Is Guidance a Macro Factor?
The Nature and Information Content of Aggregate Earnings Guidance

Carol Anilowski
University of Michigan
Mei Feng
University of Pittsburgh
Douglas J. Skinner
University of Chicago

Table 1: Details of Sample Construction: First Call Management Earnings Forecasts, 1994-2003

	Annual	Quarterly	Total
All observations on the First Call CIG database, 1990-2004	29,350	37,945	67,295
Drop observations made before 1994 and/or for which currency is not USD and/or duplicate observations and/or that do not provide information about EPS	(1,990)	(1,613)	(3,603)
Drop observations missing split adjustment factors or cigcode	(6)	(4)	(10)
Total sample of management earnings forecasts on First Call	27,354	36,328	63,682
Drop observations not meeting analyst forecast criteria	(3,530)	(11,362)	(14,892)
Drop observations whose fiscal year end is not March, June, September and December	(3,891)	(5,133)	(9,024)
Drop observations that do not have earnings announcement dates on Compustat	(5,698)	(2,623)	(8,321)
Drop forecasts issued after earnings announcement dates	(47)	(168)	(215)
Final sample of management earnings forecasts	14,188	17,042	31,230
Number of management earnings forecasts after excluding all observations for fiscal periods for which multiple earnings forecasts are issued	3,192	12,695	15,887
Number of management earnings forecasts after retaining the last forecast for fiscal periods for which multiples earnings forecasts are issued	6,255	14,747	21,002
Number of management earnings forecasts after further excluding forecasts issued around earnings announcement dates	3,602	11,420	15,022

Table 2: Descriptive Information on First Call Management Earnings Forecasts, 1994-2003

year	Number of Forecasts	Annual Forecasts	Quarterly Forecasts	Number (%) of annual forecasts at EAD	Number (%) of quarterly forecasts at EAD	Number of firms issuing forecasts	Total number of firms	Proportion of firms issuing forecasts	TA weighted proportion of forecasting firms	MV weighted proportion of forecasting firms
1994	121	32	89	2 (6%)	1 (1%)	95	5,891	0.016	0.038	0.050
1995	628	252	376	32 (13%)	9 (2%)	405	6,257	0.065	0.111	0.138
1996	990	345	645	55 (16%)	32 (5%)	637	6,837	0.093	0.136	0.182
1997	1,416	491	925	108 (22%)	43 (5%)	798	6,849	0.117	0.202	0.253
1998	2,725	1,031	1,694	206 (20%)	144 (9%)	1,187	6,557	0.181	0.355	0.380
1999	2,977	1,269	1,708	411 (32%)	188 (11%)	1,203	6,382	0.188	0.353	0.375
2000	3,246	1,356	1,890	422 (31%)	282 (15%)	1,250	6,243	0.200	0.278	0.376
2001	6,177	2,748	3,429	1,507 (55%)	1,163 (34%)	1,420	5,708	0.249	0.415	0.412
2002	6,320	3,414	2,906	2,015 (59%)	1,254 (43%)	1,264	5,320	0.238	0.415	0.445
2003	5,688	3,125	2,563	2,188 (70%)	1,321 (51%)	1,211	4,457	0.272	0.441	0.464
2004	942	125	817	27 (nm)	403 (nm)	-	-	-	-	-
total	31,230	14,188	17,042	6,973	4,840	9,470	60,501	0.157	0.314	0.346

Figure 1: Number of Quarterly (Solid Line) and Annual (Dashed Line) Management Earnings Forecasts; the Lower Pair of Lines Shows the Subset of Forecasts Made at Earnings Announcement Dates.
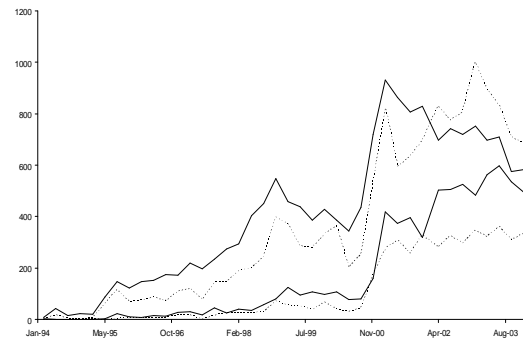

