Appendix (Not intended for publication)

A.1 Additional Details on Data Construction

We create our investment variable using the following standard steps:

1. Flag the first date that a firm reports their gross capital stock, i.e. the level of gross plant, property and equipment (Compustat: ppegtq). This date must also have the necessary information to compute the change in the net capital stock: Compustat variable ppentq reported for quarter $t+1$ and either quarter t or $t-1$.

2. Interpolate any missing net investment values (ppentq) using the average of ppentq in quarters $t+1$ and $t-1$.

3. Create the capital stock beginning with the first reported gross capital stock from step #1. Then, update following periods using the change in the net capital stock. If missing values of the net capital stock cannot be interpolated in step #2, then begin the process over with the next non-missing gross capital stock.

4. Create the quarterly intensive investment measure as the log change in the created capital stock series.

5. To remove the effect of outliers, we drop the top and bottom 0.5% of values

Next, we define our control variables using the Compustat item names.

- Ratio of current assets to total assets: $\frac{actq}{atq}$
- Year-over-year real sales growth: log change in real saleq, relative to 4-quarter lagged real saleq[24]
- Firm size: log of real atq
- Price-to-cost margin: $\frac{saleq-cogsq}{saleq}$
- Receivables-minus-payables to sales: $\frac{rectq-apq}{saleq}$
- Depreciation to assets: $\frac{dpq}{atq}$
- Firm age: computed as number of years since firm first appeared in Compustat database
- Market capitalization: log of real cshoq multiplied by prccq
- Fiscal quarter: fqtr

The data is cleaned using the standard criteria:

[24] We use the quarterly price index from the BEA NIPA Table 1.3.4. Price Indexes for Gross Value Added by Sector (Non-Farm Business Index) to create all real variables.

- Keep only firms incorporated in the US (FIC = "USA")
- Drop firm-quarters with acquisitions greater than 5% of assets
- Drop firm-quarters with assets or liabilities at or below zero, or missing shareholder's equity (SEQQ)
- Drop firm-quarters that violate the accounting identity (Assets = Liabilities + Equity) by more than 10% of book value of assets
- Winsorize leverage at 1% and 99% values and LT debt at 5% and 95% values
- Drop firm-quarters with LT debt share greater than 1

A.2 Ottonello & Winberry channels of monetary transmission

In this section we layout in detail the monetary transmission channels of Ottonello and Winberry (2020) and use it to discuss the mechanism driving the changing responsiveness since the crisis.

The canonical theoretical framework to understand the transmission of monetary policy through firm balance sheets is the financial accelerator model of Bernanke et al. (1999). The essential feature of the models in this vein is the existence of some financial friction in the borrower-lender relationship. For our purposes, the key question is what this framework implies for the heterogenous firm response to monetary policy. In the literature, the theoretical predictions of how firm balance sheet characteristics affect monetary transmission are ambiguous. Bernanke et al. (1999) did extend their baseline model to a heterogenous (two-firm) case. With their preferred calibration they find that firms that have a larger external finance premium respond more strongly to monetary policy shocks. Building on the work of Khan et al. (2016), OW extend the Bernanke et al. (1999) framework to allow for a richer structure of heterogeneity (including firm-specific productivity and capital quality shocks) and firm default. Contrary to Bernanke et al. (1999), they find that firms with higher leverage are less responsive to monetary policy. Moreover, they confirm their results using an empirical analysis for the pre-crisis sample. These OW results are consistent with our empirical results shown above for the pre-crisis sample. If we start with the OW model as our baseline model for the pre-crisis sample, is it possible to explain our post-crisis results in this framework? Below we summarize their model in brief and layout the key mechanisms from their model to understand this issue.

The OW model has firms that can invest in capital by borrowing or using internal funds and generates default in equilibrium. They embed this heterogeneous firm setup into a standard New Keynesian sticky-price framework to study the effects of monetary policy. In the model firms can only borrow using one period debt. Relaxing this assumption will be important to understand our post-crisis results. However, to understand the relevant mechanism of monetary transmission, we first reproduce a key first-order condition from their model. For a given level of productivity (z), the first order condition for the optimal choice of a firm's investment (k') and borrowing (b') is given by[25]

$$\left(q_t - \varepsilon_{R,k'}\left(z,k',b'\right)\frac{b'}{k'}\right)\frac{R_t^{\mathrm{sp}}\left(z,k',b'\right)}{1-\varepsilon_{R,b'}\left(z,k',b'\right)} = \frac{1}{R_t}\mathbb{E}_t\left[\mathrm{MRPK}_{t+1}\left(z',k'\right)\right]$$

The left hand side represents the marginal cost of capital and is a product of two terms. The first one is the price of capital net of the elasticity of the lender's rate schedule with respect to investment ($\varepsilon_{R,k'}\left(z,k',b'\right)$). An extra unit of investment costs q_t but it adds to the firm's collateral and thus lowers the interest rate charged by lenders. The second term is how borrowing costs change with investment. $R_t^{sp}\left(z,k',b'\right)$ is the firm-specific rate $R_t(z,k',b')$ (relative to the risk-free rate R_t). This is scaled by one minus the elasticity of the debt price schedule ($1-\varepsilon_{R,b'}\left(z,k',b'\right)$) with respect to borrowing, which captures the idea that an increase in borrowing makes the firm riskier and thus makes lenders charge a higher premium. Graphically (as can be seen in Figure 2), the marginal cost schedule (as a function of capital accumulation) is flat for low levels of capital as the firm has enough cash on hand to not be perceived as risky. After a certain cutoff point, the marginal cost curve slopes upward as the higher level of borrowing required to fund the capital increases the riskiness of firms. The right hand side represents the marginal revenue product of capital discounted by the risk-free rate. Graphically, the marginal benefit schedule is represented by a standard downward sloping curve due to diminishing returns to capital.

