

INTERNET APPENDIX for

“Do Directors Respond to Stock Mispricing? Evidence from CEO Turnovers”

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Table A.1
Controlling for Analysts' Long-Term Growth Forecast

This table presents the regressions of 12-month stock returns and CEO turnover on MISPRICING, controlling for analysts' long-term forecast about the firm. Analysts' long-term forecast (LT_FORECAST) are measured as analysts' median long-term growth forecast at the beginning of the fiscal year. Analyst data is from I/B/E/S. Non-fundamental movements in stock returns are measured by MISPRICING. ROA is the firm's return on assets. Controls are firm size (log of assets), fraction of institutional ownership, leverage, board size, CEO tenure, and a dummy variable indicating whether or not the CEO is also chairman of the board. Fundamental movements in stock returns are measured as residuals (v) from the estimation of equation (1). FE = fixed effects. MISPRICING, FUNDAMENTAL, and ROA are divided by their standard deviation to facilitate the interpretation of the coefficients. Standard errors are displayed in parentheses. Standard errors are clustered at the firm level. ***, **, and * indicate statistical significance at (respectively) the 1%, 5%, and 10% levels.

	RETURN_12M		CEO_TURNOVER	
	1	2	3	4
MISPRICING	0.0457*** (0.0062)	0.0477*** (0.0071)	-0.0086** (0.0040)	-0.0088** (0.0045)
FUNDAMENTAL			-0.0182*** (0.0031)	-0.0127*** (0.0031)
ROA	0.0988*** (0.0055)	0.1364*** (0.0097)	-0.0153*** (0.0033)	-0.0259*** (0.0057)
LT_FORECAST	0.0097*** (0.0010)	0.0083*** (0.0014)	-0.0010** (0.0004)	-0.0013** (0.0006)
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	No	Yes	No
Firm FE	No	Yes	No	Yes
Controls	Yes	Yes	Yes	Yes
Observations	10533	10433	10533	10433

Table A.2
Independent Directors' Insider Trading

This table presents the coefficient on MISPRICING for nine regressions that relate insider purchases to stock mispricing driven by mutual fund outflows. Each cell of the table represents the coefficient estimated from a separate regression. PURCHASE is a dummy variable that equals 1 if the insider is a purchaser of the firm stock in the year. Fraction of Purchases (FRAC_PURCHASE) represents the fraction of shares purchased by the insider over the total number of shares she traded in the year. Value of Shares Purchased (VAL_PURCHASE) is the market value of the shares purchased by the insider over the year. Controls are firm size (log of assets), fraction of institutional ownership, leverage, board size, CEO tenure, and a dummy variable indicating whether or not the CEO is also chairman of the board. FE = Fixed Effects. MISPRICING is divided by its standard deviation to facilitate the interpretation of the coefficients. Standard errors (in parentheses) are clustered at the firm level. *, **, and *** indicate statistical significance at (respectively) the 10%, 5%, and 1% levels.

	P(PURCHASE>0) 1	FRAC_ PURCHASE 2	ln(VAL_ PURCHASE) 3	N
<i>Main officers</i>	-0.0153*** (0.0056)	-0.0150*** (0.0055)	-0.1771*** (0.0656)	12,709
<i>Independent directors</i>	-0.0237*** (0.0050)	-0.0228*** (0.0049)	-0.2499*** (0.0559)	20,821
<i>Independent directors during the tenure of CEOs replaced following price pressure</i>	-0.0297* (0.0158)	-0.0305** (0.0155)	-0.3094* (0.1741)	1,799
Firm FE	Yes	Yes	Yes	
Year FE	Yes	Yes	Yes	
Controls	Yes	Yes	Yes	

Table A.3
Independent Directors, CEO Turnover, and Labor Market for Director Seats

This table describes the evolution of the difference in the average number of seats across directors involved in a CEO turnover and matched directors. Directors that do and do not experience a CEO turnover are matched by 15-year age bracket, (two-digit) industry-adjusted RoA quartile, asset quartile, mispricing quartile, and number of seats at other firms. The dependent variable is the difference between the number of seats for a turnover director and the average number of seats for matched control directors. OWN_SEAT is a dummy variable that equals 1 if director i holds a seat at the focal firm in year t , and 0 otherwise. FE = fixed effects. Standard errors (in parentheses) are clustered at the firm level. *, **, and *** indicate statistical significance at (respectively) the 10%, 5%, and 1% levels.

