

Internet Appendix for
“How Do Foreign Institutional Investors Enhance Firm Innovation?”

This Internet Appendix provides supplemental analyses and robustness tests to the main results presented in “How Do Foreign Institutional Investors Enhance Firm Innovation?”. Section A discusses robustness checks, reported in Tables A1–A2, using subsamples excluding Japanese and Taiwanese firms and an alternative measure of foreign institutional ownership (*FIO*). Section B discusses additional results, reported in Tables A3–A6, for the difference-in-differences (DiD) identification tests used in the main text. Section C discusses robustness checks, reported in Table A7, using longer-term innovation measures as the dependent variables. The tables are organized as follows:

Table A1: Samples Excluding Japanese and Taiwanese Firms

Table A2: Large Foreign Institutional Ownership and Innovation

Table A3: Regressions Using the Treatment and Control Firms (the DiD Sample)

Table A4: Pre-Match Propensity Score and Post-Match Diagnostic Regressions

Table A5: DiD Tests for a Sample of Firms Paying Dividends in Earlier Years

Table A6: Placebo Tests

Table A7: Longer-Term Innovation Measures

Section A. Robustness Checks Using a Subsample and an Alternative Measure of Foreign Institutional Ownership

This section consists of two tables, Tables A1–A2, in which we check if the baseline regression results in Table 2 are robust to the use of various subsamples and an alternative measure of foreign institutional ownership (*FIO*). Table A1 reports the firm fixed regression results for the samples that exclude Japanese and Taiwanese firms, in which control variables include firm and year fixed effects as well as the same set of firm- and country-level controls as in the baseline regressions of Table 2. Table A2 shows the results for firm fixed regressions, where *FIO* is replaced with a dummy variable (*FIO_D5*) equal to one if a firm's *FIO* is greater than 5% and zero otherwise.

Columns 1-2 of Table A1 show the results for the sample in which Japanese sample firms are excluded. As shown in both columns, the coefficient estimates of *FIO* remain significant at the 1% level. In columns 3-4 where the regressions are based on a sample that leaves out both Japanese and Taiwanese firms, the coefficient estimates on *FIO* remain significant though smaller in magnitude and statistical significance.

Turning to Table A2 where we run the firm fixed effects regressions of large foreign institutional ownership on innovation, the coefficient estimates of *FIO_D5* are positive and significant in all the specifications. This result suggests that foreign institutions exert larger effects on innovation among the firms in which a relatively larger proportion of their shares (>5%) are held by foreign institutions. Similar results obtain in column 2 where we include controls for year and firm fixed effects together with the same set of firm- and country-level characteristics as in the baseline regressions. In columns 3-4 where we use the same specifications for *LnCitePat* as the dependent variable, we observe similar patterns for the *FIO_D5* coefficients.

Overall, the results in Tables A1–A2 provide additional support for the positive association between foreign institutional ownership and firm innovation.

Section B. Additional Results for the DiD Tests

In this section, we provide additional results for the DiD test used in the main text. Table A3 shows various regressions for the DiD sample that results from the matching of control firms with treatment firms using the nearest-neighbor propensity scores as discussed in Subsection 4.1 of the main text.

In Panel A, we check whether the baseline regression results still hold under this DiD sample, which is different from the baseline sample. We use various specifications that include controls for year, firm, industry, or country fixed effects, as well as the same set of firm- and country-level controls as in the baseline regressions. As shown, the coefficient estimates on *FIO* (foreign institutional ownership) are significant in almost all specifications. These results show that our baseline results remain robust with this different sample.

Panel B shows additional results for the DiD tests in a multivariate regression framework, where we report the regression with non-U.S. foreign institutional ownership as the dependent variable (column 2) together with the regressions with U.S. foreign institutional ownership and total foreign institutional ownership as the dependent variables (columns 1 and 3, respectively). As shown, the coefficient estimate on *Treat*Post* for the *FIO_{NonUS}* regression is insignificant, whereas those for the *FIO* and *FIO_{US}* regressions remain significant. The results suggest that treatment firms experience increases in U.S. foreign institutional ownership following the passage of JGTRRA.

