Online appendix to

"Criminal employees and financial reporting"

Morten Seitz

Copenhagen Business School

Tables are presented at the end of each appendix.

Online Appendix A: Entire Regression Tables

Table OA1 presents the main results with the entire regression tables with all control variables. Most of the coefficient signs are generally consistent with expectations based on findings from the literature. I briefly describe the results below.

A.1 Discretionary Accruals (Eq. 3)

Most coefficient signs are consistent with expectations based on the findings of W. Chen et al. (2018), Larson et al. (2018), and Kothari et al. (2005). For example, accruals increase with employee growth (*EMPLGR*), lagged and leading cash flows (*OPCF$_{t-2 - t+2}$*), and profitability (*ROA$_{t-1}$*). Accruals are also negatively related to current flows (*OPCF$_t$*), consistent with the notion that accruals alleviate timing differences between economic transactions and cash flows.

A.2 Accruals Quality (Eq. 4)

Most coefficient signs are consistent with expectations based on the findings of Call et al. (2017).[1] For example, accruals quality is negatively associated with the volatility of revenues (*Revenue volatility*) and cash flows (*Cash flow volatility*). It is also lower for firms with more losses (*NLosses*). A one standard deviation change in *%EMPL_record* is associated with 2.0% lower accruals quality. For comparison, Call et al. (2017) report that one standard deviation change in their proxies for employees' education is associated with a change in *AQ* between 3.8 and 5.4%.

A.3 Late Filing (Eq. 5)

Most of the signs on the control variables are consistent with those reported by Impink et al. (2012). For example, reporting lag increases with leverage (*TL/TA*), ROA volatility (*ROA volatility*), and

---

[1] Call et al. (2017) use the standard deviation of DACC as measure of accounting quality. I multiply this measure by -1 to ease interpretation. Therefore the coefficients reported in Table 5 have opposite signs of those reported by Call et al. (2017).

firm complexity (*ln(1+Subs)*). It is also higher for loss firms (*Loss*).

A.4 Audit Report Opinions (Eq. 6)

Most signs on the coefficients are consistent with expectations based on the findings of Che et al. (2020, column 3 of Table 3). For example, the likelihood of receiving a nonclean audit opinion decreases with firm size (*ln(TA)*) and age (*ln(FirmAge)*). It increases with leverage (*TL/TA*), losses (*Loss*), and bankruptcy (*Bankrupt*).

A.5 Conditional Conservatism (Eq. 7)

The coefficient on cash flows (*OCF*) is negative because accruals (*WCACC*) mitigate noise in cash flows. The slope on the interaction *DumOCF × OCF* is positive. This is consistent with asymmetric loss recognition because accrued losses are more likely when the cash flow is negative. That is, asymmetric loss recognition predicts that the association between cash flows and accruals (the sum of the coefficients on *OCF* and *DumOCF × OCF*) is more positive (closer to zero or more negligible in absolute magnitude) when cash flows are negative.

A.6 Informativeness of Current Earnings about Future Earnings and Cash Flows (Eq. 8)

Most signs on the coefficients are consistent with expectations. The predictive ability of earnings increases with firm size (*ln(TA) × ROA*) and decreases with leverage (*TL/TA × ROA*) and earnings volatility (*ROA volatility × ROA*).

Table OA1. Criminal records and financial reporting – with all control variables (cf. Panel B of Table 4 of the manuscript)

