

Appendix A - Definitions of Variables

Variable (Frequency)	Type	Definition	Data Source
Stock return (daily)	Regressand	Log-difference of a stock price the day before and the day after an FOMC announcement	CRSP database
Monetary policy target and path surprises (FOMC meetings)	Regressor	Market-based (i.e., futures contracts) monetary policy innovations Target factor: a surprise to the current policy target Path factor: a surprise to the future policy rates	Authors' calculation following Gürkaynak et al. (2005)
Floating rate exposure (annual and quarterly)	Regressor	The sum of maturity weighted floating rate debts, expressed as a fraction of total assets (ATQ)	CIQ and Compustat database
Bank debt leverage (annual and quarterly)	Regressor	Bank debts (= term loans + (drawn) credit lines), expressed as a fraction of total assets (ATQ)	CIQ and Compustat database
Floating rate debt leverage (annual and quarterly)	Regressor	Total floating rate debts, expressed as a fraction of total assets (ATQ)	CIQ and Compustat database
Hedge (quarterly)	Regressor	A dummy variable whose value is one if a firm hedges against interest rate risks of its floating rate obligations by entering into interest rate derivative contracts	10-Q and 10-K reports in SEC database
ZLB (FOMC meetings)	Regressor	A dummy variable whose value is one from January 2009 to December 2015	The Federal Reserve website
Size (quarterly)	Regressor	Book value of total assets (ATQ) deflated by CPI, in logarithm	Compustat database
Profitability (quarterly)	Regressor	Operating income before depreciation (OIBDPQ), expressed as a fraction of total assets (ATQ)	Compustat database
Book leverage (quarterly)	Regressor	The ratio of total debts (DLCQ + DLTTQ) to the sum of total debts and the book value of equity (DLCQ + DLTTQ + CEQQ)	Compustat database
Market-to-book ratio (quarterly)	Regressor	The sum of the market value of equity and total debts (PRCCQ*CSHOQ + DLCQ + DLTTQ), expressed as a fraction of total assets (ATQ)	Compustat database
Asset maturity (quarterly)	Regressor	The sum of (a) the product of gross property, plant, and equipment as a fraction of total assets and as a fraction of depreciation and amortization respectively and (b) the product of current assets as a fraction of total assets and as a fraction of cost of goods sold respectively $((PPEGTQ/ATQ)*(PPEGTQ/DPQ)) + ((ACTQ/ATQ)*(ACTQ/COGSQ))$	Compustat database

Financial slacks (quarterly)	Regressor	Cash holding (CHEQ), expressed as a fraction of total assets (ATQ)	Compustat database
Retained earnings (quarterly)	Regressor	Retained earnings (REQ), expressed as a fraction of total assets (ATQ)	Compustat database
Dividend per share (quarterly)	Regressor	Dividend per share (DVPSPQ)	Compustat database
Short-term debt (quarterly)	Regressor	Short-term debt (DLCQ), expressed as a fraction of total assets (ATQ)	Compustat database
Credit rating (quarterly)	Regressor	S&P Quality Ranking (SPCRSC)	Compustat database
Capital investment (quarterly)	Regressand	Cumulative change in total fixed capital (PPEGTQ), expressed as a fraction of the initial total assets (ATQ)	Compustat database
Net worth (quarterly)	Regressand	Cumulative change in net worth (ATQ - LTQ), expressed as a fraction of the initial total assets (ATQ)	Compustat database
Total assets (quarterly)	Regressand	Cumulative percentage change in total assets (ATQ) relative to the initial quarter	Compustat database
Total liabilities (quarterly)	Regressand	Cumulative change in long-term debt and other current liabilities (DLTTQ+LCOQ), expressed as a fraction of the initial total assets (ATQ)	Compustat database
Inventory investment (quarterly)	Regressand	Cumulative change in inventory (INVTQ), expressed as a fraction of the initial total assets (ATQ)	Compustat database
Cash holding (quarterly)	Regressand	Cumulative change in cash holding (CHEQ), expressed as a fraction of the initial total assets (ATQ)	Compustat database
Financial constraints	Regressor	Adopted from Schauer et al. (2019), a simple average in the past four quarters of $FCP_{i,t} = -0.123*size_{i,t-1} - 0.024*interestcoverage_{i,t-1} - 4.404*ROA_{i,t-1} - 1.716*cashholdings_{i,t-1}$, where $size = \log(ATQ)$, $interestcoverage = (SALEQ - XSGAQ - COGSQ - DPQ) / XINTQ$, $ROA = NIQ / ATQ$, and $cashholdings = CHEQ / ATQ$	Compustat database
Maturity (annual)	Regressor	Three different measures are used: (a) the sum of leverage (debt amount as a fraction of total assets) weighted maturity when interest rate types are known to be either floating or fixed, (b) the sum of leverage weighted maturity for all debt types (including those with unknown interest rate types), and (c) the simple arithmetic average of all debt types	CIQ and Compustat database
Real GDP revision	Regressor	Average forecast revisions in quarter-to-quarter real GDP growth for the current and the next three quarters	Miranda-Agrippino and Ricco (2021)

Inflation revision	Regressor	Average forecast revisions in quarter-to-quarter price index growth for the current and the next three quarters	Miranda-Agrippino and Ricco (2021)
Unemployment revision	Regressor	Average forecast revisions in unemployment rate for the current and the next three quarters	Miranda-Agrippino and Ricco (2021)
Target residuals	Regressor	Estimated residuals from the first stage regression of target surprises on average revisions in real GDP, inflation, and unemployment rate, to control for central bank information effects	Miranda-Agrippino and Ricco (2021) and own calculations
Path residuals	Regressor	Estimated residuals from the first stage regression of path surprises on average revisions in real GDP, inflation, and unemployment rate, to control for central bank information effects	Miranda-Agrippino and Ricco (2021) and own calculations

Appendix B - Internet Appendix for “Stock Market’s Assessment of Monetary Policy Transmission: The Cash Flow Effect”¹

Appendix B presents additional results that complement our main findings concerning the cash flow channel of monetary policy.

The first third of the appendix is devoted to describing our dataset. Tables **BI** to **BV** provide information on debt composition, maturity, type, and other summary statistics.

The second third of the appendix includes various robustness checks for our event study on stock market responses. Table **BVI** replicates Ippolito et al. (2018) using our dataset to make sure that it is not biased towards finding only our results. Table **BVII** presents the stock return regression estimated using the extended sample (from January 2004 to December 2018) in Table III in its complete form, showing the coefficients of all covariates. Tables **BVIII** to **BXII** provide robustness tests for the regressions in Tables II and III as described in Section II.C.

Among other robustness checks, we conduct an instrumental variable analysis to assess whether our cash flow exposure measure is subject to endogeneity issues, use a narrower one-day window for stock return to examine the time sensitivity of the cash flow effect of monetary policy, restrict the event study to only scheduled FOMC meetings to see whether our results are driven by a handful of influential events such as unscheduled meetings during the Great Recession, employ alternative measures of floating rate exposure, leverage, and monetary policy surprises, and make use of additional control variables such as the S&P credit rating and various measures of debt maturity. Finally, Table **BXIII** carries out placebo, or falsification, tests for our event study using the two-day stock return one week before an FOMC announcement.

The last third of the appendix, starting with Table **BXIV**, gives fuller tables for the quarterly balance sheet regressions in Tables V and VI which demonstrate real effects of the cash flow channel of monetary policy and serve as a more direct test of the Modigliani-Miller theorem.

More information is available either in the text or below the tables.

¹Citation format: Gürkaynak, Refet S., Hatice Gökçe Karasoy-Can and Sang Seok Lee, Internet Appendix to “Stock Market’s Assessment of Monetary Policy Transmission: The Cash Flow Effect,” *Journal of Finance*, [DOI String Goes Here].

Table BI: Total Debt Composition

Categories	No. of Observations	Percentage	Cum. Percentage
Notes payable	62,354	44.64	44.64
Debentures	8,874	6.35	50.99
Other borrowings	8,761	6.27	57.27
Revolving credit facility	8,006	5.73	63.00
Bonds and notes	7,038	5.04	68.04
Capital leases	6,770	4.85	72.88
Mortgage bonds	6,607	4.73	77.61
Term loans	5,812	4.16	81.77
Revolving credit	5,626	4.03	85.80
Trust preferred securities	4,042	2.89	88.70
Bank loans	3,274	2.34	91.04
Commercial paper	3,221	2.31	93.35
Mortgage notes	2,681	1.92	95.27
Mortgage loans	1,452	1.04	96.31
FHLB borrowings	1,020	0.73	97.04
Term loan facility	797	0.57	97.61
Securitization facility	763	0.55	98.15
Securities sold under agreement to repurchase	756	0.54	98.69
Commercial paper facility	468	0.34	99.03
Bank overdraft	405	0.29	99.32
Federal funds purchased	371	0.27	99.58
Securities loaned	330	0.24	99.82
Notes payable facility	64	0.05	99.87
Letter of credit outstanding	48	0.03	99.90
Federal Reserve bank borrowings	47	0.03	99.93
Federal Reserve facility	41	0.03	99.96
FHLB facility	24	0.02	99.98
Letter of credit facility	12	0.01	99.99
Bank overdraft facility	9	0.00	99.99
Bills payable	3	0.00	99.99
General borrowings	3	0.00	100.00
Total	139,679	100.00	

Table BII: Total Floating Rate Debt Composition

Categories	No. of Observations	Percentage	Cum. Percentage
Revolving credit facility	5,541	21.54	21.54
Notes payable	3,874	15.06	36.60
Revolving credit	3,732	14.51	51.11
Term loans	3,651	14.19	65.30
Bank loans	1,977	7.69	72.99
Bonds and notes	1,587	6.17	79.16
Trust preferred securities	1,245	4.84	84.00
Term loan facility	681	2.65	86.65
Other borrowings	518	2.01	88.66
Commercial paper	512	1.99	90.65
Mortgage bonds	464	1.80	92.45
FHLB borrowings	366	1.42	93.88
Securitization facility	362	1.41	95.28
Mortgage notes	332	1.29	96.58
Mortgage loans	319	1.24	97.82
Debentures	170	0.66	98.48
Capital leases	165	0.64	99.12
Commercial paper facility	98	0.38	99.50
Securities sold under agreement to repurchase	59	0.23	99.73
Letter of credit outstanding	19	0.07	99.80
Notes payable facility	19	0.07	99.88
Bank overdraft	13	0.05	99.93
Letter of credit facility	9	0.03	99.96
Federal funds purchased	5	0.02	99.98
Federal Reserve bank borrowings	3	0.01	99.99
Federal Reserve facility	2	0.01	100.00
Total	25,723	100.00	

Table BIII: Descriptive Statistics for Floating Rate Debt Items

Categories	Mean	SD
Bank loans	5.02	14.47
Bank overdraft	0.51	0.80
Bonds and notes	6.85	30.22
Capital leases	0.95	1.09
Commercial paper	6.16	12.51
Commercial paper facility	17.01	19.22
Debentures	7.56	19.17
Federal Reserve bank borrowings	279.43	118.30
FHLB borrowings	29.73	95.42
Federal funds purchased	69.94	94.78
Federal Reserve facility	530.30	206.70
Letter of credit facility	10.09	5.33
Letter of credit outstanding	8.58	5.13
Mortgage bonds	2.87	11.37
Mortgage loans	2.04	7.35
Mortgage notes	1.60	3.11
Notes payable facility	2.88	3.82
Notes payable	14.84	56.39
Other borrowings	26.06	132.72
Revolving credit	3.62	9.28
Revolving credit facility	9.84	22.26
Securities sold under agreement to repurchase	634.64	1002.69
Securitization facility	7.75	24.15
Term loans	6.94	12.57
Term loan facility	9.92	50.03
Trust preferred securities	2.48	4.35
Total	10.01	66.99

We divide each item (in million USD) by CPI. The table shows means and standard deviations in real terms.