What is the effect of an expansionary monetary policy shock in this framework? By lowering the risk-free rate, an expansionary shock lowers the discount rate and thus shifts the marginal benefit curve up and to the right.[26] An expansionary shock has three effects on the marginal cost curve. First, it shifts up the curve because an increase in the demand for investment leads to an increase in the price of capital. Next, this shock extends the flat part of the marginal cost curve because it increases the firm's cash on hand and decreases the amount the firm needs to borrow to finance a given amount of investment. Finally, it flattens the upward sloping part of the curve because the firm's collateral is worth more and thus reduces the loss to the lender in case of default. These can be seen in Figure 2.

How do firms with high and low leverage react differently to monetary policy shocks? In this framework there are competing channels which make it theoretically ambiguous whether a high or low leverage firm will respond more. For a high-leverage firm, the upward sloping part of the marginal cost curve is steeper and thus this will make it less responsive to monetary policy induced shifts of the marginal benefit curve. On the other hand, a high leverage firm's

[25]We have omitted two terms that capture the marginal benefit of investment from this first order condition. The first one is $\frac{1}{R_t}\frac{\mathrm{Cov}_t\left(\mathrm{MRPK}_{t+1}\left(z',k'\right),1+\lambda_{t+1}\left(z',k',b'\right)\right)}{\mathbb{E}_t\left[1+\lambda_{t+1}\left(z',k',b'\right)\right]}$ which is the covariance between the return to capital and the firm's shadow value of resources. The second one is given by $\frac{1}{R_t}v_t^0\left(\underline{z}_{t+1}\left(k',b'\right)\right)g\left(\underline{z}\left(k',b'\right)\right)\left(\frac{\partial z_{t+1}\left(k',b'\right)}{\partial k'}-\frac{\partial z_{t+1}\left(k',b'\right)}{\partial b'}\right)$ and captures how more investment affects a firm's default probability. OW find that these two terms do not play a major role and we have thus omitted them for convenience.

[26]There are also general equilibrium effects due to changes in the price of output, capital and wages which in the OW calibration further shift out the marginal benefit curve.

marginal cost curve will flatten more in response to an expansionary monetary shock, making it more responsive. In the OW calibration they find that the former effect dominates and thus a high leverage firm is less responsive to monetary policy shocks. This case is highlighted in the top row of Figure 2. So how can we explain our results of higher sensitivity for high leverage firms in the post-crisis sample using this framework?

Theoretically, there are three possible ways in which this can happen. In the post-crisis sample we would need that i)the marginal benefit curve shifts more for high leverage firms in response to a monetary shock or ii)the slope of the marginal cost curve is more flat (on average, not in response to monetary shocks) for high leverage firms (relative to low leverage firms) or iii) the slope of the marginal cost curve flattens more in response to a monetary shock for high leverage firms and that this increased flattening is enough to outweigh the relative steepness of high leverage firms.

We argue that the first two explanations are less plausible and provide evidence that the third explanation is likely at play. Regarding the first explanation, the shift of the marginal benefit curve is driven by changes in the discount rate. It is unlikely that discount rates for high leverage firms respond differentially in the post-crisis samples.[27] The second explanation would require that in the post-crisis sample high leverage firms are perceived to be less risky than low-leverage firms. In other words, the credit spread charged by lenders (relative to the risk-free rate) to high leverage firms would increase less as these firms take on more borrowing. First, recall that in Figure 1 we have shown that a firm's leverage position is fairly stable across the two samples. Moreover, the figure also shows that the correlation of leverage with measures of firm riskiness are stable across the pre- and post-crisis samples.[28] This rules out the unlikely scenario that our results are being driven by the high leverage firms somehow becoming less risky in the post-crisis sample.

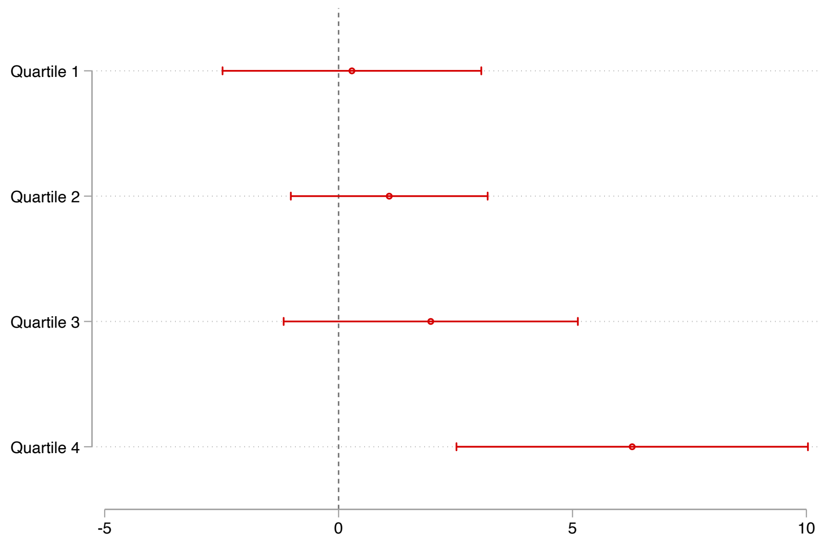
This leaves us with the third explanation. This requires that an expansionary monetary policy shock would flatten the marginal cost curve of high leverage firms more (relative to low leverage firms). Additionally this increased flattening would have to be large enough to overcome the relative steepness of the marginal cost curve for high leverage firms. From the first-order condition above, the marginal cost curve flattening more would imply that the credit spread charged by the lender (relative to the risk-free rate) to a high leverage firm falls more (relative to a low leverage firm) in response to an expansionary monetary shock. We can see this readily from the bottom row of Figure 2. This figure shows in the post-crisis sample that even though the slope of a high leverage firm is unconditionally steeper than a low leverage firm, it flattens more in response to an expansionary monetary shock to make the desired change in investment higher for high leverage firms.

