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The effect of macroeconomic conditions on the capital structure adjustment speed of South African listed firms

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APPENDIX B: RESULTS FROM REGRESSIONS WITHOUT EXTREME OBSERVATIONS

Table I: Regression results from full sample

	Total leverage			**Long-term Leverage**			**Short-term leverage**		
	Upturn	Downturn	Difference	Upturn	Downturn	Difference	Upturn	Downturn	Difference
Panel A: Regression results when conditions are determined by the return on an equity index									
EQTY_U*TGT	0.8218464 (0.1221) (0.000)			0.0649944 (0.0736) (0.377)			0.9251074 (0.1882) (0.000)		
EQTY_D*TGT		0.7646863 (0.1262) (0.000)			0.071022 (0.0783) (0.364)			0.9199965 (0.2089) (0.000)	
			7.21(0.007)			0.10(0.7534)			0.02(0.8930)
Number of observations	1218			1227			1236		
1st order autocorrelation	-5.8309 (0.0000)			-4.4966 (0.0000)			-5.0082 (0.0000)		
2nd order autocorrelation	1.1367 (0.2557)			0.37004 (0.7114)			1.4784 (0.1393)		
Sargan test	62.1189 (0.1832)			59.1452 (0.2613)			67.0262 (0.0932)		
Wald	579.83 (0.0000)			1357.61 (0.0000)			361.59 (0.0000)		
Panel B: Regression results when macroeconomic conditions are determined by the term spread									
TERM_U*TGT	0.4984998 (0.1728) (0.004)			0.057053 (0.0810) (0.481)			0.6004803 (0.2539) (0.018)		
TERM_D*TGT		0.5603503 (0.1584) (0.000)			0.0908695 (0.0768) (0.237)			0.6623577 (0.2285) (0.004)	
			8.42(0.0037)			3.43(0.0642)			3.13(0.0767)
Number of observations	1218			1227			1236		
1st order autocorrelation	-5.9296 (0.0000)			-4.5432 (0.0000)			-4.9975 (0.0000)		

2nd order autocorrelation	1.1686 (0.2426)			0.39673 (0.6916)			1.4997 (0.1337)	
Sargan test	63.3735 (0.1557)			58.5784 (0.2782)			64.2144 (0.1391)	
Wald	585.66 (0.0000)			1554.75 (0.0000)			369.62 (0.0000)	
Panel C: Regression results when macroeconomic conditions are determined by real GDP growth rate								
GDP_U*TGT	0.6139032 (0.1398) (0.000)			0.0540966 (0.0798) (0.498)			0.8460975 (0.1721) (0.000)	
GDP_D*TGT		0.6865802 (0.1298) (0.000)			0.168989 (0.0866) (0.051)			0.9066633 (0.1677) (0.000)
			10.12(0.0015)			23.71(0.0000)		2.65(0.1035)
Number of observations	1218			1227			1236	
1st order autocorrelation	-5.9876 (0.0000)			-4.4998 (0.0000)			-4.9908 (0.0000)	
2nd order autocorrelation	1.1793 (0.2383)			0.47157 (0.6372)			1.4268 (0.1536)	
Sargan test	63.8960 (0.2383)			56.5972 (0.3389)			64.1597 (0.1401)	
Wald	582.40 (0.0000)			1419.56 (0.0000)			352.04 (0.0000)	
Panel D: Regression results when macroeconomic conditions are determined by the inflation rate								
CPI_U*TGT	0.5502371 (0.1423) (0.000)			0.1609246 (0.0923) (0.081)			0.6509383 (0.1935) (0.001)	
CPI_D*TGT		0.5034735 (0.1533) (0.001)			0.113468 (0.1034) (0.272)			0.5457766 (0.1895) (0.004)
			5.21(0.0224)			4.97(0.0258)		13.82(0.0002)
Number of observations	1012			1021			1028	
1st order autocorrelation	-5.823 (0.0000)			-4.1363 (0.0000)			-4.5801 (0.0000)	
2nd order	1.5741			0.68578			2.1415	