Table A4 provides the results of estimating a probit model for observations in the year immediately preceding the passage of the JGTRRA, where we control for the same set of firm-level and country-level independent variables as in the baseline regressions and industry fixed effects. Column 1 (labeled as “Pre-Match”) shows that the specification captures a

significant amount of variation of the choice variable, as suggested by a pseudo- R^2 of 48.6%. We then use the predicted propensity scores, or probabilities, estimated from this “Pre-Match” regression to perform the nearest-neighbor propensity score matching of treatment firms with control firms. In column 2 (labeled as “Post-Match”), we re-estimate the probit model within the matched sample. We observe that most of the coefficient estimates of the firm-level independent variables are insignificant; in particular, the coefficients estimates of the $Growth_{Patent}$ and $Growth_{Citation}$ in this post-match regression are all insignificant. These results suggest that there is no observable trend in innovation output variables before the passage of the JGTRRA between treatment and control firms. Put differently, in the absence of the passage of the JGTRRA the average change in innovation output would have been the same for both treatment and control firms. Thus, the parallel trend assumption of the DiD estimation is not violated.

In Table A5, we conduct robustness checks for the DiD results in the main text (Panel C of Table 3 in the paper). Our assignment of treatment and control firms that pay dividends one year in advance of the passage of the JGTRRA could still suffer from potential endogeneity because it is possible that firms could anticipate this event. To address this concern, we require that treatment and control firms pay dividends in the pre-tax cut years of 2000 (Panel A), 2001 (Panel B), and both 2000 and 2001 (Panel C), and repeat the DiD analyses as in Subsection 4.1. We continue to observe that the DiD estimates are significant for the matched sample of firms paying dividends in 2001 and in both 2000 and 2001.

Table A6 reports the results of placebo tests for non-dividend-paying firms in pre-JGTRRA years (Panel A) and for dividend-paying firms that have zero U.S. foreign institutional ownership (Panel B). The reason we conduct these tests is that, if the passage of the JGTRRA affects the U.S. institutional investors, then there should be no significant difference in innovation output between dividend-paying firms that have zero U.S. foreign

institutional ownership in treaty countries and those in non-treaty countries. The results show that the DiD estimates are insignificant in both panels, supporting our conjecture.

In summary, this section provides robustness checks for the DiD analysis used in the main text to ensure that the key assumption of the DiD estimation is satisfied and the DiD main results are robust.

Section C. Additional Results with Longer Innovation Horizons

Foreign institutional ownership may affect firm innovation over a longer period than what is assumed in the paper, and how fast this effect occurs should depend on the underlying economic mechanisms. Thus in this subsection, we extend the analysis of the monitoring roles of foreign institutions by using two- or three-year-ahead, instead of one-year-ahead, innovation measure as the dependent variables in the baseline regressions. We report the results in Table A7.

Panel A shows the results for the regressions in which the main independent variable is foreign institutional ownership (*FIO*). In Panel B, we subdivide *FIO* into long-term (independent) and short-term (grey) foreign institutional ownership and re-estimate the regression model using this classification. In Panel C, we classify foreign institutional ownership according to whether institutions come from high-innovation or low-innovation countries.

As shown in Panel B, the coefficients on classified *FIO*, that is, long-term and independent institutions, are mostly significant in all the regressions with two-year lead innovation measures, whereas they are insignificant in the regression with the three-year lead innovation measures. Thus the results suggest that foreign institutions appear to have more immediate effects on innovation. In Panel C, the coefficient estimates of *FIO*_{HighInno} are significant in all the regressions with two-year-ahead innovation measures, while they are

mostly insignificant in the regressions with three-year-ahead measures. The results seem to support the knowledge spillover channel through which it takes them more time to really influence firm innovation.

