ws_appendix

replicate the paper F. Li(2008).

#Table 1

##(A) Summary statistics;

	Mean	Median	Std. Dev	25th	75th	N
Year	-	2019	-	2017	2020	18626
Earnings	-0.02	0.03	0.21	-0.03	0.09	18626
Market-to-book	1.09	0.44	2.52	-0.28	1.56	18423
Market value of equity (\$MM)	8939.62	855.59	49300.66	188.10	3671.22	18453
Book value of assets (\$MM)	12919.07	1055.87	91181.62	213.25	4312.00	18626
Fog	20.94	20.87	1.33	20.14	21.61	18626
Fog(t) - Fog(t-1)	0.08	0.06	1.20	-0.22	0.38	14237
Length	11.04	11.02	0.46	10.76	11.30	18626
Length(t) - length(t-1)	-0.01	-0.00	0.34	-0.13	0.11	14237
Bog	90.88	90.00	9.32	85.00	96.00	18626
Bog(t) - Bog(t-1)	1.51	1.00	5.56	-1.00	3.00	14237
Fog(MD&A)	19.93	20.01	1.89	19.02	21.00	16953
(Fog(t) - Fog(t-1))(MD&A)	0.13	0.06	1.21	-0.22	0.40	12530
Length(MD&A)	8.37	9.13	2.20	8.58	9.48	18626
(Length(t) - length(t-1))(MD&A)	-0.08	0.00	2.00	-0.10	0.08	14237

#Fig. 1. ##(A) Median Fog and Length of the whole annual report by calendar year of the filing date. ##(B) Median Fog and Length of the MD&A section by calendar year of the filing date.

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Warning: Using `size` aesthetic for lines was deprecated in ggplot2 3.4.0.
i Please use `linewidth` instead.
```

Fig. 1A. The whole annual report

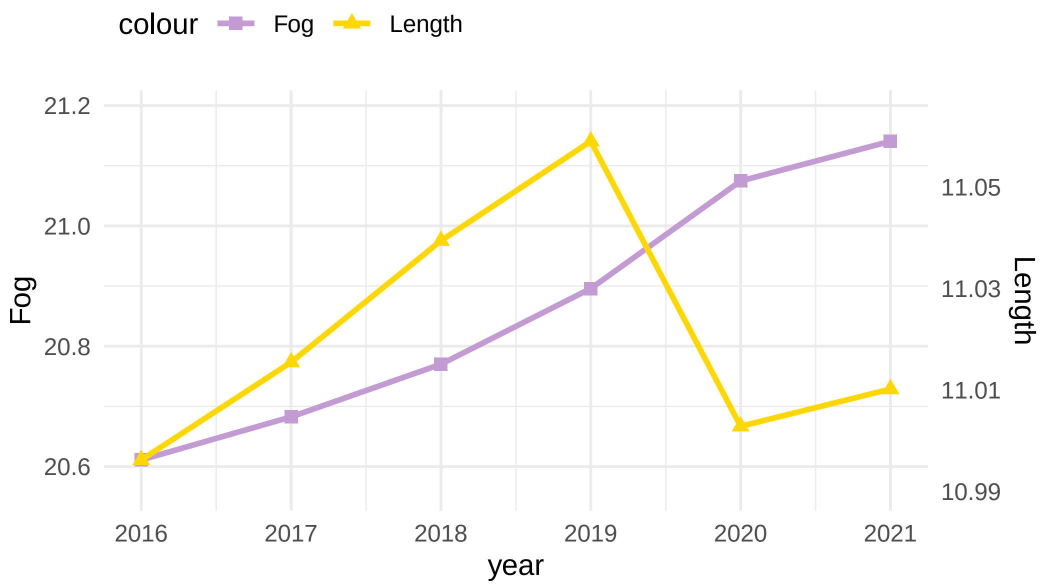


Fig. 1B. The whole annual report

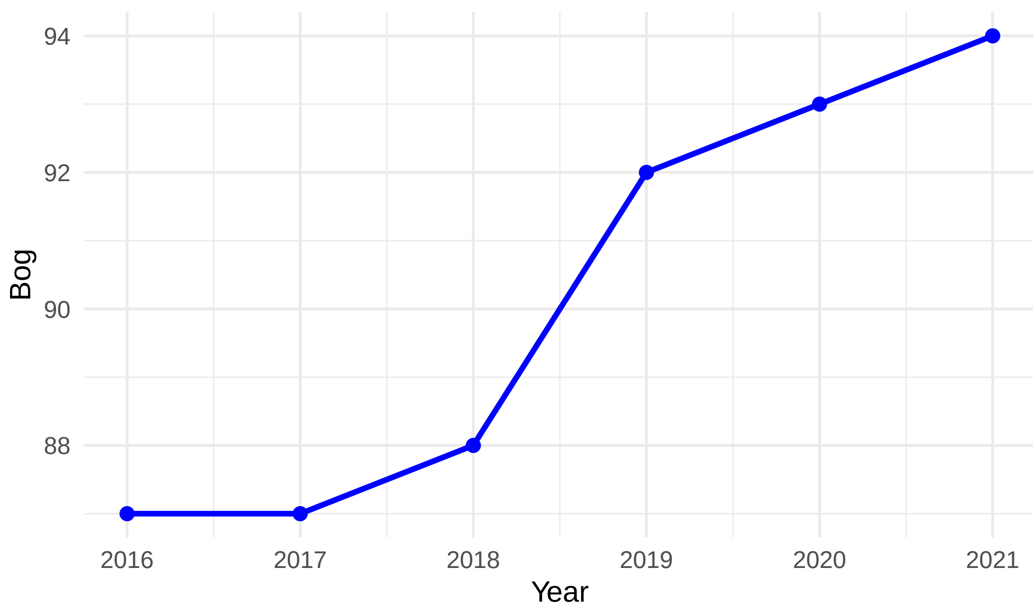
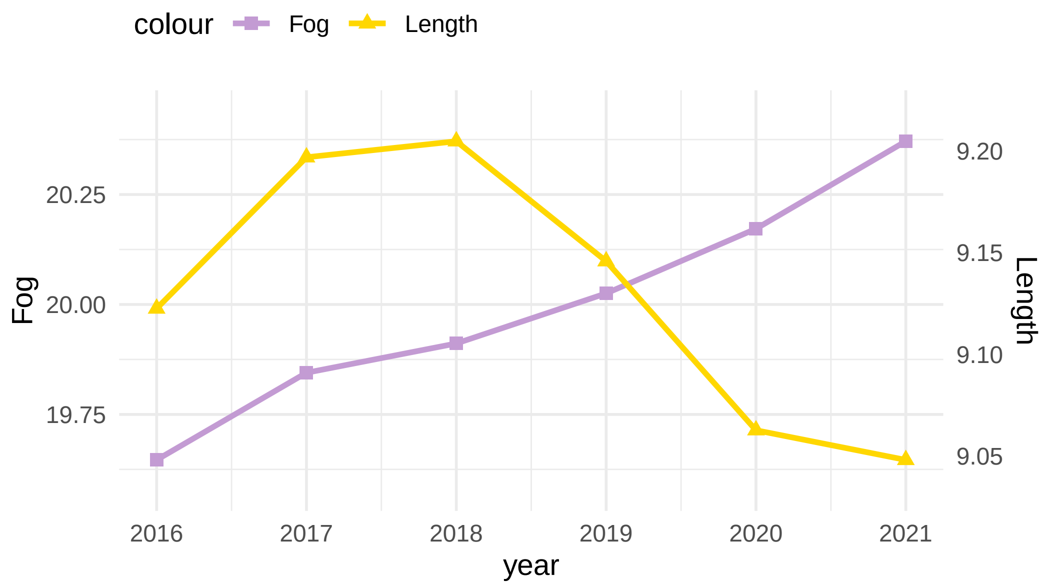


Fig. 2.MD&A Section



#Table 2

##(A) Summary statistics of the determinants of Fog and Length;

	Mean	Median	Std. Dev	25th	75th	N
AGE	20.18	17.00	18.89	5.00	28.00	18626
SI	-0.01	-0.00	0.09	-0.01	0.00	18385
RET_VOL	0.13	0.10	0.13	0.07	0.16	17266
EARN_VOL	0.23	0.04	3.54	0.02	0.10	15103
NBSEG	1.63	1.39	0.60	1.39	2.20	17256
NGSEG	1.78	1.61	0.67	1.39	2.30	14684
NITEMS	237.64	247.00	32.27	237.00	255.00	18623
SEO	0.02	-	-	-	-	18626
MA	0.37	-	-	-	-	18626
DLW	0.66	-	-	-	-	18626

##(B) Determinants of Fog;

```
Regression Results of Fog
=================================================================
                                             Dependent variable:
```

	Fog of the whole annual report	Fog of the MD&A section
	(1)	(2)
