

Appendix A. Mathematical Appendix

Denote by Λ_t the Lagrange multiplier attached to the capital accumulation equation. The optimal policy is characterized by the first order conditions:

$$(1 - \alpha)A_t K_t^\alpha L_t^{1-\alpha} = w, \quad (A.1)$$

$$\frac{\partial C}{\partial I_t} = \beta \mathbb{E}_t(\Lambda_{t+1}), \quad (A.2)$$

$$\alpha A_t K_t^{\alpha-1} L_t^{1-\alpha} - \frac{\partial C}{\partial K_t} - \Lambda_t + \beta(1 - \delta)\mathbb{E}_t(\Lambda_{t+1}) = 0. \quad (A.3)$$

Under quadratic adjustment costs, Equations (A.1)-(A.3) imply the standard Q-theory investment equation:

$$\frac{I_t}{K_t} = \left(a - \frac{1}{b}\right) + \frac{\beta}{b} \mathbb{E}_t(\Lambda_{t+1}), \quad (A.4)$$

where it is immediate to link $\mathbb{E}_t(\Lambda_{t+1})$ to Tobin's Q . To do so, one needs to: i) multiply both sides of Equation (A.3) by current capital stock K_t , ii) use the capital accumulation equation to replace K_t with $(K_{t+1} - I_t)/(1 - \delta)$ in front of Λ_{t+1} , and iii) exploit constant returns to scale of output and investment costs. By so doing, one obtains the stochastic difference equation:

$$\Lambda_t K_t = \Pi_t + \beta \mathbb{E}_t[\Lambda_{t+1} K_{t+1}] = 0, \quad (A.5)$$

where $\Pi_t = A_t K_t^\alpha L_t^{1-\alpha} - wL_t - C(I_t, K_t)$ are the firms' earnings in period t . By iterating Equation (A.5) forward, and by imposing the transversality condition, we find:

$$\mathbb{E}_t(\Lambda_{t+1}) = \frac{\mathbb{E}_t[\sum_{s \geq t+1} \beta^{s-(t+1)} \Pi_s]}{K_{t+1}}. \quad (A.6)$$

Consider now how we obtain our main estimating equation from Equation (2) in the text.

Log-linearization of Equation (2) yields:

$$i_{tb}^p = \mu_0 + \mu_1 \mathbb{E}_{tb}(\pi_t) + (1 - \mu_1)k_t, \quad (A.7)$$

where μ_0, μ_1 are log-linearization constants ($\mu_1 > 0$). Subtract equation (A.7) from its counterpart in the previous period, we get

$$i_t^p - i_{t-1}^p = \mu_1 [\mathbb{E}_t(\pi_t) - \mathbb{E}_{t-1}(\pi_{t-1})] + (1 - \mu_1)(k_t - k_{t-1}) \quad (A.8)$$

and therefore

$$\begin{aligned}
\underbrace{i_t^p - i_{t-1}}_{\text{planned investment growth in next 12m}} &= \mu_1 \underbrace{[\mathbb{E}_t(\pi_t) - \pi_{t-1}]}_{\text{expectations of earnings growth in the next 12m}} + (1 - \mu_1)(k_t - k_{t-1}) \\
&+ \mu_1[\pi_{t-1} - \mathbb{E}_{t-1}(\pi_{t-1})] - [i_{t-1} - i_{t-1}^p] \tag{A.9}
\end{aligned}$$

The left hand side term in Equation (A.9) is planned investment growth in the next twelve months, which we observe in the data. The first right hand side term is expectations of next twelve month earnings growth, which is our main explanatory variable of interest. In addition, the change in capital stock over the last period enters Equation (A.9) as capital stock affects both investment and earnings. Lastly, there are two final terms in Equation (A.9) because we do not directly observe the change in log planned investment or the change in expected log earnings. The term $\pi_{t-1} - \mathbb{E}_{t-1}(\pi_{t-1})$ is unexpected earnings shock in period $t - 1$, and the term $i_{t-1} - i_{t-1}^p$ is revisions to investment plans in period $t - 1$. These two terms would be highly correlated, as they are both reactions to news that came in during period $t - 1$ which cause realizations in $t - 1$ to deviate from projections made at the beginning of $t - 1$. They will have offsetting effects in Equation (A.9). To the extent that investment has implementation lags and revisions to investment plans are not highly flexible, they may not completely net out. In the data we can approximate $\pi_{t-1} - \mathbb{E}_{t-1}(\pi_{t-1})$ by $[\pi_{t-1} - \pi_{t-2}] - [\mathbb{E}_{t-1}(\pi_{t-1}) - \pi_{t-2}]$, which is the error in the expectations of next twelve month earnings growth reported twelve months ago, and approximate $i_{t-1} - i_{t-1}^p$ by $[i_{t-1} - i_{t-2}] - [i_{t-1}^p - i_{t-2}^p]$, which is realized past twelve month investment growth minus projected investment growth that was reported twelve months ago. In aggregate, we find these two terms are indeed highly correlated (around 0.7), and we perform extensive checks to include both terms or one in lieu of the other, and the results are similar. In the CFO panel, unfortunately, we are not always able to continuously observe individual firms and to obtain earnings expectations and investment plans reported twelve months ago so as to approximate these two terms. For consistency of specification in all regressions, we report the specification without these two terms.