Estimation of	Discretionary accruals	Accruals quality	Reporting lag	Delayed filing	Audit report opinions	Conditional conservatism	Earnings predictability	Cash flows predictability
VOI CEO =	CEO_record_t $\times NewFinance_t$	CEO_record_t	CEO_record_t	CEO_record_t	CEO_record_t	CEO_record_t $\times DumOCF_t$ $\times OCF_t$	CEO_record_t $\times ROA_t$	CEO_record_t $\times ROA_t$
VOI EMPL =	$\%EMPL\_record_t$ $\times NewFinance_t$	$\%EMPL\_record_t$	$\%EMPL\_record_t$	$\%EMPL\_record_t$	$\%EMPL\_record_t$	$\%EMPL\_record_t$ $\times DumOCF_t$ $\times OCF_t$	$\%EMPL\_record_t$ $\times ROA_t$	$\%EMPL\_record_t$ $\times ROA_t$
Estimation of Eq.	3	4	5	5	6	7	8	8
Expected sign	+	-	+	+	+	-	-	-
Dependent variable:	$OPACC_t$	AQ_t	$ln(Reporting\ Lag)_t$	$Late_t$	$NonClean\ Opinion_t$	$WCACC_t$	ROA_{t+1}	OCF_{t+1}
N=	137,200	98,761	162,801	162,801	38,732	162,801	150,853	150,853
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VOI CEO$_t$	0.0047*	-0.0013**	0.0439***	0.0586***	0.0106**	-0.0605***	-0.0042	0.0007
	(1.82)	(-2.25)	(10.21)	(11.34)	(2.43)	(-2.62)	(-0.36)	(0.05)
VOI EMPL$_t$	0.0212***	-0.0057**	0.0559**	0.1059***	0.0305**	-0.5302***	-0.3088***	-0.3372***
	(3.43)	(-2.53)	(2.51)	(3.99)	(2.42)	(-5.91)	(-8.48)	(-7.17)
CEO_record$_t$	0.0009					0.0005	0.0000	-0.0010
	(1.47)					(0.31)	(0.01)	(-0.48)
%EMPL_record$_t$	0.0071					0.0426***	0.0134***	0.0288***
	(1.62)					(5.62)	(2.81)	(4.29)
NewFinance$_t$	0.0604***							
	(4.82)							
ln(TA)$_t$	0.0010***	0.0032***			-0.0072***	-0.0052***	-0.0062***	-0.0069***
	(2.90)	(11.08)			(-5.81)	(-7.41)	(-7.15)	(-4.46)
Ln(FirmAge)$_t$	-0.0069***		0.0010	-0.0179***	-0.0057**		0.0007	0.0010
	(-10.59)		(0.31)	(-5.27)	(-2.43)		(0.89)	(0.74)
TL/TA$_t$	-0.0824***		0.0790***	0.1551***	0.1849***		-0.0114***	-0.0058
	(-36.28)		(10.31)	(14.07)	(10.65)		(-4.31)	(-1.26)
ROA volatility$_t$	0.0795***		0.0606***	0.1544***			-0.0580***	-0.0845***
	(6.02)		(4.38)	(9.19)			(-6.16)	(-9.56)

4

PPE_t	0.0170***	0.0115***	-0.0142***	0.0324***
	(4.49)	(10.66)	(-6.68)	(5.62)
$EMPLGR_t$	0.0751***			
	(14.65)			
$EMPLGR_{t+1}$	0.1031***			
	(28.62)			
$EMPLGR_t \times NOA_{t-1}$	0.0413***			
	(5.48)			
$OPCF_{t-2}$	0.0334***			
	(16.14)			
$OPCF_{t-1}$	0.0773***			
	(25.95)			
$OPCF_t$	-0.6107***			
	(-99.02)			
$DumOPCF_t$	0.0170***			
	(10.97)			
$DumOPCF_t \times OPCF_t$	-0.1845***			
	(-19.41)			
$OPCF_{t+1}$	0.1176***			
	(29.68)			
$OPCF_{t+1}$	0.0427***			
	(22.83)			
ROA_{t-1}	0.2018***			
	(24.01)			
$NewFinance_t \times ln(TA)_t$	-0.0046***			
	(-5.92)			
$NewFinance_t \times ln(FirmAge)_t$	-0.0036***			
	(-2.90)			
$NewFinance_t \times TL/TA_t$	-0.0269***			
	(-3.93)			
$NewFinance_t \times ROA\ volatility_t$	-0.1500***			
	(-7.30)			
$NewFinance_t \times PPE_t$	0.0776***			
	(24.22)			
$NewFinance_t \times EMPLGR_t$	-0.0174*			
	(-1.96)			
$NewFinance_t \times EMPLGR_{t+1}$	0.0269***			
	(4.37)			
$NewFinance_t \times EMPLGR \times NOA_{t-1}$	-0.0131			
	(-0.99)			

