$$\sigma^2 \sim \nu\lambda/\chi_\nu^2, \quad (2)$$

$$\beta_i|\gamma_i \sim \begin{cases} N(0,v_1) \text{ when } \gamma_i=1 \\ N(0,v_0) \text{ when } \gamma_i=0, \end{cases} \quad (3)$$

$$f(\gamma)\sim \prod p_i^{\gamma_i}(1-p_i)^{1-\gamma_i}. \quad (4)$$

SSVS requires priors for the residual variance of the regression, the distribution of important and unimportant coefficients, and the probability that the independent variables are important. Our choices for the priors follow Chipman, George, and McCulloch (2001), where the priors are controlled by the hyperparameters λ, ν, v_0, v_1, and p. The hyperparameters λ and ν control the prior for the variance of the regression error term. One may think of λ as an estimate for residual variance and ν as the sample size for the residual variance estimate. We choose the sample variance of the dependent variable as our value for λ, and we set ν at 3. These settings provide little prior information about residual variance. The v_0 and v_1 hyperparameters are the prior variances of coefficients on unimportant and important independent variables, respectively. Important coefficients are likely to be further from zero, so $v_1 > v_0$. The relative difference in these variances determines the threshold of economic significance, which is the point beyond which a coefficient is more likely to be important for explaining the dependent variable. This table contains results for two different thresholds of economic significance: 0.03 and 0.3. The 0.03 threshold, for example, corresponds to any v_0 and v_1 satisfying $0.03^2=\log(v_1/v_0)/(v_0^{-1}-v_1^{-1})$. We use v_1/v_0=9,157 for the 0.03 threshold, and v_1/v_0=246 for the 0.3 threshold. The p hyperparameter is the prior probability that an independent variable is important. We consider two values for p: 0.5 and 0.15. The first is uninformative about the number of variables in the true model, while the second puts more weight on models with fewer variables. We use the Gibbs sampler to obtain 50,000 draws from the posterior distribution $f(\gamma|Y)$ after a 1,000 draw burn-in period. The high-probability models from $f(\gamma|Y)$ indicate the important subsets of independent variables. Panel A reports the marginal posterior probability that γ_i=1 for all independent variables. This is the probability that the variable is important for explaining the data. While informative, our true interest is the subset of variables that together best explain the data. The best models for the specification having 0.03 as the threshold of economic significance are in Panel B, and the best for the specification using 0.3 are in Panel C. For each of Panels B and C, we identify the four models with the highest posterior probability from each of the two p prior specifications and report mean values of the important coefficients from those model draws. The numbers in brackets are 95% credible intervals. Appendix A1 contains descriptions of all regressors considered in the SSVS procedure. All variables are standardized.

(continued)

Table IA.14—*continued*

Panel A: Marginal Posterior Probability that the Variable is Important (i.e., $\gamma_i = 1$)

Setting for *p*	0.15	0.5	0.15	0.5		0.15	0.5	0.15	0.5
Threshold for importance	0.03	0.03	0.3	0.3		0.03	0.03	0.3	0.3
Financial Market Sophistication	0.499	0.658	0.157	0.419	*Only Annual Earn. Ann.*	0.034	0.219	0.028	0.143
Accounting Standards	0.358	0.401	0.068	0.217	*Pct. Intl. GAAP*	0.029	0.138	0.017	0.091
Insider Trading	0.328	0.429	0.064	0.203	*Insider Trading Enforced*	0.028	0.115	0.015	0.083
Tech. Development	0.297	0.456	0.067	0.223	*Short Sales Legal*	0.027	0.149	0.017	0.096
Financial Disclosure	0.144	0.297	0.049	0.170	*ln Transform R^2*	0.027	0.128	0.017	0.092
Free Press	0.115	0.339	0.052	0.196	*Pct. Days Non-Zero Price Chg.*	0.023	0.133	0.019	0.102
Country Risk	0.103	0.229	0.034	0.132	*Disclosure Index*	0.023	0.162	0.020	0.111
Investor Protection Rank	0.089	0.330	0.026	0.149	*LOT Trading Cost*	0.022	0.121	0.019	0.100
Market Turnover/GDP x 100	0.069	0.208	0.025	0.115	*Cost to Enforce Contracts*	0.022	0.128	0.015	0.091
UK Law	0.061	0.355	0.036	0.238	*Short Sales Feasible*	0.021	0.151	0.016	0.091
GDP per Capita	0.056	0.198	0.031	0.142	*Average Log Firm Size*	0.020	0.111	0.017	0.091
Anti-Self-Dealing Index	0.036	0.252	0.023	0.147	*Average Firm-Level P/E*	0.018	0.112	0.015	0.083
Investor Protection Index	0.035	0.252	0.025	0.144	*Director Liability Index*	0.017	0.157	0.020	0.108
Shareholder Lawsuits Index	0.034	0.159	0.017	0.098					

Panel B: Best models for 0.03 threshold of economic significance

	Setting for $p = 0.15$				Setting for $p = 0.50$			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Financial Market Soph.	0.80	0.54			0.40	0.54	0.51	0.68
	[0.59, 1.01]	[0.25, 0.82]			[0.06, 0.73]	[0.28, 0.79]	[0.18, 0.8]	[0.41, 0.94]
Tech. Development		0.36			0.27	0.35		0.33
		[0.09, 0.65]			[-0.05, 0.58]	[0.14, 0.6]		[0.13, 0.52]
Accounting Standards			0.78	0.47				
			[0.57, 0.99]	[0.17, 0.77]				
Insider Trading			-0.42	-0.39	-0.26		-0.38	
			[-0.72,-0.12]	[-0.72,-0.08]	[-0.62,0.05]		[-0.63,-0.09]	
Investor Protection Rank								-0.23
								[-0.43,0]
P(γ|*Y*)	0.070	0.055	0.046	0.042	0.002	0.002	0.002	0.001

Table IA.14—*continued*

Panel C: Best models for 0.30 threshold of economic significance

	Setting for $p = 0.15$				Setting for $p = 0.50$			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Financial Market Soph.	0.58				0.59			
	[0.1, 1.08]				[0.09, 1.02]			
Accounting Standards		0.43				0.42		
		[-0.01, 0.85]				[0.01, 0.82]		
Tech. Development			0.38					0.37
			[0.03, 0.73]					[0.03, 0.72]
Insider Trading				-0.38			-0.39	
				[-0.74,-0.03]			[-0.73,-0.05]	
P(γ|*Y*)	0.084	0.034	0.032	0.032	0.012	0.005	0.005	0.005