autocorrelation	(0.1155)			(0.4929)			(0.0322)	
Sargan test	41.0028 (0.5583)			60.3137 (0.1416)			59.2666 (0.0503)	
Wald	602.61 (0.0000)			835.13 (0.0000)			712.44 (0.0000)	
Panel E: Regression results when macroeconomic conditions are determined by the leading indicator								
LEAD_U*TGT	0.824039 (0.1216) (0.000)			0.0919725 (0.0736) (0.212)			0.8119547 (0.1991) (0.000)	
LEAD_D*TGT		0.7658194 (0.1254) (0.000)			0.0894876 (0.0756) (0.236)			0.7859412 (0.2181) (0.000)
			6.09(0.0136)			0.02(0.8911)		0.67(0.4136)
Number of observations	1218			1227			1236	
1st order autocorrelation	-5.8877 (0.0000)			-4.4098 (0.0000)			-4.9958 (0.0000)	
2nd order autocorrelation	1.2125 (0.2253)			0.37937 (0.7044)			1.4945 (0.1350)	
Sargan test	64.4308 (0.1350)			59.3124 (0.2564)			64.4688 (0.1343)	
Wald	605.56 (0.0000)			1418.82 (0.0000)			364.59 (0.0000)	
Panel F: Regression results when macroeconomic conditions are determined by the coincident indicator								
COIN_U*TGT	0.6018311 (0.1402) (0.000)			0.0478282 (0.0799) (0.549)			0.8477769 (0.1720) (0.000)	
COIN_D*TGT		0.6768478 (0.1304) (0.000)			0.1665649 (0.0868) (0.055)			0.9140964 (0.1676) (0.000)
			11.10(0.0009)			25.56(0.0000)		3.18(0.0745)
Number of observations	1218			1227			1236	
1st order autocorrelation	-5.9924 (0.0000)			-4.4968 (0.0000)			-4.9892 (0.0000)	
2nd order autocorrelation	1.1829 (0.2369)			0.47231 (0.6367)			1.4228 (0.1548)	

Sargan test	63.9789 (0.1436)	56.0302 (0.3619)	64.4567 (0.1346)
Wald	591.26 (0.0000)	1405.09 (0.0000)	352.93 (0.0000)
Panel G: Regression results when macroeconomic conditions are determined by the lagging indicator			
LAG_U*TGT	0.7222385 (0.1545) (0.000)	0.1146945 (0.0853) (0.179)	0.7648679 (0.2775) (0.006)
LAG_D*TGT	0.7172207 (0.1420) (0.000)	0.1864397 (0.0809) (0.021)	0.7127327 (0.2523) (0.005)
	0.05(0.8312)	8.90(0.0029)	2.12(0.1457)
Number of observations	1012	1021	1028
1st order autocorrelation	-5.8896 (0.0000)	-4.2359 (0.0000)	-4.457 (0.0000)
2nd order autocorrelation	1.5576 (0.1913)	0.71018 (0.4776)	1.9609 (0.1499)
Sargan test	44.1619 (0.4423)	60.8251 (0.1378)	55.9614 (0.0888)
Wald	579.68 (0.0000)	858.17 (0.0000)	709.26 (0.0000)

This table reports regression results from the full sample with extreme leverage ratios (>0.8) removed from the sample. Regressions were run separately for each macroeconomic indicator. Panels A to G show the results using the various indicators. For the sake of brevity, the firm-characteristic variables are excluded from the results. Instead, the coefficients for the interaction terms between the macroeconomic indicator dummy variables and target leverage are reported. The variables are defined as follows: EQTY_U*TGT is the interaction of the upturn equity index dummy with the target leverage term, EQTY_D*TGT is the interaction of the downturn equity index dummy with the target leverage term, TERM_U*TGT is the interaction of the upturn term spread dummy with the target leverage term, TERM_D*TGT is the interaction of the downturn term spread dummy with the target leverage term, GDP_U*TGT is the interaction of the upturn GDP dummy with the target leverage term, GDP_D*TGT is the interaction between the downturn GDP dummy and the target leverage term, CPI_U*TGT is the interaction between the upturn CPI dummy with the target leverage term, CPI_D*TGT is the interaction between the CPI downturn dummy and the target leverage term, LEAD_U*TGT is the interaction between the upturn leading indicator dummy and the target leverage term, LEAD_D*TGT is the interaction between the downturn leading indicator dummy and the target leverage term, COIN_U*TGT, is the interaction between the upturn coincident indicator dummy and the target leverage term, COIN_D*TGT is the interaction between the downturn coincident indicator dummy and the target leverage term, LAG_U*TGT s the interaction between the upturn lagging indicator dummy and the target leverage term, and LAG_D*TGT is the interaction between the downturn lagging indicator dummy and the target leverage variable. The coefficients on the interaction terms yield the speed of adjustment estimates in upturns (in the