Table BIV: Maturity/Interest Rate Type Pairs for Debts

	Not Available	Variable	Fixed	Zero Coupon	Total
0-1 year	2,457	2,348	7,538	11	12,354
1-5 years	4,102	11,622	25,499	53	41,276
5-10 years	2,365	4,354	24,370	38	31,127
10-20 years	2,438	2,120	10,870	43	15,471
20-30 years	822	1,641	13,710	17	16,190
30 years or more	13,090	3,638	6,478	55	23,261
Total	25,274	25,723	88,465	217	139,679

The entries give numbers of observations.

Table BV: Descriptive Statistics for Debts by Maturity

	Mean	SD
0-1 year	16.90	133.57
1-5 years	6.95	42.63
5-10 years	8.36	54.85
10-20 years	18.11	139.11
20-30 years	26.43	663.65
30 years or more	24.77	143.62
Total	14.61	243.87

We divide each item (in million USD) by CPI. The table shows means and standard deviations in real terms.

Table BVI: A Replication of Ippolito et al. (2018)

VARIABLES	(1)	(2)
	(Bank Debt Leverage) Stock Return	(Floating Rate Debt Leverage) Stock Return
target	-11.70** (5.03)	-17.44** (6.54)
leverage	2.35 (1.79)	1.79 (1.71)
target#leverage	-18.03** (8.82)	-19.02*** (6.65)
hedge#leverage	-1.42 (1.30)	-0.83 (1.73)
hedge#target#leverage	27.90*** (9.20)	22.72** (10.20)
Observations	9,922	7,482
R-squared	0.06	0.06

The event studies above are based on 47 FOMC announcements between January 2004 and December 2008. The variable “leverage” in the table refers to a measure of variable interest rate leverage. (1) follows Ippolito et al.’s model specification with the two-day stock return bracketing an FOMC announcement as the dependent variable. Firm-level controls (size, profitability, book leverage, market-to-book ratio, and asset maturity) and their interactions with policy surprise are included. This also appears as the first column of Table II and is included here for the ease of comparison. (2) is based on the same specification, but with floating rate debt leverage in place of bank debt leverage. The numbers in the parentheses are standard errors. The regression is run with firm-level fixed effects, and standard errors are clustered at the event-level. * stands for $0.05 < p \leq 0.1$, ** for $0.01 < p \leq 0.05$, and *** for $p \leq 0.01$.

Table BVII: Table III with All Regressors

Variables	Variables	Variables	Variables
target	-19.21** (8.31)	hedge*zlb*exposure (0.31)	zlb*assetmat (26.71)
path	-10.78*** (3.52)	hedge*zlb*lev (1.79)	hedge*target*assetmat (1.56)
exposure	-0.01 (0.13)	size (0.17)	hedge*path*assetmat (0.86)
target*exposure	-2.88 (1.78)	target*size (1.32)	zlb*target*assetmat (0.67)
hedge*target*exposure	2.29 (3.91)	path*size (0.52)	zlb*path*assetmat (1.00)
zlb*target*exposure	3.30 (9.51)	hedge*size (0.09)	zlb*hedge*assetmat (0.15)
hedge*zlb*target*exposure	-7.30 (12.97)	zlb*size (0.12)	zlb*hedge*target*assetmat (2.29)
path*exposure	-2.40*** (0.63)	hedge*target*size (1.18)	zlb*hedge*path*assetmat (1.86**)
hedge*path*exposure	3.38*** (1.03)	hedge*path*size (0.58)	ret (0.82)
zlb*path*exposure	0.18 (1.85)	zlb*target*size (5.27)	target*ret (0.12)
hedge*zlb*path*exposure	-2.18 (2.72)	zlb*path*size (0.90)	path*ret (3.07)
lev	0.00 (0.71)	zlb*hedge*size (0.19)	hedge*ret (0.58)
target*lev	13.46 (11.97)	zlb*hedge*target*size (10.35)	zlb*ret (0.29)
hedge*target*lev	-9.46 (22.37)	zlb*hedge*path*size (1.62)	hedge*target*ret (-3.10*)
zlb*target*lev	-41.97 (63.70)	prof (6.32)	hedge*path*ret (0.17)
hedge*zlb*target*lev	89.12 (104.41)	target*prof (49.31)	zlb*target*ret (-1.72)
path*lev	1.40 (3.69)	path*prof (56.65)	zlb*path*ret (4.80)
hedge*path*lev	-4.81 (4.82)	hedge*prof (-55.11*)	hedge*zlb*ret (0.21)
zlb*path*lev	9.31 (9.67)	zlb*prof (6.03)	hedge*zlb*target*ret (0.48)
hedge*zlb*path*lev	4.05 (11.53)	hedge*target*prof (8.12)	hedge*zlb*target*ret (-28.58**)
hedge	-0.36 (0.56)	hedge*path*prof (97.44***)	div (1.440)
zlb	0.17 (1.11)	zlb*target*prof (31.18)	target*div (0.44)
hedge*target	10.92** (4.73)	zlb*path*prof (58.43)	path*div (7.83)
hedge*path	(3.13)	zlb*hedge*prof (8.62)	hedge*div (3.14)
hedge*exposure	-0.04 (0.19)	zlb*hedge*target*prof (333.38)	zlb*div (0.39)
hedge*lev	1.19 (1.00)	zlb*hedge*path*prof (285.43)	hedge*target*div (0.66)
hedge*zlb	1.40 (1.00)	blev (92.84)	hedge*path*div (8.39)
zlb*target	-11.26 (51.82)	target*blev (0.42)	zlb*target*div (2.86)
zlb*path	13.03* (7.36)	path*blev (2.47)	zlb*path*div (39.35)
zlb*exposure	-0.05 (0.20)	hedge*blev (0.28)	hedge*zlb*div (0.02)
zlb*lev	1.88 (1.13)	zlb*blev (-0.14)	hedge*zlb*target*div (14.79)
hedge*zlb*target	-49.17 (51.06)	hedge*target*blev (0.51)	hedge*zlb*path*div (19.06)
hedge*zlb*path	11.28 (9.00)	hedge*path*blev (-4.05*)	hedge*zlb*target*div (4.21)

This table presents the regression in column (1) of Table III in its entirety. "lev" stands for bank debt leverage, "prof" for profitability, "blev" for book leverage, "mktb" for market-to-book ratio, "slack" for financial slacks, "assetmat" for asset maturity, "ret" for retained earnings, and "div" for dividend per share.

Table BVIII: Robustness in Pre-ZLB

VARIABLES	(1)	(2)	(3)	(4)
	(Floating Rate Debt Leverage)	(Bank Debt Leverage + Excess Return)	(Floating Rate Debt Leverage + Excess Return)	(Floating Rate Debt Leverage + F-F Adjusted Return)
	Stock Return	Stock Return	Stock Return	Stock Return
target	-20.91*** (7.33)	-14.78*** (4.19)	-15.99*** (3.84)	-2.40 (2.66)
path	-11.37*** (3.36)	-3.37 (3.06)	-4.35* (2.45)	1.48 (1.16)
exposure	0.22 (0.29)	0.36 (0.22)	0.40 (0.25)	0.06 (0.21)
target*exposure	-1.62 (2.75)	-2.14 (1.65)	-2.01 (2.48)	-3.73** (1.47)
hedge*target*exposure	-2.56 (4.75)	1.17 (2.89)	-0.09 (3.35)	2.89* (1.55)
path*exposure	-4.07*** (0.85)	-2.55*** (0.59)	-3.29*** (0.72)	-1.47*** (0.42)
hedge*path*exposure	5.83*** (1.40)	3.48*** (0.89)	4.88*** (1.13)	3.44*** (0.96)
leverage	-1.13 (1.53)	-0.84 (1.37)	-1.58 (1.47)	-0.70 (1.27)
target*leverage	14.78 (17.24)	12.68 (12.88)	14.38 (16.50)	26.05* (13.26)
hedge*target*leverage	3.01 (24.41)	-8.24 (22.50)	-6.02 (19.38)	-32.39** (15.99)
path*leverage	11.16** (4.52)	2.34 (4.11)	8.93** (4.29)	4.55 (2.88)
hedge*path*leverage	-22.46*** (6.22)	6.26 (4.86)	-18.46*** (5.28)	-13.35*** (4.07)
excess market return		1.08*** (0.09)	1.07*** (0.08)	
Observations	6,963	5,877	6,963	11,421
R-squared	0.17	0.35	0.35	0.70

This table provides robustness checks for regression (3) in Table II. (1) has the same specification as (3) in Table II except for bank debt leverage being replaced by floating rate debt leverage. (2) and (3) augment regression (3) in Table II and (1) in this table respectively by including the excess market return, which is defined as the difference between aggregate stock return and risk-free T-Bill return, as an additional control variable. (4) employs Fama-French adjusted stock return as the dependent variable and uses floating rate debt leverage instead of bank debt leverage (the counterpart of regression (6) in Table II). These models are estimated using the pre-ZLB sample (January 2004 to December 2008). Other conventions are identical to those in Table II.