In Section 4 we discuss empirical evidence to motivate this shift. First, long-term debt share is higher for high leverage firms. Second, monetary shocks affect long-term rates more in the post-crisis sample. The combination of these two facts provides the explanation for the marginal cost curve flattening more for high leverage firms in the post-crisis sample.

[27] There are also general equilibrium effects that work through the price of output goods, capital and wages but these are also unlikely to respond differentially for high leverage firms in the post-crisis sample.

[28] Note this is not at odds with our implied volatility results which showed that relationship between short-term volatility and leverage leading up to FOMC meetings has changed. While this correlation suggests that long-term correlation between leverage and risk has been stable.

Figure A.1: Stock response of non-S&P 500 Compustat firms, by market capitalization quartiles



This figure plots the difference, by market capitalization quartile, between the pre-crisis and post-crisis interaction of leverage and the monetary policy shock, i.e. $\beta_{2,1}$, $\beta_{2,2}$, $\beta_{2,3}$ and $\beta_{2,4}$ from the following regression: $s_{i,t} = \alpha_t + I(q)_{i,t}(\alpha_{i,q} + \beta_{1,q} l_{i,t-1}\epsilon_t^m + \beta_{2,q} l_{i,t-1}\epsilon_t^m D_t^{post} + \gamma_{1,q} D_t^{post} + \gamma_{2,q}\epsilon_t^m + \gamma_{3,q}\epsilon_t^m D_t^{post} + \delta_{1,q} l_{i,t-1} + \delta_{2,q} l_{i,t-1} D_t^{post}) + \Gamma' Z_{i,t-1} + e_{i,t}$, where $I(q)_{i,t}$ is an indicator for the market capitalization quartile q to which firm i belongs to on FOMC day t, $s_{i,t}$ is firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, D_t^{post} is an indicator for the post-crisis period, $l_{i,t-1}$ is four-quarter moving average leverage normalized to have mean 0 and variance 1, ϵ_t^m is the monetary policy shock and $Z_{i,t-1}$ is a vector of firm-level controls. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Pre-crisis is Jul-1991 to Jun-2008 (153 obs.) and post-crisis is Aug-2009 to Jun-2019 (80 obs.). Sample is non-financial Compustat firms not listed in the S&P 500 on date of FOMC announcement. Two-way clustered standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.1: Response of nominal yields to MP shock

	Pre-crisis				
	3m	6m	2y	5y	10y
MP shock	1.15***	1.16***	1.00***	0.55**	0.19
	(0.21)	(0.22)	(0.24)	(0.22)	(0.16)
Constant	0.00	0.00	0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Observations	153	153	153	153	153
R-squared	0.60	0.50	0.30	0.12	0.03
	Post-crisis				
	3m	6m	2y	5y	10y
MP shock	0.12***	0.24***	1.00***	1.60***	1.45***
	(0.03)	(0.07)	(0.16)	(0.16)	(0.00)
Constant	0.00	0.00	-0.01	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Observations	80	80	80	80	80
R-squared	0.18	0.24	0.43	0.69	1.00

Results from regressing nominal bond yields on the monetary policy shock on FOMC announcement days. Pre-crisis is Jul-1991 to Jun-2008 and post-crisis is Aug-2009 to Jun-2019. Robust standard errors are reported in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.2: Response of firm-level stock returns to monetary policy shocks: Alternative shocks

	(1) ED4 shock x Leverage	(2) 2 yr shock x Leverage	(3) 10yr shock x Leverage
Pre-crisis (β_1)	-1.26*	-1.26	-0.34
	(0.651)	(0.864)	(1.010)
Post-crisis($\beta_1 + \beta_2$)	0.84*	0.99*	1.61***
	(0.438)	(0.520)	(0.567)
Difference (β_2)	2.10**	2.25**	1.95
	(0.850)	(1.082)	(1.337)
Observations	63,337	63,337	63,337
R-squared	0.214	0.212	0.212

Results from estimating
$s_{i,t} = \alpha_i + \alpha_t + \beta_1 l_{i,t-1}\epsilon_t^m + \beta_2 l_{i,t-1}\epsilon_t^m D_t^{post} + \delta_1 l_{i,t-1} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma' Z_{i,t-1} + e_{i,t}$, where $s_{i,t}$ is firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, D_t^{post} is an indicator for the post-crisis period, $l_{i,t-1}$ is four-quarter moving average leverage normalized to have mean 0 and variance 1, ϵ_t^m is the monetary policy shock and $Z_{i,t-1}$ is a vector of firm-level controls and their interactions with the monetary policy shock. The monetary policy shocks are measured as the change in ED4 contract (column 1), change in 2-year yield (column 2) or change in 10-year yield (column 3), where a positive value represents an expansionary shock. Pre-crisis is Jul-1991 to Jun-2008 (153 obs.) and post-crisis is Aug-2009 to Jun-2019 (80 obs.). Sample is non-financial firms in S&P 500 on date of FOMC announcement. Two-way clustered (by firm and FOMC day) standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.3: Summary Statistics of Firm Characteristics

	mean	std. dev.
Current to Total Assets Ratio	0.62	0.20
Log Year-Over-Year Real Sales Growth, %	3.74	21.45
Log of Real Total Assets	9.05	1.12
Price-to-Cost Margin	0.39	0.23
Receivables minus Payables to Sales	0.24	0.48
Depreciation to Assets	0.01	0.01
Firm Age	36.54	17.01
Log of Real Market Capitalization	9.12	1.13
Observations	87,634	

The table shows summary statistics for the firm-level characteristics. All variables are measured quarterly at the firm level. Sample is non-financial firms in the S&P 500 between Jul-1991 and Jun-2019, excluding the financial crisis dates of Jul-2008 to Jul-2009.