case of the upturn interaction terms) and downturns (in the case of the downturn interaction terms). The GMM standard errors and p-values for the adjustment speed coefficients are reported (in this order) below the coefficients. The "difference" column reports the chi-squared statistic and p-value in brackets from a difference in means test between the coefficients on the interaction terms. This significance of the chi-squared statistic determines whether the null hypothesis of no difference in the coefficients should be accepted or rejected. In addition, the number of observations in each regression is reported. The first and second-order autocorrelation test z-statistics are also reported. The p-values for these are reported in brackets, the significance of which determines whether or not to reject the null hypothesis of no autocorrelation. Sargan test chi-squared statistics are also reported, with p-values reported in brackets, in order to test the null hypothesis that the overidentifying restrictions are valid. Wald test chi-squared statistics are also included. The p-values (reported in brackets) related to this determines whether the null hypothesis that all the dependent variables are simultaneously equal to 0 (and therefore are not significant determinants of the dependent variable and can be excluded from the model) should be rejected. Lastly, separate columns are included for each leverage definition as separate sets of regressions were run for short-term, long-term and total leverage.

Table II: Regression results for constrained and unconstrained firms as defined by the capital expenditure coverage ratio

	Total leverage			**Long-term Leverage**			**Short-term leverage**		
	Upturn	Downturn	Difference	Upturn	Downturn	Difference	Upturn	Downturn	Difference
Panel A: Regression results when conditions are determined by the return on an equity index									
Unconstrained									
EQTY_U*TGT	0.3753891 (0.0381) (0.000)			0.147619 (0.0112) (0.000)			1.915156 (0.0299) (0.000)		
EQTY_D*TGT		0.4026516 (0.0391) (0.000)			0.1180111 (0.0101) (0.000)			2.278726 (0.0338) (0.000)	
			49.02(0.0000)			191.32(0.0000)			1414.53(0.0000)
Number of observations	412			413			417		
1st order autocorrelation	-3.2169 (0.0013)			-2.3449 (0.0190)			-2.7005 (0.0069)		
2nd order autocorrelation	1.200 (0.2302)			1.1235 (0.2612)			1.2619 (0.2070)		
Sargan test	47.61903 (0.6830)			58.9454 (0.2672)			55.7682 (0.3711)		
Wald	75453.46 (0.0000)			9.56e+07 (0.0000)			169280.98 (0.0000)		
Constrained									
EQTY_U*TGT	1.25109 (0.0277) (0.000)			-0.3271916 (0.0237) (0.000)			-		
EQTY_D*TGT		1.26504 (0.0250) (0.000)			-0.3224045 (0.0233) (0.000)			-	
			5.18(0.0228)			5.51(0.0190)			-
Number of observations	342			341			-		

1st order autocorrelation	-2.3791 (0.0174)			-2.0229 (0.0413)			-	
2nd order autocorrelation	-0.4502 (0.6526)			-0.3404 (0.7335)			-	
Sargan test	50.5173 (0.5714)			57.5585 (0.3103)			-	
Wald	29752.05 (0.0000)			995493.91 (0.0000)			-	
Panel B: Regression results when macroeconomic conditions are determined by the term spread								
Unconstrained								
TERM_U*TGT	0.0465906 (0.0887) (0.600)			0.2730737 (0.0152) (0.000)			0.35419 (0.0470) (0.000)	
TERM_D*TGT		0.0877952 (0.0811) (0.279)			0.1998144 (0.0147) (0.000)			0.472738 (0.0413) (0.000)
			24.00(0.0000)			3592.48(0.0000)		282.69(0.0000)
Number of observations	412			413			417	
1st order autocorrelation	-3.2419 (0.0012)			-2.4158 (0.0157)			-2.6605 (0.0078)	
2nd order autocorrelation	1.194 (0.2325)			1.1999 (0.2302)			1.5704 (0.1163)	
Sargan test	45.7356 (0.7502)			61.0519 (0.2091)			52.9442 (0.4763)	
Wald	34473.89 (0.0000)			1.53e+07 (0.0000)			1.72e+06 (0.0000)	
Constrained								
TERM_U*TGT	0.5884157 (0.0672) (0.000)			-0.494069 (0.0314) (0.000)			-	
TERM_D*TGT		0.6556899 (0.0628) (0.000)			-0.4058464 (0.0284) (0.000)			-
			179.23(0.0000)			299.69(0.0000)		-
Number of	342			341			-	

