

Internet appendix of additional tables for “Commonality in news around the world”

This appendix presents relevant appendixes and tables in which the news commonality variable is estimated based on RavenPack’s Dow Jones Edition version (equivalent to Appendixes B and D and Tables 1-11 in the main text). These appendixes and tables are labelled Appendixes IA-B and IA-D or Tables IA1-IA11 (IA denotes “Internet Appendix”). Overall, our main results remain qualitatively similar whether we estimate news commonality using combined data from both the Dow Jones Edition and Web Edition versions (reported in the main text), or using only the Dow Jones Edition version (reported in the internet appendix).

We also provide two additional tables (Tables IA12 and IA13) that are not reported in the main text. News commonality in these tables is estimated using news data from both the Dow Jones Edition and Web Edition versions.

Table IA12 reports the first stage regression of the instrumental variable approach in which institutional environment variables are instrumented by countries’ legal origins and voting proportionality (The second stage regression is reported in Table 9 in the main text). As shown in Table IA12, because we use more than one instrument for each country-level endogenous explanatory variable, and there exists at least one coefficient estimate of instruments that are significantly different from zero, our instruments satisfy the minimal requirement of order condition. In addition, unreported test statistics for overidentifying restrictions and weak instruments support the construction of the instrument variables. For example, Hansen J statistics, when endogenous variables in country-level analysis are *GGov* and *Accsta*, are 4.13 and 4.23, respectively. The first-stage *F* statistic based on the Kleibergen-Papp *rk* statistic for the *GGov* (*Accsta*) is 7.73 (13.81), which is acceptable based on Staiger and Stock’s (1997) guidelines.

Table IA13 presents the panel regression of news co-movement on institutional environment variables that are instrumented by countries’ legal origins only.

Appendix IA-B: The number of stocks by country and year

This table reports the number of our sample stocks for each of the 41 sample countries. The column “N” reports the total number of stocks across the sample period of 2000-2009, and the remainder of the columns reports the number of stocks in each year. DEV denotes developed markets, and EMG denotes emerging markets.

B.1. Developed markets											
Country	N	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Australia	2,929	180	214	222	262	334	368	373	398	293	285
Austria	328	26	32	28	29	31	32	35	39	39	37
Belgium	497	36	36	25	49	59	58	58	63	59	54
Canada	5,603	390	430	433	483	555	600	707	702	673	630
Denmark	305	6	13	14	32	38	50	54	38	30	30
Ireland	285	14	21	30	34	30	32	30	28	33	33
Finland	528	24	20	64	70	83	75	73	45	36	38
France	1,681	172	169	179	141	143	179	166	180	177	175
Germany	2,281	296	316	339	268	223	170	154	160	183	172
Hong Kong	4,218	210	179	393	569	582	575	583	465	336	326
Italy	862	86	72	58	83	85	89	106	104	94	85
Japan	15,115	568	662	713	1,592	1,774	1,816	2,014	1,992	1,975	2,009
Netherlands	579	64	60	60	54	63	51	56	61	57	53
Norway	531	22	28	36	46	69	82	85	54	57	52
New Zealand	199	17	18	18	17		25	27	27	25	25
Singapore	1,065	80	79	88	88	88	114	142	144	126	116
Spain	625	58	65	64	84	61	55	58	67	56	57
Sweden	1,084	54	62	126	126	156	165	151	82	84	78
Switzerland	869	5	6	6	74	129	139	144	134	118	114
United Kingdom	4,124	254	296	367	390	412	454	484	563	451	453
United States	13,776	1,333	1,385	1,437	1,470	1,588	1,679	937	1,867	1,061	1,019
B.2. Emerging markets											
Country	N	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Argentina	119	10	9	9	12	11	14	14	14	13	13
Brazil	139	5	3	4	4	9	12	22	18	30	32
China	415	14	26	42	43	40	37	43	51	60	59
Chile	165			13	17	15	21	26	27	23	23
Egypt	66	4	3	4	3	2	4	9	12	10	15
Greece	356	21	31	37	38	32	38	44	42	35	38
Indonesia	354	33	31	28	31	30	32	39	48	44	38
India	4,974	154	180	193	246	284	824	775	793	773	752
Israel	383	23	31	35	32	39	35	42	47	49	50
South Korea	1,212				73	93	96	288	247	259	156
Mexico	241	18	17	17	19	24	20	27	30	37	32
Malaysia	988	78	80	83	92	102	108	104	117	112	112
Peru	57		5	4	4	8	8	6	8	9	5
Poland	301	7	21	22	25	27	34	39	40	41	45
Philippines	266	21	23	26	25	25	30	30	29	28	29
Russia	224	5	5	7	11	14	24	33	41	44	40
South Africa	478	31	27	31	32	48	68	52	70	60	59
Thailand	470	35	40	39	41	50	51	59	58	46	51
Turkey	280	9	7	9	9	20	24	30	56	53	63
Taiwan	2,684	66	76	90	108	249	437	451	471	412	324
DEV	57,484	3,895	4,163	4,700	5,961	6,503	6,808	6,437	7,213	5,963	5,841
EMG	14,172	534	615	693	865	1,122	1,917	2,133	2,219	2,138	1,936
Total	71,656	4,429	4,778	5,393	6,826	7,625	8,725	8,570	9,432	8,101	7,777

Appendix IA-D: Correlation coefficients

This table reports correlations among the variables used in the regression analyses of this study (Spearman for the upper-right part, highlighted; Pearson for the bottom-left part). The variables are news comovement (*NewsCom*), the good government index (*GGov*), the accounting standard index (*Accsta*), the disclosure score index (*Disc*), the regulatory quality index (*RQuality*), the government effectiveness index (*GovEffect*), the legal origin (*ComLaw*), the number of listed firms (*#Firms*), GDP per capita (*GDPPC*), stock market cap to GDP (*MVGDP*), private credit to GDP (*PCreditGDP*), annual GDP growth (*gGDP*), firm Herfindahl index (*FirmHerf*), industry Herfindahl index (*IndHerf*), stock liquidity (*Liq*), the MSCI index (*MSCI*), the book-to-market ratio (*BM*), firm size (*MV*), closely held ownership (*CH*), U.S. cross-listing (*ADR*), annual stock returns (*Return*), stock return volatility (*STD*), stock price (*Price*), analyst coverage (*Analyst*), ROA comovement (*ROACom*), stock return comovement (*RetCom*), and stock liquidity comovement (*LiqCom*). Definitions of the variables are given in Appendix A in the main text. The sample period is from 2000 to 2009 for *NewsCom*, *RetCom*, *LiqCom*, and *#Firms*, and from 1999 to 2008 for the remaining variables.