Table BIX: Robustness Including ZLB - Part 1

VARIABLES	(1) (Floating Rate Debt Leverage)	(2) (Bank Debt Leverage + Excess Return)	(3) (Floating Rate Debt Leverage + Excess Return)	(4) (Bank Debt Leverage + F-F Adjusted Return)	(5) ((4) with Controls and Inter- actions)	(6) (Floating Rate Debt Leverage + F-F Adjusted Return)	(7) (Quarterly Exposure and Leverage)
	Stock Return	Stock Return	Stock Return	Stock Return	Stock Return	Stock Return	Stock Return
target	-19.19** (8.24)	-15.21*** (4.34)	-16.06*** (3.96)	-2.06 (2.76)	-1.33 (6.80)	-1.79 (2.66)	7.78 (7.62)
path	-11.53*** (3.25)	-3.95 (2.56)	-4.48** (2.17)	0.78 (1.01)	4.62 (3.61)	1.11 (1.00)	-6.13*** (2.28)
exposure	0.06 (0.17)	0.09 (0.12)	0.13 (0.14)	0.18 (0.11)	0.27** (0.12)	0.10 (0.11)	0.06 (0.13)
target*exposure	-1.62 (2.52)	-2.88 (1.76)	-2.31 (2.30)	-1.44 (0.99)	-3.07** (1.48)	-3.47*** (1.12)	-6.15** (2.96)
hedge*target*exposure	-0.34 (4.39)	2.41 (3.20)	1.13 (3.42)	0.72 (1.70)	5.13* (2.75)	3.30* (1.67)	5.22 (3.87)
zlb*target*exposure	-2.71 (9.72)	-2.03 (5.43)	-4.58 (7.18)	-3.87 (4.87)	-4.93 (5.12)	-1.69 (5.81)	1.93 (5.81)
hedge*zlb*target*exposure	1.56 (13.87)	5.21 (8.76)	10.07 (10.27)	-5.41 (7.78)	2.79 (9.43)	-8.31 (8.81)	-8.40 (9.73)
path*exposure	-3.19*** (0.79)	-1.92*** (0.61)	-2.54*** (0.73)	-1.35*** (0.30)	-1.58*** (0.52)	-1.39*** (0.33)	-1.57* (0.80)
hedge*path*exposure	4.67*** (1.31)	3.02*** (0.95)	4.05*** (1.18)	2.26*** (0.48)	2.79*** (0.72)	2.82*** (0.80)	2.31* (1.18)
zlb*path*exposure	0.88 (1.83)	0.33 (1.48)	1.02 (1.57)	0.57 (0.84)	0.49 (1.27)	0.59 (0.94)	-0.71 (2.18)
hedge*zlb*path*exposure	-2.91 (2.44)	-2.00 (2.31)	-2.39 (2.11)	-2.55** (1.15)	-2.73 (2.14)	-2.44** (1.10)	-2.66 (2.77)
leverage	-0.56 (0.95)	-0.33 (0.66)	-0.62 (0.77)	-0.73 (0.56)	-0.06 (0.65)	-0.12 (0.57)	-0.74 (0.79)
target*leverage	8.15 (16.12)	12.08 (11.57)	11.40 (14.49)	17.94* (9.67)	14.39 (13.79)	25.83** (11.89)	29.12*** (9.71)
hedge*target*leverage	-2.74 (21.28)	-7.59 (20.95)	-7.75 (17.67)	-26.85 (17.07)	-12.77 (20.53)	-37.11*** (13.97)	-8.96 (14.45)
zlb*target*leverage	-10.79 (65.17)	-5.56 (43.72)	1.06 (54.20)	-26.24 (31.11)	-26.97 (44.07)	-42.68 (35.69)	-10.10 (40.35)
hedge*zlb*target*leverage	40.96 (102.88)	-6.93 (62.65)	-13.76 (76.76)	86.74 (61.67)	13.57 (64.90)	114.50 (69.35)	58.13 (77.88)
path*leverage	7.64* (4.04)	-0.05 (3.42)	5.20 (3.89)	3.63 (2.20)	0.29 (3.65)	3.83 (2.42)	6.43* (3.83)
hedge*path*leverage	-15.59*** (5.59)	-3.57 (4.17)	-13.13** (5.03)	-8.38** (3.88)	-3.40 (4.81)	-10.60*** (3.74)	-8.65 (7.14)
zlb*path*leverage	1.61 (8.75)	5.77 (8.02)	0.35 (8.14)	0.38 (3.45)	3.22 (7.96)	0.88 (4.26)	-4.99 (9.36)
hedge*zlb*path*leverage	10.82 (11.45)	1.67 (7.69)	5.94 (9.16)	13.71** (5.52)	5.36 (9.20)	11.05* (6.64)	23.21** (10.81)
excess market return		1.10*** (0.04)	1.10*** (0.04)				
Observations	25,399	23,465	25,399	37,204	23,465	40,247	19,870
R-squared	0.09	0.30	0.30	0.68	0.74	0.69	0.10

This table shows robustness checks for the regression in Table III. These models are estimated based on the full sample (January 2004 to December 2018) that includes the zero lower bound period (incorporated into the regression models above with the dummy variable “zlb”). (7) uses the quarterly exposure and leverage measures rather than the annual measures whenever the former are available in the CIQ database. These trade off the advantage of being more recent with the disadvantage of being potentially less accurate because 10-Q forms underlying these additional observations are mostly unaudited. Other conventions are identical to those in Table BVIII.

Table BX: Robustness Including ZLB - Part 2

VARIABLES	(1) Stock Return	(2) Stock Return	(3) Stock Return	(4) Stock Return	(5) Stock Return	(6) Stock Return	(7) Stock Return
target	-1.66 (6.90)	-23.44*** (7.46)	-30.67*** (7.59)	-21.81** (9.16)	-16.74** (8.14)	-19.95*** (6.92)	-15.52* (8.81)
path	-6.60* (3.60)	-9.70*** (3.42)	-10.94** (4.67)	-9.53** (4.05)	-8.33** (3.35)	-5.09*** (1.90)	-11.26*** (3.53)
exposure	-0.00 (0.14)	0.03 (0.16)	-0.09 (0.13)	0.04 (0.15)	0.45 (0.28)	0.00 (0.13)	-0.01 (0.17)
target*exposure	-0.17 (1.72)	-3.07* (1.80)	-4.56** (1.76)	-2.88 (2.81)	4.22 (5.28)	-2.33 (2.15)	-3.81 (4.05)
hedge*target*exposure	0.24 (2.98)	1.73 (3.73)	2.03 (3.89)	1.82 (4.61)	-4.91 (5.72)	2.35 (4.23)	2.85 (6.31)
zlb*target*exposure	-5.13 (7.71)	2.61 (9.61)	3.86 (9.33)	3.12 (9.86)	48.55 (45.78)	-1.57 (9.52)	15.66 (14.63)
hedge*zlb*target*exposure	4.91 (10.56)	-9.86 (13.19)	-1.92 (10.54)	-6.84 (13.37)	-21.73 (33.22)	-4.95 (14.87)	-14.35 (15.92)
path*exposure	-1.54*** (0.49)	-2.56*** (0.67)	-2.67*** (0.63)	-2.30*** (0.76)	-4.72** (2.36)	-1.49*** (0.40)	-3.19** (1.36)
hedge*path*exposure	1.59** (0.63)	3.94*** (1.08)	3.55*** (1.00)	3.36*** (1.06)	5.08*** (1.87)	1.92*** (0.64)	3.02** (1.48)
zlb*path*exposure	-0.05 (0.84)	0.31 (1.81)	0.30 (1.81)	0.08 (1.91)	6.31 (6.36)	0.48 (0.97)	-1.40 (3.17)
hedge*zlb*path*exposure	-0.73 (1.53)	-3.00 (2.76)	-1.99 (2.49)	-2.14 (2.75)	-1.20 (6.85)	-1.45 (1.35)	0.71 (4.06)
Observations	23,468	20,648	20,219	22,839	17,259	23,465	20,793
R-squared	0.08	0.10	0.10	0.11	0.11	0.09	0.10

This table continues to show robustness checks for the regression in Table III. These models are estimated based on the full sample (January 2004 to December 2018) which covers the zero lower bound period (incorporated into the regression models above with the dummy variable “zlb”). Other conventions are identical to those in Table III. (1) is the regression in Table III based on a one-day window for stock return. From (2) onward are again based on a two-day window for stock return. (2) additionally controls for the S&P credit rating and (3) for the fixed rate exposure which is calculated by applying the formula in equation (1) to fixed rate debt items, one at a time. (4) uses only scheduled FOMC meetings as events (this excludes the meetings on August 10 and 17 in 2007 and January 22, March 11, and October 8 in 2008 which were all intermeetings). (5) is based on the floating rate exposure measure which includes only floating rate debt items with outstanding maturities less than five years, and (6) on the path surprises based on the change in the yield curve up to two years in maturity which is longer by one year than the path surprises employed elsewhere in the paper. Finally, (7) utilizes the cash flow exposure measure constructed using only bank debt items hence being more comparable to the bank debt leverage appearing in the main regressions.

Table BXI: Robustness with Various Debt Maturity Measures as Additional Controls

VARIABLES	Weighted Avr. Known		Weighted Avr. All		Simple Avr.	
	Stock Return	Stock Return	Stock Return	Stock Return	Stock Return	Stock Return
path*exposure	-2.30*** (0.73)	-1.53** (0.72)	-2.90*** (0.99)	-2.14** (1.04)	-2.27*** (0.69)	-1.49** (0.67)
hedge*path*exposure	3.67*** (1.15)	3.15*** (1.19)	3.99*** (1.43)	3.50** (1.48)	2.94*** (1.04)	2.61** (1.09)
zlb*path*exposure	0.73 (1.67)	0.03 (1.44)	0.91 (1.89)	0.47 (1.56)	0.15 (1.85)	-0.44 (1.37)
hedge*zlb*path*exposure	-2.22 (2.52)	-2.00 (2.13)	-2.51 (2.75)	-2.33 (2.43)	-1.79 (2.78)	-1.28 (2.36)
path*maturity	-0.14 (0.34)	-0.13 (0.33)	0.50 (0.49)	0.50 (0.45)	-0.10 (0.10)	-0.12 (0.08)
hedge*path*maturity	-0.23 (0.51)	-0.45 (0.46)	-0.55 (0.58)	-0.75 (0.53)	0.29* (0.15)	0.17 (0.13)
zlb*path*maturity	-0.64 (0.69)	0.15 (0.50)	-0.73 (0.63)	-0.40 (0.59)	-0.14 (0.22)	0.24 (0.17)
hedge*zlb*path*maturity	0.00 (0.95)	0.23 (0.88)	0.10 (0.84)	0.58 (0.82)	-0.02 (0.29)	-0.13 (0.29)
Observations	23,228	23,228	23,266	23,266	23,181	23,181
R-squared	0.10	0.32	0.10	0.32	0.10	0.32
Firm FE	YES	YES	YES	YES	YES	YES
Time FE	NO	YES	NO	YES	NO	YES
Firm controls/contr*surp*hedge*zlb	YES	YES	YES	YES	YES	YES

In this table, we include measures of debt maturity and their interaction terms to demonstrate that the cash flow effect is due to floating rate exposure rather than debt maturity. For the first two columns, debt maturity is constructed as the sum of leverage weighted maturity when interest rate types are known to be either floating or fixed. For the next two columns, it is expanded to include all debt items including those with unknown interest rate types (but with maturity information). These two measures are analogous to equation (1) in their construction and would be exactly the same for a firm that has issued only floating rate debt. For the last two columns, we use the simple arithmetic mean of all debt items of all types. We consider regression specifications with only firm fixed effects and also with time fixed effects, while controlling for the covariates listed in Table [BVII](#) in all specifications.