Table A1: Samples Excluding Japanese and Taiwanese Firms

This table reports the firm fixed effects regression results for subsamples excluding Japanese firms (columns 1-2) and excluding both Japanese and Taiwanese firms (columns 3-4). The dependent variable is shown as column heading in columns 1-4. The main independent variable is foreign institutional ownership (*FIO*). “*Other controls*” consists of all the firm- and country-level variables as discussed in Section 2.2 of the main text. All explanatory variables are lagged by one year. Standard errors clustered at the firm level are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	<i>LnPatent</i>	<i>LnCitePat</i>	<i>LnPatent</i>	<i>LnCitePat</i>
	(1)	(2)	(3)	(4)
<i>FIO</i>	0.011*** (0.003)	0.014*** (0.004)	0.007** (0.004)	0.008** (0.004)
<i>DIO</i>	-0.001 (0.001)	-0.000 (0.002)	-0.000 (0.001)	0.001 (0.002)
Other controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Adj. R ²	0.785	0.686	0.787	0.688
Obs.	18,799	18,799	15,099	15,099

Table A2: Large Foreign Institutional Ownership and Innovation

This table reports the firm fixed effects regression results with large foreign institutional ownership dummy variable. The key independent variable is foreign institutional ownership dummy, *FIO_D5*, which equals one if foreign institutional ownership is larger than 5% and zero otherwise. “*Other controls*” consists of all the firm- and country-level variables as discussed in Section 2.2 of the main text. The dependent variable is shown as column heading in columns 1-4. Standard errors clustered at the firm level are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	<i>LnPatent</i>		<i>LnCitePat</i>	
	(1)	(2)	(3)	(4)
<i>FIO_D5</i>	0.233*** (0.042)	0.055*** (0.018)	0.277*** (0.048)	0.078*** (0.024)
<i>DIO</i>	-0.011*** (0.002)	-0.001 (0.001)	-0.013*** (0.003)	-0.000 (0.002)
Other controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	No	Yes	No	Yes
Industry fixed effects	Yes	No	Yes	No
Country fixed effects	Yes	No	Yes	No
Adj. R ²	0.248	0.850	0.239	0.765
Obs.	30,008	30,008	30,008	30,008

Table A3: Regressions Using the Treatment and Control Firms (the DiD Sample)**Panel A: Baseline Regression Using the DiD Sample**

This table reports the baseline firm fixed effects regression results for the DiD sample. The dependent variable is shown as column heading in columns 1-4. The main independent variable is foreign institutional ownership (*FIO*). “*Other controls*” consists of all the firm- and country-level variables as discussed in Section 2.2 of the main text. All explanatory variables are lagged by one year. Standard errors clustered at the firm level are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	<i>LnPatent</i>	<i>LnCitePat</i>	<i>LnPatent</i>	<i>LnCitePat</i>
	(1)	(2)	(3)	(4)
<i>FIO</i>	0.018*** (0.006)	0.022*** (0.007)	0.015* (0.008)	0.016** (0.008)
Other controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	No	No	Yes	Yes
Industry fixed effects	Yes	Yes	No	No
Country fixed effects	Yes	Yes	No	No
Adj. R ²	0.389	0.369	0.890	0.840
Obs.	4,788	4,788	4,788	4,788

Panel B: Foreign Institutional Ownership is the Dependent Variable in the DiD regression

This table tests the changes in foreign institutional ownership using the difference-in-differences regression framework. The dependent variables are foreign institutional ownership (*FIO_{US}*), non-U.S. foreign institutional ownership (*FIO_{NonUS}*), or total foreign institutional ownership (*FIO*), and are shown as column heading in columns 1-3. “*Other controls*” consists of all the firm- and country-level variables as discussed in Section 2.2 of the main text. Standard errors clustered at the firm level are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	<i>FIO_{US}</i>	<i>FIO_{NonUS}</i>	<i>FIO</i>
	(1)	(2)	(3)
<i>Treat*Post</i>	1.089*** (0.080)	0.091 (0.062)	1.215*** (0.193)
Other controls	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Adj. R ²	0.829	0.801	0.839
Obs.	4,788	4,788	4,788