Variable	<i>NewsCom</i>	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>	<i>ComLaw</i>	<i>#Firms</i>	<i>GDPPC</i>	<i>MVGDP</i>	<i>PCreditGDP</i>	<i>gGDP</i>	<i>FirmHerf</i>	<i>IndHerf</i>	<i>Liq</i>	<i>MSCI</i>	<i>BM</i>	<i>MV</i>	<i>CH</i>	<i>ADR</i>	<i>Return</i>	<i>STD</i>	<i>Price</i>	<i>Analyst</i>	<i>ROACom</i>	<i>RetCom</i>	<i>LiqCom</i>
<i>NewsCom</i>		-0.193	-0.187	-0.243	-0.142	-0.153	-0.108	-0.092	-0.053	-0.083	-0.098	0.065	0.014	0.101	-0.063	0.026	0.066	0.017	0.006	0.008	0.025	-0.010	-0.041	-0.045	-0.015	0.133	0.075
<i>GGov</i>	-0.176		0.549	0.857	0.759	0.833	0.103	0.471	0.785	0.372	0.556	-0.561	-0.270	-0.304	-0.152	0.051	-0.147	0.162	0.099	0.047	-0.019	-0.109	0.390	0.265	-0.039	-0.257	-0.176
<i>Accsta</i>	-0.164	0.624		0.690	0.658	0.675	0.403	0.399	0.463	0.642	0.485	-0.156	-0.187	-0.184	0.027	0.006	-0.122	-0.047	0.145	0.005	-0.040	-0.006	-0.138	0.099	0.027	-0.211	-0.108
<i>Disc</i>	-0.188	0.838	0.681		0.848	0.849	0.275	0.394	0.645	0.468	0.338	-0.514	-0.068	-0.081	0.216	-0.159	-0.135	-0.084	0.101	0.064	-0.041	-0.009	0.095	0.141	0.022	-0.362	-0.255
<i>RQuality</i>	-0.130	0.852	0.639	0.878		0.887	0.297	0.376	0.719	0.559	0.494	-0.448	-0.058	-0.139	0.040	-0.035	-0.080	0.025	0.170	0.041	-0.058	-0.036	0.105	0.181	-0.013	-0.277	-0.196
<i>GovEffect</i>	-0.129	0.887	0.705	0.861	0.921		0.195	0.386	0.732	0.514	0.470	-0.454	-0.160	-0.188	-0.032	-0.024	-0.090	0.037	0.120	0.050	-0.032	-0.053	0.209	0.183	-0.006	-0.278	-0.184
<i>ComLaw</i>	-0.092	0.066	0.377	0.239	0.210	0.156		0.232	-0.037	0.446	0.105	0.157	-0.103	0.016	0.277	-0.152	-0.061	-0.125	0.034	-0.002	-0.005	0.055	-0.296	-0.038	0.037	-0.230	-0.134
<i>#Firms</i>	-0.091	0.475	0.435	0.373	0.390	0.425	0.251		0.610	0.419	0.671	-0.303	-0.711	-0.439	-0.302	0.127	-0.096	0.205	0.129	-0.021	-0.031	-0.047	0.247	0.231	-0.088	-0.091	0.008
<i>GDPPC</i>	-0.132	0.906	0.544	0.788	0.867	0.883	-0.060	0.454		0.431	0.752	-0.625	-0.350	-0.261	-0.245	0.133	-0.021	0.233	0.196	0.022	-0.031	-0.151	0.386	0.293	-0.086	-0.149	-0.104
<i>MVGDP</i>	-0.053	0.239	0.407	0.336	0.444	0.403	0.388	0.234	0.356		0.485	-0.006	-0.296	-0.157	-0.064	0.029	-0.155	0.066	0.188	0.005	0.164	-0.055	-0.012	0.128	-0.022	-0.115	-0.015
<i>PCreditGD</i>	-0.103	0.640	0.490	0.405	0.563	0.581	0.087	0.690	0.675	0.363		0.218	-0.036	0.250	-0.182	-0.036	0.250	0.182	0.003	-0.047	-0.141	0.238	0.255	-0.091	-0.038	-0.019	
<i>gGDP</i>	0.093	-0.585	-0.189	-0.599	-0.535	-0.508	0.100	-0.233	-0.607	0.061	-0.388		0.189	0.157	0.052	-0.020	-0.090	-0.083	-0.108	-0.034	0.119	0.065	-0.313	-0.203	0.062	0.168	0.166
<i>FirmHerf</i>	0.004	-0.163	-0.192	-0.089	-0.078	-0.130	-0.151	-0.614	-0.143	-0.015	-0.360	0.092		0.407	0.329	-0.118	-0.007	-0.165	-0.081	-0.020	-0.021	0.070	-0.233	-0.150	0.081	0.017	-0.024
<i>IndHerf</i>	0.086	-0.307	-0.224	-0.110	-0.194	-0.225	-0.043	-0.443	-0.190	-0.043	-0.347	0.097	0.521		0.256	-0.092	0.138	-0.149	-0.079	0.002	0.013	0.110	-0.289	-0.128	0.008	0.074	0.017
<i>Liq</i>	-0.050	-0.181	-0.001	0.202	-0.041	-0.082	0.240	-0.344	-0.186	0.009	-0.335	-0.002	0.210	0.223		-0.605	0.275	-0.777	-0.065	-0.103	-0.122	0.353	-0.568	-0.496	0.097	-0.447	-0.133
<i>MSCI</i>	0.020	0.052	0.004	-0.161	-0.014	-0.008	-0.152	0.155	0.075	0.030	0.216	0.012	-0.076	-0.077	-0.581		-0.150	0.669	0.223	0.117	0.075	-0.089	0.308	0.454	-0.088	0.305	0.069
<i>BM</i>	0.053	-0.110	-0.105	-0.065	-0.066	-0.059	-0.061	-0.107	-0.028	-0.081	-0.043	-0.092	0.015	0.110	0.243	-0.122		-0.363	0.014	-0.061	-0.217	0.003	-0.267	-0.190	-0.049	-0.069	-0.028
<i>MV</i>	0.020	0.172	-0.031	-0.058	0.074	0.075	-0.106	0.231	0.173	0.036	0.246	-0.052	-0.079	-0.104	-0.765	0.637	-0.335		0.096	0.171	0.172	-0.327	0.584	0.644	-0.095	0.342	0.028
<i>CH</i>	0.007	0.028	0.082	0.083	0.091	0.068	-0.010	0.036	0.091	0.158	0.085	-0.059	-0.006	-0.031	0.014	0.135	0.018	0.029		0.040	0.036	0.023	0.048	0.370	-0.050	-0.023	-0.058
<i>ADR</i>	0.008	0.050	0.010	0.060	0.043	0.044	-0.002	-0.032	0.043	-0.003	0.005	-0.036	0.025	-0.004	-0.103	0.117	-0.050	0.209	0.011		0.010	-0.015	0.086	0.165	-0.017	0.020	-0.041
<i>Return</i>	0.026	-0.050	-0.060	-0.069	-0.082	-0.068	-0.023	-0.029	-0.058	0.124	-0.050	0.130	-0.017	0.008	-0.136	0.073	-0.222	0.170	0.025	0.004		-0.037	0.226	0.017	-0.054	0.062	0.020
<i>STD</i>	-0.021	-0.093	-0.018	-0.004	-0.044	-0.058	0.065	-0.051	-0.091	0.011	-0.132	0.039	0.027	0.075	0.308	-0.114	-0.050	-0.279	-0.013	-0.019	0.067		-0.274	-0.075	0.031	-0.055	0.052
<i>Price</i>	-0.028	0.371	-0.109	0.110	0.169	0.234	-0.302	0.247	0.335	-0.125	0.255	-0.249	-0.084	-0.180	-0.574	0.293	-0.244	0.572	0.002	0.079	0.232	-0.220		0.415	-0.079	0.123	-0.050
<i>Analyst</i>	-0.007	0.212	0.072	0.124	0.165	0.156	-0.002	0.187	0.188	0.069	0.186	-0.145	-0.045	-0.100	-0.472	0.403	-0.161	0.645	0.120	0.256	0.007	-0.109	0.336		-0.065	0.124	-0.097
<i>ROACom</i>	-0.015	-0.047	0.015	-0.001	-0.031	-0.028	0.038	-0.086	-0.066	0.005	-0.092	0.049	0.052	0.015	0.102	-0.090	-0.045	-0.098	-0.032	-0.017	-0.045	0.038	-0.075	-0.060		-0.039	-0.020
<i>RetCom</i>	0.110	-0.250	-0.188	-0.333	-0.256	-0.249	-0.224	-0.106	-0.198	-0.117	-0.067	0.179	0.021	0.091	-0.394	0.285	-0.049	0.305	-0.030	0.020	0.069	-0.074	0.125	0.087	-0.038		0.233
<i>LiqCom</i>	0.066	-0.180	-0.104	-0.274	-0.199	-0.180	-0.132	0.006	-0.147	-0.013	-0.026	0.210	-0.045	0.015	-0.118	0.071	-0.032	0.020	-0.047	-0.039	0.036	0.027	-0.035	-0.074	-0.022	0.203	

Table IA1: Summary statistics of news comovement

This table reports the mean of news comovement for each of the 41 countries over the sample period of 2000-2009. News comovement is estimated at the firm level using the event sentiment score (ESS) of news provided by RavenPack. The ESS is scaled such that its values range from -1 to 1, with positive, negative, and zero values indicating positive, negative, and neutral sentiment associated with a particular news event, respectively. Specifically, we use the R^2 from the following regression for a given firm in each year as an annual measure of commonality in news at the firm level:

$$ESS_{i,j,t} = \alpha_{i,j} + \beta_{i,j} ESS_{M,j,t} + \varepsilon_{i,j,t}$$

where $ESS_{i,j,t}$ is the ESS value of stock i in week t (in country j) and $ESS_{M,j,t}$ is the market ESS value for country j in week t , which is calculated as the equally weighted average of all weekly ESS values of firms in country j in week t . The weekly ESS values of each firm are constructed by taking the time-series average of daily ESS values of that firm in a given week. DEV, EMG, and All denote the means of news comovement for firms in the developed, emerging, and global markets, respectively.

