Online Appendix

Table OA.1: Response of firm-level stock returns to monetary shocks (pre-crisis standardization)

	(1a) Pre-Crisis	(1b) Post-Crisis	(2a) Pre-Crisis	(2b) Post-Crisis	(3a) Pre-Crisis	(3b) Post-Crisis
Leverage (Debt-to-Capital)	0.006	0.009	0.006	0.011	-0.026	0.006
	(0.038)	(0.025)	(0.038)	(0.026)	(0.037)	(0.025)
MP shock x Leverage	-5.331*	2.169***				
	(3.108)	(0.559)				
FFR shock x Leverage			-2.000*	-0.359		
			(1.158)	(1.348)		
10 yr shock x Leverage			0.258	1.434***		
			(1.174)	(0.359)		
2 yr shock x Leverage					-1.175	0.893**
					(0.827)	(0.357)
Observations	48,143	24,584	48,143	24,584	48,143	24,584
R^2	0.181	0.341	0.181	0.341	0.177	0.341
Firm controls	yes	yes	yes	yes	yes	yes
Firm FE	yes	yes	yes	yes	yes	yes
Time FE	yes	yes	yes	yes	yes	yes

Results from estimating $s_{it} = \alpha_i + \alpha_t + \beta l_{it-1}\epsilon_t^m + \delta l_{it-1} + \Gamma' Z_{it-1} + e_{it}$, where s_{it} is the firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, l_{it-1} is leverage, ϵ_t^m is the monetary policy shock and Z_{it-1} is a vector of firm-level controls containing real sales growth, size, price-to-cost margin, receivables-minus-payables to sales, depreciation to assets, age, log(market cap), current assets to total assets and an indicator for current fiscal quarter. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Leverage is the four-quarter moving average and is normalized to have mean zero and unit variance (in the pre-crisis sample). The pre-crisis sample is July 1991-June 2008 (153 FOMC announcement days) and the post-crisis sample is August 2009-December 2017 (68 FOMC announcement days). The sample includes non-financial firms in the S&P 500 on the date of the FOMC announcement. Two-way clustered standard errors are reported in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table OA.2: Response of firm-level stock returns to monetary shocks: Including crisis dates

	(1a) Pre-Crisis	(1b) Post-Crisis	(2a) Pre-Crisis	(2b) Post-Crisis	(3a) Pre-Crisis	(3b) Post-Crisis
Leverage (Debt-to-Capital)	0.006	0.009	0.006	0.013	-0.026	0.007
	(0.039)	(0.036)	(0.039)	(0.037)	(0.038)	(0.036)
MP shock x Leverage	-5.466*	0.898**				
	(3.186)	(0.382)				
FFR shock x Leverage			-2.050*	-0.671		
			(1.187)	(1.091)		
10 yr shock x Leverage			0.265	0.650**		
			(1.203)	(0.320)		
2 yr shock x Leverage					-1.205	0.843**
					(0.848)	(0.336)
Observations	48,143	28,450	48,143	28,450	48,143	28,450
R^2	0.181	0.445	0.181	0.445	0.177	0.445
Firm controls	yes	yes	yes	yes	yes	yes
Firm FE	yes	yes	yes	yes	yes	yes
Time FE	yes	yes	yes	yes	yes	yes

Results from estimating $s_{it} = \alpha_i + \alpha_t + \beta l_{it-1}\epsilon_t^m + \delta l_{it-1} + \Gamma' Z_{it-1} + e_{it}$, where s_{it} is the firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, l_{it-1} is leverage, ϵ_t^m is the monetary policy shock and Z_{it-1} is a vector of firm-level controls containing real sales growth, size, price-to-cost margin, receivables-minus-payables to sales, depreciation to assets, age, log(market cap), current assets to total assets and an indicator for current fiscal quarter. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Leverage is the four-quarter moving average and is normalized to have mean zero and unit variance. The pre-crisis sample is July 1991-June 2008 (153 FOMC announcement days) and the post-crisis sample is July 2008-December 2017 (79 FOMC announcement days). The sample includes non-financial firms in the S&P 500 on the date of the FOMC announcement. Two-way clustered standard errors are reported in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table OA.3: Response of firm-level stock returns to monetary shocks (no firm entry/exit)