	Δ OTHER_SEATS (Indep. Directors) 1	Δ OWN_SEAT (Indep. Directors) 2	Δ OWN_SEAT (Non-Indep. Directors) 3
$T+1$	0.0203*** (0.0069)	0.0084 (0.0100)	-0.1090*** (0.0138)
$T+2$	0.0324*** (0.0079)	0.0242** (0.0121)	-0.1528*** (0.0168)
$T+3$	0.0352*** (0.0079)	0.0215 (0.0132)	-0.1424*** (0.0172)
Director-Firm FE	Yes	Yes	Yes
Event Year FE	Yes	Yes	Yes
Observations	24595	24595	11365

Table A.4
Cost of CEO Replacement: Inside vs. Outside Successions

This table presents results from the estimation of equation (2), split by type of CEO replacement. Data on CEO turnover and replacement type are from Eisfeldt and Kuhnen (2013). Non-fundamental movements in stock returns are measured by MISPRICING (mutual fund hypothetical sales). ROA is the firm's return on assets. Controls are firm size (log of assets), fraction of institutional ownership, leverage, board size, CEO tenure, and a dummy variable indicating whether or not the CEO is also chairman of the board. Fundamental movements in stock returns are measured as residuals (v) from the estimation of equation (1). FE = fixed effects. MISPRICING, FUNDAMENTAL, and ROA are divided by their standard deviation to facilitate the interpretation of the coefficients. Standard errors (in parentheses) are clustered at the firm level. ***, **, and * indicate statistical significance at (respectively) the 1%, 5%, and 10% levels.

	CEO Turnover					
	All 1	All 2	Insider 3	Insider 4	Outsider 5	Outsider 6
MISPRICING	-0.0075** (0.0036)	-0.0099** (0.0041)	-0.0080** (0.0035)	-0.0085** (0.0041)	-0.0008 (0.0021)	-0.0026 (0.0025)
FUNDAMENTAL	-0.0131*** (0.0029)	-0.0086*** (0.0029)	-0.0056** (0.0028)	-0.0033 (0.0027)	-0.0115*** (0.0018)	-0.0079*** (0.0019)
ROA	-0.0072** (0.0030)	-0.0163*** (0.0049)	-0.0023 (0.0028)	-0.0115** (0.0049)	-0.0059** (0.0024)	-0.0091** (0.0037)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	No	Yes	No	Yes	No
Firm FE	No	Yes	No	Yes	No	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	9047	8965	8202	8113	7161	7082

Table A.5
Controlling for the CEOs' Actions and Their Interaction with Stock Mispricing

This table presents the regressions of CEO Turnover on MISPRICING, controlling for CEO stock purchases and firm share repurchases. CEO_STOCK_PURCHASE is a dummy variable that equals one if the CEO purchased the stock on his own account, and zero otherwise. SHARE_REPURCHASE is a dummy variable that equals one if the firm repurchased shares, and zero otherwise. Non-fundamental movements in stock returns are measured by MISPRICING. ROA is the firm's return on assets. Controls are firm size (log of assets), fraction of institutional ownership, leverage, board size, CEO tenure, and a dummy variable indicating whether or not the CEO is also chairman of the board. Fundamental movements in stock returns are measured as residuals (v) from the estimation of equation (1). FE = fixed effects. MISPRICING is divided by its standard deviation to facilitate the interpretation of the coefficients. Standard errors are displayed in parentheses. Standard errors are clustered at the firm level. ***, **, and * indicate statistical significance at (respectively) the 1%, 5%, and 10% levels.

	CEO Turnover			
	CEO Stock Purchase		Share Repurchase	
	1	2	3	4
MISPRICING	-0.0095** (0.0038)	-0.0091** (0.0039)	-0.0094** (0.0038)	-0.0094** (0.0041)
CEO action	-0.0062 (0.0089)	-0.0101 (0.0132)	0.0019 (0.0062)	0.0017 (0.0089)
MISPRICING× CEO action		-0.0034 (0.0088)		-0.0002 (0.0061)
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
Observations	11244	11244	11244	11244