Appendix B. Variable Definitions

Aggregate Level

Variable	Construction	Sources	Notes	Time Range
Expectations				
CFO Expectations of Next 12m Earnings Growth	Revenue-weighted average of firm-level responses (public firms)	CFO survey.		1998Q3-2012Q4
CFO Expectations of Next 12m Investment Growth	Revenue-weighted average of firm-level responses	Data available at http://www.cfosurvey.org/pastresults.htm	Missing 2001Q3. Missing value linearly interpolated.	1999Q1-2012Q4
CFO Confidence of US Economy (on a scale of 0 to 100)	Mean of all responses in survey (public firms)		Missing 2005Q1. Missing value linearly interpolated.	2002Q2-2012Q4
Analyst Expectations of Next 12m Earnings Growth	1) Calculate consensus forecast of firm-level EPS over the next four quarters; 2) Multiply by shares outstanding to get implied consensus forecast of total earnings over the next four quarters, and then sum across all firms; 4) Divide by actual earnings of all firms in the past four quarters	IBES	IBES reports historical EPS as normalized by the <i>latest</i> number of shares outstanding	1985Q1-2012Q4
Firm Financials and Other Variables				
Actual Earnings Growth in the Next 12m Earnings	1) Calculate actual firm-level earnings as actual firm-level EPS multiplied by number of shares outstanding, and then sum across all firms; 2) Take the sum of actual earnings by all firms in the next four quarters and divide by the sum of actual earnings by all firms in the past four quarters	IBES		1985Q1-2012Q4
Investment	Private Non-residential Fixed Investment	National Income and Product Accounts	Can use alternative measures of capital expenditures from	1947Q1-2012Q4

			Flow of Funds, or by aggregating firm-level capital expenditures from Compustat	
Net Income	FA146110005.Q	Flow of Funds		1951Q4-2012Q4
Total Asset	FL102000005.Q	Flow of Funds		1951Q4-2012Q4
Q	Compute aggregate market value of firm equity from CRSP data (MKVAL); compute aggregate long-term debt (DLTT), debt in current liability (DLC), and total asset (AT) from Compustat. $Q = (MKVAL + DLTT + DLC) / AT$	CRSP, Compustat		1980Q1-2012Q4
Surplus Consumption Ratio	Follow Campbell and Cochrane (1999)			1959Q1-2012Q4
<i>cay</i>		Sydney Ludvigson's website		1952Q1-2012Q4
Credit Spread	Moody's seasoned Baa corporate bond yield minus ten year Treasury yield	FRED		1953Q2-2012Q4
Past 12m Stock Volatility	Standard deviation of daily S&P 500 index returns in the past twelve months	CRSP		1951Q4-2012Q4
Economic Policy Uncertainty Index		Nicolas Bloom's website		1985Q1-2012Q4

