Large controlling shareholders and stock price synchronicity[1]

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Stock price synchronicity

- Estimating the following modified market model for each firm–year

$$RET_{i,w} = \alpha + \beta_1 MKRET_{w-1} + \beta_2 MKRET_w + \beta_3 INDRET_{i,w-1} + \beta_4 INDRET_{i,w}$$

- R-squared value obtained from the above regression

$$SYNCH = log(\frac{R^2_{i,t}}{1 - R^2_{i,t}})$$

Proxies for the control– ownership wedge

- $\text{Excess} = (\text{cr} - \text{cfr})/\text{cr}$
- $\text{ExcessDiff} = \text{cr} - \text{cfr}$
- $\text{ExcessDummy} = \begin{cases} 1 & \text{cr} - \text{cfr} > 0 \\ 0 & \text{cr} - \text{cfr} \leq 0 \end{cases}$
- $\text{ExcessHigh} = \begin{cases} 1 & \text{Excess} > \text{Median(Excess)} \\ 0 & \text{Excess} \leq \text{Median(Excess)} \end{cases}$

Table 4

Independent variable	Expected sign	Baseline model	Full model				Economic impact (Eq. (2))
		Eq. (1)	Eq. (2)	Eq. (3)	Eq. (4)	Eq. (5)	
Excess	+	0.4340[a]	0.4619[a]				0.100
		(2.7801)	(3.4131)				
ExcessDiff	+			0.9153[a]			
				(3.4351)			
ExcessDummy	+				0.0995[b]		
					(2.1971)		
ExcessHigh	+					0.1433[a]	
						(3.1382)	
UCF	–	−0.6642[a]	−0.6052[a]	−0.7275[a]	−0.7255[a]	−0.6740[a]	−0.151
		(−5.7162)	(−5.6130)	(−7.5125)	(−6.4477)	(−6.0187)	
LEV	+/–		−0.0874	−0.1043	−0.0931	−0.0878	−0.021
			(−0.6386)	(−0.7636)	(−0.6794)	(−0.6414)	
STDRET	–		−0.3878[a]	−0.3824[a]	−0.3960[a]	−0.3952[a]	−0.007
			(−2.7929)	(−2.7977)	(−2.8127)	(−2.8034)	
AMIHUD	+		1.5637[a]	1.5733[a]	1.5941[a]	1.5788[a]	0.056
			(3.4752)	(3.4656)	(3.5632)	(3.5080)	
ROACORR	+		0.0536[b]	0.0526[b]	0.0557[b]	0.0565[b]	0.038
			(2.2553)	(2.2252)	(2.3335)	(2.3727)	
LOG (NIND)	?		−0.2101[a]	−0.2110[a]	−0.2100[a]	−0.2094[a]	−0.220
			(−5.7570)	(−5.6911)	(−5.6905)	(−5.6542)	
DIVERS	+/–		0.0217	0.0225	0.0235[c]	0.0226	0.042
			(1.5799)	(1.6409)	(1.6984)	(1.6275)	
XLIST	+/–		0.4402[a]	0.4291[a]	0.4210[a]	0.4288[a]	0.112
			(3.3607)	(3.3980)	(3.3282)	(3.3806)	
SIZE	+	0.3213[a]	0.2955[a]	0.2934[a]	0.2953[a]	0.2946[a]	0.639
		(21.4299)	(18.9320)	(18.7762)	(18.8792)	(18.8705)	
Intercept		−1.1752[a]	−1.0364[a]	−0.9710[a]	−0.9792[a]	−1.0010[a]	
		(−3.8217)	(−3.6233)	(−3.4784)	(−3.5666)	(−3.5848)	
Industry dummies		Yes	Yes	Yes	Yes	Yes	
Year dummies		Yes	Yes	Yes	Yes	Yes	
N		4561	4561	4561	4561	4561	
Adjusted R^2		0.4167	0.4491	0.4494	0.4451	0.4464	
F		41.12[a]	37.72[a]	36.74[a]	36.69[a]	37.34[a]	