size	0.127***	0.156***
	t = 9.146	t = 9.317
mtb	-0.045***	-0.041**
	t = -4.955	t = -2.499
age	-0.011***	-0.014***
	t = -6.420	t = -5.755
si	-0.041	-0.307
	t = -0.235	t = -1.445
RET_VOL	0.591***	0.983***
	t = 2.746	t = 3.991
EARN_VOL	0.015***	0.016***
	t = 2.660	t = 3.700
NBSEG	0.003	-0.025
	t = 0.078	t = -0.373
NGSEG	-0.098	-0.107
	t = -1.344	t = -1.069
NITEMS	-0.00003	0.001
	t = -0.014	t = 0.461
SEO	0.135	-0.003
	t = 1.483	t = -0.028
MA	0.034	-0.005
	t = 0.625	t = -0.092
DLW	0.174***	0.173**
	t = 4.274	t = 2.168
Year dummies	Yes	Yes
Industry dummies	Yes	Yes

Cluster	Sic2	Sic2
Observations	12,708	11,968
Adjusted R2	0.132	0.109
Note:		*p<0.1; **p<0.05; ***p<0.01

##(C) Determinants of Length

Regression Results of Length

	Dependent variable:	
	Length of the whole annual report	Length of the MD&A section
	(1)	(2)
size	0.091***	0.174***
	t = 14.556	t = 10.319
mtb	-0.038***	-0.054***
	t = -6.371	t = -3.739
age	-0.004***	-0.011***
	t = -6.349	t = -6.254
si	-0.298***	-0.373
	t = -2.988	t = -1.594
RET_VOL	0.423***	-0.057
	t = 4.643	t = -0.220
EARN_VOL	0.004*	-0.014
	t = 1.734	t = -0.971
NBSEG	0.051**	0.091*
	t = 2.604	t = 1.906
NGSEG	-0.006	0.080
	t = -0.266	t = 1.304
NITEMS	0.001	0.004
	t = 0.838	t = 1.173

SEO	0.061***	0.148**
	t = 2.765	t = 2.123
MA	-0.006	-0.060
	t = -0.427	t = -1.655
DLW	0.095***	0.162**
	t = 6.307	t = 2.319
Year dummies	Yes	Yes
Industry dummies	Yes	Yes
Cluster	Sic2	Sic2
Observations	12,708	12,708
Adjusted R2	0.321	0.084
Note:		*p<0.1; **p<0.05; ***p<0.01

Regression Results of Bog Index

	Dependent variable:
	Bog of the whole annual report
size	1.040***
	t = 8.393
mtb	-0.347**
	t = -2.431
age	-0.049***
	t = -4.023
si	-2.480***
	t = -2.843
RET_VOL	2.361**
	t = 2.131
EARN_VOL	0.064*

	t = 1.945
NBSEG	0.532
	t = 1.264
NGSEG	-0.618
	t = -0.928
NITEMS	-0.002
	t = -0.076
SEO	0.349
	t = 0.653
MA	-0.581
	t = -1.471
DLW	1.628***
	t = 3.861
Year dummies	Yes
Industry dummies	Yes
Cluster	Sic2
Observations	12,708
Adjusted R2	0.341
Note:	*p<0.1; **p<0.05; ***p<0.01

#Table 3 ##(A) Firm performance and annual report Fog and Length (level specification);

Firm performance and annual report Fog and Length (level specification) in Whole annual repo

