

Does Mandatory Bid Rule Discourage Acquisitions above the Threshold?

2024.6.15

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Existing View on Mandatory Bid Rule (MBR)

MBR rule promotes **equal treatment**

However, it makes acquisitions **costly** and thus **hinder** efficient control transfers

Two underlying reasons:

1. Pay the ***same*** control premium to minority shareholders
2. Offer to buy shares from ***all*** minority shareholders

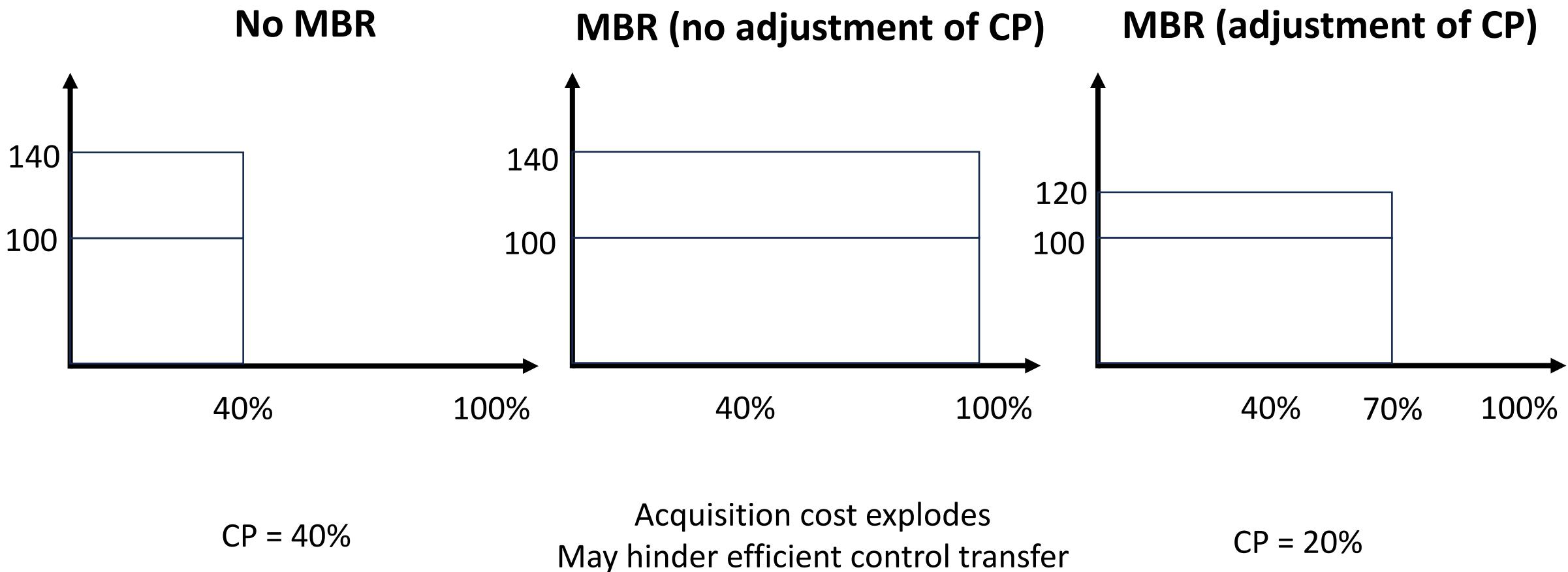
This Study: Alternative View

MBR rule may not necessarily increase acquisition cost

Two reasons:

1. Acquires will negotiate harder to **lower the control premium**
(Because $(\frac{\Delta \text{Acquisition Cost}}{\Delta \text{control premium}})$ is higher under MBR)
2. Minority shareholders **may not choose to tender** all their shares
(Because lower control premium \Rightarrow less attractive share price)

MBR, Control Premium, and Acquisition Cost



MBR and Private Benefits of Control

MBR rule may also reduce private benefits of control (PBC)