observations								
1st order autocorrelation	-2.4298 (0.0151)			-2.1362 (0.0327)			-	
2nd order autocorrelation	-0.4897 (0.6244)			-0.2972 (0.7663)			-	
Sargan test	50.4011 (0.5760)			55.6904 (0.3739)			-	
Wald	33407.64 (0.0000)			1.46e+06 (0.0000)			-	
Panel C: Regression results when macroeconomic conditions are determined by real GDP growth rate								
Unconstrained								
GDP_U*TGT	0.2154668 (0.0322) (0.000)			0.2745874 (0.0122) (0.000)			0.682474 (0.0593) (0.000)	
GDP_D*TGT		0.2811368 (0.0313) (0.000)			0.2340947 (0.0118) (0.000)			1.023708 (0.0481) (0.000)
			172.34(0.0000)			941.05(0.0000)		506.24(0.0000)
Number of observations	412			413			417	
1st order autocorrelation	-3.2498 (0.0012)			-2.3528 (0.0186)			-2.7273 (0.0064)	
2nd order autocorrelation	1.217 (0.2236)			1.1045 (0.2694)			1.3724 (0.1699)	
Sargan test	48.5724 (0.6471)			60.1062 (0.2365)			58.6677 (0.2755)	
Wald	41078.04 (0.0000)			9.12e+06 (0.0000)			7.14e+06 (0.0000)	
Constrained								
GDP_U*TGT	0.9827297 (0.0402) (0.000)			-0.5520307 (0.0364) (0.000)			-	
GDP_D*TGT		1.051825 (0.0355) (0.000)			-0.3882705 (0.0368) (0.000)			-
			79.07(0.0000)			5166.57(0.0000)		-

Number of observations	342			341			-	
1st order autocorrelation	-2.3024 (0.0213)			-2.1419 (0.0322)			-	
2nd order autocorrelation	-0.4790 (0.6319)			-0.3006 (0.7638)			-	
Sargan test	52.2643 (0.5028)			56.7348 (0.3376)			-	
Wald	15743.36 (0.0000)			1.89e+07 (0.0000)			-	
Panel D: Regression results when macroeconomic conditions are determined by the inflation rate								
Unconstrained								
CPI_U*TGT	0.3862001 (0.0663) (0.000)			-0.0269801 (0.0271) (0.319)			0.1675878 (0.0938) (0.074)	
CPI_D*TGT		0.4208863 (0.0742) (0.000)			-0.1598092 (0.0269) (0.000)			0.3167489 (0.0918) (0.001)
		10.30(0.0013)			1842.33(0.0000)			161.30(0.0000)
Number of observations	341			342			345	
1st order autocorrelation	-3.1779 (0.0015)			-2.0122 (0.0433)			-2.5819 (0.0098)	
2nd order autocorrelation	0.9062 (0.3648)			1.0504 (0.2935)			1.5955 (0.1106)	
Sargan test	46.8101 (0.3189)			46.9722 (0.3130)			48.3897 (0.2644)	
Wald	47181.41 (0.0000)			1.50e+06 (0.0000)			9112.04 (0.0000)	
Constrained								
CPI_U*TGT	1.049567 (0.0414) (0.000)			0.0839249 (0.0252) (0.001)			-	
CPI_D*TGT		1.111998 (0.0409) (0.000)			0.1723545 (0.0272) (0.000)			-

			275.14(0.0000)		383.07(0.0000)		-	
Number of observations	290		289		-			
1st order autocorrelation	-2.1961 (0.0281)		-2.0508 (0.0403)		-			
2nd order autocorrelation	0.0328 (0.9738)		-0.0101 (0.9919)		-			
Sargan test	43.8778 (0.4341)		46.8688 (0.3168)		-			
Wald	185243.67 (0.0000)		286154.08 (0.0000)		-			
Panel E: Regression results when macroeconomic conditions are determined by the leading indicator								
Unconstrained								
LEAD_U*TGT	0.2921418 (0.0307) (0.000)		0.136864 (0.0184) (0.000)		1.591673 (0.0854) (0.000)			
LEAD_D*TGT		0.265974 (0.0337) (0.000)		0.134123 (0.0172) (0.000)		1.77957 (0.0992) (0.000)		
			10.90(0.0010)		1.70(0.1927)			157.49(0.0000)
Number of observations	412		413		417			
1st order autocorrelation	-3.2097 (0.0013)		-2.3499 (0.0188)		-2.692 (0.0071)			
2nd order autocorrelation	1.217 (0.2236)		1.1294 (0.2547)		1.4055 (0.1599)			
Sargan test	45.8478 (0.7464)		59.4458 (0.2522)		50.6561 (0.5659)			
Wald	38894.47 (0.0000)		2.00e+07 (0.0000)		43014.58 (0.0000)			
Constrained								
LEAD_U*TGT	1.121933 (0.0507) (0.000)		-0.4259484 (0.0246) (0.000)		-			
LEAD_D*TGT		1.099196 (0.0506) (0.000)		-0.3737355 (0.0256) (0.000)		-		