	(1a) Pre-Crisis	(1b) Post-Crisis	(2a) Pre-Crisis	(2b) Post-Crisis	(3a) Pre-Crisis	(3b) Post-Crisis
Leverage (Debt-to-Capital)	0.017	0.025	0.018	0.032	-0.001	0.024
	(0.045)	(0.036)	(0.045)	(0.037)	(0.043)	(0.037)
MP shock x Leverage	-3.414	2.022*				
	(2.121)	(1.051)				
FFR shock x Leverage			-1.279	-1.822		
			(0.792)	(1.999)		
10 yr shock x Leverage			0.136	1.432**		
			(0.788)	(0.682)		
2 yr shock x Leverage					-0.917	0.521
					(0.742)	(0.622)
Observations	14,389	7,176	14,389	7,176	14,389	7,176
R-squared	0.174	0.389	0.174	0.390	0.173	0.389
Firm controls	yes	yes	yes	yes	yes	yes
Firm FE	yes	yes	yes	yes	yes	yes
Time FE	yes	yes	yes	yes	yes	yes

Results from estimating $s_{it} = \alpha_i + \alpha_t + \beta l_{it-1}\epsilon_t^m + \delta l_{it-1} + \Gamma' Z_{it-1} + e_{it}$, where s_{it} is the firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, l_{it-1} is leverage, ϵ_t^m is the monetary policy shock and Z_{it-1} is a vector of firm-level controls containing real sales growth, size, price-to-cost margin, receivables-minus-payables to sales, depreciation to assets, age, log(market cap), current assets to total assets and an indicator for current fiscal quarter. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Leverage is the four-quarter moving average and is normalized to have mean zero and unit variance. The pre-crisis sample is July 1991-June 2008 (153 FOMC announcement days) and the post-crisis sample is August 2009-December 2017 (68 FOMC announcement days). The sample includes non-financial firms in the S&P 500 on the date of the FOMC announcement that are within the sample for all 221 FOMC announcement days. Two-way clustered standard errors are reported in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table OA.4: Response of firm-level stock returns to monetary shocks: Including financial firms

	(1a) Pre-Crisis	(1b) Post-Crisis	(2a) Pre-Crisis	(2b) Post-Crisis	(3a) Pre-Crisis	(3b) Post-Crisis
Leverage (Debt-to-Capital)	-0.009	0.012	-0.009	0.015	-0.030	0.009
	(0.037)	(0.033)	(0.037)	(0.033)	(0.037)	(0.032)
MP shock x Leverage	-3.760	1.445**				
	(2.606)	(0.606)				
FFR shock x Leverage			-1.409	-0.615		
			(0.971)	(1.222)		
10 yr shock x Leverage			0.238	0.977**		
			(0.952)	(0.387)		
2 yr shock x Leverage					-0.876	0.751**
					(0.670)	(0.297)
Observations	54,227	28,063	54,227	28,063	54,227	28,063
R^2	0.190	0.353	0.190	0.353	0.188	0.353
Firm controls	yes	yes	yes	yes	yes	yes
Firm FE	yes	yes	yes	yes	yes	yes
Time FE	yes	yes	yes	yes	yes	yes

Results from estimating $s_{it} = \alpha_i + \alpha_t + \beta l_{it-1}\epsilon_t^m + \delta l_{it-1} + \Gamma' Z_{it-1} + e_{it}$, where s_{it} is the firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, l_{it-1} is leverage, ϵ_t^m is the monetary policy shock and Z_{it-1} is a vector of firm-level controls containing real sales growth, size, price-to-cost margin, receivables-minus-payables to sales, depreciation to assets, age, log(market cap), current assets to total assets and an indicator for current fiscal quarter. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Leverage is the four-quarter moving average and is normalized to have mean zero and unit variance. The pre-crisis sample is July 1991-June 2008 (153 FOMC announcement days) and the post-crisis sample is August 2009-December 2017 (68 FOMC announcement days). The sample includes all firms in the S&P 500 on the date of the FOMC announcement. Two-way clustered standard errors are reported in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table OA.5: Response of firm-level stock returns to monetary shocks: Full CRSP/Compustat sample