Table BXII: IV Regression

VARIABLES	Stock Return
target	-11.51*** (4.20)
path	-6.43*** (1.35)
target*exposure	-0.30 (1.94)
path*exposure	-1.52** (0.61)
Observations	20,843
R-squared	0.06
	First Stage F-Test
exposure	622.09 (0.00)
target*exposure	2,594.82 (0.00)
path*exposure	2,651.40 (0.00)
	Sanderson-Windmeijer multivariate F-test
exposure	1,900.15 (0.00)
target*exposure	7,794.18 (0.00)
path*exposure	7,447.09 (0.00)

The upper half of this table gives an IV regression where exposure, target*exposure, and path*exposure are instrumented by lagged exposure, target*lagged exposure, and path*lagged exposure (where lagged exposure is exposure lagged by four more quarters due to its availability at annual frequency). The lower half conducts the instrument relevance tests based on the first stage regressions. The first test is a conventional F-test and the second test is an F-test that takes the weak instruments problem into consideration.

Table BXIII: Falsification Tests

VARIABLES	(1)	(2)	(3)	(4)
	(Bank Debt Leverage) Stock Return	(Floating Rate Debt Leverage) Stock Return	(Bank Debt Leverage) Stock Return	(Floating Rate Debt Leverage) Stock Return
target	-2.53 (12.76)	5.24 (13.14)	-4.84 (11.43)	2.22 (11.96)
path	2.82 (7.13)	4.62 (7.80)	3.60 (6.94)	4.67 (7.55)
path*exposure	0.50 (1.88)	-0.01 (2.07)	-0.01 (1.48)	-0.00 (1.77)
hedge*path*exposure	-0.82 (1.91)	-0.76 (2.74)	-0.43 (1.48)	-0.58 (2.30)
zlb*path*exposure			-1.21 (1.98)	-1.68 (2.23)
hedge*zlb*path*exposure			0.46 (1.88)	0.80 (2.58)
Observations	5,878	6,964	23,468	25,402
R-squared	0.11	0.12	0.05	0.05

The dependent variable is the two-day stock return one week before an FOMC announcement. Regressions (1) and (2) use the regression specification (3) in Table II and the pre-ZLB sample, and (3) and (4) the specification (1) in Table III and the full sample.

Table BXIV: Capital Investment (Cumulative Change as a Ratio of Initial Total Assets)

Capital Investment VARIABLES	(1) (t+1)	(2) (t+2)	(3) (t+3)	(4) (t+4)	(5) (t+5)	(6) (t+6)	(7) (t+7)	(8) (t+8)
path*exposure	-5.32*** (1.36)	-5.61*** (1.52)	-4.55*** (1.56)	-6.37*** (1.92)	-7.31*** (2.22)	-7.40*** (2.05)	-6.90*** (1.94)	-8.98*** (2.51)
hedge*path*exposure	2.31 (2.15)	1.91 (1.70)	2.62 (1.68)	5.03** (1.93)	6.65** (2.66)	5.78** (2.48)	4.28** (2.06)	5.63** (2.39)
zlb*path*exposure	-0.30 (1.63)	-0.42 (2.07)	0.30 (2.19)	3.24 (2.68)	4.17 (4.27)	9.72* (5.64)	5.40 (5.10)	8.62 (6.69)
hedge*zlb*path*exposure	8.10*** (2.77)	8.88** (3.50)	7.19* (4.10)	3.59 (4.18)	1.17 (6.43)	-4.06 (7.77)	1.29 (9.19)	-1.58 (10.70)
target*exposure	-0.92 (8.32)	1.47 (8.71)	-9.07 (8.23)	-0.70 (8.80)	-0.55 (9.74)	-2.78 (9.59)	-9.33 (8.72)	-4.05 (9.65)
hedge*target*exposure	0.14 (12.15)	-7.42 (11.83)	0.19 (9.05)	-17.53 (11.76)	-16.21 (14.09)	-13.97 (14.11)	7.65 (11.05)	-12.07 (11.91)
zlb*target*exposure	34.09** (13.41)	36.86** (16.27)	50.80*** (15.57)	42.41*** (12.99)	37.69* (19.63)	14.50 (22.00)	21.01 (23.53)	23.29 (27.60)
hedge*zlb*target*exposure	-14.38 (24.63)	-6.08 (26.37)	-22.50 (38.53)	-17.38 (30.17)	-15.95 (26.48)	16.67 (35.20)	-13.11 (35.19)	7.72 (31.40)
exposure	-1.01** (0.42)	-0.69 (0.50)	-0.28 (0.48)	-0.39 (0.67)	-0.37 (0.76)	-0.42 (0.80)	-0.01 (0.71)	-0.25 (0.88)
hedge	-0.69 (0.63)	-1.24 (0.77)	-1.47* (0.88)	-2.17** (0.99)	-2.18** (1.07)	-1.87* (1.01)	-0.84 (0.92)	-1.75* (0.95)
hedge*path	-2.41 (1.64)	-2.09 (1.76)	-3.07 (2.00)	-4.43** (2.17)	-4.97* (2.70)	-4.06 (2.74)	-5.18* (2.68)	-2.60 (2.95)
hedge*target	4.14 (7.65)	5.59 (7.49)	2.60 (6.85)	13.00 (8.08)	13.23 (8.70)	17.21** (8.37)	6.36 (6.64)	13.27* (7.90)
hedge*exposure	0.07 (0.50)	0.03 (0.57)	-0.53 (0.64)	0.13 (0.69)	-0.13 (0.82)	-0.10 (0.87)	-1.13 (0.86)	0.18 (0.85)
hedge*zlb	-1.28 (1.15)	-1.66 (1.21)	-0.65 (1.24)	-0.34 (1.59)	-0.69 (2.02)	-0.82 (1.85)	-1.23 (1.72)	-1.11 (2.28)
zlb*exposure	-0.21 (0.48)	-0.58 (0.56)	-1.44** (0.54)	-1.08* (0.63)	-1.11 (0.85)	-0.84 (0.87)	-1.76* (1.05)	-2.13 (1.46)
hedge*zlb*path	-4.68 (3.26)	-4.16 (3.62)	-2.60 (3.85)	-0.70 (3.56)	0.82 (4.30)	3.68 (4.58)	0.80 (6.04)	0.66 (6.83)
hedge*zlb*target	24.99 (25.00)	35.69 (22.66)	5.99 (25.51)	2.17 (31.41)	-9.25 (40.71)	-21.88 (38.71)	-25.65 (40.00)	-26.32 (52.60)
hedge*zlb*exposure	1.05 (1.01)	1.47 (1.10)	2.56* (1.44)	2.37* (1.29)	2.82** (1.16)	2.33* (1.38)	3.77** (1.57)	3.34* (1.68)
Observations	10,641	10,546	11,672	10,398	10,308	10,032	10,892	9,510
R-squared	0.72	0.68	0.62	0.65	0.67	0.67	0.66	0.69

This table presents the regressions for capital investment where the LHS is defined as $100*(Y_{i,t+x} - Y_{i,t-1})/Assets_{i,t-1}$. Target surprises are also aggregated within the reference quarter t . The explanations are provided under Table V.

Table BXV: Net Worth (Cumulative Change as a Ratio of Initial Total Assets)

Net Worth VARIABLES	(1) (t+1)	(2) (t+2)	(3) (t+3)	(4) (t+4)	(5) (t+5)	(6) (t+6)	(7) (t+7)	(8) (t+8)
path*exposure	-4.82*** (1.06)	-4.31*** (1.03)	-3.84*** (1.04)	-3.98*** (1.09)	-3.89*** (1.13)	-4.02*** (1.14)	-3.57*** (1.12)	-3.01** (1.37)
hedge*path*exposure	-0.73 (1.88)	-0.99 (1.78)	-1.04 (1.55)	-1.45 (1.71)	-0.44 (1.97)	-1.26 (2.12)	-0.44 (2.09)	-2.60 (2.17)
zlb*path*exposure	2.29 (1.70)	1.08 (2.80)	2.29 (2.57)	2.69 (2.55)	2.33 (2.18)	0.02 (2.70)	1.92 (3.63)	1.94 (3.80)
hedge*zlb*path*exposure	7.43*** (2.73)	8.97** (3.63)	5.61 (3.56)	4.69 (3.70)	0.80 (3.20)	2.40 (3.20)	-3.05 (5.24)	0.75 (5.52)
target*exposure	-2.00 (4.31)	-1.48 (4.23)	-1.73 (4.54)	-3.72 (5.05)	-1.99 (4.86)	-1.57 (4.11)	-1.11 (4.28)	-2.34 (4.42)
hedge*target*exposure	-2.76 (6.53)	-5.78 (6.08)	-13.87** (6.38)	-13.44** (6.50)	-14.15** (7.01)	-12.61* (6.94)	-19.57*** (6.83)	-19.91*** (6.26)
zlb*target*exposure	-1.36 (10.95)	11.03 (13.24)	-5.40 (20.35)	-4.69 (21.45)	-11.61 (21.24)	-15.38 (20.33)	-24.25 (16.47)	-23.85* (12.66)
hedge*zlb*target*exposure	26.43 (23.64)	15.31 (22.42)	15.06 (29.19)	11.86 (31.15)	-4.44 (38.19)	-8.70 (33.91)	12.51 (31.11)	23.16 (32.55)
exposure	-0.51 (0.37)	-0.42 (0.38)	-0.34 (0.37)	-0.92** (0.41)	-1.13*** (0.40)	-1.00** (0.49)	-0.93* (0.50)	-0.46 (0.60)
hedge	0.91 (0.59)	0.96 (0.64)	0.84 (0.68)	0.39 (0.66)	-0.03 (0.69)	0.19 (0.77)	-0.27 (0.86)	0.30 (0.88)
hedge*path	-1.93 (1.61)	-1.65 (1.66)	-1.29 (2.04)	-1.44 (1.97)	-4.07** (1.95)	-2.22 (1.64)	-3.03 (1.86)	-1.12 (1.81)
hedge*target	5.49 (4.73)	7.86* (4.68)	8.94 (5.38)	8.70 (5.36)	7.18 (5.13)	8.98* (4.66)	10.24** (4.37)	10.39** (4.53)
hedge*exposure	-0.42 (0.49)	-0.24 (0.55)	-0.46 (0.54)	-0.02 (0.58)	-0.26 (0.62)	-0.53 (0.70)	-0.35 (0.67)	-0.44 (0.75)
hedge*zlb	-1.33* (0.67)	-1.64** (0.76)	-1.38* (0.81)	-0.99 (0.85)	-1.38 (0.93)	-1.14 (0.98)	-0.41 (1.13)	0.17 (1.27)
zlb*exposure	0.33 (0.44)	-0.10 (0.48)	0.12 (0.64)	0.46 (0.71)	0.89 (0.73)	1.26* (0.74)	1.78** (0.78)	1.88** (0.86)
hedge*zlb*path	-5.02 (3.06)	-5.51* (3.09)	-3.71 (3.32)	-3.88 (3.19)	0.83 (3.23)	0.09 (3.07)	4.04 (3.98)	2.54 (5.01)
hedge*zlb*target	2.15 (16.36)	13.51 (18.10)	-1.46 (19.81)	0.20 (19.64)	12.74 (20.15)	4.66 (22.20)	5.57 (21.78)	-17.79 (24.03)
hedge*zlb*exposure	0.36 (0.89)	0.52 (0.89)	1.33 (1.12)	1.14 (1.22)	1.80 (1.53)	1.92 (1.42)	1.36 (1.33)	1.08 (1.42)
Observations	11,952	11,880	11,801	11,724	11,636	11,359	11,086	10,810
R-squared	0.65	0.59	0.54	0.53	0.53	0.55	0.56	0.58