			48.52(0.0000)		402.94(0.0000)		-	
Number of observations	342		341		-			
1st order autocorrelation	-2.6262 (0.0086)		-2.0045 (0.0450)		-			
2nd order autocorrelation	-0.2805 (0.7791)		-0.3704 (0.7111)		-			
Sargan test	47.9599 (0.6703)		57.5372 (0.3110)		-			
Wald	47396.10 (0.0000)		1.33e+06 (0.0000)		-			
Panel F: Regression results when macroeconomic conditions are determined by the coincident indicator								
Unconstrained								
COIN_U*TGT	0.177729 (0.0276) (0.000)		0.1438634 (0.0134) (0.000)		0.6801817 (0.0608) (0.000)			
COIN_D*TGT		0.267743 (0.0262) (0.000)		0.1216999 (0.0135) (0.000)		1.034343 (0.0492) (0.000)		
			397.36(0.0000)		237.54(0.0000)			500.12(0.0000)
Number of observations	412		413		417			
1st order autocorrelation	-3.2519 (0.0011)		-2.358 (0.0184)		-2.7363 (0.0062)			
2nd order autocorrelation	1.231 (0.2183)		1.1304 (0.2583)		1.3779 (0.1682)			
Sargan test	48.8037 (0.6382)		60.2526 (0.2300)		58.0926 (0.2932)			
Wald	50970.67 (0.0000)		1.02e+08 (0.0000)		6.99e+06 (0.0000)			
Constrained								
COIN_U*TGT	0.9827297 (0.0402) (0.000)		-0.5520307 (0.0364) (0.000)		-			
COIN_D*TGT		1.051825 (0.0355) (0.000)		-0.3882705 (0.0368) (0.000)		-		

			79.07(0.0000)		5166.57(0.0000)		-	
Number of observations	342		341		-			
1st order autocorrelation	-2.3024 (0.0213)		-2.1419 (0.0322)		-			
2nd order autocorrelation	-0.4790 (0.6319)		-0.3006 (0.7638)		-			
Sargan test	52.2643 (0.5028)		56.7348 (0.3376)		-			
Wald	15743.36 (0.0000)		1.89e+07 (0.0000)		-			
Panel G: Regression results when macroeconomic conditions are determined by the lagging indicator								
Unconstrained								
LAG_U*TGT	0.3320192 (0.0412) (0.000)		0.1579266 (0.0232) (0.000)		0.5355764 (0.0889) (0.000)			
LAG_D*TGT		0.3395733 (0.0416) (0.000)		0.0371736 (0.0163) (0.023)		0.5470384 (0.0805) (0.000)		
			7.48(0.0062)		183.00(0.0000)			0.77(0.3803)
Number of observations	341		342		345			
1st order autocorrelation	-3.2079 (0.0013)		-2.0837 (0.0372)		-2.578 (0.0099)			
2nd order autocorrelation	0.9106 (0.3625)		1.1265 (0.2600)		1.4886 (0.1366)			
Sargan test	45.6692 (0.3618)		50.1709 (0.2104)		45.4964 (0.3685)			
Wald	53545.42 (0.0000)		457377.19 (0.0000)		9068.12 (0.0000)			
Constrained								
LAG_U*TGT	0.2639714 (0.0546) (0.000)		-0.2430693 (0.0276) (0.000)		-			
LAG_D*TGT		0.3841565 (0.0510)		-0.067291 (0.0260)		-		

	(0.000)	(0.010)	
	419.65(0.0000)	3956.88(0.0000)	-
Number of observations	290	289	-
1st order autocorrelation	-2.2414 (0.0250)	-2.1348 (0.0328)	-
2nd order autocorrelation	0.0081 (0.9935)	0.0606 (0.9517)	-
Sargan test	39.5027 (0.6238)	48.4306 (0.2631)	-
Wald	761444.78 (0.0000)	2.11e+07 (0.0000)	-