	Synchronicity					
	(1)	(2)	(3)	(4)	(5)	(6)
Excess		-0.477	-0.352			
		(-1.71)	(-1.31)			
ExcessDiff				-0.241		
				(-0.87)		
ExcessDummy					-0.0663	
					(-0.49)	
ExcessHigh						-0.0180
						(-0.13)
cfr	0.212	-0.331	-0.118	0.0708	0.146	0.187
	(0.92)	(-0.81)	(-0.31)	(0.23)	(0.54)	(0.60)
volatility	-0.484*		-0.474*	-0.482*	-0.478*	-0.484*
	(-2.23)		(-2.16)	(-2.22)	(-2.19)	(-2.23)
liquidity	-0.116***		-0.111***	-0.112***	-0.113***	-0.115***
	(-3.63)		(-3.46)	(-3.50)	(-3.55)	(-3.68)
size	0.0454	0.123**	0.0385	0.0436	0.0452	0.0453
	(0.95)	(2.96)	(0.78)	(0.90)	(0.94)	(0.94)
Industry Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Observations	856	856	856	856	856	856
R^2	0.467	0.456	0.468	0.468	0.467	0.467

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5

Independent variable	Expected sign	Baseline model	Full model				Economic impact (Eq. (2))
		Eq. (1)	Eq. (2)	Eq. (3)	Eq. (4)	Eq. (5)	
Excess	+	0.4203[a] (8.2821)	0.4319[a] (9.8971)				0.093
ExcessDiff	+			0.8499[a] (6.8730)			
ExcessDummy (4.7389)	+				0.0852[a]		
ExcessHigh	+					0.1287[a] (5.6281)	
UCF	–	−0.6795[a] (−13.9080)	−0.6157[a] (−14.3660)	−0.7322[a] (−18.8863)	−0.7397[a] (−15.2357)	−0.6887[a] (−17.9060)	−0.153
LEV	+/–		−0.1259 (−1.0353)	−0.1398 (−1.1418)	−0.1292 (−1.0452)	−0.1299 (−1.0516)	−0.030
STDRET	–		−0.3174[b] (−2.9661)	−0.3057[b] (−2.8589)	−0.3281[b] (−3.0412)	−0.3300[b] (−3.0545)	−0.006
AMIHUD	+		1.6603[a] (4.8400)	1.6877[a] (5.0554)	1.6983[a] (5.1627)	1.6595[a] (5.0222)	0.059
ROACORR	+		0.0638[a] (3.6260)	0.0624[a] (3.6679)	0.0651[a] (3.8332)	0.0661[a] (3.9606)	0.045
LOG (NIND)	?		−0.2076[a] (−16.6884)	−0.2084[a] (−16.7446)	−0.2078[a] (−16.7103)	−0.2075[a] (−16.1773)	−0.217
DIVERS	+/–		0.0202[b] (2.8268)	0.0212[b] (3.0133)	0.0216[b] (3.0086)	0.0207[b] (2.9984)	0.039
XLIST	+/–		0.4487[a] (11.4865)	0.4368[a] (11.4380)	0.4284[a] (11.3181)	0.4368[a] (11.5180)	0.114
SIZE	+	0.3187[a] (26.8572)	0.2863[a] (32.1764)	0.2840[a] (31.4588)	0.2859[a] (32.7908)	0.2851[a] (32.0559)	0.619
Intercept		−1.2694[a] (−11.9593)	−1.0330[a] (−9.1540)	−0.9751[a] (−8.1866)	−0.9722[a] (−8.2238)	−0.9907[a] (−8.4827)	
Industry dummies		Yes	Yes	Yes	Yes	Yes	
Year dummies		No	No	No	No	No	
N		4561	4561	4561	4561	4561	
Average R^2		0.4291	0.4722	0.4724	0.4682	0.4695	
F		80.19[a]	113.02[a]	114.00[a]	114.35[a]	115.96[a]	

	Synchronicity					
	(1)	(2)	(3)	(4)	(5)	(6)
Excess		-0.664*	-0.875			
		(-2.94)	(-1.64)			
ExcessDiff				-0.662		
				(-1.78)		
ExcessDummy					-0.0196	
					(-0.33)	
ExcessHigh						0.278
						(0.85)
cfr		-0.449**	-0.432	-0.145	0.334	0.244
		(-6.07)	(-1.55)	(-0.99)	(1.20)	(1.01)
volatility	1.043		1.263	1.111	1.113	1.107
	(1.79)		(1.98)	(1.80)	(1.74)	(1.73)
liquidity	-0.138***		-0.171**	-0.172**	-0.117**	-0.123**
	(-10.46)		(-5.94)	(-6.12)	(-4.98)	(-6.38)
size	0.0323	0.130**	-0.0754	-0.0716	0.0446	0.0349
	(1.51)	(6.67)	(-0.86)	(-0.83)	(1.44)	(1.28)
Industry Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummy	No	No	No	No	No	No
Observations	856	856	856	856	856	856
R^2	0.604	0.580	0.613	0.615	0.610	0.611

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$