This table shows the regressions for net worth where the LHS is defined as $100*(Y_{i,t+x} - Y_{i,t-1})/Assets_{i,t-1}$. Target surprises are also aggregated within the reference quarter t . The explanations are provided under Table V.

Table BXVI: Total Assets (Cumulative Percentage Change)

Total Assets VARIABLES	(1) (t+1)	(2) (t+2)	(3) (t+3)	(4) (t+4)	(5) (t+5)	(6) (t+6)	(7) (t+7)	(8) (t+8)
path*exposure	-7.10*** (1.66)	-6.73*** (1.80)	-5.91*** (1.84)	-6.36*** (1.93)	-8.15*** (2.56)	-7.70*** (2.53)	-7.15*** (2.40)	-7.36** (2.81)
hedge*path*exposure	-4.06 (3.80)	-4.29 (3.30)	-2.09 (3.35)	-4.22 (3.50)	-2.44 (3.78)	-4.62 (3.79)	-2.59 (3.86)	-6.84* (3.99)
zlb*path*exposure	1.36 (2.45)	-0.80 (5.15)	3.59 (5.27)	2.30 (5.93)	0.02 (5.16)	-9.21 (6.05)	-5.78 (9.08)	-6.10 (9.49)
hedge*zlb*path*exposure	18.47*** (4.93)	20.74** (7.92)	12.52 (9.04)	15.46 (9.57)	17.04* (8.97)	25.13*** (9.05)	18.51 (13.68)	24.77 (14.91)
target*exposure	-8.65 (7.89)	-8.45 (8.22)	-9.46 (8.43)	-12.41 (8.90)	-12.03 (11.43)	-10.82 (9.44)	-10.12 (9.04)	-10.48 (9.53)
hedge*target*exposure	4.09 (13.48)	1.34 (12.69)	-15.97 (12.80)	-14.76 (12.98)	-12.11 (15.21)	-10.11 (14.76)	-6.74 (13.89)	-7.13 (13.32)
zlb*target*exposure	12.46 (25.80)	49.95* (26.78)	-19.02 (37.59)	-14.08 (45.50)	-34.46 (48.76)	-20.73 (40.94)	-31.63 (37.43)	-41.23 (35.30)
hedge*zlb*target*exposure	3.37 (68.81)	-20.60 (59.59)	16.64 (77.00)	10.96 (69.92)	-0.81 (85.84)	-15.70 (84.95)	9.52 (83.43)	22.97 (78.09)
exposure	-1.85*** (0.65)	-2.03*** (0.73)	-2.06*** (0.75)	-3.35*** (0.87)	-3.91*** (1.05)	-3.84*** (1.15)	-3.70*** (1.10)	-3.10*** (1.08)
hedge	1.00 (0.95)	1.02 (1.00)	0.44 (1.15)	-0.44 (1.08)	-0.72 (1.28)	-0.29 (1.42)	-0.54 (1.51)	0.66 (1.60)
hedge*path	0.88 (3.28)	1.03 (2.93)	-0.38 (3.41)	-1.68 (3.54)	-3.82 (3.54)	-2.12 (3.43)	-3.58 (3.16)	0.31 (3.70)
hedge*target	2.55 (10.45)	5.65 (9.48)	13.78 (10.01)	14.59 (10.41)	13.23 (11.55)	16.93 (10.91)	9.62 (9.22)	11.21 (9.98)
hedge*exposure	-0.20 (0.83)	-0.03 (1.01)	-0.14 (1.09)	0.86 (1.12)	0.31 (1.29)	-0.36 (1.38)	-0.28 (1.25)	-0.30 (1.11)
hedge*zlb	-3.94*** (1.39)	-5.46*** (1.58)	-2.96* (1.61)	-2.78* (1.54)	-4.50** (2.03)	-3.82* (1.93)	-1.72 (2.10)	-1.08 (2.39)
zlb*exposure	-0.01 (1.03)	-1.27 (0.98)	0.47 (1.18)	0.75 (1.40)	1.49 (1.64)	1.76 (1.51)	2.36 (1.76)	2.86 (1.80)
hedge*zlb*path	-13.32** (6.44)	-12.37** (6.16)	-6.77 (6.29)	-8.31 (5.82)	-7.80 (5.78)	-9.54 (6.13)	-7.88 (8.34)	-8.95 (11.42)
hedge*zlb*target	36.04 (37.39)	64.43* (37.04)	2.62 (33.56)	8.40 (33.51)	33.24 (39.44)	31.20 (40.47)	10.44 (38.70)	-29.89 (43.40)
hedge*zlb*exposure	1.92 (2.43)	3.04 (2.22)	2.48 (2.97)	2.35 (2.73)	3.71 (3.51)	3.98 (3.59)	3.19 (3.52)	2.61 (3.32)
Observations	11,952	11,880	11,801	11,724	11,636	11,359	11,086	10,810
R-squared	0.61	0.56	0.50	0.49	0.56	0.58	0.58	0.59

This table presents the regressions for total assets where the LHS is defined as $100*(Y_{i,t+x} - Y_{i,t-1})/Assets_{i,t-1}$ which is also $100*(Y_{i,t+x} - Y_{i,t-1})/Y_{i,t-1}$ because $Y_{i,t-1} = Assets_{i,t-1}$ here. Target surprises are also aggregated within the reference quarter t . The explanations are provided under Table V.

Table BXVII: Total Liabilities (Cumulative Change as a Ratio of Initial Total Assets)

Total Liabilities VARIABLES	(1) (t+1)	(2) (t+2)	(3) (t+3)	(4) (t+4)	(5) (t+5)	(6) (t+6)	(7) (t+7)	(8) (t+8)
path*exposure	-2.52*** (0.84)	-2.84*** (0.78)	-2.69*** (0.89)	-2.54*** (0.90)	-3.74*** (1.34)	-3.37** (1.41)	-3.33** (1.56)	-4.22** (1.68)
hedge*path*exposure	-1.94 (1.44)	-1.47 (1.22)	-0.03 (1.63)	-3.75** (1.64)	-2.94 (1.78)	-3.26 (2.08)	-0.14 (2.33)	-0.96 (2.57)
zlb*path*exposure	0.04 (1.05)	-1.62 (1.37)	0.31 (1.65)	-0.88 (2.06)	-1.89 (2.30)	-6.49** (2.63)	-5.42 (3.98)	-7.62* (4.23)
hedge*zlb*path*exposure	9.62*** (3.52)	11.13** (4.50)	5.22 (4.82)	10.52** (4.97)	15.14*** (5.07)	18.95*** (5.95)	15.70** (7.72)	19.43** (8.13)
target*exposure	-4.61 (2.91)	-6.08* (3.26)	-6.34* (3.25)	-8.31** (3.78)	-8.35 (5.33)	-8.66** (4.27)	-6.49 (4.00)	-6.96 (4.25)
hedge*target*exposure	5.81 (4.76)	8.15* (4.77)	2.00 (5.00)	15.09*** (4.37)	14.62** (6.28)	17.52*** (6.00)	11.61* (6.19)	15.16** (6.96)
zlb*target*exposure	10.86 (7.86)	28.19** (13.13)	-9.97 (15.72)	-1.44 (20.70)	-15.57 (24.50)	-9.91 (20.90)	-13.55 (18.96)	-25.46* (14.73)
hedge*zlb*target*exposure	-21.60 (31.07)	-31.68 (24.41)	6.50 (26.87)	-13.20 (24.54)	4.39 (30.73)	-3.37 (32.67)	20.19 (37.68)	23.57 (31.47)
exposure	-0.90** (0.34)	-1.26*** (0.40)	-1.43*** (0.44)	-2.10*** (0.54)	-2.42*** (0.69)	-2.58*** (0.75)	-2.57*** (0.76)	-2.68*** (0.67)
hedge	0.54 (0.42)	0.61 (0.52)	0.40 (0.62)	0.42 (0.61)	0.53 (0.68)	0.77 (0.66)	0.53 (0.66)	1.21 (0.78)
hedge*path	1.92 (1.48)	1.05 (1.43)	-0.51 (1.61)	0.11 (1.77)	-0.06 (1.68)	0.55 (1.85)	-0.78 (1.51)	0.51 (1.82)
hedge*target	1.75 (4.23)	-0.33 (4.25)	5.01 (4.60)	-1.95 (4.92)	0.19 (5.56)	0.42 (5.10)	2.37 (4.68)	0.03 (4.76)
hedge*exposure	-0.09 (0.35)	-0.01 (0.45)	-0.06 (0.51)	0.21 (0.57)	-0.07 (0.68)	-0.48 (0.74)	-0.37 (0.75)	-0.29 (0.63)
hedge*zlb	-2.03*** (0.70)	-3.12*** (0.80)	-1.39 (0.98)	-1.64 (1.06)	-2.67** (1.14)	-2.57*** (0.94)	-0.96 (1.09)	-1.42 (1.34)
zlb*exposure	-0.05 (0.40)	-0.56 (0.55)	0.51 (0.57)	0.44 (0.72)	0.76 (0.90)	0.80 (0.84)	0.84 (0.93)	1.34 (0.86)
hedge*zlb*path	-6.27** (3.07)	-6.78** (2.84)	-1.44 (3.10)	-4.03 (3.06)	-7.27*** (2.46)	-8.84** (3.39)	-9.69** (4.41)	-10.63* (5.41)
hedge*zlb*target	23.27 (16.82)	47.58*** (16.35)	2.63 (21.02)	2.87 (25.59)	12.36 (25.24)	13.68 (23.82)	-24.90 (29.14)	-33.19 (29.00)
hedge*zlb*exposure	1.20 (1.13)	1.88* (0.94)	0.96 (1.07)	1.32 (0.91)	1.65 (1.19)	2.11 (1.31)	1.54 (1.39)	1.42 (1.33)
Observations	11,947	11,874	11,792	11,712	11,621	11,344	11,071	10,790
R-squared	0.49	0.45	0.40	0.40	0.51	0.52	0.52	0.54

This table gives the regressions for total liabilities where the LHS is defined as $100*(Y_{i,t+x} - Y_{i,t-1})/Assets_{i,t-1}$. Target surprises are also aggregated within the reference quarter t . The explanations are provided under Table V.