A. Developed markets										
Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Australia	0.049	0.021	0.032	0.041	0.027	0.028	0.030	0.027	0.034	0.042
Austria	0.123	0.061	0.076	0.067	0.067	0.059	0.059	0.071	0.060	0.052
Belgium	0.067	0.043	0.069	0.055	0.058	0.045	0.054	0.092	0.047	0.046
Canada	0.035	0.028	0.027	0.033	0.027	0.034	0.039	0.026	0.051	0.046
Denmark	0.255	0.103	0.086	0.098	0.053	0.052	0.054	0.053	0.060	0.051
Ireland	0.164	0.081	0.071	0.069	0.092	0.072	0.079	0.084	0.064	0.065
Finland	0.106	0.073	0.078	0.054	0.060	0.059	0.042	0.060	0.046	0.066
France	0.035	0.037	0.029	0.029	0.032	0.034	0.031	0.029	0.033	0.037
Germany	0.029	0.029	0.027	0.029	0.034	0.039	0.036	0.034	0.036	0.036
Hong Kong	0.029	0.040	0.072	0.047	0.063	0.056	0.060	0.045	0.041	0.039
Italy	0.082	0.063	0.073	0.042	0.073	0.059	0.050	0.033	0.030	0.054
Japan	0.032	0.033	0.029	0.117	0.089	0.072	0.066	0.065	0.102	0.103
Netherlands	0.052	0.067	0.037	0.038	0.036	0.041	0.048	0.041	0.045	0.044
Norway	0.100	0.067	0.069	0.057	0.046	0.057	0.032	0.044	0.046	0.039
New Zealand	0.077	0.070	0.051	0.106		0.119	0.081	0.070	0.067	0.106
Singapore	0.072	0.040	0.044	0.058	0.074	0.054	0.049	0.023	0.066	0.073
Spain	0.056	0.049	0.049	0.045	0.066	0.056	0.045	0.042	0.041	0.047
Sweden	0.067	0.043	0.043	0.036	0.042	0.039	0.054	0.031	0.031	0.047
Switzerland	0.157	0.312	0.154	0.107	0.026	0.034	0.032	0.040	0.041	0.045
United Kingdom	0.034	0.026	0.024	0.034	0.026	0.032	0.026	0.025	0.032	0.027
United States	0.055	0.033	0.034	0.030	0.038	0.038	0.040	0.034	0.043	0.046
B. Emerging markets										
Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Argentina	0.180	0.146	0.118	0.115	0.201	0.201	0.165	0.096	0.198	0.151
Brazil	0.297	0.250	0.302	0.235	0.335	0.259	0.066	0.105	0.052	0.064
China	0.181	0.106	0.075	0.153	0.128	0.085	0.070	0.080	0.053	0.062
Chile			0.191	0.127	0.147	0.067	0.110	0.077	0.083	0.063
Egypt	0.308	0.340	0.234	0.324	0.501	0.234	0.162	0.110	0.113	0.076
Greece	0.067	0.095	0.064	0.104	0.065	0.066	0.068	0.048	0.055	0.059
Indonesia	0.064	0.057	0.102	0.109	0.148	0.075	0.052	0.054	0.079	0.050
India	0.053	0.034	0.036	0.050	0.071	0.236	0.141	0.140	0.217	0.062
Israel	0.070	0.089	0.059	0.046	0.075	0.052	0.052	0.047	0.071	0.066
South Korea				0.199	0.048	0.060	0.063	0.056	0.048	0.052
Mexico	0.080	0.069	0.068	0.071	0.061	0.091	0.080	0.051	0.069	0.063
Malaysia	0.096	0.045	0.051	0.105	0.086	0.097	0.078	0.070	0.068	0.109
Peru		0.452	0.362	0.314	0.236	0.193	0.163	0.146	0.163	0.167
Poland	0.299	0.085	0.091	0.078	0.131	0.107	0.070	0.061	0.079	0.051
Philippines	0.082	0.049	0.052	0.139	0.098	0.104	0.112	0.094	0.094	0.089
Russia	0.232	0.280	0.142	0.101	0.076	0.068	0.064	0.050	0.065	0.055
South Africa	0.048	0.050	0.056	0.036	0.045	0.053	0.048	0.041	0.031	0.038
Thailand	0.146	0.125	0.086	0.115	0.104	0.072	0.048	0.041	0.086	0.065
Turkey	0.163	0.157	0.112	0.132	0.149	0.047	0.086	0.049	0.051	0.039
Taiwan	0.090	0.058	0.068	0.094	0.195	0.128	0.242	0.234	0.084	0.196
DEV	0.047	0.035	0.037	0.059	0.054	0.049	0.049	0.043	0.062	0.064
EMG	0.090	0.069	0.067	0.097	0.112	0.159	0.132	0.126	0.123	0.086
All	0.052	0.039	0.041	0.064	0.062	0.073	0.070	0.062	0.078	0.070
DEV-EMG	-0.043	-0.035	-0.030	-0.037	-0.058	-0.110	-0.083	-0.083	-0.061	-0.022
(<i>t</i> -statistics)	(-11.94)	(-10.81)	(-10.65)	(-9.92)	(-17.94)	(-37.51)	(-32.44)	(-35.65)	(-22.94)	(-8.48)

Table IA2: Univariate tests for news comovement and institutional environments

This table presents the average news comovement of the two subsamples, which are classified based on institutional environments. Specifically, the sample is divided into good institutional environment countries (Good *IE*) if their institutional proxy is above the median value of all countries in the sample and as bad institutional environment countries (Bad *IE*) otherwise. The institutional environment indexes include the good government index (*GGov*), the accounting standard index (*Accsta*), the disclosure score index (*Disc*), the regulatory quality index (*RQuality*), the government effectiveness index (*GovEffect*), and the legal origin (*ComLaw*) - (if *ComLaw* is equal to one, then the country is classified in the *Good IE* group). News comovement is estimated at the firm level using the event sentiment score (ESS) of news articles provided by RavenPack. The ESS is scaled such that its values range from -1 to 1, with positive, negative, and zero values indicating the positive, negative, and neutral sentiment associated with a particular news event, respectively. Specifically, we use the R^2 from the following regression for a given firm in each year as an annual measure of commonality in news at the firm level:

$$ESS_{i,j,t} = \alpha_{i,j} + \beta_{i,j} ESS_{M,j,t} + \varepsilon_{i,j,t}$$

where $ESS_{i,j,t}$ is the ESS value of stock i in week t (in country j) and $ESS_{M,j,t}$ is the market ESS value for country j in week t , which is calculated as the equally weighted average of all weekly ESS values of firms in country j in week t . The weekly ESS values of each firm are constructed by taking the time-series average of daily ESS values of that firm in a given week. The sample period is from 2000 to 2009. Definitions of the variables are given in Appendix A in the main text.