Firm Level

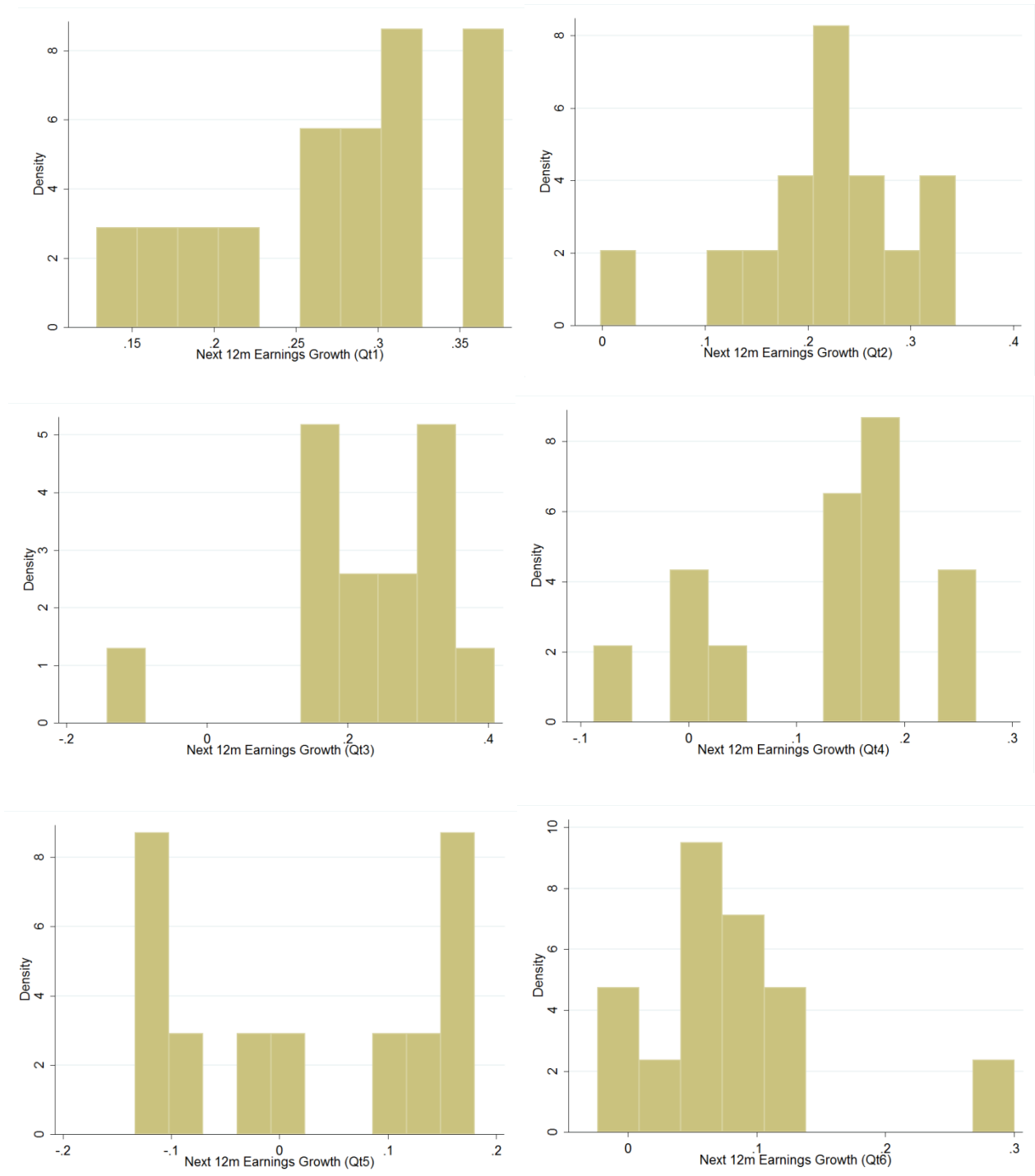
Variable	Construction	Sources	Notes	Time Range
Expectations				
CFO Expectations of Next 12m Earnings Growth	---	CFO survey	Excludes firms with negative earnings in the past twelve months. Firms are not always consistently observed in the identifiable sample.	2005Q1-2012Q4
CFO Expectations of Next 12m Investment Growth			Excludes firms that report negative capital expenditure in the past twelve months. Firms are not always consistently observed in the identifiable sample.	
CFO Confidence of US Economy (on a scale of 0 to 100)			Firms are not always consistently observed in the identifiable sample.	
Analyst Expectations of Next 12m Earnings Growth	1) Calculate consensus forecast of firm-level EPS over the next four quarters; 2) Multiply by number of shares outstanding to compute the implied consensus forecast of total earnings over the next four quarters 3) Divide by actual firm-level earnings in the past four quarters	IBES	IBES reports historical EPS as normalized by the <i>latest</i> number of shares outstanding.	1985Q1-2012Q4
Analyst Expectations of Future 1Y (or 2Y, 3Y) ROA		IBES		2002Q2-2012Q4