	(1a) Pre-Crisis	(1b) Post-Crisis	(2a) Pre-Crisis	(2b) Post-Crisis	(3a) Pre-Crisis	(3b) Post-Crisis
Leverage (Debt-to-Capital)	-0.028	-0.057*	-0.028	-0.058*	-0.042*	-0.062*
	(0.020)	(0.030)	(0.020)	(0.030)	(0.023)	(0.031)
MP shock x Leverage	-2.751**	0.156				
	(1.204)	(0.811)				
FFR shock x Leverage			-1.032**	0.465		
			(0.456)	(1.943)		
10 yr shock x Leverage			-0.244	0.071		
			(0.487)	(0.524)		
2 yr shock x Leverage					-0.933**	0.820
					(0.446)	(0.575)
Observations	492,432	183,182	492,432	183,182	492,432	183,182
R^2	0.064	0.132	0.064	0.132	0.064	0.132
Firm controls	yes	yes	yes	yes	yes	yes
Firm FE	yes	yes	yes	yes	yes	yes
Time FE	yes	yes	yes	yes	yes	yes

	Full Sample	Full Sample
D_t^{post} x MP shock x Leverage	2.906**	
	(1.434)	
D_t^{post} x 2 yr shock x Leverage		1.767**
		(0.718)
Observations	675,614	675,614
R^2	0.072	0.072
Firm controls	yes	yes
Firm FE	yes	yes
Time FE	yes	yes

Panel A shows results from estimating $s_{i,t} = \alpha_i + \alpha_t + \beta l_{i,t-1}\epsilon_t^m + \delta l_{i,t-1} + \Gamma' Z_{i,t-1} + e_{i,t}$, where $s_{i,t}$ is the firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, $l_{i,t-1}$ is leverage, ϵ_t^m is the monetary policy shock and $Z_{i,t-1}$ is a vector of firm-level controls containing real sales growth, size, price-to-cost margin, receivables-minus-payables to sales, depreciation to assets, age, log(market cap), current assets to total assets and an indicator for current fiscal quarter. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Leverage is the four-quarter moving average and is normalized to have mean zero and unit variance. The pre-crisis sample is July 1991-June 2008 (153 FOMC announcement days) and the post-crisis sample is August 2009-December 2017 (68 FOMC announcement days). Panel B shows results for $s_{i,t} = \alpha_i + \alpha_t + \beta_1 l_{i,t-1}\epsilon_t^m + \beta_2 l_{i,t-1}\epsilon_t^m D_t^{post} + \delta_1 l_{i,t-1} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma' Z_{i,t-1} + e_{i,t}$ where D_t^{post} is an indicator for the post-crisis period. The sample includes non-financial firms in the CRSP/Compustat merged dataset on the date of the FOMC announcement. Two-way clustered standard errors are reported in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table OA.6: Response of firm-level stock returns to monetary shocks: Full CRSP/Compustat sample with no firm entry or exit

	(1a) Pre-Crisis	(1b) Post-Crisis	(2a) Pre-Crisis	(2b) Post-Crisis	(3a) Pre-Crisis	(3b) Post-Crisis
Leverage (Debt-to-Capital)	-0.004	0.046	-0.004	0.050	-0.017	0.039
	(0.038)	(0.054)	(0.038)	(0.053)	(0.039)	(0.053)
MP shock x Leverage	-2.336**	1.905**				
	(1.071)	(0.825)				
FFR shock x Leverage			-0.878**	-0.914		
			(0.403)	(2.063)		
10 yr shock x Leverage			0.114	1.301**		
			(0.502)	(0.544)		
2 yr shock x Leverage					-0.660*	1.586***
					(0.393)	(0.479)
Observations	75,545	38,324	75,545	38,324	75,545	38,324
R^2	0.081	0.232	0.081	0.232	0.080	0.232
Firm controls	yes	yes	yes	yes	yes	yes
Firm FE	yes	yes	yes	yes	yes	yes
Time FE	yes	yes	yes	yes	yes	yes