Table BXVIII: Inventory Investment (Cumulative Change as a Ratio of Initial Total Assets)

Inventory Investment VARIABLES	(1) (t+1)	(2) (t+2)	(3) (t+3)	(4) (t+4)	(5) (t+5)	(6) (t+6)	(7) (t+7)	(8) (t+8)
path*exposure	-0.38*** (0.11)	-0.40** (0.16)	-0.31** (0.14)	-0.22 (0.14)	-0.45*** (0.16)	-0.17 (0.24)	-0.24 (0.22)	-0.32 (0.24)
hedge*path*exposure	0.07 (0.11)	0.04 (0.11)	-0.09 (0.12)	-0.28* (0.16)	-0.15 (0.17)	-0.51** (0.24)	-0.27 (0.22)	-0.33 (0.24)
zlb*path*exposure	0.17 (0.21)	-0.30 (0.30)	0.01 (0.45)	-0.34 (0.49)	-0.04 (0.44)	-0.41 (0.53)	-0.30 (0.80)	0.10 (0.97)
hedge*zlb*path*exposure	0.06 (0.31)	0.63* (0.32)	0.24 (0.63)	0.77 (0.74)	0.55 (0.72)	1.11 (0.73)	0.78 (1.11)	0.49 (1.35)
target*exposure	0.22 (0.37)	0.98** (0.39)	0.84** (0.34)	0.35 (0.33)	-0.16 (0.50)	0.13 (0.54)	-0.10 (0.49)	-0.42 (0.65)
hedge*target*exposure	-0.67* (0.36)	-1.24*** (0.37)	-1.59*** (0.40)	-1.19** (0.49)	-0.63 (0.55)	-0.68 (0.58)	-0.02 (0.52)	-0.06 (0.68)
zlb*target*exposure	-2.68 (2.48)	-4.21** (2.08)	-4.03** (1.92)	-4.93** (2.17)	-2.60 (3.61)	-4.68 (5.02)	-3.44 (5.07)	-3.02 (4.66)
hedge*zlb*target*exposure	1.73 (4.05)	0.90 (3.40)	2.49 (3.45)	4.70 (3.77)	4.05 (6.10)	4.67 (7.42)	1.53 (6.06)	3.85 (5.66)
exposure	0.03 (0.06)	0.06 (0.08)	0.08 (0.07)	0.08 (0.08)	0.07 (0.09)	-0.01 (0.12)	-0.03 (0.11)	-0.01 (0.14)
hedge	0.01 (0.08)	-0.06 (0.08)	-0.17** (0.08)	-0.21** (0.10)	-0.24** (0.11)	-0.26** (0.11)	-0.25** (0.11)	-0.16 (0.12)
hedge*path	0.21 (0.18)	0.11 (0.19)	-0.00 (0.20)	0.16 (0.27)	-0.02 (0.29)	-0.09 (0.28)	-0.01 (0.24)	0.11 (0.26)
hedge*target	0.35 (0.57)	0.87 (0.53)	2.07*** (0.49)	1.24* (0.74)	1.05 (0.79)	1.19 (0.84)	0.90 (0.84)	0.59 (0.91)
hedge*exposure	-0.11** (0.05)	-0.12* (0.06)	-0.10 (0.06)	-0.11 (0.08)	-0.19* (0.10)	-0.16 (0.12)	-0.16 (0.12)	-0.21 (0.13)
hedge*zlb	-0.03 (0.13)	0.01 (0.15)	0.18 (0.17)	0.13 (0.18)	0.10 (0.27)	0.09 (0.38)	-0.00 (0.32)	-0.07 (0.31)
zlb*exposure	0.15 (0.10)	0.19* (0.10)	0.23** (0.09)	0.20* (0.11)	0.13 (0.16)	0.25 (0.21)	0.14 (0.21)	0.03 (0.21)
hedge*zlb*path	-0.03 (0.40)	-0.04 (0.49)	0.27 (0.73)	-0.11 (0.78)	-0.10 (0.86)	0.09 (0.97)	0.06 (1.40)	0.61 (1.52)
hedge*zlb*target	-0.42 (3.27)	-0.82 (3.55)	-4.50 (4.24)	-4.62 (4.45)	-4.67 (7.25)	-3.11 (10.32)	-2.22 (8.73)	-4.78 (8.21)
hedge*zlb*exposure	0.06 (0.15)	0.11 (0.14)	0.02 (0.14)	0.03 (0.16)	0.10 (0.25)	0.05 (0.30)	0.23 (0.24)	0.26 (0.23)
Observations	11,440	11,363	11,371	11,197	11,105	10,828	10,641	10,289
R-squared	0.29	0.30	0.34	0.37	0.46	0.49	0.54	0.53

This table shows the regressions for inventory investment where the LHS is defined as $100*(Y_{i,t+x} - Y_{i,t-1})/Assets_{i,t-1}$. Target surprises are also aggregated within the reference quarter t . The explanations are provided under Table V.

Table BXIX: Cash Holding (Cumulative Change as a Ratio of Initial Total Assets)

Cash Holding VARIABLES	(1) (t+1)	(2) (t+2)	(3) (t+3)	(4) (t+4)	(5) (t+5)	(6) (t+6)	(7) (t+7)	(8) (t+8)
path*exposure	-0.06 (0.25)	-0.07 (0.36)	-0.37 (0.39)	-0.81* (0.44)	-1.00* (0.53)	-1.03* (0.51)	-1.22*** (0.44)	-0.41 (0.49)
hedge*path*exposure	-0.13 (0.47)	0.33 (0.81)	0.61 (0.68)	0.35 (1.01)	0.75 (0.72)	0.71 (0.85)	1.36* (0.77)	0.96 (0.59)
zlb*path*exposure	-0.33 (0.36)	-0.30 (0.60)	0.25 (0.82)	0.47 (0.69)	0.70 (0.88)	-2.02** (0.99)	-0.25 (1.24)	0.03 (1.91)
hedge*zlb*path*exposure	1.34 (0.87)	0.24 (1.28)	-0.07 (1.32)	-0.41 (1.41)	-0.03 (1.96)	1.31 (1.61)	-0.02 (1.70)	-2.50 (2.58)
target*exposure	-1.72** (0.77)	-2.41*** (0.72)	-3.15*** (1.06)	-2.94** (1.11)	-3.97** (1.76)	-4.11** (1.66)	-3.49** (1.72)	-4.90** (1.97)
hedge*target*exposure	1.75** (0.79)	2.22 (1.45)	2.91* (1.54)	3.22* (1.84)	4.36** (1.85)	4.67** (2.04)	5.38** (2.20)	7.89*** (2.18)
zlb*target*exposure	1.53 (3.35)	-2.06 (4.75)	7.50* (4.14)	15.93*** (4.90)	0.09 (4.59)	7.48 (5.69)	16.15** (6.22)	9.98 (6.74)
hedge*zlb*target*exposure	-1.69 (7.68)	3.85 (10.24)	-7.38 (7.46)	-7.97 (5.87)	1.81 (8.16)	-7.21 (9.47)	-14.33 (8.72)	-7.78 (9.37)
exposure	-0.21* (0.12)	-0.14 (0.14)	-0.20 (0.15)	-0.14 (0.16)	-0.22 (0.18)	-0.04 (0.18)	0.10 (0.20)	0.00 (0.22)
hedge	-0.12 (0.22)	-0.23 (0.24)	-0.24 (0.22)	-0.14 (0.24)	0.04 (0.27)	0.09 (0.28)	0.17 (0.26)	0.23 (0.29)
hedge*path	-0.82 (0.51)	-1.59** (0.65)	-1.60*** (0.53)	-1.61** (0.72)	-1.32* (0.77)	-0.36 (0.80)	-0.79 (0.73)	-0.48 (0.82)
hedge*target	-1.05 (1.28)	-0.23 (1.62)	-3.11 (1.88)	-2.68 (1.80)	-1.38 (2.40)	-0.17 (2.01)	-1.01 (1.86)	-1.74 (1.76)
hedge*exposure	-0.01 (0.17)	-0.10 (0.20)	-0.22 (0.20)	-0.33 (0.23)	-0.54** (0.25)	-0.82*** (0.25)	-0.95*** (0.23)	-0.97*** (0.24)
hedge*zlb	0.16 (0.32)	0.09 (0.32)	0.09 (0.44)	-0.04 (0.66)	-0.61 (0.54)	-0.62 (0.60)	-0.65 (0.81)	-0.58 (0.73)
zlb*exposure	0.28* (0.16)	0.43** (0.19)	0.24 (0.20)	-0.08 (0.23)	0.46* (0.25)	0.11 (0.25)	-0.30 (0.28)	0.03 (0.26)
hedge*zlb*path	-1.07 (1.21)	2.31* (1.25)	1.49 (1.42)	1.78 (1.63)	0.14 (2.10)	-1.41 (2.36)	0.10 (2.53)	2.29 (3.36)
hedge*zlb*target	2.59 (6.35)	6.48 (5.97)	14.56 (9.81)	9.61 (17.93)	19.79 (14.09)	18.64 (14.45)	19.75 (19.54)	14.85 (19.50)
hedge*zlb*exposure	-0.05 (0.32)	-0.21 (0.40)	0.06 (0.33)	0.16 (0.30)	0.08 (0.38)	0.61 (0.42)	0.93** (0.41)	0.70* (0.37)
Observations	11,952	11,880	11,801	11,724	11,636	11,359	11,086	10,810
R-squared	0.30	0.26	0.30	0.36	0.46	0.52	0.51	0.53

This table gives the regressions for cash holding where the LHS is defined as $100*(Y_{i,t+x} - Y_{i,t-1})/Assets_{i,t-1}$. Target surprises are also aggregated within the reference quarter t . The explanations are provided under Table V.

