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Updates to
Manager Sentiment and Stock Returns

This file contains updates for our paper "Manager Sentiment and Stock Returns", published in *Journal of Financial Economics*, Volume 132, Issue 1, April 2019, Pages 126-149.

The published version of our paper had data only up to 2014. We now have updated this data to 2017. The textual data for 10K and 10Q filings are largely similar to those in the original paper, while we have collected a more comprehensive set of conference call transcripts. The more up-to-date version of our manager sentiment index is available at the Guofu Zhou's personal website, http://apps.olin.wustl.edu/faculty/zhou/.

We present results using the updated data below. Our empirical findings have remained the same, if we use the regression-based combination to construct the *manager sentiment index* as in Lin, Wu and Zhou (2018 MS), and weaken some if we use the simple equal-weighted combination (though still significant). The regression-based combination is more flexible and more robust in incorporating the heterogeneity in forecasting power when using the manager sentiment index. Nevertheless, we find that, with the updated data, most of our original results for the manager sentiment still hold: the updated manager sentiment index has strong forecasting power for future stock returns, especially for year-ahead stock returns, with statistical and economic significance. Its forecasting power is incremental to and beyond that of economic variables, is robust out-of-sample, and is stronger over economic recession periods.

References

Jiang, F., Lee, J., Martin, X. and Zhou, G., 2019. Manager sentiment and stock returns. Journal of Financial Economics, 132(1), pp.126-149.

Lin, H., Wu, C. and Zhou, G., 2017. Forecasting corporate bond returns with a large set of predictors: An iterated combination approach. Management Science, 64(9), pp.4218-4238.

Table 1 Manager sentiment and aggregate market return

Horizon	α (%)	t-stat	β (%)	t-stat	R^2 (%)
1 month	0.71	2.53	-0.78	-2.90	4.16
3 months	2.19	4.19	-2.12	-4.23	8.48
6 months	4.14	5.14	-3.52	-4.46	9.66
1 year	7.93	6.97	-4.83	-4.87	9.19

This table reports the ordinary least squares estimation results for α, β, and R^2 statistics for the predictive regression model,

$$R^m_{t\to t+h} = \alpha + \beta S^{\text{MS}}_t + \varepsilon_{t\to t+h},$$

where $R^m_{t\to t+h}$ is the h-month ahead cumulative excess market return from month t to $t+h$ (in percentage) calculated from the monthly excess aggregate market return R^m, i.e., the monthly return on the S&P 500 index in excess of the risk-free rate. The forecasting horizon h spans from 1 month to 1 year. S^{MS}_t is the updated manager sentiment index extracted from the aggregated textual tone in firms' 10-Ks, 10-Qs, and conference calls, employing the regression-based combination as in Lin, Wu and Zhou (2018). S^{MS}_t is standardized to have zero mean and unit variance. The regression coefficients, Newey-West heteroskedasticity- and autocorrelation-robust t-statistics, and R^2 are reported. The updated sample period is 2003:01$-$2017:12.

Table 2 Manager sentiment with equal-weighted combination

Horizon	α (%)	t-stat	β (%)	t-stat	R^2 (%)
1 month	0.71	2.51	-0.51	-1.99	1.73
3 months	2.19	4.12	-1.54	-3.79	4.44
6 months	4.14	5.05	-2.82	-5.09	6.17
1 year	7.93	6.85	-3.77	-4.78	5.57

This table reports the ordinary least squares estimation results for α, β, and R^2 statistics for the predictive regression model,

$$R^m_{t\to t+h} = \alpha + \beta \bar{S}^{\text{MS}}_t + \varepsilon_{t\to t+h},$$

where $R^m_{t\to t+h}$ is the h-month ahead cumulative excess market return from month t to $t+h$ (in percentage) calculated from the monthly excess aggregate market return R^m. The forecasting horizon h spans from 1 month to 1 year. $\bar{S}^{\text{MS}}_t$ is the manager sentiment index extracted from the aggregated textual tone in firms' 10-Ks, 10-Qs, and conference calls, employing the equal-weighted combination as in the original JFE paper. The regression coefficients, Newey-West heteroskedasticity- and autocorrelation-robust t-statistics, and R^2 are reported. The updated sample period is 2003:01−2017:12.

Table 3 Manager sentiment in financial statements and conference calls

	β_{FS} (%)	t-stat	β_{CC} (%)	t-stat	R^2 (%)
1 month	-0.80	-2.80	0.08	0.20	4.34
3 months	-2.13	-3.97	-0.05	-0.07	8.54
6 months	-3.48	-4.14	-0.50	-0.48	9.67
1 year	-4.80	-4.59	-0.53	-0.40	9.19

This table report the estimation results for β_{FS}, β_{CC}, and R^2 statistics for the following predictive regression model,

$$R^m_{t\to t+h} = \alpha + \beta_{\text{FS}}\, S^{\text{FS}}_t + \beta_{\text{CC}}\, S^{\text{CC}}_t + \varepsilon_{t\to t+h},$$

where $R^m_{t\to t+h}$ is the h-month ahead cumulative excess market return from month t to $t+h$ (in percentage) calculated from the monthly excess aggregate market return R^m, i.e., the monthly return on the S&P 500 index in excess of the risk-free rate. The forecasting horizon h spans from 1 month (Panel A) to 1 year (Panel D). S^{FS} is the manager sentiment extracted from the aggregated textual tone in firms' 10-Ks, 10-Qs filings alone. S^{CC} is the manager sentiment extracted from the aggregated textual tone in firms' conference calls transcripts alone. The regression coefficients, Newey-West heteroskedasticity- and autocorrelation-robust t-statistics, and R^2 are reported. The updated sample period is 2003:01−2017:12.