Table 3: Logit Analyses of Firms that Provide Annual and Quarterly Earnings Guidance, 1997-2003

Panel A: Annual Logit analysis of firms that do and do not provide forecasts of earnings ("earnings guidance") using First Call data, 1994-2003

	Prior Forecast	LN(Total Assets)	Book-to-Market	ROA	Sales Growth	Loss Dummy	Beta	Number of Analysts	Pseudo-R-squared
1994	NA	0.180**	0.186	-0.159	-0.035	-0.256	0.527***	0.101***	0.017
1995	1.973***	0.099**	-0.191	1.891***	0.003	0.321	0.156**	0.115***	0.061
1996	1.828***	0.002	-0.126	1.073***	-0.114	0.302*	0.377**	0.113***	0.094
1997	1.770***	0.007	0.044	0.498	0.114*	0.237*	0.289***	0.138***	0.123
1998	1.895***	0.086***	0.058	0.086	0.074	0.021	0.482***	0.107***	0.173
1999	2.139***	0.101***	0.013	0.212	-0.001	0.243**	0.084	0.102***	0.216
2000	2.103***	0.093***	0.116**	0.094	0.003	0.041	0.214***	0.133***	0.25
2001	2.691***	0.046**	-0.222***	-0.119	-0.096	-0.204*	0.558***	0.127***	0.354
2002	3.263***	0.060**	-0.239***	1.024***	0.053	-0.257*	0.346**	0.083***	0.418
2003	3.233***	0.075**	-0.441***	0.866*	-0.005	-0.396**	0.326***	0.054***	0.414

Panel B: Analyses of firms that do and do not provide quarterly forecasts of earnings ("earnings guidance") using First Call data, 1995-2003