	Dependent variable:					
	Fog		Length		Bog	
	(1)	(2)	(3)	(4)	(5)	(6)
Earnings	-1.032***		-0.503***		-6.753***	
	t = -5.676		t = -12.463		t = -2.835	

profit_dummy		-0.342***		-0.175***		-2.154*
		t = -3.359		t = -4.961		t = -1.766
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Cluster	Sic2	Sic2	Sic2	Sic2	Sic2	Sic2
Observations	12,708	12,708	12,708	12,708	12,708	12,708
Adjusted R2	0.146	0.140	0.350	0.340	0.355	0.349
Note:						*p<0.1; **p<0.05; ***p<0.01

Firm performance and annual report Fog and Length (level specification) in MD&A Section

	Dependent variable:			
	Fog		Length	
	(1)	(2)	(3)	(4)
Earnings	-1.459***		0.045	
	t = -6.507		t = 0.303	
profit_dummy		-0.480***		0.041
		t = -3.593		t = 0.490
Year dummies	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes
Cluster	Sic2	Sic2	Sic2	Sic2
Observations	11,968	11,968	12,708	12,708
Adjusted R2	0.123	0.117	0.084	0.084
Note:		*p<0.1; **p<0.05; ***p<0.01		

##(B) Firm performance and annual report Fog and Length (change specification)

Firm performance and annual report Fog and Length (change specification) in Whole annual rep

	Dependent variable:					
	ΔFog		ΔLength		ΔBog	
	(1)	(2)	(3)	(4)	(5)	(6)
Earnings_change	-0.067		-0.059*		-0.480	
	t = -0.557		t = -1.979		t = -0.751	
Earnings_change_d		-0.009		-0.016**		-0.141
		t = -0.318		t = -2.290		t = -1.134
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Cluster	Sic2	Sic2	Sic2	Sic2	Sic2	Sic2
Observations	10,844	10,844	10,844	10,844	10,844	10,844
Adjusted R2	-0.001	-0.001	0.005	0.005	0.055	0.055
Note:				*p<0.1; **p<0.05; ***p<0.01		

Firm performance and annual report Fog and Length (change specification) in MD&A Section

	Dependent variable:			
	ΔFog		ΔLength	
	(1)	(2)	(3)	(4)
Earnings_change	-0.186*		0.091	
	t = -1.846		t = 0.504	
Earnings_change_d		-0.028		-0.029
		t = -1.351		t = -0.873
Year dummies	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes
Cluster	Sic2	Sic2	Sic2	Sic2
Observations	10,019	10,019	10,844	10,844
Adjusted R2	-0.001	-0.001	0.013	0.013

Note:	*p<0.1; **p<0.05; ***p<0.01

#Table 4 ##(A) Earnings persistence and annual report Fog index (profit firm-years);