Table BXX: Capital Investment with Financial Constraints

Capital Investment VARIABLES	(1) (t+1)	(2) (t+2)	(3) (t+3)	(4) (t+4)	(5) (t+5)	(6) (t+6)	(7) (t+7)	(8) (t+8)
path*exposure	-19.79*** (5.30)	-20.83*** (5.80)	-16.08*** (4.03)	-27.26*** (8.42)	-30.79*** (9.73)	-31.31*** (10.42)	-24.62*** (5.86)	-30.72** (11.75)
hedge*path*exposure	14.20 (8.95)	17.11** (7.48)	19.95*** (5.78)	32.93*** (11.27)	43.16*** (12.96)	43.60*** (14.04)	32.04*** (10.18)	41.58** (17.04)
zlb*path*exposure	2.77 (6.64)	5.15 (8.27)	1.04 (6.55)	13.40 (12.35)	15.53 (15.46)	10.91 (23.47)	0.51 (18.02)	11.45 (22.74)
hedge*zlb*path*exposure	34.51 (21.44)	23.94 (24.77)	40.21** (19.87)	19.94 (23.72)	12.74 (27.99)	20.35 (34.08)	30.67 (33.09)	1.62 (37.87)
fincon*path*exposure	-7.17** (3.19)	-7.49** (3.45)	-4.66** (2.05)	-11.03** (4.80)	-12.29** (5.47)	-13.10** (5.95)	-8.27** (3.13)	-11.77* (7.01)
hedge*fincon*path*exposure	6.24 (5.38)	8.51* (4.92)	9.43** (3.96)	16.09** (7.16)	21.86*** (7.99)	22.49** (8.78)	16.10** (6.75)	21.99* (11.77)
zlb*fincon*path*exposure	0.84 (4.20)	2.38 (5.13)	-0.52 (3.50)	5.86 (7.27)	6.67 (8.68)	-2.34 (12.18)	-6.27 (8.86)	-1.73 (11.56)
hedge*zlb*fincon*path*exposure	17.17 (12.92)	9.74 (14.41)	20.49* (11.17)	9.92 (13.63)	5.09 (15.23)	16.70 (18.34)	19.23 (16.29)	2.23 (19.12)
target*exposure	-43.80 (29.04)	-37.66 (32.67)	-14.52 (15.42)	-25.94 (38.88)	-22.91 (41.99)	-29.69 (44.77)	-9.72 (19.67)	0.40 (51.71)
hedge*target*exposure	64.60 (48.75)	2.63 (40.09)	4.63 (26.01)	-26.04 (44.91)	-0.74 (50.77)	22.96 (51.96)	50.40 (32.29)	-45.46 (69.57)
zlb*target*exposure	88.90** (43.24)	95.14* (52.87)	59.72* (33.71)	92.13* (53.41)	96.61 (60.00)	87.00 (72.05)	47.77 (68.32)	18.11 (83.63)
hedge*zlb*target*exposure	336.65 (302.49)	418.88 (299.95)	428.32 (320.65)	392.66 (286.91)	374.53 (300.35)	382.32 (312.84)	215.48 (242.85)	332.31 (207.98)
fincon*target*exposure	-26.77* (15.41)	-25.54 (17.54)	-0.26 (5.38)	-16.71 (21.39)	-15.06 (23.54)	-17.39 (25.57)	2.16 (7.58)	5.96 (30.92)
hedge*fincon*target*exposure	44.72 (27.38)	5.37 (21.83)	2.81 (18.48)	-4.06 (26.89)	16.12 (29.94)	31.72 (31.95)	35.79* (19.36)	-19.00 (45.37)
zlb*fincon*target*exposure	41.80* (24.46)	47.02 (29.12)	2.87 (11.25)	24.31 (28.46)	29.32 (32.40)	40.00 (37.90)	14.71 (27.42)	5.67 (41.58)
hedge*zlb*fincon*target*exposure	221.67 (186.14)	274.51 (184.81)	287.69 (192.25)	264.22 (171.14)	249.89 (192.87)	226.21 (195.51)	127.55 (152.86)	184.66 (132.62)
exposure	-0.53 (0.95)	0.02 (1.07)	0.45 (1.06)	1.52 (1.46)	2.42 (1.64)	2.91 (1.74)	2.85* (1.46)	4.42** (1.85)
hedge	-6.34*** (2.27)	-9.26*** (2.61)	-11.19*** (2.84)	-12.67*** (3.23)	-14.70*** (3.25)	-15.90*** (3.14)	-14.48*** (3.22)	-16.98*** (2.93)
fincon	0.27 (0.30)	0.24 (0.31)	0.33 (0.27)	0.15 (0.32)	0.08 (0.29)	-0.03 (0.29)	0.14 (0.31)	-0.22 (0.31)
hedge*path	-10.27* (5.67)	-14.43** (5.45)	-17.63*** (6.52)	-23.92*** (8.03)	-23.84** (10.06)	-21.27** (10.37)	-17.43* (8.72)	-19.49** (7.53)
hedge*target	-2.78 (21.06)	18.39 (15.24)	-0.57 (18.17)	31.26* (18.56)	38.00* (21.76)	25.97 (20.81)	-3.12 (25.03)	40.98** (18.67)
hedge*zlb	6.24 (4.29)	7.01 (4.58)	9.62** (4.15)	8.27* (4.32)	9.47** (4.61)	12.45** (5.15)	11.95** (4.97)	15.16*** (5.30)
hedge*exposure	1.85 (1.99)	4.73** (2.04)	4.01* (2.26)	6.81*** (2.48)	6.95*** (2.56)	7.32** (2.83)	4.91 (3.86)	8.84 (5.78)
hedge*fincon	-3.54*** (1.07)	-5.06*** (1.22)	-5.88*** (1.42)	-6.81*** (1.60)	-8.15*** (1.58)	-9.07*** (1.59)	-8.65*** (1.75)	-9.72*** (1.71)
zlb*exposure	-1.07 (1.84)	-1.53 (2.16)	-2.05 (1.58)	-3.01 (2.16)	-4.71** (2.35)	-4.37* (2.60)	-5.04* (2.72)	-6.32* (3.59)
zlb*fincon	-0.40 (0.57)	-0.36 (0.66)	-1.04* (0.52)	-0.83 (0.63)	-0.78 (0.77)	-1.25 (0.98)	-1.28 (1.04)	-1.60 (1.12)
fincon*path	0.45 (0.60)	0.43 (0.61)	0.92 (0.59)	1.21* (0.68)	1.28* (0.66)	1.72** (0.70)	1.65* (0.83)	1.42* (0.81)
fincon*target	0.65 (2.56)	1.79 (2.60)	-0.36 (2.52)	3.05 (2.46)	2.31 (2.22)	3.75* (2.08)	1.97 (2.51)	4.37** (2.04)
fincon*exposure	-0.21 (0.46)	-0.09 (0.47)	-0.10 (0.42)	0.44 (0.58)	0.66 (0.60)	0.80 (0.62)	0.52 (0.52)	1.37* (0.70)
hedge*zlb*path	-10.07 (13.45)	-2.99 (15.18)	-9.29 (15.04)	0.93 (16.53)	0.32 (20.26)	-17.12 (23.82)	-23.08 (25.73)	-24.95 (29.28)
hedge*zlb*target	-104.78 (110.28)	-99.34 (109.27)	-175.52* (99.74)	-128.91 (86.33)	-161.66* (83.69)	-164.41 (119.36)	-165.83 (112.43)	-214.89** (94.53)
hedge*zlb*exposure	-8.30 (9.67)	-10.41 (9.71)	-11.38 (10.29)	-10.77 (9.41)	-9.85 (9.75)	-11.53 (10.28)	-7.41 (8.89)	-9.68 (8.86)
hedge*zlb*fincon	3.42 (2.24)	4.27* (2.35)	5.26** (2.23)	5.25** (2.30)	6.36** (2.49)	8.18*** (2.89)	7.77*** (2.89)	9.27*** (3.04)
hedge*fincon*path	-5.82** (2.39)	-8.73*** (2.47)	-9.53*** (3.49)	-13.42*** (4.40)	-13.82*** (5.07)	-12.59** (5.34)	-9.42* (4.75)	-12.92*** (3.90)
hedge*fincon*target	-7.40 (10.41)	7.04 (6.44)	-4.23 (11.45)	9.28 (10.59)	8.58 (13.37)	-1.04 (13.57)	-15.78 (16.18)	7.62 (13.65)
hedge*fincon*exposure	0.61 (1.26)	2.73** (1.30)	2.57* (1.34)	4.13** (1.58)	4.57*** (1.60)	4.89*** (1.74)	3.85 (2.43)	5.79 (4.13)
zlb*fincon*path	-2.19 (1.34)	-3.90** (1.51)	-1.08 (1.02)	-3.92** (1.83)	-5.69* (3.12)	7.81 (7.75)	2.77 (4.70)	6.42 (7.99)
zlb*fincon*target	-2.86 (10.31)	-8.91 (14.55)	6.72 (9.68)	2.32 (12.54)	2.42 (17.05)	-11.46 (25.25)	-0.95 (25.51)	0.98 (27.84)
zlb*fincon*exposure	-0.24 (1.02)	-0.23 (1.13)	0.40 (0.65)	-0.03 (1.03)	-0.57 (1.08)	-0.28 (1.21)	-0.25 (1.08)	-0.58 (1.43)
hedge*zlb*fincon*path	-3.01 (6.39)	0.96 (7.28)	-3.44 (7.02)	2.68 (8.06)	3.15 (10.25)	-10.43 (12.57)	-12.02 (12.36)	-12.87 (14.09)
hedge*zlb*fincon*target	-56.04 (60.36)	-63.89 (59.35)	-88.16 (55.30)	-74.06 (49.85)	-82.99 (52.75)	-79.20 (70.04)	-66.49 (61.07)	-82.86 (56.74)
hedge*zlb*fincon*exposure	-5.33 (5.93)	-7.32 (5.93)	-8.93 (6.12)	-8.53 (5.62)	-8.72 (6.32)	-9.44 (6.44)	-7.51 (5.63)	-8.57 (5.80)
Observations	7,837	7,762	8,658	7,642	7,569	7,344	8,032	6,933
R-squared	0.77	0.74	0.69	0.71	0.73	0.73	0.73	0.76

This table presents the regressions for capital investment where financial constraint and its interaction terms are included additionally. The LHS is defined as $100*(Y_{i,t+x} - Y_{i,t-1})/Assets_{i,t-1}$. Target surprises are also aggregated within the reference quarter t . The explanations are provided under Table VI.