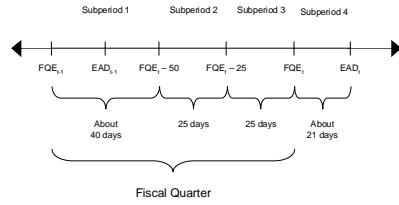|	Prior Forecast	LN(Total Assets)	Book-to-Market	A earp	ROA	Loss Dummy	Beta	Number of Analysts	Pseudo-R-squared
1995,1	1.459	0.217	-1.237	1.112	13.195	1.112	-0.03	0.025	0.013
1995,2	0.504	-0.236**	-0.935*	-1.618**	-0.048	-0.547	-0.205	0.149***	0.02
1995,3	1.138***	-0.013	-0.266	-2.716***	7.730**	0.409	0.011	0.026	0.025
1995,4	1.048***	-0.096	-0.413	-1.910***	8.609**	0.659*	0.143	0.042	0.025
1996,1	0.749*	-0.297***	-0.628	-3.323***	-2.693	-0.632	0.076	0.132***	0.035
1996,2	1.283***	-0.071	0.036	-1.980***	0.471	0.107	0.600***	0.093***	0.036
1996,3	1.064***	-0.064	-0.252	-2.282***	2.258	-0.185	0.227	0.099***	0.031
1996,4	0.755**	-0.115	0.002	-1.609***	5.715*	0.628*	-0.04	0.077**	0.018
1997,1	0.613	-0.188**	0.064	-1.903***	-2.59	-0.17	0.297	0.147***	0.023
1997,2	0.903***	-0.113	0.563**	-3.163***	-2.154	-0.185	0.138	0.105***	0.038
1997,3	0.648**	-0.023	-0.464	-2.572***	2.3	0.233	0.039	0.083***	0.032
1997,4	0.586**	-0.072	-0.629	-2.841***	1.482	-0.253	0.237	0.122***	0.048
1998,1	0.583**	-0.161**	0.032	-2.319***	5.503**	0.319	0.291	0.097***	0.032
1998,2	1.134***	-0.034	-0.332	-4.300***	0.516	-0.407*	-0.003	0.088***	0.065
1998,3	0.792***	-0.021	-0.261	-2.371***	-0.083	-0.421**	0.289*	0.063***	0.052
1998,4	0.804***	0.017	-0.006	-1.649***	2.691**	-0.058	0.26	0.067***	0.049
1999,1	1.292***	-0.036	-0.415**	-2.138***	2.966	0.039	0.28	0.044**	0.056
1999,2	0.845***	0.056	0.13	-2.076***	-1.231	0.103	-0.136	0.092***	0.057
1999,3	0.915***	0.029	-0.415**	-2.490***	3.975**	0.218	-0.228	0.075***	0.068
1999,4	1.057***	0.044	-0.12	-1.369***	1.892	0.338	0.248	0.053***	0.053
2000,1	1.283***	0.085	-0.043	-1.260***	1.851	-0.012	-0.019	0.070***	0.044
2000,2	1.071***	0.089**	-0.404**	-2.416***	2.607	-0.381	0.157	0.039**	0.052
2000,3	1.242***	0.107**	0.189	-1.929***	1.256	-0.322	0.262**	0.059***	0.079
2000,4	1.016***	0.104**	-0.051	-1.347***	3.575**	0.069	0.166	0.059***	0.082
2001,1	1.316***	0.05	0.003	-1.615***	-0.568	-0.365*	0.503***	0.076***	0.136
2001,2	1.582***	0.097	-0.237*	-1.800***	1.569	0.043	0.428***	0.058***	0.16
2001,3	1.904***	0.054	-0.074	-0.625**	0.425	-0.257	0.364***	0.040***	0.18
2001,4	1.726***	0.089**	-0.207	-1.156***	2.646	0.026	0.456***	0.058***	0.181
2002,1	1.550***	0.053	-0.166	-0.717*	3.670*	0.162	0.118	0.050***	0.132
2002,2	1.999***	0.056	-0.168	-0.247	3.318*	-0.273	0.615***	0.026*	0.185
2002,3	1.848***	-0.012	-0.18	-1.149***	2.136	-0.360*	0.573***	0.078***	0.202
2002,4	1.809***	0.016	-0.401***	-0.614	1.202	-0.154	0.271*	0.048***	0.184
2003,1	1.880***	0.07	-0.205	-1.888***	2.597	-0.312	0.395***	0.037***	0.197
2003,2	2.402***	0.092*	-0.179	-0.896*	2.597	-0.12	0.535***	0.039***	0.29
2003,3	2.487***	0.059	-0.242	-0.807*	5.376	-0.296	0.600***	0.055***	0.233
2003,4	2.170***	-0.128**	-0.377	-1.762***	3.168	-0.524*	0.444***	0.058***	0.181

Table 4: Firm-Level Stock Price Reaction to First Call Management Earnings Forecasts by forecast period and nature of guidance, 1994-2003

Panel A: Forecasts partitioned by forecast period (annual or quarterly) and nature of guidance (downward, neutral, or upward)

	Obs.	Percent of category	Mean	Median	Percent negative
Annual					
Downward	1,602	45%	-8.13%	-4.27%	72%
Neutral	1,011	29%	-1.19%	-0.46%	53%
Upward	927	26%	1.80%	1.09%	41%
	3,540	24%	-3.55%	-1.27%	58%
Quarterly					
Downward	6,371	57%	-11.52%	-8.62%	82%
Neutral	2,393	21%	-1.42%	-0.49%	54%
Upward	2,485	22%	4.59%	3.04%	32%
	11,249	76%	-5.81%	-3.09%	65%
Total	14,789		-5.27%	-2.56%	63%

Returns are three-day market-adjusted returns centered on the management forecast date, where the market return is the CRSP equal-weighted index return. This sample of earnings forecasts excludes all earnings forecasts made concurrent with earnings announcements and includes the last of any set of multiple forecasts made in a given firm/period.