Table A4: Pre-Match Propensity Score and Post-Match Diagnostic Regressions

This table reports the results from the probit model used in estimating the propensity scores for the treatment and control groups in the pre-tax cut year for both pre-matched and post-matched samples. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	Pre-Match	Post-Match
	(1)	(2)
<i>FIO</i>	0.092** (0.043)	-0.092 (0.118)
<i>FIO_{NonUS}</i>	0.057 (0.075)	-0.006 (0.107)
<i>DIO</i>	2.052*** (0.482)	0.406 (0.319)
<i>INSIDE</i>	-0.773** (0.362)	-0.028 (0.557)
<i>Ln(AGE)</i>	0.231 (0.164)	-0.087* (0.047)
<i>HHI</i>	-2.039 (1.462)	-1.364* (0.802)
<i>HHISQ</i>	-2.985** (1.411)	-0.770 (2.081)
<i>RD</i>	-1.661 (4.514)	4.893 (9.739)
<i>CAEX</i>	-0.975 (2.113)	1.389 (4.390)
<i>PPE</i>	-0.586 (0.699)	-0.254 (1.274)
<i>LEV</i>	1.874*** (0.628)	1.640 (1.219)
<i>ROA</i>	0.570 (1.490)	-0.528 (2.874)
<i>FSALE</i>	0.296 (0.460)	1.130 (0.899)
<i>Ln(SALE)</i>	0.181** (0.079)	-0.123 (0.140)
<i>Q</i>	0.151 (0.131)	0.150 (0.465)
<i>KZ</i>	0.008 (0.006)	0.004 (0.008)
<i>Growth_{Patent}</i>	0.024* (0.013)	0.259 (0.242)
<i>Growth_{Citation}</i>	0.010 (0.045)	0.028 (0.109)
<i>Pindex</i>	1.992** (0.950)	1.873* (0.965)
<i>RULE</i>	3.883*** (0.956)	4.081*** (1.518)
<i>GOODGOV</i>	1.385 (0.859)	1.569 (1.037)
<i>EXPORT</i>	1.808*** (0.210)	1.945*** (0.260)
<i>IMPORT</i>	-1.410*** (0.231)	-1.385*** (0.492)
<i>EQUITY</i>	0.987* (0.555)	0.657** (0.328)
<i>CCREDIT</i>	-0.069 (0.342)	0.265 (0.678)
<i>Ln(GDP)</i>	0.940*** (0.385)	1.611** (0.724)
Industry fixed effects	Yes	Yes
Pseudo R ²	0.486	0.126
Obs.	2,038	684