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
$NewFinance_t \times OPCF_{t-2}$	-0.0044 (-1.25)						
$NewFinance_t \times OPCF_{t-1}$	-0.0086 (-1.60)						
$NewFinance_t \times OPCF_t$	0.0792*** (5.49)						
$NewFinance_t \times DumOPCF_t$	0.0046 (1.54)						
$NewFinance_t \times DumOPCF_t \times OPCF_t$	-0.0194 (-1.57)						
$NewFinance_t \times DumOPCF_{t+1}$	0.0009 (0.15)						
$NewFinance_t \times DumOPCF_{t+2}$	0.0197*** (3.65)						
$NewFinance_t \times ROA_{t-1}$	0.0741*** (7.33)						
Revenue volatility$_t$		-0.0134*** (-24.55)					
Cash flow volatility$_t$		-0.1717*** (-30.98)					
Intangibles$_t$		-0.0120*** (-2.78)		0.0402* (1.67)			
NLosses$_t$		-0.0303*** (-24.57)					
ln(Employees)$_t$			0.0017 (0.46)	-0.0085** (-2.07)	-0.0103*** (-4.70)		
Loss$_t$			0.1422*** (18.75)	0.1711*** (22.39)	0.0428*** (11.33)		
ln(1+Subs)$_t$			0.0335*** (7.08)	0.0244*** (2.75)			
ROA$_t$					-0.0302*** (-3.63)	0.6889*** (18.40)	0.6848*** (12.66)
ΔRevenue/TA$_t$					-0.0018 (-1.43)		
OCF$_t$					-0.0038 (-0.52)	-0.4787*** (-10.40)	
CurrentRatio$_t$					0.0160*** (8.34)		
InvAccRec$_t$					-0.0372*** (-6.45)		

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$Bankrupt_t$						0.3041***		
						(6.24)		
$DumOCF_t$						0.0991***		
						(8.10)		
$DumOCF_t \times OCF_t$						0.8137***		
						(9.60)		
$OCF_t \times CEO\_record_t$						0.0165*		
						(1.72)		
$OCF_t \times \%EMPL\_record_t$						-0.2410***		
						(-5.65)		
$OCF_t \times ln(TA)_t$						0.0127**		
						(2.54)		
$DumOCF_t \times CEO\_record_t$						-0.0019		
						(-0.67)		
$DumOCF_t \times \%EMPL\_record_t$						-0.0549***		
						(-5.65)		
$DumOCF_t \times ln(TA)_t$						-0.0058***		
						(-4.93)		
$DumOCF_t \times OCF_t \times ln(TA)_t$						-0.0858***		
						(-9.81)		
$ROA_t \times ln(TA)_t$							0.0182***	0.0050
							(5.80)	(0.88)
$ROA_t \times ln(FirmAge)_t$							-0.0163**	-0.0043
							(-2.29)	(-0.47)
$ROA_t \times TL/TA_t$							-0.1432***	-0.1666***
							(-9.50)	(-9.43)
$ROA_t \times ROA\ volatility_t$							-0.3543***	-0.1459***
							(-14.01)	(-4.47)
$ROA_t \times PPE_t$							-0.1058***	0.0020
							(-7.63)	(0.09)
Adjusted R^2	0.7541	0.3211	0.0586	0.0661	0.0740	0.4442	0.3842	0.1674