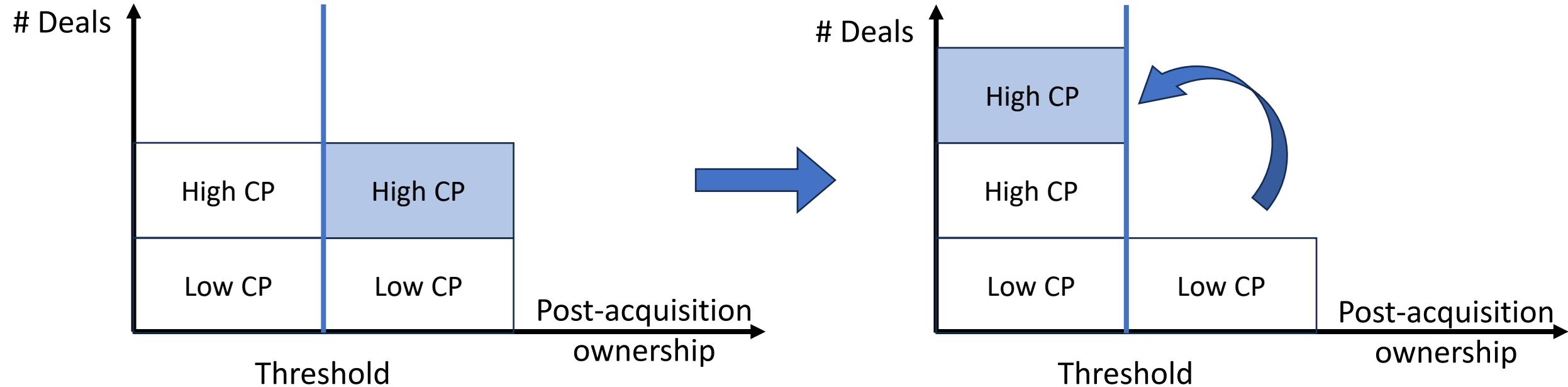
Two reasons:

1. **Lower control premium** lowers
the likelihood of extracting private benefits post-acquisition
(you paid less, you can afford to extract less)
2. Strategically beneficial for acquirers to **make credible commitments** to minimize the
possibility of private benefits extraction post-acquisition
(minority shareholders tender less \Rightarrow lower acquisition cost)

Hypotheses on CP and PBC

- **(H1)** The MBR reduces the **control premium** paid by the acquirer for deals that exceed the rule-triggering threshold
- **(H2)** The MBR reduces the **private benefits** the acquirer will likely extract post-acquisition that exceed the rule-triggering threshold

Possibility of Self-Selection



Lower control premium paid for deals that exceed the rule-triggering threshold may be a result of acquirers **opting to purchases shares just below the threshold**

Hypotheses on Post-Acquisition Ownership (if there is self-selection)

- (H3a) The MBR leads to the distribution of post-acquisition ownership **bunching** just below the rule-triggering threshold
- (H3b) The MBR reduces lowers the **average level** of post-acquisition ownership
- (H3c) The MBR lowers the **likelihood** of deals occurring above the rule-triggering threshold (linear probability model)
- (H3d) The MBR results in **fewer deals** occurring above the rule-triggering threshold (UK vs. US)

MBR

Around the World

47 countries in SDC Platinum
during 1980-2022

Exclude 6 countries
(Australia, Canada, Chile, China,
Japan, New Zealand)

41 countries

Country	Date	Threshold (%)	Country	Date	Threshold (%)
Europe					
Austria	2006.05.20	30	Lithuania	1996.01.16	50, 40, 33
Belgium	2007.09.01	30	Luxembourg	2006.05.22	33.34
Bulgaria	2003.01.01	50	Malta	2006.06.19	50
Croatia	2007.11.01	25	Netherlands	2007.10.28	30
Cyprus	2007.04.05	30	Norway	1985.06.24	45, 40, 33.34
Czech Republic	1996.05.30	50, 30	Poland	1991.04.12	50, 33
Denmark	1987.11.03	33	Portugal	2000.03.02	33
Estonia	2002.01.01	50	Romania	2004.07.29	33
Finland	2006.07.01	30	Russian Fed	1995.12.26	30
France	1989.08.02	33, 30	Slovak Republic	1994.04.01	30
Germany	2002.01.01	30	Slovenia	1997.08.01	25, 33
Greece	2006.05.30	33	Spain	1991.08.01	25, 30
Iceland	1998.04.21	50, 30	Sweden	2003.09.01	30
Ireland	1997.03.12	30	Switzerland	1998.01.01	33
Italy	1998.05.14	30, 25	Turkey	2012.12.06	50
Latvia	2006.07.13	50, 30	United Kingdom	1972.01.18	30
South America			Africa		
Argentina	2002.03.26	50	South Africa	1993.08.13	35
Brazil	2002.01.01	50			
Asia					
Hong Kong	1981.01.01	35, 30	Pakistan	2002.10.01	25
India	2011.10.01	25	Saudi Arabia	2007.10.03	50
Indonesia	2000.03.13	50	Singapore	1974.01.01	25, 30