Table A5: DiD Tests for a Sample of Firms Paying Dividends in Earlier Years

This table reports the univariate DiD estimators of the DiD tests on how a plausibly exogenous shock to foreign institutional ownership due to the passage of the JGTRRA in 2003 affects firm innovation. Treatment firms must be domiciled in treaty countries and control firms in non-treaty countries. Both groups must pay dividends in the pre-tax cut years: 2000 (Panel A), 2001 (Panel B), and both 2000 and 2001 (Panel C). Each control firm is then matched to five treatment firms using the nearest neighbor propensity score matching procedure on a vector of observable characteristics including the firm- and country-level variables as in the baseline regressions, and growth in innovation variables over three years before the tax cut. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Difference-in-Differences Test for Stocks Paying Dividends in 2000				
	Treatment Group	Control Group	Treatment – Control	<i>t</i> -statistics for
	After – Before	After – Before	DiD Estimator	DiD Estimator
	(1)	(2)	(3)	(4)
<i>LnPatent</i>	0.134	0.081	0.053	1.456
(standard error)	(0.067)	(0.052)		
<i>LnCitePat</i>	0.238	0.097	0.141	1.593
(standard error)	(0.093)	(0.065)		
Panel B: Difference-in-Differences Test for Stocks Paying Dividends in 2001				
	Treatment Group	Control Group	Treatment – Control	<i>t</i> -statistics for
	After – Before	After – Before	DiD Estimator	DiD Estimator
	(1)	(2)	(3)	(4)
<i>LnPatent</i>	0.134	0.063	0.071*	1.652
(standard error)	(0.060)	(0.037)		
<i>LnCitePat</i>	0.176	0.085	0.091*	1.823
(standard error)	(0.080)	(0.048)		
Panel C: Difference-in-Differences Test for Stocks Paying Dividends in both 2000 and 2001				
	Treatment Group	Control Group	Treatment – Control	<i>t</i> -statistics for
	After – Before	After – Before	DiD Estimator	DiD Estimator
	(1)	(2)	(3)	(4)
<i>LnPatent</i>	0.171	0.084	0.087**	2.069
(standard error)	(0.082)	(0.039)		
<i>LnCitePat</i>	0.214	0.105	0.110**	2.156
(standard error)	(0.097)	(0.057)		

Table A6: DiD Placebo Tests

This table reports the univariate DiD estimators of two placebo tests on how a plausibly exogenous shock to foreign institutional ownership due to the passage of the JGTRRA in 2003 affects firm innovation. In Panel A, both treatment and control firms do not pay dividends in the pre-tax cut years (2002). In Panel B, both treatment and control firms must pay dividends but have zero U.S. foreign institutional ownership in the pre-tax cut year (2002). In both Panels, treatment firms must be domiciled in treaty countries and control firms in non-treaty countries. Each control firm is then matched to five treatment firms using the nearest neighbor propensity score matching procedure on a vector of observable characteristics including the firm- and country-level variables as in the baseline regression, and growth in innovation variables over three years before the tax cut. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Difference-in-Differences Test for Non-Dividend Paying Stocks				
	Treatment Group	Control Group	Treatment – Control	<i>t</i> -statistics for
	After – Before	After – Before	DiD Estimator	DiD Estimator
	(1)	(2)	(3)	(4)
<i>LnPatent</i>	0.085	0.022	0.063	0.978
(standard error)	(0.060)	(0.049)		
<i>LnCitePat</i>	0.102	0.025	0.077	0.776
(standard error)	(0.065)	(0.062)		

Panel B: Difference-in-Differences Test for Stocks with Zero U.S. Foreign Institutional Ownership				
	Treatment Group	Control Group	Treatment – Control	<i>t</i> -statistics for
	After – Before	After – Before	DiD Estimator	DiD Estimator
	(1)	(2)	(3)	(4)
<i>LnPatent</i>	0.049	0.009	0.040	0.857
(standard error)	(0.046)	(0.063)		
<i>LnCitePat</i>	0.062	0.032	0.030	0.546
(standard error)	(0.059)	(0.041)		