	Full Sample	Full Sample
D_t^{post} x MP shock x Leverage	4.242***	
	(1.366)	
D_t^{post} x 2 yr shock x Leverage		2.239***
		(0.631)
Observations	113,869	113,869
R^2	0.107	0.106
Firm controls	yes	yes
Firm FE	yes	yes
Time FE	yes	yes

Panel A shows results from estimating $s_{i,t} = \alpha_i + \alpha_t + \beta l_{i,t-1}\epsilon_t^m + \delta l_{i,t-1} + \Gamma' Z_{i,t-1} + e_{i,t}$, where $s_{i,t}$ is the firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, $l_{i,t-1}$ is leverage, ϵ_t^m is the monetary policy shock and $Z_{i,t-1}$ is a vector of firm-level controls containing real sales growth, size, price-to-cost margin, receivables-minus-payables to sales, depreciation to assets, age, log(market cap), current assets to total assets and an indicator for current fiscal quarter. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Leverage is the four-quarter moving average and is normalized to have mean zero and unit variance. The pre-crisis sample is July 1991-June 2008 (153 FOMC announcement days) and the post-crisis sample is August 2009-December 2017 (68 FOMC announcement days). Panel B shows results for $s_{i,t} = \alpha_i + \alpha_t + \beta_1 l_{i,t-1}\epsilon_t^m + \beta_2 l_{i,t-1}\epsilon_t^m D_t^{post} + \delta_1 l_{i,t-1} + \delta_2 l_{i,t-1} D_t^{post} + \Gamma' Z_{i,t-1} + e_{i,t}$ where D_t^{post} is an indicator for the post-crisis period. The sample includes non-financial firms that are in the CRSP/Compustat merged dataset on all FOMC announcement dates in the sample period. Two-way clustered standard errors are reported in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table OA.7: Robustness of baseline results: Excluding unscheduled meetings

	(1a)	(1b)	(2)	(3)
	Firm Share Price		Expected Volatility	Investment
	Pre-Crisis	Post-Crisis	Pre & Post	Pre & Post
Leverage (Debt-to-Capital)	0.010	0.009	-0.74*	0.17
	(0.039)	(0.026)	(0.406)	(0.392)
MP shock x Leverage	-1.667	2.223***		0.97
	(1.072)	(0.573)		(3.344)
D_t^{post} x Leverage			1.78***	
			(0.371)	
D_t^{post} x MP shock x Leverage				2.93
				(4.182)
Observations	43,154	24,584	40,831	
R^2	0.132	0.341	0.785	
Firm controls	yes	yes	yes	yes
Firm FE	yes	yes	yes	yes
Time FE	yes	yes	yes	yes

Columns (1a) and (1b) are the results from estimating $s_{it} = \alpha_i + \alpha_t + \beta l_{it-1}\epsilon_t^m + \delta l_{it-1} + \Gamma' Z_{it-1} + e_{it}$, where s_{it} is the firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, l_{it-1} is leverage, ϵ_t^m is the monetary policy shock and Z_{it-1} is a vector of firm-level controls containing real sales growth, size, price-to-cost margin, receivables-minus-payables to sales, depreciation to assets, age, log(market cap), current assets to total assets and an indicator for current fiscal quarter. Column (2) is the result from estimating $ivol_{i,t-1} = \alpha_i + \alpha_t + \delta l_{i,t} + \beta l_{i,t-1} D_t^{post} + \Gamma Z_{i,t-1} + e_{i,t}$. 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. Leverage is the four-quarter moving average of Debt-to-Capital and is normalized to have mean zero and unit variance. The pre-crisis sample is July 1991-June 2008 (137 scheduled FOMC announcement days) and the post-crisis sample is August 2009-December 2017 (68 scheduled FOMC announcement days). The sample includes non-financial firms in the S&P 500. Two-way clustered standard errors are reported in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table OA.8: Response of firm-level stock returns to monetary shocks: Informationally-robust monetary policy shocks