Table A.4: Robustness of baseline results to including financial crisis period

	(1) Firm Share Price MP shock x Leverage	(2) Implied Volatility Leverage	(3) Investment MP shock x Leverage
Pre-Crisis	-7.96*	-1.91***	-2.78
	(4.133)	(0.576)	(1.958)
Post-Crisis	1.16***	1.05**	2.09
	(0.418)	(0.476)	(1.635)
Difference	9.11**	2.96***	4.87**
	(4.155)	(0.499)	(2.404)
Observations	66,435	48,143	9,765
R^2	0.262	0.759	0.163

Column (1) is the result from estimating $s_{i,t} = \alpha_i + \alpha_t + \beta_1 l_{i,t-1}\epsilon_t^m + \beta_2 l_{i,t-1}\epsilon_t^m D_t^{post} + \delta_1 l_{i,t-1} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma' Z_{i,t-1} + e_{i,t}$, where $s_{i,t}$ is firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, D_t^{post} is an indicator for the post-crisis period, $l_{i,t-1}$ is four-quarter moving average leverage normalized to have mean 0 and variance 1, ϵ_t^m is the monetary policy shock and $Z_{i,t-1}$ is a vector of firm-level controls. Column (2) is the result from estimating $ivol_{i,t-1} = \alpha_i + \alpha_t + \delta_1 l_{i,t} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma Z_{i,t-1} + e_{i,t}$. Column (3) is the result from estimating $\Delta ln(y_{it}) = \alpha_i + \alpha_t + \sum_{n \in N} \beta_{1n} l_{i,t-n-1}\epsilon_{t-n}^m + \beta_{2n} l_{i,t-n-1}\epsilon_{t-n}^m D_{t-n}^{post} + \Gamma' Z_{i,t-1} + e_{it}$, where y_{it} is the value of firm i's capital stock in quarter t. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Pre-crisis is Jul-1991 to Jun-2008 and post-crisis is Jul-2008 to Jun-2019. Sample is non-financial firms in S&P 500 on date of FOMC announcement. Two-way clustered standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.5: Response of firm-level stock returns to monetary shocks: Without a time fixed effect

	(1a) Pre-Crisis	(1b) Post-Crisis	(1c) Diff	(1d) Full Sample
MP shock	9.44	3.63	-5.81	8.59
	(6.662)	(5.456)	(8.790)	(5.475)
MP shock x Leverage	-7.44*	3.57***	11.01**	-5.18
	(4.166)	(1.048)	(4.279)	(3.552)
Observations		63,337		63,337
R^2		0.027		0.025

Results from estimating $s_{i,t} = \alpha_i + \gamma_1 D_t^{post} + \gamma_2 \epsilon_t^m + \gamma_3 \epsilon_t^m D_t^{post} + \beta_1 l_{i,t-1} \epsilon_t^m + \beta_2 l_{i,t-1} \epsilon_t^m D_t^{post} + \delta_1 l_{i,t-1} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma' Z_{i,t-1} + e_{i,t}$, where $s_{i,t}$ is firm-level daily stock return, α_i is a firm fixed-effect, D_t^{post} is an indicator for the post-crisis period, $l_{i,t-1}$ is four-quarter moving average leverage normalized to have mean 0 and variance 1, ϵ_t^m is the monetary policy shock and $Z_{i,t-1}$ is a vector of firm-level controls. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Pre-crisis is Jul-1991 to Jun-2008 (153 obs.) and post-crisis is Aug-2009 to Jun-2019 (80 obs.). Sample is non-financial firms in S&P 500 on date of FOMC announcement. Two-way clustered (by firm and FOMC day) standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.6: Response of firm-level stock returns to monetary shocks: W/ Control triple interactions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
D_t^{post} x MP x Leverage	7.99**	10.50**	9.74**	9.64***	10.29**	10.39**	8.47***	6.32**
	(3.584)	(4.187)	(3.907)	(3.597)	(4.103)	(4.153)	(3.116)	(2.500)
D_t^{post} x MP x Curr. Asset Ratio	6.91***							8.15***
	(2.300)							(2.589)
D_t^{post} x MP x Sales Growth		0.00						0.97
		(3.593)						(3.367)
D_t^{post} x MP x Asset Value			5.33*					-5.46
			(2.820)					(5.364)
D_t^{post} x MP x Price-Cost Marg.				-34.26				-17.54
				(34.235)				(27.995)
D_t^{post} x MP x Rec. - Pay.					-4.20			-1.63
					(3.354)			(2.977)
D_t^{post} x MP x Deprec./Assets						-1.94		-3.43
						(2.326)		(2.322)
D_t^{post} x MP x Firm Age							0.34*	0.31*
							(0.176)	(0.162)
Observations	63,337	63,337	63,337	63,337	63,337	63,337	63,337	63,337
R-squared	0.217	0.216	0.216	0.217	0.216	0.216	0.218	0.219

Results from estimating $s_{i,t} = \alpha_i + \alpha_t + \beta_1 l_{i,t-1}\epsilon_t^m + \beta_2 l_{i,t-1}\epsilon_t^m D_t^{post} + \delta_1 l_{i,t-1} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma' Z_{i,t-1} + \Upsilon' Z_{i,t-1}\epsilon_t^m + \Pi' Z_{i,t-1}\epsilon_t^m D_t^{post} + e_{i,t}$, where $s_{i,t}$ is firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, D_t^{post} is an indicator for the post-crisis period, $l_{i,t-1}$ is four-quarter moving average leverage normalized to have mean 0 and variance 1, ϵ_t^m is the monetary policy shock and $Z_{i,t-1}$ is a vector of firm-level controls. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Pre-crisis is Jul-1991 to Jun-2008 (153 obs.) and post-crisis is Aug-2009 to Jun-2019 (80 obs.). Sample is non-financial firms in S&P 500 on date of FOMC announcement. Two-way clustered (by firm and FOMC day) standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.7: Robustness of baseline results with pre-crisis standardization of leverage