Table A7: Longer-Term Innovation Measures

This table reports the firm fixed effects regression results when innovation variables are led by two years ($t+2$) and three years ($t+3$). The dependent variable is shown as column heading in columns 1-4. In Panel A, the main independent variable is foreign institutional ownership (*FIO*). In Panel B, foreign institutional ownership is classified into long-term (independent) and short-term (grey) foreign institutional ownership. In Panel C, foreign institutional ownership is classified according to whether foreign institutional investors come from high-innovation countries or low-innovation countries. “Other controls” shown in Panels A-C consists of all the firm- and country-level variables as discussed in Section 2.2 of the main text. Standard errors clustered at the firm level are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Foreign Institutional Ownership				
	<i>LnPatent</i> _{$t+2$}	<i>LnCitePat</i> _{$t+2$}	<i>LnPatent</i> _{$t+3$}	<i>LnCitePat</i> _{$t+3$}
	(1)	(2)	(3)	(4)
<i>FIO</i>	0.006*** (0.002)	0.006** (0.003)	0.001 (0.003)	0.005 (0.005)
<i>DIO</i>	-0.003** (0.001)	0.001 (0.002)	-0.002 (0.001)	-0.002 (0.002)
Other controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Adj. R ²	0.861	0.777	0.812	0.716
Obs.	25,749	25,749	21,765	21,765
Panel B: Independent and Long-term Foreign Institutional Ownership				
	<i>LnPatent</i> _{$t+2$}		<i>LnCitePat</i> _{$t+2$}	
	X=INDEP	X=LONG	X=INDEP	X=LONG
	(1)	(2)	(3)	(4)
<i>FIO</i> _X	0.006* (0.003)	0.006* (0.004)	0.007* (0.004)	0.011* (0.007)
<i>FIO</i> _{Excluding X}	-0.011 (0.014)	0.005 (0.003)	-0.023 (0.021)	0.006 (0.004)
Other controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Adj. R ²	0.852	0.852	0.771	0.771
Obs.	25,749	25,749	25,749	25,749
	<i>LnPatent</i> _{$t+3$}		<i>LnCitePat</i> _{$t+3$}	
	X=INDEP	X=LONG	X=INDEP	X=LONG
	(5)	(6)	(7)	(8)
<i>FIO</i> _X	0.001 (0.004)	0.005 (0.003)	0.004 (0.005)	0.005 (0.006)
<i>FIO</i> _{Excluding X}	-0.018 (0.014)	0.001 (0.004)	-0.035 (0.025)	-0.006 (0.005)
Other controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Adj. R ²	0.814	0.814	0.757	0.757
Obs.	21,765	21,765	21,765	21,765

Table A7: Longer-Term Innovation Measures - Continued

Panel C: Foreign Institutional Ownership by High- versus Low-innovation Countries								
	<i>LnPatent_{t+2}</i>				<i>LnCitePat_{t+2}</i>			
	<i>Patent/GDP</i>	<i>Patent/Pop</i>	<i>Patent/Firms</i>	<i>Patent/Mcap</i>	<i>Patent/GDP</i>	<i>Patent/Pop</i>	<i>Patent/Firms</i>	<i>Patent/Mcap</i>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>FIO_{HighInno}</i>	0.009** (0.004)	0.010*** (0.003)	0.009** (0.004)	0.012** (0.005)	0.011** (0.005)	0.012*** (0.004)	0.012** (0.005)	0.019* (0.010)
<i>FIO_{LowInno}</i>	0.007 (0.008)	0.008 (0.0020)	0.0012 (0.010)	0.007 (0.005)	0.001 (0.002)	0.001 (0.002)	0.002 (0.002)	0.002 (0.003)
Other controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R ²	0.862	0.862	0.862	0.862	0.781	0.781	0.781	0.781
Obs.	25,749	25,749	25,749	25,749	25,749	25,749	25,749	25,749

	<i>LnPatent_{t+3}</i>				<i>LnCitePat_{t+3}</i>			
	<i>Patent/GDP</i>	<i>Patent/Pop</i>	<i>Patent/Firms</i>	<i>Patent/Mcap</i>	<i>Patent/GDP</i>	<i>Patent/Pop</i>	<i>Patent/Firms</i>	<i>Patent/Mcap</i>
	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
<i>FIO_{HighInno}</i>	0.009 (0.006)	0.010* (0.006)	0.009 (0.006)	0.010 (0.007)	0.010 (0.007)	0.011 (0.011)	0.011 (0.007)	0.015** (0.007)
<i>FIO_{LowInno}</i>	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.003 (0.002)	0.006 (0.007)	0.004 (0.011)	0.005 (0.007)	0.003 (0.003)
Other controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R ²	0.844	0.844	0.844	0.844	0.773	0.773	0.773	0.773
Obs.	21,765	21,765	21,765	21,765	21,765	21,765	21,765	21,765