Market	N	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>	<i>ComLaw</i>
Good <i>IE</i>	197	0.059	0.061	0.056	0.058	0.057	0.060
Bad <i>IE</i>	206	0.107	0.099	0.107	0.107	0.109	0.094
Good - Bad (<i>t</i> -statistics)		-0.049 (-7.83)	-0.038 (-5.86)	-0.052 (-8.3)	-0.049 (-7.85)	-0.052 (-8.33)	-0.034 (-4.79)

Table IA3: News comovement and institutional environments at the country level

This table reports the panel regressions of news comovement on institutional environments at the country level. The regression model is as follows:

$$NewsCom_{j,t} = \alpha + \beta IE_j + Controls_{j,t-1} + \varepsilon_{j,t}$$

where $NewsCom_{j,t}$ is the logistic transformation of news comovement for country j in year t . We calculate news comovement at the country level as the equally weighted average of news comovement across individual stocks in a given country in a year. IE_j represents each proxy for the institutional environments of country j , which include the good government index (*GGov*), the accounting standard index (*Accsta*), the disclosure score index (*Disc*), the regulatory quality index (*RQuality*), the government effectiveness index (*GovEffect*), and the legal origin (*ComLaw*). $Controls_{j,t-1}$ are the country-level control variables, including the number of listed firms (*#Firms*), GDP per capita (*GDPPC*), stock market cap to GDP (*MVGDP*), private credit to GDP (*PCreditGDP*), annual GDP growth (*gGDP*), firm Herfindahl index (*FirmHerf*), industry Herfindahl index (*IndHerf*), and ROA comovement index at the country level (*ROACom*). The definition of variables is given in Appendix A in the main text. All control variables (except *#Firms*) are included in regressions with one lag. NObs is the number of observations; Adjusted R^2 is the adjusted R^2 . Year fixed effects are included (not reported). Robust t -statistics (in parentheses) are clustered at the country level. Superscripts *, **, and *** denote the significance levels of 10%, 5%, and 1%, respectively. The sample period is from 2000 to 2009 (from 1999 to 2008 for the lagged variables).

Variable	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>	<i>ComLaw</i>
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)
<i>IE</i>	-0.077* (-1.89)	-0.026*** (-4.86)	-0.289** (-2.32)	-0.249*** (-2.81)	-0.302*** (-3.08)	-0.220* (-1.77)
<i>#Firms</i>	-0.238*** (-3.46)	-0.123** (-2.16)	-0.252*** (-3.53)	-0.262*** (-3.72)	-0.237*** (-3.69)	-0.229*** (-3.40)
<i>GDPPC</i>	-0.017 (-0.16)	-0.111* (-1.73)	-0.004 (-0.05)	-0.044 (-0.61)	0.008 (0.10)	-0.177*** (-2.93)
<i>MVGDP</i>	-0.053 (-0.73)	0.056 (1.02)	0.004 (0.08)	0.009 (0.15)	0.015 (0.23)	0.010 (0.17)
<i>PCreditGDP</i>	0.103 (0.68)	-0.034 (-0.26)	-0.021 (-0.19)	0.107 (0.75)	0.104 (0.74)	0.095 (0.61)
<i>gGDP</i>	1.007 (0.67)	2.222 (1.48)	1.768 (1.21)	1.576 (1.07)	2.244 (1.56)	2.141 (1.40)
<i>FirmHerf</i>	-1.213 (-0.52)	-2.694 (-1.14)	-3.535 (-1.32)	-2.361 (-0.94)	-1.900 (-0.80)	-2.684 (-0.98)
<i>IndHerf</i>	0.428 (0.45)	1.235 (0.97)	1.626* (1.81)	0.925 (1.02)	0.882 (0.98)	1.375 (1.40)
<i>ROACom</i>	-0.139 (-0.29)	-0.698 (-1.61)	-0.955* (-1.71)	-0.274 (-0.57)	-0.229 (-0.50)	-0.008 (-0.02)
Fixed effects	Y	Y	Y	Y	Y	Y
NObs	360	315	297	360	360	360
Adjusted R^2	39.3%	47.2%	39.6%	39.4%	40.7%	38.7%

Table IA4: News comovement and institutional environments at the firm level

This table reports the firm-level panel regressions of news comovement on country-level institutional environments. The regression model is as follows:

$$NewsCom_{i,j,t} = \alpha + \beta IE_j + Controls_{j,t-1} + FirmControls_{i,j,t-1} + \varepsilon_{i,j,t}$$

where $NewsCom_{i,j,t}$ is the logistic transformation of firm i 's news comovement in country j in year t . IE_j represents each proxy for the country-level institutional environments of country j , which include the good government index ($GGov$), the accounting standard index ($Accsta$), the disclosure score index ($Disc$), the regulatory quality index ($RQuality$), the government effectiveness index ($GovEffect$), and the legal origin ($ComLaw$). $Controls_{j,t-1}$ are the country-level control variables, which are the same as those defined in Table IA3. $FirmControls_{i,j,t-1}$ is the firm-level control variables, which include individual stock liquidity (Liq), MSCI index ($MSCI$), book-to-market ratio (BM), firm size (MV), closely held ownership (CH), U.S. cross-listing (ADR), annual stock returns ($Return$), stock return volatility (STD), stock price ($Price$), analyst coverage ($Analyst$), and ROA comovement ($ROACom$). The definition of variables is given in Appendix A in the main text. All control variables (except $\#Firms$) are included in regressions with one lag. NObs is the number of observations; Adjusted R^2 is the adjusted R^2 value. Industry fixed effects and year fixed effects are included (not reported). The t -statistics (in parentheses) are based on standard errors that are adjusted for heteroskedasticity and country-level clustering. Superscripts *, **, and *** denote the significance levels of 10%, 5%, and 1%, respectively. The sample period is from 2000 to 2009 (from 1999 to 2008 for the lagged variables).

Variable	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>	<i>ComLaw</i>
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)
<i>IE</i>	-0.178*** (-5.75)	-0.044*** (-4.61)	-0.595*** (-3.17)	-0.220 (-1.50)	-0.158 (-1.06)	-0.661*** (-4.92)
<i>#Firms</i>	-0.103 (-1.23)	-0.117 (-1.51)	-0.070 (-0.59)	-0.182** (-2.09)	-0.192** (-2.19)	0.002 (0.03)
<i>GDPPC</i>	0.174** (2.10)	-0.028 (-0.41)	0.054 (0.54)	-0.027 (-0.29)	-0.041 (-0.39)	-0.250*** (-3.56)
<i>MVGDP</i>	-0.167*** (-3.50)	-0.050 (-0.95)	-0.072* (-1.73)	-0.065 (-1.14)	-0.084 (-1.51)	0.068 (0.97)
<i>PCreditGDP</i>	0.117 (0.50)	0.077 (0.35)	-0.069 (-0.33)	0.120 (0.52)	0.115 (0.49)	0.106 (0.50)
<i>gGDP</i>	3.600 (1.26)	5.296* (1.70)	2.078 (0.61)	3.743 (1.10)	4.126 (1.20)	5.782* (1.83)
<i>FirmHerf</i>	-4.862 (-1.33)	-9.462*** (-2.83)	-5.159 (-1.26)	-8.433* (-1.99)	-9.526** (-2.28)	-5.806** (-2.04)
<i>IndHerf</i>	1.970 (1.17)	3.345* (1.98)	3.445* (1.78)	3.324* (1.97)	3.502** (2.19)	3.240** (2.33)
<i>Liq</i>	-0.175*** (-2.77)	-0.107* (-1.75)	-0.185*** (-3.35)	-0.183** (-2.52)	-0.178** (-2.55)	-0.147*** (-3.06)
<i>MSCI</i>	-0.028 (-0.47)	0.059 (1.04)	-0.017 (-0.31)	-0.021 (-0.37)	-0.018 (-0.31)	0.017 (0.32)
<i>BM</i>	0.110*** (3.83)	0.125*** (3.88)	0.128*** (5.29)	0.154*** (3.82)	0.161*** (4.04)	0.107*** (3.64)
<i>MV</i>	0.000 (0.01)	0.036 (1.37)	-0.008 (-0.36)	0.022 (0.89)	0.022 (0.85)	0.021 (0.83)
<i>CH</i>	-0.258** (-2.46)	-0.230** (-2.18)	-0.117 (-1.10)	-0.148 (-1.20)	-0.150 (-1.28)	-0.259** (-2.63)
<i>ADR</i>	0.052 (0.60)	0.024 (0.29)	0.131 (1.67)	0.025 (0.25)	0.025 (0.25)	0.102 (1.24)
<i>Return</i>	0.234*** (4.73)	0.274*** (6.02)	0.224*** (4.77)	0.283*** (5.75)	0.280*** (5.79)	0.246*** (5.72)
<i>STD</i>	-0.233* (-1.79)	-0.332*** (-3.16)	-0.301** (-2.59)	-0.266** (-2.20)	-0.266** (-2.21)	-0.263** (-2.37)
<i>Price</i>	-0.034 (-1.15)	-0.096*** (-4.76)	-0.070** (-2.34)	-0.077*** (-2.87)	-0.068** (-2.36)	-0.082*** (-3.39)
<i>Analyst</i>	0.003 (0.48)	0.005 (0.73)	0.001 (0.10)	-0.000 (-0.03)	-0.001 (-0.08)	0.001 (0.18)
<i>ROACom</i>	0.003 (0.08)	-0.007 (-0.19)	0.032 (0.75)	-0.009 (-0.25)	-0.006 (-0.16)	0.010 (0.28)
Fixed effects	IY	IY	IY	IY	IY	IY
NObs	54,588	53,359	43,041	54,588	54,588	54,588
Adjusted R ²	5.0%	5.1%	5.1%	4.3%	4.2%	5.0%