Firm Financials and Other Variables				
Actual Earnings Growth in the Next 12m Earnings	1) Calculate actual firm-level earnings as actual firm-level EPS multiplied by number of shares outstanding; 2) Take actual firm-level earnings in the next four quarters, and divide by actual firm-level earnings in the past four quarters	IBES		1985Q1-2012Q4
Capital Expenditure	CAPX	Compustat (Fundamentals Quarterly)		
Net Income	NI			
Total Asset	AT			
Book-to-Market	Compute market value of firm equity from CRSP data (MKVAL), then calculate book-to-market as SEQ/MKVAL	CRSP, Compustat		
Q	Compute market value of firm equity from CRSP data (MKVAL), then calculate $Q = (MKVAL + DLTT + DLC) / AT$	CRSP, Compustat		
Past 12m Stock Volatility	Standard deviation of daily firm stock returns in the past twelve months	CRSP		

Appendix C. Additional Figures and Tables

Figure C1. Conditional Distributions of Next Twelve Month Earnings Growth

The plots below show the distributions of next twelve month earnings growth conditioning on a level of past twelve month profitability. Past twelve month profitability is grouped into eight quantiles, Qt1 is the lowest and Qt8 is the highest. Conditioning on past profitability falling into a given quantile, we plot the histogram of next twelve month earnings growth.



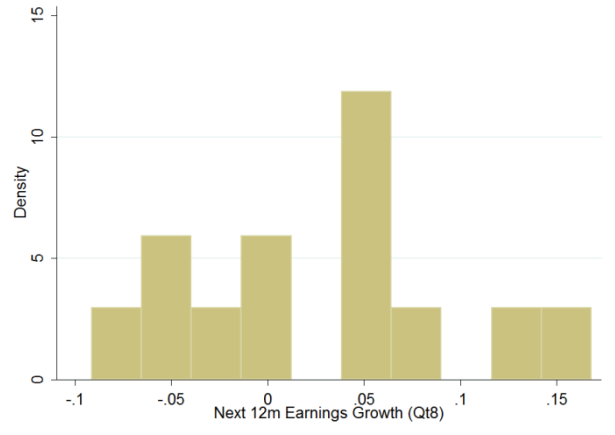
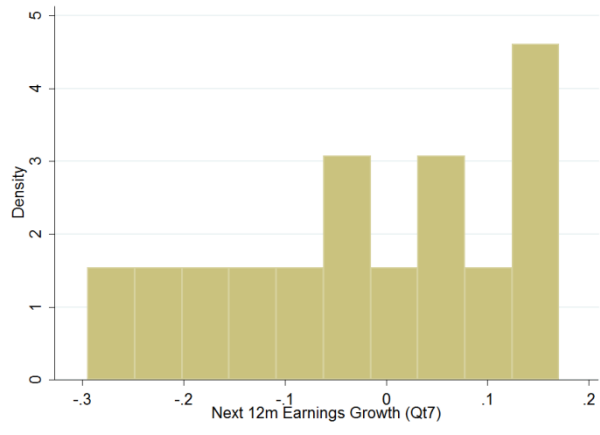


Table C1. CFO Optimism about the US Economy and Investment

Quarterly regressions of investment on CFO optimism about the US economy. In Panel A, the dependent variable is aggregate planned investment growth in the next twelve months in columns (1)-(4), and next twelve month growth of private non-residential fixed investment in columns (5)-(8). All controls are the same as those in Table 4. In Panel B, the dependent variable is firm-level planned investment growth in the next twelve months in columns (1)-(4), and firm-level actual capital expenditure growth in the next twelve months in columns (5)-(8). All control variables are the same as in Table 5. In Panel A, standard errors are Newey-West with twelve lags. In Panel B, standard errors are clustered by firm. Firm fixed effects are included, and R-squared excludes firm fixed effects.