Figure 2: Disclosure Subperiods for a Given Fiscal Quarter

Panel B: Forecasts of quarterly earnings partitioned by nature of guidance (downward, neutral, or upward) and intra-quarter subperiod of release

	Downward Guidance	Neutral Guidance	Upward Guidance	Total
Subperiod one	138	98	72	308
	-10.22%	-0.53%	2.97%	-4.05%
	(-4.47%)	(0.09%)	(0.71%)	(-1.50%)
	78%	48%	43%	60%
Subperiod two	546	343	228	1,117
	-9.61%	-1.88%	2.60%	-4.75%
	(-6.44%)	(-0.33%)	(1.20%)	(-1.98%)
	75%	54%	40%	62%
Subperiod three	2,704	843	758	4,305
	-11.47%	-2.31%	4.22%	-6.91%
	(-8.56%)	(-0.75%)	(3.27%)	(-4.06%)
	83%	56%	31%	69%
Subperiod four	2,983	1,109	1,427	5,519
	-11.98%	-0.68%	5.20%	-5.27%
	(-9.37%)	(-0.47%)	(3.40%)	(-2.86%)
	81%	53%	31%	63%
Total	6,371	2,393	2,485	11,249
	-11.52%	-1.42%	4.59%	-5.81%
	(-8.62%)	(-0.49%)	(3.04%)	(-3.09%)
	82%	54%	32%	65%

Table reports the number of observations in each cell, the mean market-adjusted return, the median market-adjusted return (in parentheses), and the percentage of negative market-adjusted returns. Market adjusted-returns are cumulated over the three trading days centered on the forecast announcement date and are calculated using the return on the CRSP equal-weighted index to measure the market return.

Figure 3: The intra_quarter timing of earnings disclosures for upward, downward and neutral quarterly earnings guidance, First Call data, 1994-2003
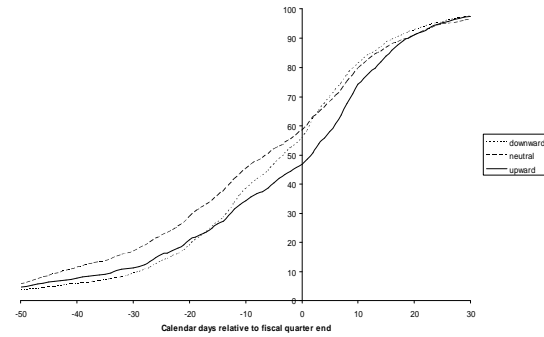

Figure 4: Plots of Ratio of Downward Guidance to Upward Guidance showing Quarterly (solid line) and Annual (dashed line) Guidance, First Call Data, 1994-2003.
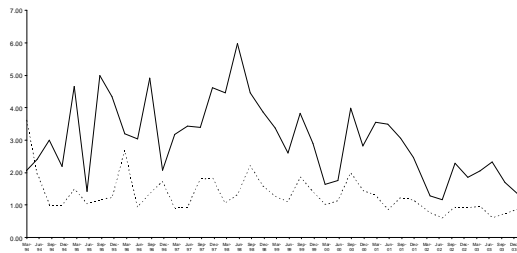

Table 5: Descriptive information, including correlations, for quarterly aggregate data on quarterly earnings guidance, earnings surprises, and market returns, Q1 1994 to Q4 2003 (40 quarters).

Panel A. Mean, standard deviation, and first order correlation of earnings surprise data based on the 40 quarterly cross-sections. The table also reports the average number of firm observations used to compute the variable in each cross section.

	ASurpF (Forecasting firms)	ASurpA (All firms)	EP_agg	EP_ew	ΔEP_agg	ΔEP_ew	Innov._ ΔEP_agg	Innov._ ΔEP_ew
Mean	-0.0534	-0.0418	0.0127	0.0001	0.0011	0.0028	-0.0001	0.0000
Std. Devn.	0.0252	0.0165	0.0057	0.0080	0.0041	0.0052	0.0030	0.0038
Mean # obs. per cross section	998	3,808	4,054	4,054	4,054	4,054	na	na
First order autocorrelation	.33	.57	na	na	.60	.65	-.04	-.08

Panel B. Mean, standard deviation, and first order autocorrelation of aggregate earnings guidance variables and market return data based on the 36 quarterly cross-sections.