Table IA5: News categories

This table presents the panel regressions of news comovement on institutional environments. News comovement is estimated based on the news events, which are categorized into “hard” news and “soft” news. Panel A reports regression results at the country level, and Panel B reports regression results at the firm level. All control variables are the same as those defined in Table IA3 (regressions at the country level) and Table IA4 (regressions at the firm level). To save space, only the coefficient estimates of the institutional environment proxies are reported. NObs is the number of observations; Adjusted R² is the adjusted R² value. In Panel A, year fixed effects are included (not reported). Robust *t*-statistics (in parentheses) are clustered at the country level. In Panel B, industry fixed effects and year fixed effects are included (not reported). The *t*-statistics shown in parentheses are based on standard errors that are adjusted for heteroskedasticity and country-level clustering. Superscripts *, **, and *** denote the significance levels of 10%, 5%, and 1%, respectively. The sample period is from 2000 to 2009 (from 1999 to 2008 for the lagged variables).

A. The country-level analysis												
Variable	Hard news						Soft news					
	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>	<i>ComLaw</i>	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>	<i>ComLaw</i>
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)	Model (10)	Model (11)	Model (12)
<i>IE</i>	-0.074 (-1.65)	-0.021*** (-3.27)	-0.272* (-1.99)	-0.258** (-2.67)	-0.254** (-2.34)	-0.271** (-2.08)	-0.078* (-1.78)	-0.035*** (-5.37)	-0.255* (-1.81)	-0.213* (-1.87)	-0.385*** (-2.74)	-0.288* (-2.00)
Country-level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
NObs	357	312	297	357	357	357	358	313	296	358	358	358
Adjusted R ²	40.9%	45.1%	40.7%	41.3%	41.4%	41.4%	41.8%	54.1%	47.2%	41.3%	44.6%	42.2%
B. The firm-level analysis												
Variable	Hard news						Soft news					
	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>	<i>ComLaw</i>	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>	<i>ComLaw</i>
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)	Model (10)	Model (11)	Model (12)
<i>IE</i>	-0.215*** (-5.72)	-0.049*** (-3.90)	-0.699*** (-2.94)	-0.284* (-1.78)	-0.185 (-1.06)	-0.828*** (-5.29)	0.064 (0.99)	-0.011*** (-4.34)	-0.137*** (-3.41)	-0.029 (-0.40)	-0.142** (-3.23)	0.022 (0.09)
Firm-level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country-level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	IY	IY	IY	IY	IY	IY	IY	IY	IY	IY	IY	IY
NObs	50,922	49,758	39,513	50,922	50,922	50,922	38,413	37,567	27,740	38,413	38,413	38,413
Adjusted R ²	6.8%	6.9%	6.9%	5.9%	5.8%	7.0%	4.7%	4.5%	6.8%	4.6%	4.7%	4.6%

Table IA6: Repeated news and aggregate news scores

This table presents the panel regressions of news comovement on institutional environments. News comovement is estimated either using only the first article of a given event reported to the market (i.e., without repeated news) or using an alternative method to calculate the weekly news scores for a firm (i.e., aggregate news scores rather than average news scores). Panel A reports regression results at the country level, and Panel B reports regression results at the firm level. All control variables are the same as those defined in Table IA3 (regressions at the country level) and Table IA4 (regressions at the firm level). To save space, only the coefficient estimates of the institutional environment proxies are reported. NObs is the number of observations; Adjusted R² is the adjusted R² value. In Panel A, year fixed effects are included (not reported). Robust *t*-statistics (in parentheses) are clustered at the country level. In Panel B, industry fixed effects and year fixed effects are included (not reported). The *t*-statistics shown in parentheses are based on standard errors that are adjusted for heteroskedasticity and country-level clustering. Superscripts *, **, and *** denote the significance levels of 10%, 5%, and 1%, respectively. The sample period is from 2000 to 2009 (from 1999 to 2008 for the lagged variables).

A. The country-level analysis												
Variable	Without repeated news						Aggregate news score					
	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>	<i>ComLaw</i>	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>	<i>ComLaw</i>
	Model	Model	Model	Model	Model	Model	Model	Model	Model	Model	Model	Model
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<i>IE</i>	-0.078*	-0.025***	-0.282**	-0.243***	-0.296***	-0.204	-0.056	-0.025***	-0.281**	-0.236**	-0.325***	-0.207*
	(-1.96)	(-4.80)	(-2.32)	(-2.74)	(-3.00)	(-1.66)	(-1.39)	(-4.49)	(-2.09)	(-2.22)	(-3.45)	(-1.85)
Country-level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
NObs	360	315	297	360	360	360	360	315	297	360	360	360
Adjusted R ²	39.6%	47.0%	39.7%	39.5%	40.8%	38.8%	34.6%	44.5%	40.1%	35.6%	37.8%	35.0%
B. The firm-level analysis												
Variable	Without repeated news						Aggregate news score					
	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>	<i>ComLaw</i>	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>	<i>ComLaw</i>
	Model	Model	Model	Model	Model	Model	Model	Model	Model	Model	Model	Model
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<i>IE</i>	-0.157***	-0.040***	-0.566***	-0.185	-0.132	-0.599***	-0.148***	-0.047***	-0.513**	-0.092	-0.072	-0.584***
	(-5.16)	(-4.60)	(-3.18)	(-1.28)	(-0.91)	(-4.74)	(-5.00)	(-4.79)	(-2.29)	(-0.52)	(-0.55)	(-4.10)
Firm-level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country-level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	IY	IY	IY	IY	IY	IY	IY	IY	IY	IY	IY	IY
NObs	54,588	53,359	43,041	54,588	54,588	54,588	54,587	53,358	43,040	54,587	54,587	54,587
Adjusted R ²	4.8%	4.9%	5.1%	4.2%	4.2%	4.9%	5.6%	6.2%	6.2%	5.1%	5.1%	5.7%

Table IA7: Alternative news-sentiment scores

This table presents the panel regressions of news comovement on institutional environments. News comovement is estimated using alternative news-sentiment scores (The CSS variable) provided by RavenPack. Panel A reports regression results at the country level, and Panel B reports regression results at the firm level. All control variables are the same as those defined in Table IA3 (regressions at the country level) and Table IA4 (regressions at the firm level). To save space, only the coefficient estimates of the institutional environment proxies are reported. NObs is the number of observations; Adjusted R² is the adjusted R² value. In Panel A, year fixed effects are included (not reported). Robust *t*-statistics (in parentheses) are clustered at the country level. In Panel B, industry fixed effects and year fixed effects are included (not reported). The *t*-statistics shown in parentheses are based on standard errors that are adjusted for heteroskedasticity and country-level clustering. Superscripts *, **, and *** denote the significance levels of 10%, 5%, and 1%, respectively. The sample period is from 2000 to 2009 (from 1999 to 2008 for the lagged variables).