Panel A. Aggregate Evidence

	Planned Investment Growth in the Next 12m				Realized Investment Growth in the Next 12m			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CFO Optimism about the US Economy	0.0060 (4.25)	0.0024 (2.98)	0.0044 (3.37)	0.0042 (6.86)	0.0073 (5.03)	0.0018 (2.54)	0.0046 (3.78)	0.0023 (2.43)
Past 12m Change in Credit Spread		-0.0821 (-3.64)		-0.0868 (-3.57)		-0.1266 (-9.22)		-0.1312 (-5.70)
Past 12m Change of Net Income/Asset			0.1008 (2.98)	-0.1324 (-1.87)			0.1719 (6.06)	-0.0270 (-0.51)
Past 12m Firm Stock Vol Change				0.0449 (2.68)				0.0344 (1.58)
Bloom Policy Uncertainty Index (Past 12m Change)				0.0066 (0.46)				0.0057 (0.23)
Past 12m Investment Growth				3.6134 (2.48)				2.7186 (2.34)
Past 12m GDP Growth				-0.9814 (-3.63)				-0.5373 (-2.67)
Past 12m Asset Growth	0.1026 (0.96)	0.2765 (1.84)	-0.0057 (-0.05)	0.7219 (4.10)	0.6073 (8.10)	0.8754 (10.76)	0.4227 (5.53)	0.8774 (5.24)
Observations	43	43	43	43	43	43	43	43
R-squared	0.509	0.649	0.569	0.804	0.735	0.896	0.819	0.928

t-statistics in parentheses. Standard errors are Newey-West with twelve lags.

Panel B. Firm-level Evidence

	Planned Investment Growth in the Next 12m				Realized Investment Growth in the Next 12m			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CFO Optimism about the US Economy	0.0032 (3.86)	0.0018 (2.01)	0.0033 (3.94)	0.0021 (2.27)	0.0048 (3.32)	0.0019 (1.17)	0.0051 (3.57)	0.0017 (1.24)
Past 12m Change in Credit Spread		-0.1423 (-4.53)		-0.1362 (-3.18)		-0.3521 (-4.54)		-0.1869 (-2.11)
Past 12m Change of Net Income/Asset			0.0031 (2.74)	0.0043 (1.90)			0.0019 (0.59)	-0.0008 (-0.27)
Past 12m Firm Stock Vol Change				-0.0511 (-1.10)				-0.3090 (-3.00)
Bloom Policy Uncertainty Index (Past 12m Change)				0.0328 (0.81)				0.1330 (1.58)
Past 12m Investment Growth				0.4025 (0.59)				4.5253 (2.14)
Past 12m GDP Growth				0.0012 (0.04)				-0.2999 (-3.98)
Past 12m Asset Growth	0.1345 (1.81)	0.1235 (1.68)	0.1510 (1.71)	0.0001 (0.00)	0.3263 (1.68)	0.3357 (1.80)	0.2299 (1.17)	0.2282 (1.20)
Observations	852	852	824	701	965	965	934	819
R-squared	0.040	0.083	0.061	0.122	0.026	0.088	0.025	0.233
Number of id	192	192	189	164	215	215	212	186

t-statistics in parentheses. Standard errors clustered by firm.

Table C2. Analyst Earnings Growth Expectations and Investment Plans: Aggregate Evidence

This table presents aggregate quarterly regression $\Delta\widehat{CAPX}_t = \alpha + \beta E_t^*[\Delta Earnings] + \lambda X_t + \epsilon_t$. $E_t^*[\Delta Earnings]$ is aggregate analyst expectations of earnings growth in the next twelve months. $\Delta\widehat{CAPX}_t$ is aggregate planned investment growth in the next twelve months. All control variables are the same as those in Table 4. Standard errors are Newey-West with twelve lags.

	Planned Investment Growth in the Next Twelve Months						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Analyst Expectations of Next 12m Earnings Growth Q	0.3209 (3.28)	0.3569 (7.14)	0.3546 (8.31) 0.0785 (1.71)	0.2379 (4.97)	0.2744 (8.99)	0.3605 (6.83)	0.3173 (6.42)
Past 12m Agg. Stock Returns				0.1180 (4.52)			
Past 12m Credit Spread Change					-0.0585 (-4.97)		
Log(D/P)						0.0325 (0.79)	
<i>cay</i>							-1.2021 (-2.23)
Past 12m Asset Growth		0.4735 (8.46)	0.3633 (6.53)	0.2388 (4.34)	0.4797 (8.97)	0.5117 (5.94)	0.4894 (8.68)
Observations	56	56	56	56	56	56	56
R-squared	0.397	0.609	0.635	0.706	0.702	0.614	0.631

t-statistics in parentheses. Standard errors are Newey-West with twelve lags.