This table reports regression results for constrained and unconstrained samples as defined by the capital expenditure coverage ratio when extreme leverage ratios (>0.8) are removed. Regressions were run separately for each macroeconomic indicator. Panels A to G show the results using the various indicators. For the sake of brevity, the firm-characteristic variables are excluded from the results. Instead, the coefficients for the interaction terms between the macroeconomic indicator dummy variables and target leverage are reported. The variables are defined as follows: EQTY_U*TGT is the interaction of the upturn equity index dummy with the target leverage term, EQTY_D*TGT is the interaction of the downturn equity index dummy with the target leverage term, TERM_U*TGT is the interaction of the upturn term spread dummy with the target leverage term, TERM_D*TGT is the interaction of the downturn term spread dummy with the target leverage term, GDP_U*TGT is the interaction of the upturn GDP dummy with the target leverage term, GDP_D*TGT is the interaction between the downturn GDP dummy and the target leverage term, CPI_U*TGT is the interaction between the upturn CPI dummy with the target leverage term, CPI_D*TGT is the interaction between the CPI downturn dummy and the target leverage term, LEAD_U*TGT is the interaction between the upturn leading indicator dummy and the target leverage term, LEAD_D*TGT is the interaction between the downturn leading indicator dummy and the target leverage term, COIN_U*TGT, is the interaction between the upturn coincident indicator dummy and the target leverage term, COIN_D*TGT is the interaction between the downturn coincident indicator dummy and the target leverage term, LAG_U*TGT s the interaction between the upturn lagging indicator dummy and the target leverage term, and LAG_D*TGT is the interaction between the downturn lagging indicator dummy and the target leverage variable. The coefficients on the interaction terms yield the speed of adjustment estimates in upturns (in the case of the upturn interaction terms) and downturns (in the case of the downturn interaction terms). The GMM standard errors and p-values for the adjustment speed coefficients are reported (in this order) below the coefficients. The "difference" column reports the chi-squared statistic and p-value in brackets from a difference in means test between the coefficients on the interaction terms. This significance of the chi-squared statistic determines whether the null hypothesis of no difference in the coefficients should be accepted or rejected. In addition, the number of observations in each regression is reported. The first and second-order autocorrelation test z-statistics are also reported. The p-values for these are reported in brackets, the significance of which determines whether or not to reject the null hypothesis of no autocorrelation. Sargan test chi-squared statistics are also reported, with p-values reported in brackets, in order to test the null hypothesis that the overidentifying restrictions are valid. Wald test chi-squared statistics are also included. The p-values (reported in brackets) related to this determines whether the null hypothesis that all the dependent variables are simultaneously equal to 0 (and therefore are not significant determinants of the dependent variable and can be excluded from the model) should be rejected. Lastly, separate columns are included for each leverage definition as separate sets of regressions were run for short-term, long-term and total leverage.

Table III: Regression results for constrained and unconstrained firms as defined by the debt coverage ratio

	Total leverage			**Long-term Leverage**			**Short-term leverage**		
	Upturn	Downturn	Difference	Upturn	Downturn	Difference	Upturn	Downturn	Difference
Panel A: Regression results when conditions are determined by the return on an equity index									
Unconstrained									
EQTY_U*TGT	-			-			-		
EQTY_D*TGT		-			-			-	
			-			-			-
Number of observations	-			-			-		
1st order autocorrelation	-			-			-		
2nd order autocorrelation	-			-			-		
Sargan test	-			-			-		
Wald	-			-			-		
Constrained									
EQTY_U*TGT	1.104624 (0.1360) (0.000)			-0.0776984 (0.1064) (0.465)			1.016864 (0.1565) (0.000)		
EQTY_D*TGT		1.081012 (0.1420) (0.000)			-0.0752212 (0.1021) (0.461)			0.9367745 (0.1757) (0.000)	
			1.12(0.2904)			0.03(0.8726)			4.26(0.0391)
Number of observations	718			725			736		
1st order autocorrelation	-4.1819 (0.0000)			-3.4653 (0.0005)			-3.261 (0.0011)		
2nd order autocorrelation	0.8444 (0.3984)			0.7671 (0.4430)			0.9794 (0.3274)		
Sargan test	55.6268 (0.3762)			54.7733 (0.4071)			56.9709 (0.3297)		

Wald	310.65 (0.0000)			3062.90 (0.0000)			605.64 (0.0000)	
Panel B: Regression results when macroeconomic conditions are determined by the term spread								
Unconstrained								
TERM_U*TGT	-			-			-	
TERM_D*TGT		-			-			-
			-			-			-
Number of observations	-			-			-	
1st order autocorrelation	-			-			-	
2nd order autocorrelation	-			-			-	
Sargan test	-			-			-	
Wald	-			-			-	
Constrained								
TERM_U*TGT	0.6205971 (0.1939) (0.001)			-0.1060827 (0.0993) (0.285)			1.004417 (0.2391) (0.000)	
TERM_D*TGT		0.6879526 (0.1782) (0.000)			-0.0636345 (0.1025) (0.535)			1.055853 (0.2108) (0.000)
			8.57(0.0034)			6.27(0.0123)			1.82(0.1773)
Number of observations	718			725			736	
1st order autocorrelation	-4.1795 (0.0000)			-3.4645 (0.0005)			-3.2791 (0.0010)	
2nd order autocorrelation	0.9127 (0.3614)			0.7957 (0.4262)			0.9813 (0.3264)	
Sargan test	54.5337 (0.4160)			60.1418 (0.2330)			53.4578 (0.4566)	
Wald	314. 18 (0.0000)			2922.09 (0.0000)			637.69 (0.0000)	
Panel C: Regression results when macroeconomic conditions are determined by real GDP growth rate								
Unconstrained								