Earnings Persistence and Annual Report Fog Index (Profit Firm-Years)

	Dependent variable:			
	earn_t1	earn_t2	earn_t1	earn_t2
	(1)	(2)	(3)	(4)
Earnings	1.592***	1.731***	1.560***	1.530***
	t = 3.620	t = 3.154	t = 3.236	t = 2.797
fog_index	0.002	0.003		
	t = 1.573	t = 1.569		
mda_fog_index			0.003	0.003
			t = 1.555	t = 1.253
Earnings:fog_index	-0.043*	-0.058*		
	t = -1.789	t = -1.927		
Earnings:mda_fog_index			-0.042	-0.049
			t = -1.566	t = -1.584
Year dummies	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes
Cluster	Sic2	Sic2	Sic2	Sic2
Observations	7,818	6,445	7,487	6,218
Adjusted R2	0.525	0.396	0.548	0.403
Note:			*p<0.1; **p<0.05; ***p<0.01	

##(B) earnings persistence and annual report Length (profit firmyears);

Earnings Persistence and Annual Report Length(Profit Firm-Years)

	Dependent variable:			
	earn_t1	earn_t2	earn_t1	earn_t2
	(1)	(2)	(3)	(4)
Earnings	2.919**	2.930**	0.570***	0.442***
	t = 2.594	t = 2.161	t = 7.108	t = 3.867
length	0.009	0.008		
	t = 1.537	t = 0.968		
mda_length			-0.0005	-0.001
			t = -0.847	t = -0.611
Earnings:length	-0.203*	-0.220*		
	t = -1.878	t = -1.693		
Earnings:mda_length			0.016***	0.012
			t = 3.283	t = 0.801
Year dummies	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes
Cluster	Sic2	Sic2	Sic2	Sic2
Observations	7,818	6,445	7,818	6,445
Adjusted R2	0.529	0.399	0.523	0.391
Note:		*p<0.1; **p<0.05; ***p<0.01		

##(C) earnings persistence and annual report Bog (profit firmyears);

Earnings Persistence and Annual Report Bog index(Profit Firm-Years)

	Dependent variable:	
	earn_t1	earn_t2
	(1)	(2)

Earnings	1.587***	1.660***
	t = 4.901	t = 4.330
bogindex	0.0005*	0.001**
	t = 1.884	t = 2.206
Earnings:bogindex	-0.010**	-0.013**
	t = -2.347	t = -2.549
Year dummies	Yes	Yes
Industry dummies	Yes	Yes
Control variables	Yes	Yes
Cluster	Sic2	Sic2
Observations	7,818	6,445
Adjusted R2	0.528	0.399
Note:	*p<0.1; **p<0.05; ***p<0.01	

##(D) earnings persistence and annual report readability (profit firm-years)

Earnings persistence and annual report readability(Profit Firm-Years)

	Dependent variable:			
	earn_t1	earn_t2	earn_t1	earn_t2
	(1)	(2)	(3)	(4)
Earnings	1.893***	2.008***	2.942**	2.965**