	(1) Firm Share Price MP shock x Leverage	(2) Implied Volatility Leverage	(3) Investment MP shock x Leverage
Pre-Crisis	-7.76*	-1.55***	-2.75
	(4.020)	(0.550)	(1.857)
Post-Crisis	2.49***	1.23***	2.50
	(0.711)	(0.441)	(1.940)
Difference	10.25**	2.78***	5.25**
	(4.115)	(0.473)	(2.529)
Observations	63,337	45,225	8,988
R^2	0.216	0.741	0.161

Column (1) is the result from estimating $s_{i,t} = \alpha_i + \alpha_t + \beta_1 l_{i,t-1}\epsilon_t^m + \beta_2 l_{i,t-1}\epsilon_t^m D_t^{post} + \delta_1 l_{i,t-1} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma' Z_{i,t-1} + e_{i,t}$, where $s_{i,t}$ is firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, D_t^{post} is an indicator for the post-crisis period, $l_{i,t-1}$ is four-quarter moving average leverage normalized (using the pre-crisis period) to have mean 0 and variance 1, ϵ_t^m is the monetary policy shock and $Z_{i,t-1}$ is a vector of firm-level controls. Column (2) is the result from estimating $ivol_{i,t-1} = \alpha_i + \alpha_t + \delta_1 l_{i,t} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma Z_{i,t-1} + e_{i,t}$. Column (3) is the result from estimating $\Delta ln(y_{it}) = \alpha_i + \alpha_t + \sum_{n \in N} \beta_{1n} l_{i,t-n-1}\epsilon_{t-n}^m + \beta_{2n} l_{i,t-n-1}\epsilon_{t-n}^m D_{t-n}^{post} + \Gamma' Z_{i,t-1} + e_{it}$, where y_{it} is the value of firm i's capital stock in quarter t. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Pre-crisis is Jul-1991 to Jun-2008 and post-crisis is Aug-2009 to Jun-2019. Sample is non-financial firms in S&P 500 on date of FOMC announcement. Two-way clustered standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.8: Robustness of baseline results to removing pre vs. post outliers

	(1) Firm Share Price MP shock x Leverage	(2) Implied Volatility Leverage	(3) Investment MP shock x Leverage
Pre-Crisis	-7.26**	-0.03	-0.73
	(3.616)	(0.687)	(1.641)
Post-Crisis	4.07***	2.58***	3.27
	(0.992)	(0.658)	(2.735)
Difference	11.34***	2.61***	4.00
	(3.821)	(0.529)	(3.022)
Observations	50,614	34,670	6,467
R^2	0.219	0.754	0.123

Column (1) is the result from estimating $s_{i,t} = \alpha_i + \alpha_t + \beta_1 l_{i,t-1}\epsilon_t^m + \beta_2 l_{i,t-1}\epsilon_t^m D_t^{post} + \delta_1 l_{i,t-1} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma' Z_{i,t-1} + e_{i,t}$, where $s_{i,t}$ is firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, D_t^{post} is an indicator for the post-crisis period, $l_{i,t-1}$ is four-quarter moving average leverage normalized to have mean 0 and variance 1, ϵ_t^m is the monetary policy shock and $Z_{i,t-1}$ is a vector of firm-level controls. Column (2) is the result from estimating $ivol_{i,t-1} = \alpha_i + \alpha_t + \delta_1 l_{i,t} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma Z_{i,t-1} + e_{i,t}$. Column (3) is the result from estimating $\Delta ln(y_{it}) = \alpha_i + \alpha_t + \sum_{n \in N} \beta_{1n} l_{i,t-n-1}\epsilon_{t-n}^m + \beta_{2n} l_{i,t-n-1}\epsilon_{t-n}^m D_{t-n}^{post} + \Gamma' Z_{i,t-1} + e_{it}$, where y_{it} is the value of firm i's capital stock in quarter t. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Pre-crisis is Jul-1991 to Jun-2008 and post-crisis is Aug-2009 to Jun-2019. Sample is non-financial firms in S&P 500 on date of FOMC announcement. We exclude 106 firms with a change in leverage from pre-crisis to post-crisis greater than 1 standard deviation. Two-way clustered (by firm and FOMC day) standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.9: Response of long-term debt issuance to MP shock, Post-crisis relative to pre-crisis

	LT Debt
Quarter t	879.97*
	(509.005)
Quarter t+1	716.37*
	(396.289)
Quarter t+2	338.45
	(456.594)
Quarter t+3	356.06
	(471.090)
Cumulative 4-qtr effect	2,290.84**
	(931.827)
Observations	27,448
R^2	0.886

Results from estimating
$\Delta y_{it} = \alpha_i + \alpha_t + \sum_{n \in N} \beta_{1n} l_{i,t-n-1} \epsilon^m_{t-n} + \beta_{2n} l_{i,t-n-1} \epsilon^m_{t-n} D^{post}_{t-n} + \Gamma' Z_{i,t-1} + e_{it}$, where y_{it} is value of firm i's long-term debt in quarter t, α_i is a firm fixed-effect, α_t is a quarter t fixed effect, D^{post}_t is an indicator for the post-crisis period, $l_{i,t-1}$ is four-quarter moving average leverage normalized to have mean 0 and variance 1, ϵ^m_t is the sum of all high-frequency monetary policy shocks that occur in quarter t, $Z_{i,t-1}$ is a vector of firm-level controls and $N = [0, 4]$. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Pre-crisis is Jul-1991 to Jun-2008 (153 obs.) and post-crisis is Aug-2009 to Jun-2019 (80 obs.). Sample is non-financial firms in S&P 500 on date of FOMC announcement. Two-way clustered standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.10: Response of inflation expectations to monetary policy shock

	Pre-crisis	Post-crisis
MP shock	-0.26	-0.28
	(0.30)	(0.22)
Constant	0.00	0.01
	(0.01)	(0.00)
Observations	83	80
R^2	0.03	0.04

The table presents the results from regressing change in 5 year breakeven inflation expectations (measured from TIPS yields) on the monetary policy shock on FOMC meeting days. Due to data availability the pre-crisis sample runs from February 1999 to June 2008. The post-crisis sample runs from August 2009 to June 2019. Robust standard errors are reported in parentheses.