Table C2. Continued

	Planned Investment Growth in the Next Twelve Months					
	(8)	(9)	(10)	(11)	(12)	(13)
Analyst Expectations of	0.3570	0.3125	0.2909	0.3539	0.3340	0.2551
Next 12m Earnings Growth	(7.12)	(6.27)	(7.07)	(5.85)	(9.98)	(6.78)
Past 12m Credit Spread Change						-0.0823 (-3.41)
Surplus Consumption	-0.0399 (-0.56)					
Past 12m Change of Net Income/Asset		0.0839 (3.53)				-0.0156 (-0.47)
Past 12m Agg. Stock Vol Change			-0.0192 (-1.65)			0.0449 (2.80)
Bloom Policy Uncertainty Index (Past 12m Change)			-0.0278 (-2.38)			-0.0055 (-0.57)
Past 12m GDP Growth				1.0524 (1.27)		2.1166 (2.01)
Past 12m Investment Growth					-0.1110 (-0.75)	-0.3599 (-1.92)
Past 12m Asset Growth	0.4902 (7.91)	0.3445 (5.98)	0.4368 (6.41)	0.1884 (1.00)	0.6018 (4.04)	0.4329 (2.80)
Observations	56	56	56	56	56	56
R-squared	0.611	0.665	0.659	0.627	0.614	0.737

t-statistics in parentheses. Standard errors are Newey-West with twelve lags.

Table C3. Analyst Earnings Growth Expectations and Investment Plans: Firm-level Evidence

This table presents firm-level quarterly regression $\Delta \widehat{CAPX}_{i,t} = \alpha + \eta_i + \beta E_{i,t}^*[\Delta Earnings] + \lambda X_{i,t} + \epsilon_{i,t}$. $E_{i,t}^*[\Delta Earnings]$ is firm-level analyst expectations of earnings growth in the next twelve months. $\Delta \widehat{CAPX}_{i,t}$ is firm-level planned investment growth in the next twelve months. All control variables are the same as in Table 5. A constant is included and not reported, and firm fixed effects are included. Standard errors are clustered by firm. R-squared excludes firm fixed effects.

	Planned Investment Growth in the Next Twelve Months										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Analyst Expectations of Next 12m Earnings Growth Q	0.2058 (4.86)	0.2138 (4.84)	0.1983 (4.53) 0.0792 (3.01)	0.1662 (4.02)	0.1651 (3.85)	0.1721 (4.05)	0.2058 (4.50)	0.1779 (3.99)	0.2116 (4.91)	0.2286 (4.76)	0.1834 (3.73)
BTM				-0.2297 (-4.95)							
Past 12m Firm Stock Returns					0.1037 (2.58)						
Past 12m Credit Spread Change						-0.1082 (-4.09)					-0.0903 (-1.85)
Past 12m Change of Net Income/Asset							0.0038 (1.40)				0.0018 (0.58)
Past 12m Firm Stock Vol Change								-0.1003 (-3.28)			-0.0492 (-1.21)
Bloom Policy Uncertainty Index (Past 12m Change)								-0.0471 (-1.53)			0.0307 (0.73)
Past 12m GDP Growth									0.8690 (1.32)		0.4047 (0.57)
Past 12m CAPX Growth										-0.0278 (-0.83)	-0.0226 (-0.64)
Past 12m Asset Growth		-0.1052 (-1.36)	-0.1286 (-1.55)	-0.1387 (-1.74)	-0.1087 (-1.36)	-0.1010 (-1.32)	-0.1300 (-1.50)	-0.1281 (-1.48)	-0.1356 (-1.83)	-0.0844 (-1.03)	-0.1132 (-1.23)
Observations	643	640	598	633	619	640	633	598	640	629	591
R-squared	0.075	0.079	0.085	0.108	0.093	0.108	0.086	0.112	0.083	0.087	0.127
Number of id	144	144	136	141	138	144	144	137	144	144	137

t-statistics in parentheses. Standard errors are clustered by firm.

Table C4. Analyst Expectations and Realized Investment Growth: Aggregate Evidence

This table presents aggregate quarterly regression $\Delta CAPX_t = \alpha + \beta E_t^*[\Delta Earnings] + \lambda X_t + \epsilon_t$. $E_t^*[\Delta Earnings]$ is aggregate analyst expectations of earnings growth in the next twelve months. $\Delta CAPX_t$ is next twelve month growth in private non-residential fixed investment. All controls are the same as those in Table 4. Standard errors are Newey-West with twelve lags.