	(1a) Pre-Crisis	(1b) Post-Crisis	(2a) Pre-Crisis	(2b) Post-Crisis	(3a) Pre-Crisis	(3b) Post-Crisis
Leverage (Debt-to-Capital)	-0.030	0.025	-0.032	0.006	-0.037	0.014
	(0.038)	(0.025)	(0.037)	(0.026)	(0.041)	(0.026)
MP shock x Leverage	-5.882*	2.356***				
	(3.270)	(0.664)				
FFR shock x Leverage			-2.281*	-1.118		
			(1.250)	(0.934)		
10 yr shock x Leverage			-0.236	1.510***		
			(1.063)	(0.383)		
2 yr shock x Leverage					-1.636*	0.658*
					(0.909)	(0.376)
Observations	46,951	23,883	46,951	23,883	46,951	23,883
R^2	0.178	0.344	0.178	0.344	0.175	0.343
Firm controls	yes	yes	yes	yes	yes	yes
Firm FE	yes	yes	yes	yes	yes	yes
Time FE	yes	yes	yes	yes	yes	yes

Results from estimating $s_{i,t} = \alpha_i + \alpha_t + \beta l_{i,t-1}\epsilon_t^m + \delta l_{i,t-1} + \Gamma' Z_{i,t-1} + e_{i,t}$, where $s_{i,t}$ is the firm-level daily stock return, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, $l_{i,t-1}$ is leverage, ϵ_t^m is the monetary policy shock and $Z_{i,t-1}$ is a vector of firm-level controls containing real sales growth, size, price-to-cost margin, receivables-minus-payables to sales, depreciation to assets, age, log(market cap), current assets to total assets and an indicator for current fiscal quarter. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. All monetary policy shocks are informationally-robust. Leverage is the four-quarter moving average and is normalized to have mean zero and unit variance. The pre-crisis sample is July 1991-June 2008 (153 FOMC announcement days) and the post-crisis sample is August 2009-December 2017 (68 FOMC announcement days). The sample includes non-financial firms in the S&P 500 on the date of the FOMC announcement. Two-way clustered standard errors are reported in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table OA.9: Contemporaneous response of firm-level investment to monetary shocks (w/ 4-qtr rolling leverage)

	Investment
MP shock$_t$ x Leverage$_{t-1}$	-4.49***
	(1.635)
Post-Crisis x MP shock$_t$ x Leverage$_{t-1}$	9.83***
	(3.138)
Observations	19,443
R^2	0.147
Firm controls	yes
Firm FE	yes
Time-Sector FE	yes

Results from estimating
$\Delta ln(y_{it}) = \alpha_i + \alpha_t + \sum_{n \in N} \beta_{1n} l_{i,t-n-1} \epsilon^m_{t-n} + \beta_{2n} l_{i,t-n-1} \epsilon^m_{t-n} D^{post}_{t-n} + \Gamma' Z_{i,t-1} + e_{it}$, where y_{it} is the value of firm i's capital stock in quarter t, α_i is a firm i fixed effect, α_t is a quarter t fixed effect, l_{it} is firm i's leverage ratio, ϵ^m_t is the sum of all high-frequency monetary policy shocks that occur in quarter t, D^{post}_t is an indicator for the post-crisis period and Z_{it-1} is a vector of firm-level controls containing lags of leverage and interactions with the post-crisis indicator, size, current assets to total assets and an indicator for current fiscal quarter. For the investment specification, the controls also include year-over-year sales growth and the ratio of sales to capital stock. For the investment specification, $N = [0, 12]$. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Leverage is the four-quarter rolling average, normalized to have mean zero and unit variance. Non-financial S&P 500 firms with at least 40 quarters of data in the pre-crisis or post-crisis sample for the dependent variable are included. The pre-crisis sample is 1991:Q3 to 2008:Q2 and the post-crisis sample is 2009:Q3 to 2017:Q4. Two-way clustered standard errors are reported in the parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table OA.10: Response of firm-level sales to monetary shocks (w/ additional controls)