Table A.11: Robustness of baseline results to alternative measure of leverage: Debt-to-Assets

	(1) Firm Share Price MP shock x Leverage	(2) Implied Volatility Leverage	(3) Investment MP shock x Leverage
Pre-Crisis	-7.62*	-2.30***	-3.48
	(4.375)	(0.635)	(2.389)
Post-Crisis	3.07***	0.73	2.80
	(0.724)	(0.475)	(2.382)
Difference	10.69**	3.03***	6.28**
	(4.474)	(0.522)	(3.150)
Observations	63,337	45,225	8,988
R^2	0.215	0.740	0.162

Column (1) is the result from estimating $s_{i,t} = \alpha_i + \alpha_t + \beta_1 l_{i,t-1}\epsilon_t^m + \beta_2 l_{i,t-1}\epsilon_t^m D_t^{post} + \delta_1 l_{i,t-1} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma' Z_{i,t-1} + e_{i,t}$, where $s_{i,t}$ is firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, D_t^{post} is an indicator for the post-crisis period, $l_{i,t-1}$ is four-quarter moving average leverage (measured as debt-to-assets) normalized to have mean 0 and variance 1, ϵ_t^m is the monetary policy shock and $Z_{i,t-1}$ is a vector of firm-level controls. Column (2) is the result from estimating $ivol_{i,t-1} = \alpha_i + \alpha_t + \delta_1 l_{i,t} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma Z_{i,t-1} + e_{i,t}$. Column (3) is the result from estimating $\Delta ln(y_{it}) = \alpha_i + \alpha_t + \sum_{n\in N} \beta_{1n} l_{i,t-n-1}\epsilon_{t-n}^m + \beta_{2n} l_{i,t-n-1}\epsilon_{t-n}^m D_{t-n}^{post} + \Gamma' Z_{i,t-1} + e_{it}$, where y_{it} is the value of firm i's capital stock in quarter t. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Pre-crisis is Jul-1991 to Jun-2008 and post-crisis is Aug-2009 to Jun-2019. Sample is non-financial firms in S&P 500 on date of FOMC announcement. Two-way clustered (by firm and FOMC day) standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.12: Robustness of baseline results to alternative measure of leverage: 1-quarter lagged debt-to-capital

	(1) Firm Share Price MP shock x Leverage	(2) Implied Volatility Leverage	(3) Investment MP shock x Leverage
Pre-Crisis	-7.39*	-1.31**	-2.26
	(3.997)	(0.528)	(1.714)
Post-Crisis	2.23***	1.36***	2.27
	(0.748)	(0.425)	(1.916)
Difference	9.62**	2.67***	4.53*
	(4.098)	(0.473)	(2.384)
Observations	69,381	49,806	9,504
R^2	0.201	0.738	0.157

Column (1) is the result from estimating $s_{i,t} = \alpha_i + \alpha_t + \beta_1 l_{i,t-1}\epsilon_t^m + \beta_2 l_{i,t-1}\epsilon_t^m D_t^{post} + \delta_1 l_{i,t-1} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma' Z_{i,t-1} + e_{i,t}$, where $s_{i,t}$ is firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, D_t^{post} is an indicator for the post-crisis period, $l_{i,t-1}$ is one-quarter lagged leverage normalized to have mean 0 and variance 1, ϵ_t^m is the monetary policy shock and $Z_{i,t-1}$ is a vector of firm-level controls. Column (2) is the result from estimating $ivol_{i,t-1} = \alpha_i + \alpha_t + \delta_1 l_{i,t} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma Z_{i,t-1} + e_{i,t}$. Column (3) is the result from estimating $\Delta ln(y_{it}) = \alpha_i + \alpha_t + \sum_{n \in N} \beta_{1n} l_{i,t-n-1}\epsilon_{t-n}^m + \beta_{2n} l_{i,t-n-1}\epsilon_{t-n}^m D_{t-n}^{post} + \Gamma' Z_{i,t-1} + e_{it}$, where y_{it} is the value of firm i's capital stock in quarter t. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Pre-crisis is Jul-1991 to Jun-2008 and post-crisis is Aug-2009 to Jun-2019. Sample is non-financial firms in S&P 500 on date of FOMC announcement. Two-way clustered (by firm and FOMC day) standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.13: Robustness of baseline results: controlling for sector

Panel A: Time x Sector FE	(1) Firm Share Price MP shock x Leverage	(2) Implied Volatility Leverage	(3) Investment MP shock x Leverage
Pre-Crisis	-6.37*	-1.32**	-2.53
	(3.532)	(0.563)	(1.775)
Post-Crisis	1.70**	1.49***	1.76
	(0.675)	(0.453)	(1.752)
Difference	8.07**	2.81***	4.29*
	(3.630)	(0.482)	(2.265)
Observations	63,068	45,059	8,887
R^2	0.264	0.762	0.235

Panel B: Control for MP x Sector	(1) Firm Share Price MP shock x Leverage	(2) Investment MP shock x Leverage
Pre-Crisis	-7.42*	-2.59
	(3.805)	(1.729)
Post-Crisis	2.64***	1.99
	(0.789)	(2.037)
Difference	10.05**	4.57*
	(3.923)	(2.425)
Observations	63,337	8,988
R^2	0.217	0.163