	Realized Investment Growth in the Next Twelve Months						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Analyst Expectations of Next 12m Earnings Growth Q	0.1611 (1.37)	0.1889 (1.97)	0.1944 (1.93) -0.0281 (-0.67)	0.1020 (1.68)	0.1193 (2.48)	0.2225 (2.21)	0.2096 (2.28)
Past 12m Agg. Stock Returns				0.1671 (3.01)			
Past 12m Credit Spread Change					-0.1123 (-5.87)		
Log(D/P)						0.0693 (1.70)	
<i>cay</i>							0.5699 (0.71)
Past 12m Asset Growth		0.6919 (4.14)	0.7566 (4.04)	0.4659 (2.69)	0.7052 (4.80)	0.9065 (5.74)	0.6671 (3.83)
Observations	112	112	112	112	112	112	112
R-squared	0.078	0.347	0.351	0.507	0.577	0.421	0.357

t-statistics in parentheses. Standard errors are Newey-West with twelve lags.

Table C2. Continued

	Realized Investment Growth in the Next Twelve Months					
	(8)	(9)	(10)	(11)	(12)	(13)
Analyst Expectations of	0.2015	0.1383	0.1565	0.1653	0.2236	0.1777
Next 12m Earnings Growth	(2.19)	(2.37)	(2.65)	(1.48)	(2.32)	(5.02)
Past 12m Credit Spread Change						-0.0647 (-3.17)
Surplus Consumption	-0.2738 (-2.27)					
Past 12m Change of Net Income/Asset		0.2530 (5.68)				0.1669 (4.45)
Past 12m Agg. Stock Vol Change			-0.0317 (-1.78)			-0.0036 (-0.38)
Bloom Policy Uncertainty Index (Past 12m Change)			-0.0571 (-3.46)			-0.0074 (-0.68)
Past 12m GDP Growth				1.5397 (1.61)		0.4840 (0.75)
Past 12m Investment Growth					0.2441 (0.87)	0.4012 (4.65)
Past 12m Asset Growth	0.9398 (6.02)	0.4888 (4.36)	0.6603 (5.35)	0.2565 (0.64)	0.4490 (1.11)	0.0373 (0.17)
Observations	112	112	107	112	112	107
R-squared	0.421	0.682	0.502	0.389	0.370	0.788

t-statistics in parentheses. Standard errors are Newey-West with twelve lags.

Table C5. Analyst Expectations and Realized Investment Growth: Firm-level Evidence

This table presents firm-level quarterly regression $\Delta CAPX_{i,t} = \alpha + \eta_i + \beta E_{i,t}^*[\Delta Earnings] + \lambda X_{i,t} + \epsilon_{i,t}$. $E_{i,t}^*[\Delta Earnings]$ is firm-level analyst expectations of earnings growth in the next twelve months. $\Delta CAPX_{i,t}$ is firm-level actual capital expenditure growth in the next twelve months. All control variables are the same as those in Table 5. A constant is included but not reported, and firm fixed effects are included. Standard errors are clustered by firm and time. R-squared excludes firm fixed effects.

	Realized Investment Growth in the Next Twelve Months										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Analyst Expectations of	0.2401	0.2265	0.2101	0.1381	0.1973	0.1885	0.2132	0.1902	0.2229	0.2165	0.1589
Next 12m Earnings Growth	(10.86)	(10.63)	(10.59)	(9.52)	(11.39)	(13.52)	(10.73)	(13.25)	(11.53)	(9.53)	(12.34)
Q			0.1073								
			(13.10)								
BTM				0.2932							
				(17.84)							
Past 12m Firm Stock Returns					-0.3686						
					(-20.17)						
Past 12m Credit Spread Change						-0.2770					-0.1828
						(-9.30)					(-7.87)
Past 12m Change of Net Income/Asset							0.0105				0.0093
							(19.33)				(15.51)
Past 12m Firm Stock Vol Change								-0.2324			-0.1110
								(-8.56)			(-4.82)
Bloom Policy Uncertainty Index								-0.1089			-0.0082
(Past 12m Change)								(-4.38)			(-0.34)
Past 12m GDP Growth									2.4653		2.7499
									(2.98)		(7.56)
Past 12m CAPX Growth										-0.1864	-0.1956
										(-19.56)	(-25.68)
Past 12m Asset Growth		0.1983	0.0771	0.0706	0.0747	0.1943	0.1176	0.1871	0.1577	0.3944	0.2639
		(6.44)	(2.73)	(2.71)	(2.61)	(7.36)	(4.53)	(7.29)	(6.51)	(13.00)	(10.08)
Observations	115,699	113,660	103,802	108,336	109,984	113,660	109,388	93,935	113,660	105,047	90,590
R-squared	0.024	0.026	0.041	0.068	0.045	0.045	0.044	0.048	0.030	0.062	0.107
Number of id	4,814	4,751	4,568	4,662	4,648	4,751	4,511	3,834	4,751	4,351	3,732

t-statistics in parentheses. Standard errors clustered by both firm and time.