	Sales
MP shock$_t$ x Leverage$_{t-1}$	5.79
	(6.023)
Post-Crisis x MP shock$_t$ x Leverage$_{t-1}$	14.66
	(13.298)
MP shock$_{t-4}$ x Leverage$_{t-5}$	-6.58
	(5.882)
Post-Crisis x MP shock$_{t-4}$ x Leverage$_{t-5}$	20.35**
	(8.198)
Observations	20,345
R^2	0.119
Firm controls	yes
Firm FE	yes
Time FE	yes

Results from estimating
$\Delta ln(y_{it}) = \alpha_i + \alpha_t + \sum_{n \in N} \beta_{1n} l_{i,t-n-1} \epsilon^m_{t-n} + \beta_{2n} l_{i,t-n-1} \epsilon^m_{t-n} D^{post}_{t-n} + \Gamma' Z_{i,t-1} + e_{it}$, where y_{it} is the value of firm i's real sales revenue in quarter t, α_i is a firm i fixed effect, α_t is a quarter t fixed effect, l_{it} is firm i's leverage ratio, ϵ^m_t is the sum of all high-frequency monetary policy shocks that occur in quarter t, D^{post}_t is an indicator for the post-crisis period and Z_{it-1} is a vector of firm-level controls containing lags of leverage and interactions with the post-crisis indicator, size, price-to-cost margin, receivables-minus-payables to sales, depreciation to assets, age, log(market cap), current assets to total assets and an indicator for current fiscal quarter. For the sales specification, $N = \{0, 4, 8, 12\}$. The monetary policy shock is normalized to have a unit effect on the 2 year yield and a positive value represents an expansionary shock. Leverage is the one-quarter lagged value, normalized to have mean zero and unit variance. Non-financial S&P 500 firms with at least 40 quarters of data in the pre-crisis or post-crisis sample for the dependent variable are included. The pre-crisis sample is 1991:Q3 to 2008:Q2 and the post-crisis sample is 2009:Q3 to 2017:Q4. Two-way clustered standard errors are reported in the parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table OA.11: Regression of firm-level implied volatility leading up to FOMC announcement: alternative measures of leverage

	Debt-to-Assets		Debt-to-Equity	
	(1)	(2)	(1)	(2)
Leverage	-1.28***	-0.94**	0.04	0.07
	(0.424)	(0.412)	(0.085)	(0.067)
Post-Crisis x Leverage	2.16***	1.87***	0.59***	0.38***
	(0.412)	(0.365)	(0.130)	(0.107)
Constant	32.60***	48.06***	32.76***	51.52***
	(0.231)	(5.866)	(0.238)	(6.238)
Observations	47,151	42,655	46,192	41,752
R^2	0.758	0.786	0.757	0.786
Firm FE	yes	yes	yes	yes
Time FE	yes	yes	yes	yes
Firm controls	no	yes	no	yes

Null Hypothesis	p-value		p-value	
leverage + post x leverage = 0	0.013	0.011	0.000	0.000