A. The country-level analysis						
Variable	Alternative news scores					
	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>	<i>ComLaw</i>
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)
<i>IE</i>	-0.084 (-1.65)	-0.031*** (-4.83)	-0.348** (-2.71)	-0.303*** (-3.02)	-0.372*** (-3.04)	-0.239 (-1.51)
Country-level controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	Y	Y	Y	Y	Y	Y
NObs	360	315	297	360	360	360
Adjusted R ²	30.1%	40.2%	31.1%	30.8%	32.5%	29.5%
B. The firm-level analysis						
Variable	Alternative news scores					
	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>	<i>ComLaw</i>
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)
<i>IE</i>	-0.102* (-1.95)	-0.035*** (-4.02)	-0.524*** (-3.01)	-0.128 (-0.64)	-0.209 (-0.93)	-0.645*** (-3.74)
Firm-level controls	Yes	Yes	Yes	Yes	Yes	Yes
Country-level controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	IY	IY	IY	IY	IY	IY
NObs	50,862	49,702	39,448	50,862	50,862	50,862
Adjusted R ²	6.4%	6.8%	7.8%	6.2%	6.3%	6.9%

Table IA8: Count of good and bad news

This table reports the panel regressions of news comovement on institutional environments at the country level. News comovement is measured by employing a *simple* and *direct* measure of comovement following Morck, Yeung, and Yu (2000). Specifically, we estimate news comovement at the country level in each week first by counting the number of firms with good (bad) news based on the weekly news-sentiment scores in a given country and then by dividing the maximum of these two numbers by their sum. The annual news comovement for each country is calculated by taking the time-series average of the weekly news comovement in a given year. In the regression, we use the logistic transformation of this alternative measure of news comovement. All control variables are the same as those defined in Table IA3. To save space, only the coefficient estimates of the institutional environment proxies are reported. NObs is the number of observations. Adjusted R² is the adjusted R² value. Year fixed effects are included (not reported). The *t*-statistics shown in parentheses are based on standard errors that are adjusted for heteroskedasticity and country-level clustering. Superscripts *, **, and *** denote the significance levels of 10%, 5%, and 1%, respectively. The sample period is from 2000 to 2009 (from 1999 to 2008 for the lagged variables).

Variable	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>	<i>ComLaw</i>
	Model	Model	Model	Model	Model	Model
	(1)	(2)	(3)	(4)	(5)	(6)
<i>IE</i>	-0.041** (-2.45)	-0.025*** (-6.83)	-0.000 (-0.01)	-0.087 (-1.62)	-0.162** (-2.64)	-0.094** (-3.29)
Country-level controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	Y	Y	Y	Y	Y	Y
NObs	358	313	301	358	358	358
Adjusted R ²	48.8%	63.2%	54.2%	48.3%	49.5%	48.3%

Table IA9: An instrumental variable approach

This table addresses the endogeneity issue using countries' legal origins and voting proportionality as the instrument variables for the quality of institutions, and presents the panel regressions of news comovement on instrument-based institutional environment variables (i.e., the second stage regression) using the 2SLS regression:

$$\begin{aligned} \text{The 1}^{\text{st}} \text{ stage: } IE_j &= \alpha + \beta_1 LO_j + \beta_2 \text{VotPro}_j + \text{Controls}_{j,t-1} + \varepsilon_j \\ \text{The 2}^{\text{nd}} \text{ stage: } \text{NewsCom}_{j,t} &= \alpha + \beta \text{Predicted } IE_j \text{ on } LO_j \text{ and } \text{VotPro}_j + \text{Controls}_{j,t-1} + \varepsilon_{j,t} \end{aligned}$$

where LO_j are three dummies that represents for the legal origin of country j (i.e., *FCivLaw*, *ComLaw*, *GCivLaw*). VotPro_j represents country j 's degree of proportionality of the voting system. $\text{NewsCom}_{j,t}$ is the logistic transformation of news comovement for country j in year t (or $\text{NewsCom}_{i,j,t}$ for firm-level analysis). IE_j represents each proxy for the institutional environments of country j . All control variables are the same as those defined in Table IA3 (regressions at the country level) and Table IA4 (regressions at the firm level). Panel A reports regression results at the country level, and Panel B reports regression results at the firm level. To save space, only the coefficient estimates of the institutional environment proxies are reported. NObs is the number of observations; Adjusted R^2 is the adjusted R^2 value. In Panel A, year fixed effects are included (not reported). Robust t -statistics (in parentheses) are clustered at the country level. In Panel B, industry fixed effects and year fixed effects are included (not reported). The t -statistics shown in parentheses are based on standard errors that are adjusted for heteroskedasticity and country-level clustering. Superscripts *, **, and *** denote the significance levels of 10%, 5%, and 1%, respectively. The sample period is from 2000 to 2009 (from 1999 to 2008 for the lagged variables).

A. The country-level analysis					
Variable	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>
	Model	Model	Model	Model	Model
	(1)	(2)	(3)	(4)	(5)
<i>IE</i>	-0.096 (-1.52)	-0.022** (-2.12)	-0.644** (-2.21)	-0.578* (-1.93)	-0.194 (-0.94)
Country-level controls	Yes	Yes	Yes	Yes	Yes
Fixed effects	Y	Y	Y	Y	Y
NObs	342	306	279	342	342
Adjusted R^2	38.7%	46.8%	35.4%	35.3%	39.7%
B. The firm-level analysis					
Variable	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>
	Model	Model	Model	Model	Model
	(1)	(2)	(3)	(4)	(5)
<i>IE</i>	-0.302*** (-5.79)	-0.056*** (-3.32)	-1.166*** (-4.90)	-1.422*** (-3.63)	-0.948** (-2.44)
Firm-level controls	Yes	Yes	Yes	Yes	Yes
Country-level controls	Yes	Yes	Yes	Yes	Yes
Fixed effects	IY	IY	IY	IY	IY
NObs	51,178	50,265	39,631	51,178	51,178
Adjusted R^2	5.2%	5.4%	5.2%	2.0%	3.1%

Table IA10:

Stock return comovement, stock liquidity comovement, and news comovement

This table reports the firm-level panel regression of stock return comovement and stock liquidity comovement on news comovement. The regression model is as follows:

$$(RetCom_{i,t}) \text{ or } (LiqCom_{i,t}) = \alpha + \beta NewsCom_{i,t} + FirmControls_{i,t-1} + \varepsilon_{i,t}$$

where $RetCom_{i,t}$ and $LiqCom_{i,t}$ are the logistic transformation of firm i 's stock return comovement and stock liquidity comovement, respectively, in year t . We measure stock return comovement as R^2 estimated from a firm's weekly stock returns regressed on a given country's weekly market returns and the U.S. market returns, and we measure stock liquidity comovement as R^2 estimated from changes in a firm's weekly stock liquidity regressed on changes in a given country's weekly market liquidity. $NewsCom_{i,t}$ is the contemporaneous value of news comovement, measured as R^2 from a firm's weekly ESS news scores regressed on a given country's weekly ESS news scores. $FirmControls_{i,t-1}$ are the set of firm-level lagged control variables, which include the stock liquidity level (Liq), MSCI index ($MSCI$), book-to-market ratio (BM), firm size (MV), closely held ownership (CH), U.S. cross-listing (ADR), annual stock returns ($Return$), stock return volatility (STD), stock price ($Price$), analyst coverage ($Analyst$), and ROA comovement ($ROACom$). NObs is the number of observations; Adjusted R^2 is the adjusted R^2 value. Country, industry and year fixed effects are included (not reported). The t -statistics shown in parentheses are based on standard errors that are adjusted for heteroskedasticity and firm-level clustering. All, DEV, EMG, US, and NUS denote the global, developed, emerging, U.S., and nonU.S. markets, respectively. Superscripts *, **, and *** denote the significance levels of 10%, 5%, and 1%, respectively. The sample period is from 2000 to 2009 (from 1999 to 2008 for the lagged variables).