Table BXXI: Net Worth with Financial Constraints

Net Worth VARIABLES	(1) (t+1)	(2) (t+2)	(3) (t+3)	(4) (t+4)	(5) (t+5)	(6) (t+6)	(7) (t+7)	(8) (t+8)
path*exposure	-12.89*** (3.53)	-12.66*** (3.66)	-10.84*** (3.07)	-11.31*** (3.11)	-12.11*** (2.84)	-11.77*** (2.93)	-13.05*** (3.08)	-11.18*** (3.92)
hedge*path*exposure	4.79 (7.57)	7.87 (6.70)	7.10 (5.94)	7.06 (6.30)	7.51 (6.38)	4.99 (6.60)	15.90** (6.34)	16.69** (6.57)
zlb*path*exposure	-0.98 (5.38)	-2.38 (5.67)	0.93 (5.55)	4.94 (6.06)	-1.21 (7.25)	0.25 (6.49)	7.07 (6.25)	7.41 (7.22)
hedge*zlb*path*exposure	28.16* (15.97)	28.46* (15.33)	9.32 (15.86)	2.61 (16.10)	0.48 (14.88)	4.86 (14.42)	-13.16 (19.44)	-23.63 (20.70)
fincon*path*exposure	-3.60 (2.18)	-4.04* (2.17)	-3.20 (2.08)	-3.70* (2.17)	-4.35** (1.95)	-4.58** (2.04)	-6.13*** (2.01)	-5.55** (2.51)
hedge*fincon*path*exposure	0.94 (4.07)	4.28 (3.91)	2.84 (4.20)	3.24 (4.18)	2.64 (4.26)	1.96 (4.86)	10.50** (5.16)	12.54** (5.29)
zlb*fincon*path*exposure	-3.16 (3.33)	-3.27 (3.08)	-2.17 (3.39)	0.43 (3.72)	-3.28 (4.75)	-0.23 (4.44)	3.31 (3.83)	3.03 (4.34)
hedge*zlb*fincon*path*exposure	15.04 (9.59)	13.73 (8.71)	5.38 (8.79)	1.76 (8.92)	2.81 (9.40)	3.25 (9.32)	-5.34 (10.33)	-12.95 (10.70)
target*exposure	1.50 (10.46)	9.41 (10.69)	10.45 (10.93)	8.35 (10.97)	20.17* (10.95)	22.87* (12.05)	25.44* (13.32)	34.24** (15.30)
hedge*target*exposure	38.04* (19.77)	0.39 (21.05)	-6.06 (20.81)	-0.06 (20.02)	7.57 (17.83)	17.12 (17.45)	-47.75* (24.21)	-64.90** (28.07)
zlb*target*exposure	6.63 (21.15)	41.49 (27.81)	9.56 (34.96)	13.28 (41.74)	-19.18 (42.95)	-42.07 (34.15)	-34.19 (30.46)	-45.47 (41.84)
hedge*zlb*target*exposure	382.65* (213.48)	335.89* (186.54)	356.27** (161.30)	387.86** (176.62)	351.54** (145.83)	315.61** (130.95)	242.02* (130.55)	264.08** (122.34)
fincon*target*exposure	1.84 (5.48)	6.33 (6.58)	6.80 (5.94)	5.65 (6.11)	8.61 (5.93)	11.47* (6.38)	13.74* (7.20)	20.66** (8.12)
hedge*fincon*target*exposure	33.66** (12.68)	7.23 (14.91)	12.05 (15.48)	18.21 (15.49)	29.82* (14.96)	35.22** (14.13)	-10.05 (17.69)	-23.73 (18.91)
zlb*fincon*target*exposure	10.65 (13.41)	19.44 (15.86)	12.70 (21.47)	15.07 (24.02)	10.31 (27.14)	0.00 (26.12)	11.74 (25.08)	8.80 (27.62)
hedge*zlb*fincon*target*exposure	230.93* (129.34)	222.29* (111.66)	208.76* (104.94)	222.90* (113.83)	205.41** (89.38)	181.15** (83.58)	121.37 (81.74)	126.63* (73.10)
exposure	-0.82 (0.71)	-0.29 (0.70)	0.25 (0.71)	-0.60 (0.81)	-0.83 (0.78)	-0.61 (0.85)	-0.70 (0.78)	0.46 (1.00)
hedge	-3.24** (1.55)	-3.81** (1.67)	-3.93** (1.78)	-5.04*** (1.79)	-6.07*** (1.95)	-6.21** (2.33)	-7.81*** (2.67)	-7.26** (2.76)
fincon	0.48** (0.19)	0.42** (0.18)	0.43** (0.21)	0.56** (0.23)	0.61*** (0.20)	0.64*** (0.19)	0.79*** (0.19)	0.69*** (0.17)
hedge*path	-10.14* (5.78)	-11.01* (5.62)	-10.99** (4.66)	-10.37** (4.99)	-7.41 (5.44)	-5.66 (5.94)	-10.12* (5.70)	-10.58* (6.19)
hedge*target	7.39 (18.44)	21.95 (18.76)	25.28 (17.14)	19.63 (16.19)	13.42 (16.36)	9.80 (17.37)	35.69* (18.54)	37.64 (23.37)
hedge*exposure	0.97 (1.70)	2.08 (1.85)	0.80 (1.95)	2.11 (1.96)	1.44 (2.16)	0.76 (2.55)	3.55 (2.80)	4.19 (2.80)
hedge*zlb	4.19 (2.74)	4.08 (3.22)	5.02 (3.60)	6.76* (3.79)	7.07* (3.62)	7.55* (4.40)	8.99* (4.84)	11.38** (5.05)
zlb*exposure	1.20 (0.87)	-0.30 (1.16)	0.27 (1.33)	0.56 (1.72)	2.30 (1.71)	2.83* (1.53)	2.77* (1.58)	2.59 (2.12)
zlb*fincon	-0.54 (0.46)	-0.28 (0.53)	-0.85 (0.74)	-0.86 (0.88)	-1.19 (0.85)	-1.22 (0.89)	-0.98 (0.89)	-1.04 (0.98)
fincon*path	0.66 (0.47)	0.48 (0.45)	0.40 (0.51)	0.55 (0.53)	0.70 (0.47)	0.52 (0.49)	0.74 (0.52)	0.17 (0.46)
fincon*target	-2.07 (1.53)	-2.04 (1.34)	-2.46 (1.47)	-3.33** (1.59)	-3.88*** (1.33)	-4.62*** (1.29)	-6.00*** (1.37)	-6.70*** (1.77)
fincon*exposure	-0.52* (0.29)	-0.27 (0.30)	-0.01 (0.34)	-0.23 (0.36)	-0.30 (0.33)	-0.27 (0.32)	-0.34 (0.31)	0.08 (0.41)
hedge*zlb*path	-11.02 (10.70)	-10.91 (10.98)	-1.80 (10.00)	0.54 (9.41)	-2.84 (10.27)	-4.71 (10.94)	0.40 (14.72)	8.49 (18.00)
hedge*zlb*target	-90.90 (66.51)	-39.73 (72.93)	-72.46 (79.42)	-68.82 (86.41)	-26.24 (77.68)	-27.06 (95.29)	-22.64 (106.19)	-70.93 (113.42)
hedge*zlb*exposure	-8.53 (6.41)	-7.73 (5.83)	-7.97 (5.48)	-10.40* (6.10)	-10.88* (5.85)	-9.59 (5.79)	-8.88 (5.83)	-10.84* (5.72)
hedge*zlb*fincon	2.26 (1.63)	2.37 (1.73)	2.82 (2.07)	3.48 (2.19)	3.82* (2.05)	3.99 (2.41)	4.46* (2.59)	5.18** (2.57)
hedge*fincon*path	-4.70 (3.01)	-5.87* (3.17)	-6.43** (2.93)	-5.89* (3.09)	-2.48 (3.12)	-2.08 (3.47)	-6.29* (3.18)	-6.65* (3.55)
hedge*fincon*target	-1.63 (8.79)	7.86 (9.88)	8.58 (9.06)	3.83 (9.03)	-5.87 (9.44)	-8.59 (9.83)	8.83 (10.39)	9.66 (12.88)
hedge*fincon*exposure	0.11 (1.14)	0.80 (1.20)	0.10 (1.31)	0.62 (1.29)	0.27 (1.48)	-0.06 (1.76)	1.84 (1.85)	2.50 (1.76)
zlb*fincon*path	0.21 (1.82)	-0.11 (1.88)	-1.48 (2.00)	-2.56 (1.94)	0.42 (3.39)	0.19 (3.36)	0.09 (3.38)	0.56 (3.84)
zlb*fincon*target	-8.76 (10.51)	-18.42 (11.82)	-7.03 (16.27)	-7.77 (18.99)	-9.78 (19.19)	-7.83 (20.64)	-17.09 (20.97)	-14.61 (23.43)
zlb*fincon*exposure	0.54 (0.53)	-0.10 (0.67)	-0.05 (0.90)	-0.03 (1.05)	0.64 (1.09)	0.70 (1.07)	0.21 (1.03)	-0.18 (1.03)
hedge*zlb*fincon*path	-4.71 (5.92)	-3.84 (6.27)	1.00 (5.62)	1.65 (5.70)	-3.16 (6.00)	-3.84 (6.49)	-1.01 (7.07)	2.08 (8.01)
hedge*zlb*fincon*target	-47.24 (38.46)	-30.40 (36.09)	-43.04 (44.31)	-38.72 (47.55)	-13.18 (40.43)	-9.22 (47.95)	-12.36 (54.60)	-13.74 (55.07)
hedge*zlb*fincon*exposure	-5.23 (3.92)	-5.04 (3.53)	-4.90 (3.57)	-6.03 (3.91)	-6.63* (3.65)	-5.66 (3.76)	-4.57 (3.70)	-5.38 (3.42)
Observations	8,881	8,826	8,760	8,700	8,625	8,407	8,186	7,958
R-squared	0.74	0.70	0.65	0.64	0.64	0.64	0.63	0.63

This table shows the regressions for net worth where financial constraint and its interaction terms are included additionally. The LHS is defined as $100*(Y_{i,t+x} - Y_{i,t-1})/Assets_{i,t-1}$. Target surprises are also aggregated within the reference quarter t . The explanations are provided under Table VI.