Column (1) of Panel A is the result from estimating $s_{i,t} = \alpha_i + \alpha_{jt} + \beta_1 l_{i,t-1}\epsilon_t^m + \beta_2 l_{i,t-1}\epsilon_t^m D_t^{post} + \delta_1 l_{i,t-1} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma' Z_{i,t-1} + e_{i,t}$, where $s_{i,t}$ is firm-level daily stock return, α_i is a firm fixed-effect, α_{jt} is a sector j by FOMC day fixed-effect, D_t^{post} is an indicator for the post-crisis period, $l_{i,t-1}$ is four-quarter moving average leverage normalized to have mean 0 and variance 1, ϵ_t^m is the monetary policy shock and $Z_{i,t-1}$ is a vector of firm-level controls. Column (2) is the result from estimating $ivol_{i,t-1} = \alpha_i + \alpha_{jt} + \delta_1 l_{i,t} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma Z_{i,t-1} + e_{i,t}$. Column (3) is the result from estimating $\Delta ln(y_{it}) = \alpha_i + \alpha_{jt} + \sum_{n \in N} \beta_{1n} l_{i,t-n-1}\epsilon_{t-n}^m + \beta_{2n} l_{i,t-n-1}\epsilon_{t-n}^m D_{t-n}^{post} + \Gamma' Z_{i,t-1} + e_{it}$, where y_{it} is the value of firm i's capital stock in quarter t. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Pre-crisis is Jul-1991 to Jun-2008 and post-crisis is Aug-2009 to Jun-2019. Panel B follows the baseline specification with the addition of firm i's sector interacted with the monetary policy shock. Since the baseline implied volatility specification does not include MP shock, we exclude implied volatility from Panel B. Sample is non-financial firms in S&P 500 on date of FOMC announcement. Two-way clustered standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.14: Response of firm-level stock returns to monetary shocks with QE dummy

	(1a) Pre-Crisis β_1	(1b) Post-Crisis (non QE) $\beta_1 + \beta_2$	(1c) Diff (1b - 1a) β_2	(1d) Post-Crisis (QE) $\beta_1 + \beta_2 + \beta_3$	(1e) Diff (1d - 1b) β_3
MP shock x Leverage	-7.95*	2.90***	10.86**	1.96	-0.94
	(4.121)	(0.800)	(4.230)	(1.234)	(1.380)
Observations			63,337		
R-squared			0.216		

Results from estimating $s_{i,t} = \alpha_i + \alpha_t + \beta_1 l_{i,t-1}\epsilon_t^m + \beta_2 l_{i,t-1}\epsilon_t^m D_t^{post} + \beta_3 l_{i,t-1}\epsilon_t^m D_t^{QE} + \delta_1 l_{i,t-1} + \delta_2 l_{i,t-1} D_t^{post} + \delta_3 l_{i,t-1} D_t^{QE} + \Gamma' Z_{i,t-1} + e_{i,t}$, where $s_{i,t}$ is firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, D_t^{post} is an indicator for the post-crisis period, D_t^{QE} is an indicator for the Krishnamurthy and Vissing-Jorgensen (2011) QE dates, $l_{i,t-1}$ is four-quarter moving average leverage normalized to have mean 0 and variance 1, ϵ_t^m is the monetary policy shock and $Z_{i,t-1}$ is a vector of firm-level controls. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Pre-crisis is Jul-1991 to Jun-2008 (153 obs.) and post-crisis is Aug-2009 to Jun-2019 (80 obs.). Sample is non-financial Compustat firms not listed in the S&P 500 on date of FOMC announcement. Two-way clustered standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.15: Robustness of baseline results with consistent sample of firms

	(1) Firm Share Price MP shock x Leverage	(2) Implied Volatility Leverage	(3) Investment MP shock x Leverage
Pre-Crisis	-5.32*	-0.36	-0.73
	(3.176)	(0.648)	(1.583)
Post-Crisis	2.23**	0.99*	2.33
	(0.987)	(0.572)	(1.908)
Difference	7.55**	1.35**	3.05
	(3.392)	(0.594)	(2.512)
Observations	24,040	17,988	7,850
R^2	0.205	0.708	0.155

Column (1) is the result from estimating $s_{i,t} = \alpha_i + \alpha_t + \beta_1 l_{i,t-1}\epsilon_t^m + \beta_2 l_{i,t-1}\epsilon_t^m D_t^{post} + \delta_1 l_{i,t-1} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma' Z_{i,t-1} + e_{i,t}$, where $s_{i,t}$ is firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, D_t^{post} is an indicator for the post-crisis period, $l_{i,t-1}$ is four-quarter moving average leverage normalized to have mean 0 and variance 1, ϵ_t^m is the monetary policy shock and $Z_{i,t-1}$ is a vector of firm-level controls. Column (2) is the result from estimating $ivol_{i,t-1} = \alpha_i + \alpha_t + \delta_1 l_{i,t} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma Z_{i,t-1} + e_{i,t}$. Column (3) is the result from estimating $\Delta ln(y_{it}) = \alpha_i + \alpha_t + \sum_{n \in N} \beta_{1n} l_{i,t-n-1}\epsilon_{t-n}^m + \beta_{2n} l_{i,t-n-1}\epsilon_{t-n}^m D_{t-n}^{post} + \Gamma' Z_{i,t-1} + e_{it}$, where y_{it} is the value of firm i's capital stock in quarter t. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Pre-crisis is Jul-1991 to Jun-2008 and post-crisis is Aug-2009 to Jun-2019. Sample is non-financial firms in S&P 500 on date of FOMC announcement that enter Compustat prior to 1994 and remain in the sample through at least 2017. Two-way clustered (by firm and FOMC day) standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.16: Robustness of baseline results with scheduled FOMC meetings only

	(1) Firm Share Price MP shock x Leverage	(2) Implied Volatility Leverage
Pre-Crisis	-1.92	-1.59***
	(1.476)	(0.559)
Post-Crisis	2.52***	1.23***
	(0.727)	(0.446)
Difference	4.44***	2.82***
	(1.661)	(0.488)
Observations	59,526	43,338
R^2	0.182	0.739