This table shows the results of estimating Eqs. 3-8 with all control variables reported (cf. Panel B of Table 4 of the manuscript). Results marked with grey shading show the coefficients reported by Panel B of Table 4 of the manuscript. *CEO_record* indicates CEOs with criminal records. *%EMPL_record* is the proportion of employees with criminal records. All estimations include industry and year-fixed effects. Appendix A of the manuscript defines all the variables. Standard errors are clustered by firm and year (Gow et al., 2010). *t* statistics are in parentheses. ***, **, * Represent significance levels at 0.01, 0.05, and 0.10, respectively (two-tailed test). All financial ratios are winsorized at the 1 and 99 percent levels.
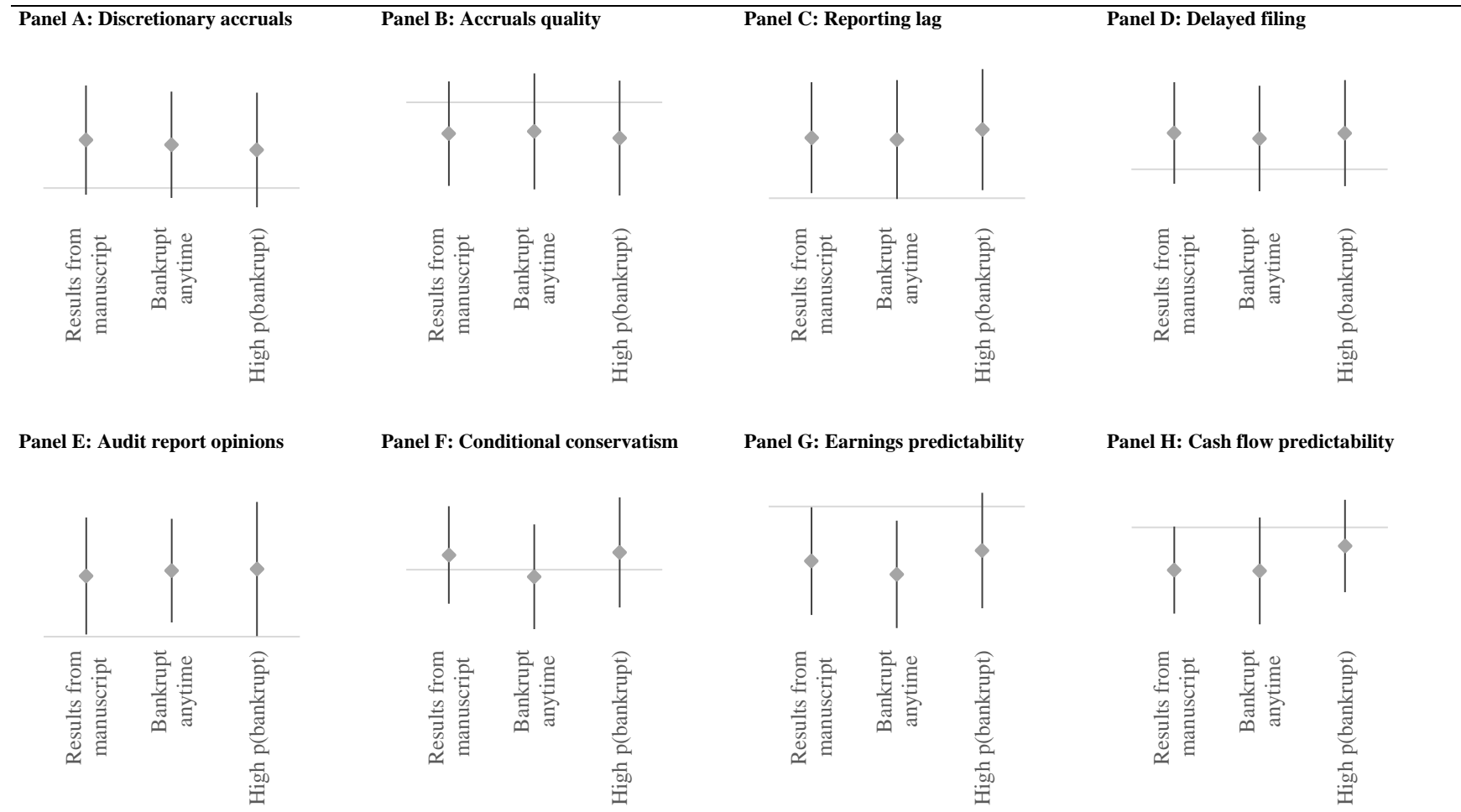
Online appendix B: Robustness tests