Variable	A. RetCom					B. LiqCom				
	All	DEV	EMG	US	NUS	All	DEV	EMG	US	NUS
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)	Model (10)
<i>NewsCom</i>	0.363*** (7.30)	0.426*** (6.22)	0.204*** (3.01)	0.570** (2.16)	0.288*** (5.86)	0.391*** (7.29)	0.533*** (7.30)	0.240*** (3.01)	0.225 (1.06)	0.345*** (6.27)
<i>Liq</i>	-0.463*** (-35.01)	-0.468*** (-31.10)	-0.338*** (-11.94)	-0.597*** (-11.98)	-0.364*** (-27.72)	-0.130*** (-12.98)	-0.146*** (-12.96)	-0.138*** (-5.62)	-0.171*** (-5.71)	-0.111*** (-9.92)
<i>MSCI</i>	0.234*** (12.33)	0.274*** (12.96)	-0.012 (-0.31)	0.893*** (11.97)	0.126*** (6.94)	0.113*** (7.16)	0.119*** (6.87)	0.081** (2.15)	0.097** (2.41)	0.108*** (6.32)
<i>BM</i>	0.075*** (7.95)	0.063*** (6.12)	0.133*** (6.49)	0.056** (1.97)	0.070*** (7.72)	-0.003 (-0.43)	0.008 (1.04)	-0.033* (-1.82)	0.020 (1.28)	-0.021*** (-2.60)
<i>MV</i>	0.101*** (13.36)	0.115*** (13.32)	0.063*** (4.25)	0.161*** (6.60)	0.086*** (11.66)	-0.038*** (-6.28)	-0.051*** (-7.42)	-0.031** (-2.18)	-0.001 (-0.09)	-0.042*** (-6.20)
<i>CH</i>	-0.145*** (-5.22)	-0.152*** (-4.73)	-0.061 (-1.26)	-0.259*** (-2.97)	0.013 (0.51)	0.054** (2.47)	0.040 (1.63)	0.130*** (2.78)	-0.002 (-0.03)	0.099*** (4.10)
<i>ADR</i>	-0.149*** (-5.23)	-0.144*** (-4.79)	-0.181*** (-2.67)		-0.105*** (-3.84)	-0.029 (-1.18)	-0.000 (-0.02)	-0.141*** (-2.82)		0.014 (0.58)
<i>Return</i>	0.087*** (7.93)	0.125*** (9.69)	-0.084*** (-3.90)	0.025 (0.52)	0.091*** (8.61)	0.033*** (3.22)	0.043*** (3.75)	0.010 (0.42)	0.010 (0.33)	0.017 (1.55)
<i>STD</i>	0.221*** (9.11)	0.212*** (8.02)	0.271*** (4.11)	0.572*** (5.75)	0.157*** (7.07)	0.228*** (10.12)	0.231*** (9.22)	0.235*** (4.33)	0.264*** (4.14)	0.226*** (9.28)
<i>Price</i>	-0.062*** (-10.68)	-0.071*** (-10.70)	-0.029** (-2.49)	-0.067* (-1.83)	-0.060*** (-10.96)	-0.050*** (-9.72)	-0.057*** (-9.73)	-0.017 (-1.46)	-0.047** (-2.06)	-0.043*** (-8.21)
<i>Analyst</i>	-0.021*** (-13.31)	-0.022*** (-12.79)	-0.026*** (-7.13)	-0.053*** (-13.22)	-0.010*** (-6.55)	-0.002 (-1.56)	-0.000 (-0.23)	-0.006* (-1.70)	0.003 (1.19)	-0.005*** (-3.64)
<i>ROACom</i>	-0.020 (-1.27)	-0.023 (-1.29)	0.055* (1.87)	0.071 (1.46)	-0.039** (-2.51)	-0.033** (-2.27)	-0.032* (-1.93)	-0.025 (-0.77)	-0.008 (-0.22)	-0.048*** (-2.98)
Fixed effects	CIY	CIY	CIY	CIY	CIY	CIY	CIY	CIY	CIY	CIY
NObs	50,726	41,329	9,397	9,605	41,121	54,233	44,256	9,977	9,841	44,392
Adjusted R ²	32.5%	30.9%	28.3%	38.5%	31.4%	12.2%	10.4%	16.4%	25.6%	12.1%

Table IA11: Stock return comovement, stock liquidity comovement, news comovement, and institutional environments

This table reports the firm-level panel regression of stock return comovement and stock liquidity comovement on news comovement, the country-level institutional environment dummy, the interaction between news comovement and the country-level institutional environment dummy, and other firm-level control variables. The regression model is as follows:

$$(RetCom_{i,j,t}) \text{ or } (LiqCom_{i,j,t}) = \alpha + \beta_1 NewsCom_{i,j,t} + \beta_2 NewsCom_{i,j,t} * IEDummy_j + \beta_3 IEDummy_j + FirmControls_{i,j,t-1} + \varepsilon_{i,j,t}$$

where $RetCom_{i,j,t}$ and $LiqCom_{i,j,t}$ are the logistic transformation of firm i 's stock return comovement and stock liquidity comovement, respectively, in year t . $NewsCom_{i,j,t}$ is the contemporaneous value of firm i 's news comovement. $IEDummy_j$ represents dummies for the country-level institutional environment proxies of country j , which equal one if a country's respective institutional environment index is above the median value of all countries in the sample and zero otherwise (except $ComLaw$ equals one if a country has a common law origin). $FirmControls_{i,j,t-1}$ are the set of firm-level lagged control variables, which include the stock liquidity level (Liq), MSCI index ($MSCI$), book-to-market ratio (BM), firm size (MV), closely held ownership (CH), U.S. cross-listing (ADR), annual stock returns ($Return$), stock return volatility (STD), stock price ($Price$), analyst coverage ($Analyst$), and ROA comovement ($ROACom$). To save space, only the coefficient estimates of news comovement, the country-level institutional environment dummy, and their interaction terms are reported. NObs is the number of observations; Adjusted R^2 is the adjusted R^2 value. Industry fixed effects and year fixed effects are included (not reported). The t -statistics shown in parentheses are based on standard errors that are adjusted for heteroskedasticity and firm-level clustering. Superscripts *, **, and *** denote the significance levels of 10%, 5%, and 1%, respectively. The sample period is from 2000 to 2009 (from 1999 to 2008 for the lagged variables).