	ΔDown	ΔNeut.	ΔUp	Ratio	ΔRatio	Equal-weighted return	S&P 500 return
Mean	0.266	0.236	0.301	3.027	-0.035	0.046	0.027
Std. Devn.	0.708	0.657	0.470	1.449	0.575	0.106	0.075
First order autocorrelation	.68	.75	.62	.27	.37	-.04	.17

Panel C. Correlation among the variables computed using the 36 quarterly cross-sections, Q1 1995 to Q4 2003.

	AsurpA	ΔEP_agg	ΔEP_ew	Inv. ΔEP_agg	Inv. ΔEP_ew	ΔDown	ΔNeutral	ΔUp	ΔRatio	EW Return	S&P 500 return
AsurpF	0.87***	0.52***	0.68***	0.52***	0.49***	-0.43***	-0.34**	-0.34**	-0.24	0.15	0.03
AsurpA		0.74***	0.74***	0.65***	0.48***	-0.38***	-0.23	-0.28*	-0.25	0.16	0.15
ΔEP_agg			0.62***	0.73***	0.35**	-0.17	-0.05	-0.15	-0.08	0.23	0.30*
ΔEP_ew				0.61***	0.73***	-0.47***	-0.30*	-0.31*	-0.33**	0.20	-0.03
Inv. ΔEP_agg					0.60	-0.37**	-0.23	-0.28*	-0.23	0.17	0.10
Inv. ΔEP_ew						-0.34**	-0.21	-0.17	-0.29*	0.19	-0.07
ΔDown							0.78***	0.59***	0.75***	-0.16	0.12
ΔNeutral								0.73***	0.37**	-0.09	0.20
ΔUp									-0.09	-0.13	0.12
ΔRatio										0.09	0.09

Panel D. Correlation among the variables computed using the 24 quarterly cross-sections, Q1 1998 to Q4 2003.

	AsurpA	ΔEP_agg	ΔEP_ew	Inv. ΔEP_agg	Inv. ΔEP_ew	ΔDown	ΔNeutral	ΔUp	ΔRatio	EW Return	S&P 500 return
AsurpF	0.94***	0.55***	0.74***	0.58***	0.48**	-0.64***	-0.55***	-0.54***	-0.33	0.16	0.11
AsurpA		0.74***	0.79***	0.71***	0.48**	-0.67***	-0.54***	-0.53***	-0.37*	0.14	0.14
ΔEP_agg			0.65***	0.78***	0.35**	-0.36*	-0.30	-0.39*	-0.13	0.23	0.31
ΔEP_ew				0.63***	0.73***	-0.69***	-0.52***	-0.49***	-0.41**	0.22	0.04
Inv. ΔEP_agg					0.60***	-0.44**	-0.28	-0.24	-0.30	0.15	0.22
Inv. ΔEP_ew						-0.50***	-0.30	-0.16	-0.41**	0.17	-0.01
ΔDown							0.81***	0.27	0.84***	-0.30	-0.05
ΔNeutral								0.53***	0.50***	-0.39*	-0.04
ΔUp									-0.30	-0.31	-0.19
ΔRatio										-0.13	0.06

Table 6: Correlations between changes in aggregate earnings guidance and monthly market returns

Panel A. Full sample period: Monthly data for 40 quarters, 1994-2003 (obs. = 40 for most correlations)

	Return: Full quarter	Return: Month 1	Return: Month 2	Return: Month 3
ΔRatio1	-.09	.01	-.16	-.05
ΔRatio2	-.26	-.06	-.13	-.24
ΔRatio3	-.19	-.23	-.08	-.00
ΔD1	-.03	-.02	-.04	.01
ΔD2	-.33**	-.23	-.19	-.13
ΔD3	-.29*	-.35**	-.13	.04
ΔN1	.25	-.15	.35**	.29
ΔN2	-.23	-.16	-.14	-.09
ΔN3	-.02	-.21	.04	.17
ΔU1	.09	-.04	.15	.10
ΔU2	.02	-.12	-.01	.17
ΔU3	-.09	-.07	-.07	.04