GDP_U*TGT	-			-			-	
GDP_D*TGT		-			-			-
			-			-		
Number of observations	-			-			-	
1st order autocorrelation	-			-			-	
2nd order autocorrelation	-			-			-	
Sargan test	-			-				
Wald	-			-			-	
Constrained								
GDP_U*TGT	0.8374437 (0.1650) (0.000)			-0.1353279 (0.1011) (0.181)			1.185085 (0.1438) (0.000)	
GDP_D*TGT		0.9083174 (0.1533) (0.000)			-0.025993 (0.0993) (0.793)			1.183405 (0.1438) (0.000)
			9.71(0.0018)			28.38(0.0000)		
Number of observations	718			725			736	
1st order autocorrelation	-4.3249 (0.0000)			-3.4385 (0.0006)			-3.2542 (0.0011)	
2nd order autocorrelation	0.8913 (0.3728)			0.7743 (0.4388)			0.9462 (0.3441)	
Sargan test	52.5324 (0.4923)			61.9029 (0.1882)			54.8027 (0.4060)	
Wald	302.78 (0.0000)			2999.20 (0.0000)			643.68 (0.0000)	
Panel D: Regression results when macroeconomic conditions are determined by the inflation rate								
Unconstrained								
CPI_U*TGT	-			-			-	
CPI_D*TGT		-			-			-
			-			-		
Number of observations	-			-			-	

1st order autocorrelation	-	-	-
2nd order autocorrelation	-	-	-
Sargan test	-	-	-
Wald	-	-	-
Constrained			
CPI_U*TGT	0.7608888 (0.1997) (0.000)	0.351648 (0.1240) (0.005)	0.9511491 (0.1934) (0.000)
CPI_D*TGT	0.7143931 (0.2076) (0.001)	0.3696704 (0.1290) (0.004)	0.8092879 (0.1796) (0.000)
	4.95(0.0262)	1.11(0.2912)	18.46(0.0000)
Number of observations	598	605	614
1st order autocorrelation	-3.9793 (0.0001)	-3.3646 (0.0008)	-3.2122 (0.0013)
2nd order autocorrelation	1.1326 (0.2574)	1.1673 (0.2445)	0.9970 (0.3188)
Sargan test	44.7904 (0.3966)	50.4706 (0.2021)	56.2913 (0.0841)
Wald	223.71 (0.0000)	786.31 (0.0000)	592.46 (0.0000)
Panel E: Regression results when macroeconomic conditions are determined by the leading indicator			
Unconstrained			
LEAD_U*TGT	-	-	-
LEAD_D*TGT	-	-	-
	-	-	-
Number of observations	-	-	-
1st order autocorrelation	-	-	-
2nd order autocorrelation	-	-	-
Sargan test	-	-	-
Wald	-	-	-

Constrained								
LEAD_U*TGT	1.078108 (0.1406) (0.000)			-0.0679919 (0.1070) (0.525)			0.9237121 (0.1835) (0.000)	
LEAD_D*TGT		1.05908 (0.1430) (0.000)			-0.0638888 (0.1016) (0.530)			0.8447355 (0.2059) (0.000)
			0.73(0.3942)			0.06(0.8141)		5.69(0.0171)
Number of observations	718			725			736	
1st order autocorrelation	-4.2213 (0.0000)			-3.4856 (0.0005)			-3.3051 (0.0009)	
2nd order autocorrelation	0.8749 (0.3816)			0.7762 (0.4376)			0.9981 (0.3182)	
Sargan test	55.4138 (0.3838)			53.8954 (0.4399)			52.5221 (0.4927)	
Wald	338.48 (0.0000)			3059.39 (0.0000)			615.17 (0.0000)	
Panel F: Regression results when macroeconomic conditions are determined by the coincident indicator								
Unconstrained								
COIN_U*TGT	-			-			-	
COIN_D*TGT		-			-			-
			-			-		-
Number of observations	-			-			-	
1st order autocorrelation	-			-			-	
2nd order autocorrelation	-			-			-	
Sargan test	-			-			-	
Wald	-			-			-	
Constrained								
COIN_U*TGT	0.8374437 (0.1650) (0.000)			-0.1353279 (0.1011) (0.181)			1.185085 (0.1438) (0.000)	
COIN_D*TGT		0.9083174 (0.1533)			-0.025993 (0.0993)			1.183405 (0.1438)

