## Ownership Dynamics with Large Shareholders: An Empirical Analysis

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### Internet Appendix

#### 1) Ownership Structures in Chile

As several examples in the paper show (Quiñenco, Copec, Santa Rita), the use of pyramids is well extended in Chile. Table A1 shows the number of firms controlled through pyramids or multiple-class shares in Chile. Furthermore, it shows how many firms are in each row of the pyramid. In the paper we provide some details about who controls Chilean firms. Table A2 extends this analysis and shows the number of firms controlled by families, multiple blocks, individuals, the state, and finally, by foreign firms.

#### 2) Changes in the Blockholding Share

Complementing our analysis in Tables 3 and 4 in the main text, Table A3 in this appendix shows the mean and median change in the blockholding share for events of dilution and concentration in the blockholding share.

#### 3) Tests with Alternative Proxies for Agency Problems

As in Table 6 in the main text, in Table A4 we model the probability of further diluting (concentrating) the blockholding share by more than 5%. We now consider the presence of pension funds as shareholders as another proxy for (reduced) agency problems.

Number of Firms in Pyramids and Multiple-Class Shares

The Table shows the number of firms according to how they are controlled. The first column shows the number of firms in pyramidal structures while the second, third and fourth columns show the number of firms according to their position in the pyramid (top of the pyramid, second, third or lower rows). The fifth column is the number of firms that have multiple-class shares. The sample covers non-financial listed Chilean firms from 1990 to 2009. Data from Economatica, Fecus Plus and Superintendencia de Valores y Seguros (SVS).

	Pyramids					
Year	All	Top Row	Second Row	Third or Lower Rows	Multiple Class Shares	
1990	39	14	21	4	8	
1991	43	15	22	6	8	
1992	48	17	24	7	8	
1993	52	19	25	8	9	
1994	57	21	27	9	9	
1995	58	21	28	9	9	
1996	64	23	29	12	9	
1997	67	23	32	12	9	
1998	68	23	32	13	9	
1999	68	22	32	14	9	
2000	70	21	31	18	9	
2001	68	20	30	18	9	
2002	68	20	30	18	9	
2003	68	20	30	18	9	
2004	67	20	29	18	10	
2005	73	21	33	19	10	
2006	72	20	33	19	10	
2007	73	19	33	21	10	
2008	72	19	33	20	10	
2009	71	19	32	20	9	
All	1266	397	586	283	182	

Number of Firms by Type of Controller

The Table shows the number of firms according to the type of controller. The controller may be a family, the state, a foreign firm, an individual or a coalition of two or more large shareholders without direct family ties, which we refer to as multiple blocks. The sample covers non-financial listed Chilean firms from 1990 to 2009. Data from Economatica, Fecus Plus and Superintendencia de Valores y Seguros (SVS).

Year	Families	Multiple Blocks	State	Individuals	Foreign Firms	All firms
1990	50	33	7	4	12	106
1991	54	35	7	4	13	113
1992	59	39	7	8	16	129
1993	62	42	6	12	17	139
1994	64	43	6	12	17	142
1995	67	46	6	13	17	149
1996	75	47	6	13	18	159
1997	73	48	5	13	22	161
1998	75	50	5	13	22	165
1999	74	48	3	13	29	167
2000	74	44	3	13	32	166
2001	74	45	3	13	32	167
2002	74	44	3	13	32	166
2003	76	45	3	13	30	167
2004	74	43	3	14	27	161
2005	77	45	3	14	27	166
2006	76	42	3	14	30	165
2007	76	48	3	14	24	165
2008	76	50	3	14	22	165
2009	77	49	3	14	20	163
All	1407	886	88	241	459	3081

Statistics on Changes in the Blockholding Share

# The Table shows the mean and median for negative (positive) changes in the blockholding share (BHS) Negative (positive) changes are defined as a decrease (increase) of 5 percentage points or

(BHS). Negative (positive) changes are defined as a decrease (increase) of 5 percentage points or more in the BHS in a typical year. Negative changes are further disaggregated into block sale and share issuance. The change in the BHS occurs through share issuance if issuance is a positive amount; otherwise, it is considered a block sale. The sample covers non-financial listed Chilean firms from 1990 to 2009. Data from Economatica, Fecus Plus and Superintendencia de Valores y Seguros (SVS).