Results from estimating $ivol_{i,t-1} = \alpha_i + \alpha_t + \delta l_{i,t} + \beta l_{i,t-1} D_t^{post} + \Gamma Z_{i,t-1} + e_{i,t}$, where $ivol_{i,t-1}$ is the firm-level implied volatility on the day before the FOMC announcement, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, $l_{i,t-1}$ is leverage, D_t^{post} is an indicator for the post-crisis period and $Z_{i,t-1}$ is a vector of firm-level controls containing firm-level stock price at close of prior trading day, real sales growth, size, price-to-cost margin, receivables-minus-payables to sales, depreciation to assets, age, log(market cap), current assets to total assets and an indicator for current fiscal quarter. Leverage is the four-quarter moving average of debt-to-capital and is normalized to have mean zero and unit variance. The pre-crisis sample is January 1996-June 2008 (108 FOMC announcement days) and the post-crisis sample is August 2009-December 2017 (68 FOMC announcement days). The sample includes non-financial firms in the S&P 500. Two-way clustered standard errors are reported in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table OA.12: Regression of firm-level implied volatility leading up to FOMC announcement (w/ crisis dates)

	(1)	(2)
Leverage	-1.11**	-0.93**
	(0.453)	(0.431)
Post-Crisis x Leverage	2.40***	1.86***
	(0.411)	(0.387)
Constant	34.04***	47.16***
	(0.239)	(6.393)
Observations	50,090	45,407
R^2	0.779	0.803
Firm FE	yes	yes
Time FE	yes	yes
Firm controls	no	yes

Null Hypothesis	p-value	
leverage + post x leverage = 0	0.001	0.013

Results from estimating $ivol_{i,t-1} = \alpha_i + \alpha_t + \delta l_{i,t} + \beta l_{i,t-1} D_t^{post} + \Gamma Z_{i,t-1} + e_{i,t}$, where $ivol_{i,t-1}$ is the firm-level implied volatility on the day before the FOMC announcement, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, $l_{i,t-1}$ is leverage, D_t^{post} is an indicator for the post-crisis period and $Z_{i,t-1}$ is a vector of firm-level controls containing firm-level stock price at close of prior trading day, real sales growth, size, price-to-cost margin, receivables-minus-payables to sales, depreciation to assets, age, log(market cap), current assets to total assets and an indicator for current fiscal quarter. Leverage is the four-quarter moving average of debt-to-capital and is normalized to have mean zero and unit variance. The pre-crisis sample is January 1996-June 2008 (108 FOMC announcement days) and the post-crisis sample is July 2008-December 2017 (79 FOMC announcement days). The sample includes non-financial firms in the S&P 500. Two-way clustered standard errors are reported in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table OA.13: Regression of firm-level implied volatility leading up to FOMC announcement (w/ financial firms)

	(1)	(2)
Leverage	-1.11***	-0.74*
	(0.422)	(0.412)
Post-Crisis x Leverage	2.47***	1.79***
	(0.395)	(0.368)
Constant	32.71***	47.13***
	(0.260)	(5.939)
Observations	54,593	43,780
R^2	0.736	0.786
Firm FE	yes	yes
Time FE	yes	yes
Firm controls	no	yes

Null Hypothesis	p-value	
leverage + post x leverage = 0	0.000	0.003

Results from estimating $ivol_{i,t-1} = \alpha_i + \alpha_t + \delta l_{i,t} + \beta l_{i,t-1} D_t^{post} + \Gamma Z_{i,t-1} + e_{i,t}$, where $ivol_{i,t-1}$ is the firm-level implied volatility on the day before the FOMC announcement, α_i is a firm fixed-effect, α_t is an FOMC day fixed-effect, $l_{i,t-1}$ is leverage, D_t^{post} is an indicator for the post-crisis period and $Z_{i,t-1}$ is a vector of firm-level controls containing firm-level stock price at close of prior trading day, real sales growth, size, price-to-cost margin, receivables-minus-payables to sales, depreciation to assets, age, log(market cap), current assets to total assets and an indicator for current fiscal quarter. Leverage is the four-quarter moving average of debt-to-capital and is normalized to have mean zero and unit variance. The pre-crisis sample is January 1996-June 2008 (108 FOMC announcement days) and the post-crisis sample is August 2009-December 2017 (68 FOMC announcement days). The sample includes all firms in the S&P 500. Two-way clustered standard errors are reported in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$