Variable	A. RetCom						B. LiqCom					
	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>	<i>ComLaw</i>	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>	<i>ComLaw</i>
	Model	Model	Model	Model	Model	Model	Model	Model	Model	Model	Model	Model
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<i>NewsCom</i>	0.585*** (7.97)	0.611*** (5.36)	0.372*** (6.81)	0.413*** (7.06)	0.180*** (2.72)	0.134** (2.37)	0.532*** (7.28)	0.722*** (6.35)	0.478*** (8.18)	0.542*** (8.69)	0.495*** (7.07)	0.518*** (8.57)
<i>NewsCom*IEDummy</i>	0.488*** (4.70)	0.314** (2.46)	0.561*** (3.76)	0.705*** (6.51)	0.815*** (8.14)	1.694*** (13.60)	0.439*** (4.22)	0.126 (0.99)	0.169 (1.27)	0.429*** (3.82)	0.392*** (3.79)	0.602*** (5.12)
<i>IEDummy</i>	-0.320*** (-16.45)	-0.473*** (-25.66)	-0.493*** (-29.66)	-0.399*** (-25.69)	-0.548*** (-33.73)	-0.593*** (-33.83)	-0.203*** (-12.19)	-0.134*** (-8.35)	-0.308*** (-23.42)	-0.199*** (-15.09)	-0.230*** (-15.50)	-0.241*** (-18.41)
Firm-level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	IY	IY	IY	IY	IY	IY	IY	IY	IY	IY	IY	IY
NObs	50,726	50,726	50,726	50,726	50,726	50,726	54,233	54,233	54,233	54,233	54,233	54,233
Adjusted R ²	24.8%	25.9%	26.7%	25.6%	26.5%	27.6%	9.5%	9.3%	10.5%	9.6%	9.7%	9.9%

Table IA12: The first stage regression of the instrumental variable approach
(Instruments: countries' legal origins and voting proportionality)

This table reports the first stage regression of the instrumental variables approach in which institutional environment variables are instrumented by countries' legal origins and voting proportionality:

$$\text{The 1}^{\text{st}} \text{ stage: } IE_j = \alpha + \beta_1 LO_j + \beta_2 \text{VotPro}_j + \text{Controls}_{j,t-1} + \varepsilon_j$$

$$\text{The 2}^{\text{nd}} \text{ stage: } \text{NewsCom}_{j,t} = \alpha + \beta \text{Predicted } IE_j \text{ on } LO_j \text{ and } \text{VotPro}_j + \text{Controls}_{j,t-1} + \varepsilon_{j,t}$$

where LO_j are three dummies that represents for the legal origin of country j (i.e., *FCivLaw*, *ComLaw*, *GCivLaw*). VotPro_j represents country j 's degree of proportionality of the voting system. $\text{NewsCom}_{j,t}$ is the logistic transformation of news co-movement for country j in year t (or $\text{NewsCom}_{i,j,t}$ for firm-level analysis). IE_j represents each proxy for the institutional environments of country j . All control variables are the same as those defined in Table IA3 (regressions at the country level) and Table IA4 (regressions at the firm level). Panel A reports regression results at the country level, and Panel B reports regression results at the firm level. To save space, only the coefficient estimates of the institutional environment proxies are reported. NObs is the number of observations; Adjusted R^2 is the adjusted R^2 value. In Panel A, year fixed effects are included (not reported). Robust t -statistics (in parentheses) are clustered at the country level. In Panel B, industry fixed effects and year fixed effects are included (not reported). The t -statistics shown in parentheses are based on standard errors that are adjusted for heteroskedasticity and country-level clustering. Superscripts *, **, and *** denote the significance levels of 10%, 5%, and 1%, respectively. The sample period is from 2000 to 2009 (from 1999 to 2008 for the lagged variables).

A. The country-level analysis					
Variable	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>
	Model	Model	Model	Model	Model
	(1)	(2)	(3)	(4)	(5)
<i>FCivLaw</i>	-2.046*** (-4.30)	-12.817*** (-3.09)	-0.085 (-0.43)	-0.319** (-2.08)	-0.595*** (-3.82)
<i>ComLaw</i>	-1.072** (-2.06)	-2.787 (-0.49)	0.093 (0.38)	-0.047 (-0.21)	-0.210 (-1.11)
<i>GCivLaw</i>	-1.815*** (-3.00)	-13.006*** (-2.80)	-0.488** (-2.05)	-0.408 (-1.68)	-0.378* (-1.83)
<i>VotPro</i>	0.002 (0.01)	-0.549 (-0.36)	0.068 (0.95)	-0.039 (-0.80)	-0.062 (-1.26)
Country-level controls	Yes	Yes	Yes	Yes	Yes
Fixed effects	Y	Y	Y	Y	Y
NObs	342	306	279	342	342
Adjusted R^2	88.2%	68.7%	72.4%	76.4%	83.5%
B. The firm-level analysis					
Variable	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>
	Model	Model	Model	Model	Model
	(1)	(2)	(3)	(4)	(5)
<i>FCivLaw</i>	-1.648*** (-3.11)	-15.899*** (-4.17)	-0.049 (-0.27)	-0.238** (-2.17)	-0.562*** (-3.15)
<i>ComLaw</i>	0.030 (0.05)	-8.452** (-2.07)	0.356 (1.52)	0.304** (2.10)	0.034 (0.21)
<i>GCivLaw</i>	-2.152*** (-3.94)	-14.791*** (-3.71)	-0.475** (-2.18)	-0.104 (-0.83)	-0.181 (-1.09)
<i>VotPro</i>	0.112 (0.50)	-2.229** (-2.50)	0.124* (1.94)	0.006 (0.13)	-0.083 (-1.50)
Firm-level controls	Yes	Yes	Yes	Yes	Yes
Country-level controls	Yes	Yes	Yes	Yes	Yes
Fixed effects	IY	IY	IY	IY	IY
NObs	55,322	54,262	42,645	55,322	55,322
Adjusted R^2	91.8%	79.7%	81.8%	78.0%	77.7%

Table IA13: An instrumental variable approach
(Instruments: countries' legal origins)

This table presents the panel regressions of news comovement on instrument-based institutional environment variables using the 2SLS regression:

$$\text{The 1}^{\text{st}} \text{ stage: } IE_j = \alpha + \beta LO_j + Controls_{j,t-1} + \varepsilon_j$$

$$\text{The 2}^{\text{nd}} \text{ stage: } NewsCom_{j,t} = \alpha + \beta \text{Predicted } IE_j \text{ on } LO_j + Controls_{j,t-1} + \varepsilon_{j,t}$$

where LO_j are three dummies that represents for the legal origin of country j (i.e., *FCivLaw*, *ComLaw*, *GCivLaw*). $NewsCom_{j,t}$ is the logistic transformation of news comovement for country j in year t (or $NewsCom_{i,j,t}$ for firm-level analysis). IE_j represents each proxy for the institutional environments of country j . All control variables are the same as those defined in Table IA3 (regressions at the country level) and Table IA4 (regressions at the firm level). Panel A reports regression results at the country level, and Panel B reports regression results at the firm level. To save space, only the coefficient estimates of the institutional environment proxies are reported. NObs is the number of observations; Adjusted R^2 is the adjusted R^2 value. In Panel A, year fixed effects are included (not reported). Robust t -statistics (in parentheses) are clustered at the country level. In Panel B, industry fixed effects and year fixed effects are included (not reported). The t -statistics shown in parentheses are based on standard errors that are adjusted for heteroskedasticity and country-level clustering. Superscripts *, **, and *** denote the significance levels of 10%, 5%, and 1%, respectively. The sample period is from 2000 to 2009 (from 1999 to 2008 for the lagged variables).

A. The country-level analysis					
Variable	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>
	Model	Model	Model	Model	Model
	(1)	(2)	(3)	(4)	(5)
<i>IE</i>	-0.104*	-0.022**	-0.665**	-0.763**	-0.369
	(-1.68)	(-2.21)	(-2.27)	(-2.11)	(-1.62)
Country-level controls	Yes	Yes	Yes	Yes	Yes
Fixed effects	Y	Y	Y	Y	Y
NObs	360	315	297	360	360
Adjusted R^2	41.2%	47.0%	35.4%	31.6%	41.9%
B. The firm-level analysis					
Variable	<i>GGov</i>	<i>Accsta</i>	<i>Disc</i>	<i>RQuality</i>	<i>GovEffect</i>
	Model	Model	Model	Model	Model
	(1)	(2)	(3)	(4)	(5)
<i>IE</i>	-0.273***	-0.057***	-1.103***	-1.268***	-0.977***
	(-7.11)	(-3.76)	(-6.34)	(-4.16)	(-2.84)
Firm-level controls	Yes	Yes	Yes	Yes	Yes
Country-level controls	Yes	Yes	Yes	Yes	Yes
Fixed effects	IY	IY	IY	IY	IY
NObs	59,012	57,614	46,335	59,012	59,012
Adjusted R^2	4.6%	4.6%	4.2%	2.1%	2.3%