			Positive Changes in BHS					
Year	Mean		Negative Change in BHS Negative Change in BHS					
		Median	through Block Sale		through Share Issuance		Mean	Median
			Mean	Median	Mean	Median		
1991	-0.12	-0.09	-0.14	-0.14	-0.11	-0.07	0.19	0.11
1992	-0.16	-0.14	-0.16	-0.14	-0.16	-0.14	0.10	0.09
1993	-0.14	-0.13	-0.13	-0.13	-0.15	-0.12	0.08	0.08
1994	-0.16	-0.14	-0.20	-0.21	-0.13	-0.12	0.12	0.12
1995	-0.13	-0.11	-0.09	-0.09	-0.14	-0.15	0.12	0.08
1996	-0.13	-0.10	-0.14	-0.10	-0.13	-0.11	0.09	0.07
1997	-0.19	-0.19	-0.17	-0.11	-0.22	-0.20	0.12	0.11
1998	-0.10	-0.07	-0.12	-0.12	-0.06	-0.06	0.10	0.10
1999	-0.17	-0.07	-0.09	-0.07	-0.25	-0.09	0.16	0.11
2000	-0.07	-0.05	-0.07	-0.05	0.00	0.00	0.12	0.12
2001	-0.13	-0.10	-0.14	-0.10	-0.09	-0.09	0.17	0.10
2002	-0.17	-0.14	-0.19	-0.19	-0.14	-0.14	0.14	0.11
2003	-0.06	-0.06	-0.06	-0.06	0.00	0.00	0.07	0.07
2004	-0.15	-0.12	-0.15	-0.13	-0.11	-0.11	0.13	0.12
2005	-0.16	-0.13	-0.32	-0.32	-0.13	-0.07	0.44	0.44
2006	-0.13	-0.09	-0.08	-0.09	-0.34	-0.34	0.13	0.09
2007	-0.15	-0.14	-0.13	-0.11	-0.17	-0.16	0.11	0.11
2008	-0.17	-0.16	-0.25	-0.25	-0.09	-0.09	0.17	0.13
2009	-0.15	-0.16	0.00	0.00	-0.15	-0.16	0.09	0.08
All	-0.15	-0.11	-0.14	-0.11	-0.15	-0.12	0.13	0.10

#### **Probit Regressions for Changes in the Blockholding Share**

#### **Using Different Proxies for Agency Problems**

The Table shows a probit model with robust standard errors for cases of negative (positive) changes in the blockholding share (BHS). A negative (positive) change is defined as a decrease (increase) of 5 percentage points or more in the BHS in a year. Regressions mimic those of Table 6, but only the coefficients of agency proxies are shown. These are the proportion of shares in the firm held by pension funds in the previous year (Pension Funds); and, as before, the difference between control and cash-flow rights in the previous year (wedge). Other independent variables are ownership variables (all lagged by one period): the fraction of shares held by the controlling shareholder (BHS); change in the BHS is a dummy equal to 1 if the firm experienced a negative (positive) change. Market variables include firm and market returns and turnover in the previous year, idiosyncratic volatility in the previous year and a dummy that takes the value of 1 after 2000 when a new law on tender offers was passed. Firm characteristics (all lagged by one period) include: the logarithm of the book value of assets in 2008 expressed in Chilean pesos; book-to-market equity ratio (B/M); free cash flow defined as EBIT over sales; leverage defined as total liabilities over book value of assets; and asset growth defined as the annual growth of book value assets. The sample covers non-financial listed Chilean firms from 1990 to 2009. Data from Economatica, Fecus Plus and Superintendencia de Valores y Seguros (SVS).

	Negative	Change in BHS	Positive Cl	hange in BHS
Variable				
Pension funds (t - 1)  Wedge (t - 1)	-1.91* (1.089)	-1.35 (1.062) -1.69***	-0.98* (0.580)	-1.04* (0.582) 0.17
weage (t 1)		(0.617)		(0.326)
Market, firm and ownership				
controls	Yes	Yes	Yes	Yes
Observations	1,458	1,453	1,458	1,453

<sup>\*\*\*</sup> p<0.01, \*\* p<0.05, \* p<0.1. Robust standard errors in parentheses