Table 4 Control for economic variables

	Panel A: 1 month ahead return ($h=1$)					*Panel B: 1 year ahead return ($h=12$)*				
	β (%)	t-stat	η (%)	t-stat	R^2 (%)	β (%)	t-stat	η (%)	t-stat	R^2 (%)
DP	-0.80	-3.10	0.14	0.32	4.30	-5.31	-5.72	4.95	5.88	18.78
DY	-0.80	-3.01	0.29	0.70	4.71	-5.10	-5.40	5.08	6.08	19.39
EP	-0.78	-2.54	0.01	0.01	4.16	-4.53	-4.21	-1.39	-1.12	9.92
DE	-0.78	-2.62	0.04	0.08	4.17	-4.47	-4.41	2.51	2.21	11.64
SVAR	-0.69	-2.73	-0.84	-1.93	8.91	-5.05	-5.13	1.91	1.89	10.61
BM	-0.83	-2.96	0.28	0.77	4.66	-6.04	-6.69	7.77	6.54	32.23
NTIS	-0.63	-2.64	0.45	1.14	5.39	-3.29	-4.64	4.45	2.61	16.06
TBL	-0.75	-2.62	-0.12	-0.53	4.25	-3.30	-3.79	-5.71	-5.30	21.20
LTY	-0.78	-2.89	-0.44	-1.92	5.46	-4.82	-5.16	-5.17	-5.85	19.71
LTR	-0.78	-2.85	0.33	0.88	4.88	-4.83	-4.86	0.28	0.23	9.22
TMS	-0.87	-2.81	-0.26	-0.94	4.55	-3.89	-3.79	2.77	2.86	11.86
DFY	-0.76	-2.98	-0.27	-0.56	4.64	-5.11	-5.15	3.27	3.38	13.37
DFR	-0.74	-2.88	0.40	0.72	5.25	-4.66	-4.87	1.77	1.24	10.42
INFL	-0.77	-2.96	0.42	1.22	5.34	-4.97	-5.00	-3.34	-3.22	13.59

This table reports the ordinary least squares estimation results for β, η, and R^2 statistics for the bivariate predictive regression models on the manager sentiment index and the economic variable as control,

$$R^m_{t\to t+h} = \alpha + \beta S^{\mathrm{MS}}_t + \eta E^{\mathrm{i}}_t + \varepsilon_{t\to t+h},, \qquad i = 1,...,14,$$

where $R^m_{t\to t+h}$ is the h-month ahead cumulative excess market return from month t to $t+h$ (in percentage) calculated from the monthly excess aggregate market return R^m. Panel A reports estimation results for one-month ahead return ($h=1$), and Panel B reports estimation results for one-year ahead return ($h=12$). S^{MS} is the manager sentiment index extracted from the aggregated textual tone in firms' 10-Ks, 10-Qs filings, and conference calls transcripts. E^i is one of the 14 individual economic variables given in the first column, and see Section 2.2 of our JFE published paper for detailed definitions for each economic variable. The regression coefficients, Newey-West heteroskedasticity- and autocorrelation-robust t-statistics, and R^2 are reported. The updated sample period is 2003:01−2017:12.

Table 5 Out-of-sample forecasting performance

	R^2_{OS} (%)	MSFE-*adj*	$R^2_{\text{OS,rec}}$ (%)
1 month	2.62	1.76	10.39
3 months	5.11	2.54	14.63
6 months	6.91	3.46	11.04
1 year	6.31	3.69	11.79

This table reports the manager sentiment index S^{MS}'s out-of-sample forecasting performance in predicting $R^m_{t\to t+h}$, the h-month ahead cumulative excess market return from month t to $t+h$ (in percentage) calculated from the monthly excess aggregate market return R^m. The manager sentiment index S^{MS} is extracted from the aggregated textual tone in firms' 10-Ks, 10-Qs, and conference calls. The out-of-sample forecasts for $R^m_{t\to t+h}$ are estimated recursively using data available at the forecast formation time $t+1-h$ in order to avoid look-ahead bias. R^2_{OS} is the Campbell and Thompson (2008) out-of-sample R^2 measuring the reduction in mean squared forecast error (MSFE) for the competing predictive regression forecast relative to the historical average benchmark forecast. $R^2_{\text{OS,rec}}$ is the out-of-sample R^2_{OS} calculated over NBER-dated business-cycle recessions subperiods. MSFE-*adj* is the Clark and West (2007) MSFE-adjusted statistic for testing the null hypothesis that the historical average forecast MSFE is less than or equal to the competing predictive regression forecast MSFE against the one-sided (upper-tail) alternative hypothesis. The out-of-sample evaluation period is 2007:01–2017:12.