Figure OA1 presents differences in coefficient estimates of the variables of interest related to the CEO's criminal records (*CEO_record*) in regressions explaining financial reporting quality (FRQ hereafter). The differences are for firms with a high proportion of employees with criminal records versus firms with a low proportion (cf. Figure 2 of the manuscript, *High* minus *Low*). To ease comparison and interpretation of the results from the robustness tests, Figure OA1 also plots the main effect from Figure 2 of the manuscript ('Results from manuscript').

I re-run the estimations in Figure 2 of the manuscript with two restrictions. First, I remove firms that go bankrupt during the sample period ('Bankrupt anytime'). Second, I remove firms with a high bankruptcy likelihood, defined as having a bankruptcy likelihood above the 90th percentile (highest decile) within each year.

Figure OA1 presents the results. The differences in coefficient estimates remain largely stable to these robustness tests., suggesting that firm risk is not driving the results.

Figure OA1. Robustness tests

Panel A: Discretionary accruals

Panel B: Accruals quality

Panel C: Reporting lag

Panel D: Delayed filing

Panel E: Audit report opinions

Panel F: Conditional conservatism

Panel G: Earnings predictability

Panel H: Cash flow predictability

This figure shows the results of excluding financially risky firms. The figure depicts the differences in coefficient estimates on CEO's criminal records (*CEO_record*) for firms with a high proportion of criminal records versus a low one. Tilted squares (◆) denote this difference, and vertical lines denote 5% confidence intervals. Horizontal lines denote zero on the y-axis. *Results from the manuscript* is the results from Figure 2 (they are reported to ease comparison of the results). *Bankrupt anytime* removes firms that go bankrupt during the sample period. *High p(bankrupt)* removes firms with a high predicted bankruptcy likelihood. All estimations include industry and year-fixed effects and control variables.

References

Call, A. C., Campbell, J. L., Dhaliwal, D. S., & Moon, J. R. (2017). Employee quality and financial reporting outcomes. *Journal of Accounting and Economics*, *64*(1), 123–149. https://doi.org/10.1016/j.jacceco.2017.06.003

Che, L., Hope, O.-K., & Langli, J. C. (2020). How big-4 firms improve audit quality. *Management Science*, *66*(10), 4552–4572. https://doi.org/10.1287/mnsc.2019.3370

Chen, W., Hribar, P., & Melessa, S. (2018). Incorrect inferences when using residuals as dependent variables. *Journal of Accounting Research*, *56*(3), 751–796. https://doi.org/10.1111/1475-679x.12195

Gow, I. D., Ormazabal, G., & Taylor, D. J. (2010). Correcting for cross-sectional and time-series dependence in accounting research. *The Accounting Review*, *85*(2), 483–512. https://doi.org/10.2308/accr.2010.85.2.483

Impink, J., Lubberink, M., van Praag, B., & Veenman, D. (2012). Did accelerated filing requirements and SOX Section 404 affect the timeliness of 10-K filings? *Review of Accounting Studies*, *17*(2), 227–253. https://doi.org/10.1007/s11142-011-9172-5

Kothari, S. P., Leone, A. J., & Wasley, C. E. (2005). Performance matched discretionary accrual measures. *Journal of Accounting and Economics*, *39*(1), 163–197. https://doi.org/10.1016/j.jacceco.2004.11.002

Larson, C. R., Sloan, R., & Giedt, J. Z. (2018). Defining, measuring, and modeling accruals: a guide for researchers. *Review of Accounting Studies*, *23*(3), 827–871. https://doi.org/10.1007/s11142-018-9457-z