	t = 3.040	t = 2.860	t = 2.607	t = 2.212
fog_index	0.001*	0.002*		
	t = 1.716	t = 1.940		
mda_fog_index	0.002	0.002		
	t = 1.475	t = 1.071		
length			0.011*	0.010
			t = 1.698	t = 1.261
mda_length			-0.001	-0.002

			t = -1.577	t = -1.480
Earnings:fog_index	-0.026*	-0.036**		
	t = -1.866	t = -2.296		
Earnings:mda_fog_index	-0.032	-0.036		
	t = -1.454	t = -1.391		
Earnings:length			-0.229**	-0.246*
			t = -2.013	t = -1.914
Earnings:mda_length			0.030***	0.029**
			t = 3.170	t = 2.010
Year dummies	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes
Cluster	Sic2	Sic2	Sic2	Sic2
Observations	7,487	6,218	7,818	6,445
Adjusted R2	0.549	0.405	0.531	0.400
Note:				*p<0.1; **p<0.05; ***p<0.01

#Table 5 ##(A) Earnings persistence and annual report Fog index (loss firm-years);

Earnings Persistence and Annual Report Fog Index (loss Firm-Years)

	Dependent variable:			
	earn_t1	earn_t2	earn_t1	earn_t2
	(1)	(2)	(3)	(4)
Earnings	1.210***	0.920*	0.582*	0.368
	t = 3.191	t = 1.834	t = 1.886	t = 0.925
fog_index	-0.007	-0.011**		
	t = -1.262	t = -2.330		
mda_fog_index			-0.004	-0.003
			t = -1.244	t = -0.812

Earnings:fog_index	-0.029	-0.023		
	t = -1.667	t = -1.109		
Earnings:mda_fog_index			0.001	0.003
			t = 0.087	t = 0.182
Year dummies	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes
Cluster	Sic2	Sic2	Sic2	Sic2
Observations	2,643	2,039	2,476	1,940
Adjusted R2	0.533	0.437	0.535	0.438
Note:				*p<0.1; **p<0.05; ***p<0.01

##(B) earnings persistence and annual report Length (loss firm-years)

Earnings Persistence and Annual Report Length(loss Firm-Years)

	Dependent variable:			
	earn_t1	earn_t2	earn_t1	earn_t2
	(1)	(2)	(3)	(4)
Earnings	1.586***	1.422	0.630***	0.500***
	t = 3.293	t = 1.532	t = 14.611	t = 5.819
length	-0.020*	-0.022		
	t = -1.753	t = -1.368		
mda_length			0.001	0.001
			t = 0.721	t = 0.155
Earnings:length	-0.088*	-0.089		
	t = -1.954	t = -1.066		
Earnings:mda_length			-0.002	-0.008
			t = -0.349	t = -0.720

Year dummies	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes
Cluster	Sic2	Sic2	Sic2	Sic2
Observations	2,643	2,039	2,643	2,039
Adjusted R2	0.533	0.437	0.532	0.436
Note:		*p<0.1; **p<0.05; ***p<0.01		