Column (1) is the result from estimating $s_{i,t} = \alpha_i + \alpha_t + \beta_1 l_{i,t-1}\epsilon_t^m + \beta_2 l_{i,t-1}\epsilon_t^m D_t^{post} + \delta_1 l_{i,t-1} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma' Z_{i,t-1} + e_{i,t}$, where $s_{i,t}$ is firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, D_t^{post} is an indicator for the post-crisis period, $l_{i,t-1}$ is four-quarter moving average leverage normalized to have mean 0 and variance 1, ϵ_t^m is the monetary policy shock and $Z_{i,t-1}$ is a vector of firm-level controls. Column (2) is the result from estimating $ivol_{i,t-1} = \alpha_i + \alpha_t + \delta_1 l_{i,t} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma Z_{i,t-1} + e_{i,t}$. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Pre-crisis is Jul-1991 to Jun-2008 and post-crisis is Aug-2009 to Jun-2019, excluding 16 unscheduled FOMC meeting dates in the pre-crisis period. Sample is non-financial firms in S&P 500 on date of FOMC announcement. Two-way clustered (by firm and FOMC day) standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.17: Robustness of stock return results to info-robust shocks

	(1a) Pre β_1	(1b) Post $\beta_1 + \beta_2$	(1c) Diff β_2
MP shock x Leverage	-6.21**	4.29***	10.50***
	(2.823)	(1.386)	(3.786)
Observations		59,604	
R^2		0.217	

Results from estimating
$s_{i,t} = \alpha_i + \alpha_t + \beta_1 l_{i,t-1}\epsilon_t^m + \beta_2 l_{i,t-1}\epsilon_t^m D_t^{post} + \delta_1 l_{i,t-1} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma' Z_{i,t-1} + e_{i,t}$, where $s_{i,t}$ is firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, D_t^{post} is an indicator for the post-crisis period, $l_{i,t-1}$ is four-quarter moving average leverage normalized to have mean 0 and variance 1, ϵ_t^m is the monetary policy shock and $Z_{i,t-1}$ is a vector of firm-level controls. The monetary policy shock is cleansed of information effects (as in Lakdawala (2019)), normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Pre-crisis is Jul-1991 to Jun-2008 (153 obs.) and post-crisis is Aug-2009 to Dec-2017 (68 obs.). Sample is non-financial firms in S&P 500 on date of FOMC announcement. Two-way clustered (by firm and FOMC day) standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.18: Robustness of baseline results to alternative measures of leverage: Within-firm variance

	(1) Firm Share Price MP shock x Leverage	(2) Implied Volatility Leverage	(3) Investment MP shock x Leverage
Pre-Crisis	-10.03**	-0.34	-4.41
	(4.592)	(0.703)	(2.659)
Post-Crisis	-1.49	-0.238	2.071
	(1.040)	(0.461)	(3.156)
Difference	8.54*	0.10	6.48*
	(4.631)	(0.775)	(3.768)
Observations	63,337	45,225	8,988
R^2	0.213	0.736	0.160

Results from estimating $s_{i,t} = \alpha_i + \alpha_t + \beta_1 l_{i,t-1}\epsilon_t^m + \beta_2 l_{i,t-1}\epsilon_t^m D_t^{post} + \delta_1 l_{i,t-1} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma' Z_{i,t-1} + e_{i,t}$, where $s_{i,t}$ is firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, D_t^{post} is an indicator for the post-crisis period, $l_{i,t-1}$ is four-quarter moving average leverage normalized to have mean 0 and variance 1, ϵ_t^m is the monetary policy shock and $Z_{i,t-1}$ is a vector of firm-level controls. Leverage and all control variables are demeaned using the firm-specific sample mean. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Pre-crisis is Jul-1991 to Jun-2008 (153 obs.) and post-crisis is Aug-2009 to Jun-2019 (80 obs.). Sample is non-financial firms in S&P 500 on date of FOMC announcement. Two-way clustered (by firm and FOMC day) standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.19: Robustness of baseline results including financial firms

	(1) Firm Share Price MP shock x Leverage	(2) Implied Volatility Leverage	(3) Investment MP shock x Leverage
Pre-Crisis	-5.21*	-1.67***	-1.68
	(2.827)	(0.554)	(0.241)
Post-Crisis	3.42***	1.05**	2.13
	(1.001)	(0.428)	(1.657)
Difference	8.64**	2.72***	3.80**
	(3.340)	(0.469)	(0.037)
Observations	73,883	52,421	9,728
R^2	0.231	0.726	0.163

Column (1) is the result from estimating $s_{i,t} = \alpha_i + \alpha_t + \beta_1 l_{i,t-1}\epsilon_t^m + \beta_2 l_{i,t-1}\epsilon_t^m D_t^{post} + \delta_1 l_{i,t-1} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma' Z_{i,t-1} + e_{i,t}$, where $s_{i,t}$ is firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, D_t^{post} is an indicator for the post-crisis period, $l_{i,t-1}$ is four-quarter moving average leverage normalized to have mean 0 and variance 1, ϵ_t^m is the monetary policy shock and $Z_{i,t-1}$ is a vector of firm-level controls. Column (2) is the result from estimating $ivol_{i,t-1} = \alpha_i + \alpha_t + \delta_1 l_{i,t} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma Z_{i,t-1} + e_{i,t}$. Column (3) is the result from estimating $\Delta ln(y_{it}) = \alpha_i + \alpha_t + \sum_{n \in N} \beta_{1n} l_{i,t-n-1}\epsilon_{t-n}^m + \beta_{2n} l_{i,t-n-1}\epsilon_{t-n}^m D_{t-n}^{post} + \Gamma' Z_{i,t-1} + e_{it}$, where y_{it} is the value of firm i's capital stock in quarter t. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Pre-crisis is Jul-1991 to Jun-2008 and post-crisis is Aug-2009 to Jun-2019. Sample is all firms in S&P 500 on date of FOMC announcement. Two-way clustered (by firm and FOMC day) standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$