		(0.000)			(0.793)			(0.000)
		9.71(0.0018)			28.38(0.0000)			0.00(0.9653)
Number of observations	718			725			736	
1st order autocorrelation	-4.3249 (0.0000)			-3.4385 (0.0006)			-3.2542 (0.0011)	
2nd order autocorrelation	0.8913 (0.3728)			0.7743 (0.4388)			0.9462 (0.3441)	
Sargan test	52.5324 (0.4923)			61.9029 (0.1882)			54.8027 (0.4060)	
Wald	302.78 (0.0000)			2999.20 (0.0000)			643.68 (0.0000)	
Panel G: Regression results when macroeconomic conditions are determined by the lagging indicator								
Unconstrained								
LAG_U*TGT	-			-			-	
LAG_D*TGT		-			-			-
			-			-			-
Number of observations	-			-			-	
1st order autocorrelation	-			-			-	
2nd order autocorrelation	-			-			-	
Sargan test	-			-			-	
Wald	-			-				
Constrained								
LAG_U*TGT	0.7737159 (0.2049) (0.000)			0.1253935 (0.1198) (0.295)			1.104411 (0.2974) (0.000)	
LAG_D*TGT		0.7987574 (0.1980) (0.000)			0.2197073 (0.1223) (0.072)			1.029538 (0.2608) (0.000)
			1.30(0.2540)			13.34(0.0003)			2.60(0.1070)
Number of observations	598			605			614	
1st order	-4.0206			-3.5993			-3.2191	

autocorrelation	(0.0001)	(0.0003)	(0.0013)
2nd order autocorrelation	1.1621 (0.2452)	1.204 (0.2286)	0.8804 (0.3786)
Sargan test	45.7735 (0.3578)	50.5607 (0.1997)	55.0739 (0.1025)
Wald	217.73 (0.0000)	678.66 (0.0000)	719.33 (0.0000)

This table reports regression results for constrained and unconstrained samples as defined by the debt coverage ratio with extreme leverage ratios (>0.8) removed. Regressions were run separately for each macroeconomic indicator. Panels A to G show the results using the various indicators. For the sake of brevity, the firm-characteristic variables are excluded from the results. Instead, the coefficients for the interaction terms between the macroeconomic indicator dummy variables and target leverage are reported. The variables are defined as follows: EQTY_U*TGT is the interaction of the upturn equity index dummy with the target leverage term, EQTY_D*TGT is the interaction of the downturn equity index dummy with the target leverage term, TERM_U*TGT is the interaction of the upturn term spread dummy with the target leverage term, TERM_D*TGT is the interaction of the downturn term spread dummy with the target leverage term, GDP_U*TGT is the interaction of the upturn GDP dummy with the target leverage term, GDP_D*TGT is the interaction between the downturn GDP dummy and the target leverage term, CPI_U*TGT is the interaction between the upturn CPI dummy with the target leverage term, CPI_D*TGT is the interaction between the CPI downturn dummy and the target leverage term, LEAD_U*TGT is the interaction between the upturn leading indicator dummy and the target leverage term, LEAD_D*TGT is the interaction between the downturn leading indicator dummy and the target leverage term, COIN_U*TGT, is the interaction between the upturn coincident indicator dummy and the target leverage term, COIN_D*TGT is the interaction between the downturn coincident indicator dummy and the target leverage term, LAG_U*TGT s the interaction between the upturn lagging indicator dummy and the target leverage term, and LAG_D*TGT is the interaction between the downturn lagging indicator dummy and the target leverage variable. The coefficients on the interaction terms yield the speed of adjustment estimates in upturns (in the case of the upturn interaction terms) and downturns (in the case of the downturn interaction terms). The GMM standard errors and p-values for the adjustment speed coefficients are reported (in this order) below the coefficients. The "difference" column reports the chi-squared statistic and p-value in brackets from a difference in means test between the coefficients on the interaction terms. This significance of the chi-squared statistic determines whether the null hypothesis of no difference in the coefficients should be accepted or rejected. In addition, the number of observations in each regression is reported. The first and second-order autocorrelation test z-statistics are also reported. The p-values for these are reported in brackets, the significance of which determines whether or not to reject the null hypothesis of no autocorrelation. Sargan test chi-squared statistics are also reported, with p-values reported in brackets, in order to test the null hypothesis that the overidentifying restrictions are valid. Wald test chi-squared statistics are also included. The p-values (reported in brackets) related to this determines whether the null hypothesis that all the dependent variables are simultaneously equal to 0 (and therefore are not significant determinants of the dependent variable and can be excluded from the model) should be rejected. Lastly, separate columns are included for each leverage definition as separate sets of regressions were run for short-term, long-term and total leverage.