Table C6. Stambaugh Bias Adjusted Results: Investment Regressions

Stambaugh bias adjusted aggregate investment regressions with discount rate proxies as explanatory variables (columns (6)-(8) in Tables 4, 6, C2, and C4). Bias correction follows the simulation method in Baker, Taliaferro, and Wurgler (2006). The bootstrap procedure computes p-value by i) construct bootstrap samples under the null that a particular coefficient is zero, ii) estimate regressions using the bootstrap samples, iii) calculate the fraction of coefficients from bootstrap samples that are more extreme than the OLS coefficient. The idea is similar to the grid bootstrap procedure of Hansen (1999).

Panel A. Using CFO Expectations

	Expected Next 12m Inv Growth			Realized Next 12m Inv Growth		
	(1)	(2)	(3)	(4)	(5)	(6)
Agg. CFO Expectations of Next 12m Earnings Growth	0.6036 (0.000)	0.5528 (0.000)	0.5983 (0.000)	0.6417 (0.000)	0.4712 (0.000)	0.5944 (0.000)
Aggregate Log(D/P)	0.0258 (0.354)			0.2275 (0.008)		
<i>cay</i>		-0.8076 (0.128)			-2.3230 (0.004)	
Surplus Consumption			-0.0050 (0.514)			0.0157 (0.518)
Past 12m Asset Growth	0.3332 (0.008)	0.3066 (0.002)	0.3026 (0.004)	1.1102 (0.000)	0.9130 (0.000)	0.8544 (0.000)

Bootstrap p-value in parenthesis.

Panel B. Using Analyst Expectations

	Expected Next 12m Inv Growth			Realized Next 12m Inv Growth		
	(1)	(2)	(3)	(4)	(5)	(6)
Agg. Analyst Expectations of Next 12m Earnings Growth	0.3646 (0.000)	0.3227 (0.000)	0.3628 (0.000)	0.2226 (0.000)	0.2069 (0.000)	0.2002 (0.000)
Aggregate Log(D/P)	0.0097 (0.412)			0.0598 (0.110)		
<i>cay</i>		-1.1505 (0.050)			0.5877 (0.102)	
Surplus Consumption			-0.0316 (0.416)			-0.2732 (0.014)
Past 12m Asset Growth	0.5809 (0.000)	0.5659 (0.000)	0.5839 (0.000)	0.9890 (0.000)	0.7297 (0.000)	1.0142 (0.000)

Bootstrap p-value in parenthesis.

Table C7. Stambaugh Bias Adjusted Results: Error Prediction Regressions

Stambaugh bias adjusted aggregate error prediction regressions (Panel A of Table 8 and Table 9). Bias correction follows the simulation method in Baker, Taliaferro, and Wurgler (2006). Univariate results are very similar using the univariate bias correction method of Amihud and Hurvich (2004).

Panel A. Using CFO Expectations

	Realized – CFO Expected Next 12m Earnings Growth					
	(1)	(2)	(3)	(4)	(5)	(6)
Past 12m Earnings/Asset (%)	-0.0873 (0.000)		-0.0916 (0.002)		-0.0848 (0.000)	
Past 12m GDP Growth		-2.6317 (0.050)		-3.0260 (0.028)		-3.7742 (0.000)
VIX			-0.0027 (0.068)	-0.0035 (0.052)		
Agg. Stock Index Vol					-0.0488 (0.416)	-0.4400 (0.040)

Bootstrap p-value in parenthesis.

Panel B. Using Analyst Expectations

	Realized – Analyst Expected Next 12m Earnings Growth					
	(1)	(2)	(3)	(4)	(5)	(6)
Past 12m Earnings/Asset (%)	-0.0416 (0.004)		-0.0526 (0.004)		-0.0429 (0.002)	
Past 12m GDP Growth		-1.2798 (0.050)		-0.9669 (0.102)		-1.5063 (0.052)
VIX			-0.0031 (0.006)	-0.0035 (0.002)		
Agg. Stock Index Vol					-0.1192 (0.174)	-0.1231 (0.234)

Bootstrap p-value in parenthesis.