Panel B. Excluding early sample period: Monthly data for 24 quarters, 1998-2003 (obs. = 24 for most observations)

	Return: Full quarter	Return: Month 1	Return: Month 2	Return: Month 3
ΔRatio1	-.24	-.00	-.30	-.14
ΔRatio2	-.33	-.23	-.17	-.12
ΔRatio3	-.46**	-.47**	-.19	-.01
ΔD1	.01	.03	.00	.02
ΔD2	-.59***	-.43**	-.38*	-.12
ΔD3	-.66***	-.70**	-.33	.07
ΔN1	.28	-.14	.42**	.27
ΔN2	-.60***	-.40*	-.48**	-.10
ΔN3	-.42**	-.49**	-.23	.14
ΔU1	.28	.02	.34*	.17
ΔU2	-.20	-.17	-.20	.05
ΔU3	-.04	-.03	-.06	.08

Figure 5: Cumulative equal weighted market returns in good and bad news quarters, defined as those with positive and negative market returns respectively (the horizontal axis shows days relative to the end of the fiscal quarter)
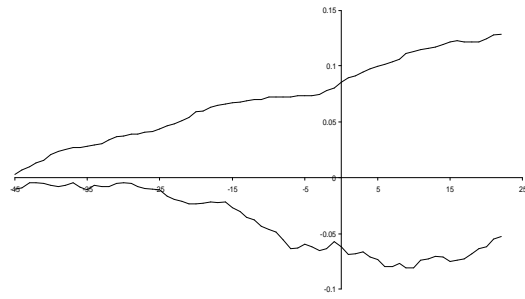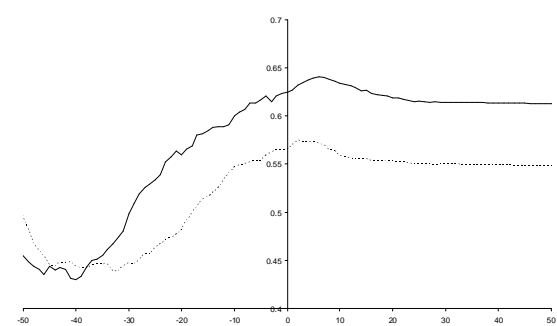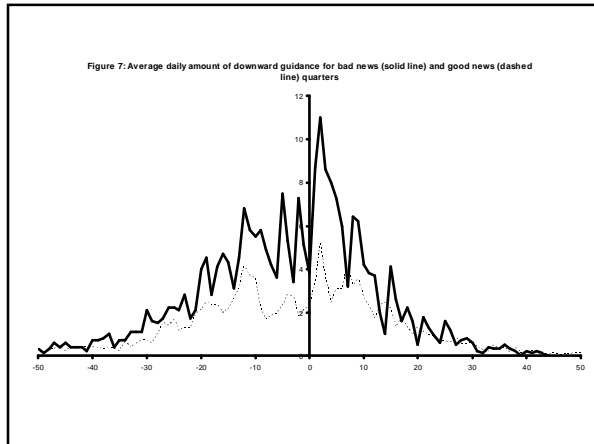

Figure 6: Fraction of cumulative guidance that is downward in bad news quarters (solid line) and good news quarters (dashed line)

Figure 7: Average daily amount of downward guidance for bad news (solid line) and good news (dashed line) quarters

Bellwether Firm Analysis

Pearson correlations (p-values) between earnings news and 3 day cumulative market returns centered on management forecast announcement date

	Firm's own raw returns	Equal-weighted market return	S&P 500 index return
Quantitative Guidance (N = 642)	.21 (<.0001)	.02 (ns)	.04 (ns)
Qualitative Guidance (N = 783)	.40 (<.0001)	.09 (.012)	.10 (.005)

Bellwether Firms are the largest 20 guidance firms by market capitalization each quarter.

Quantitative Guidance is the difference between the earnings forecast and the analysts' consensus immediately preceding the forecast.

Qualitative Guidance is coded as -1, 0 , and 1 for downward, neutral and upward guidance.