Sample Construction

- Privately negotiated control transfer deals
 - Exclude **tender offers** and **open market purchases**
- Exclude transactions where the **deal value** falls below \$1 million
- Exclude transactions where the **deal size** < 10% of the target company shares
- Exclude firms in the **financial and utilities sectors**
- Exclude transactions with **negative control premiums**
- Exclude transactions with **no matching transactions**

697 transactions from 37 countries during 1985-2022
(Pre-MBR 76, Post-MBR 622)

Outcome Variables

- Acquirer's control premium

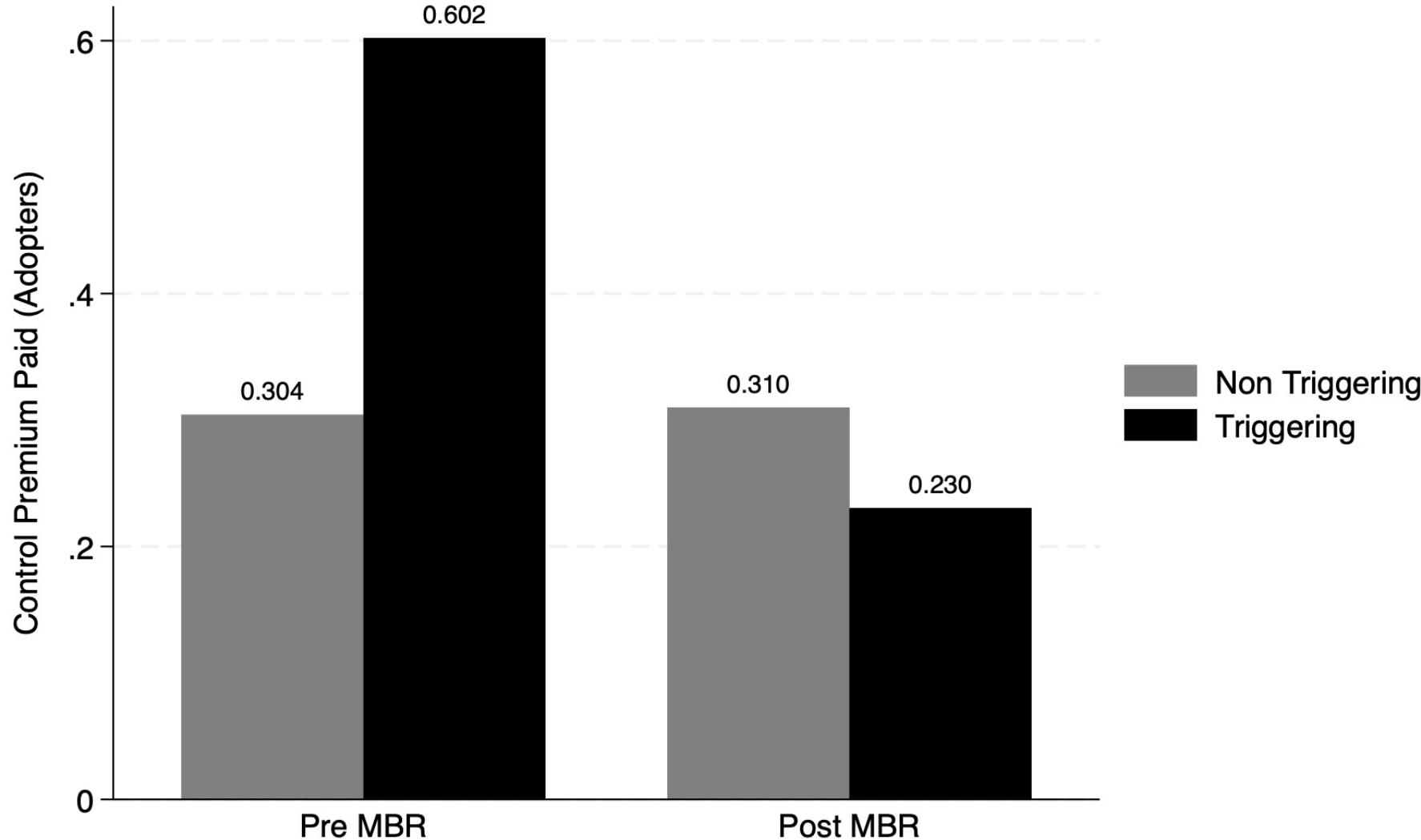
$$\text{Control Premium } (i \text{ day after}) = \frac{P_t^B - P_{t+i}}{P_{t+i}}$$
$$i = 1, 2$$

- Acquirer's private benefits of control
(lower bound, expressed as a fraction of total market capitalization)

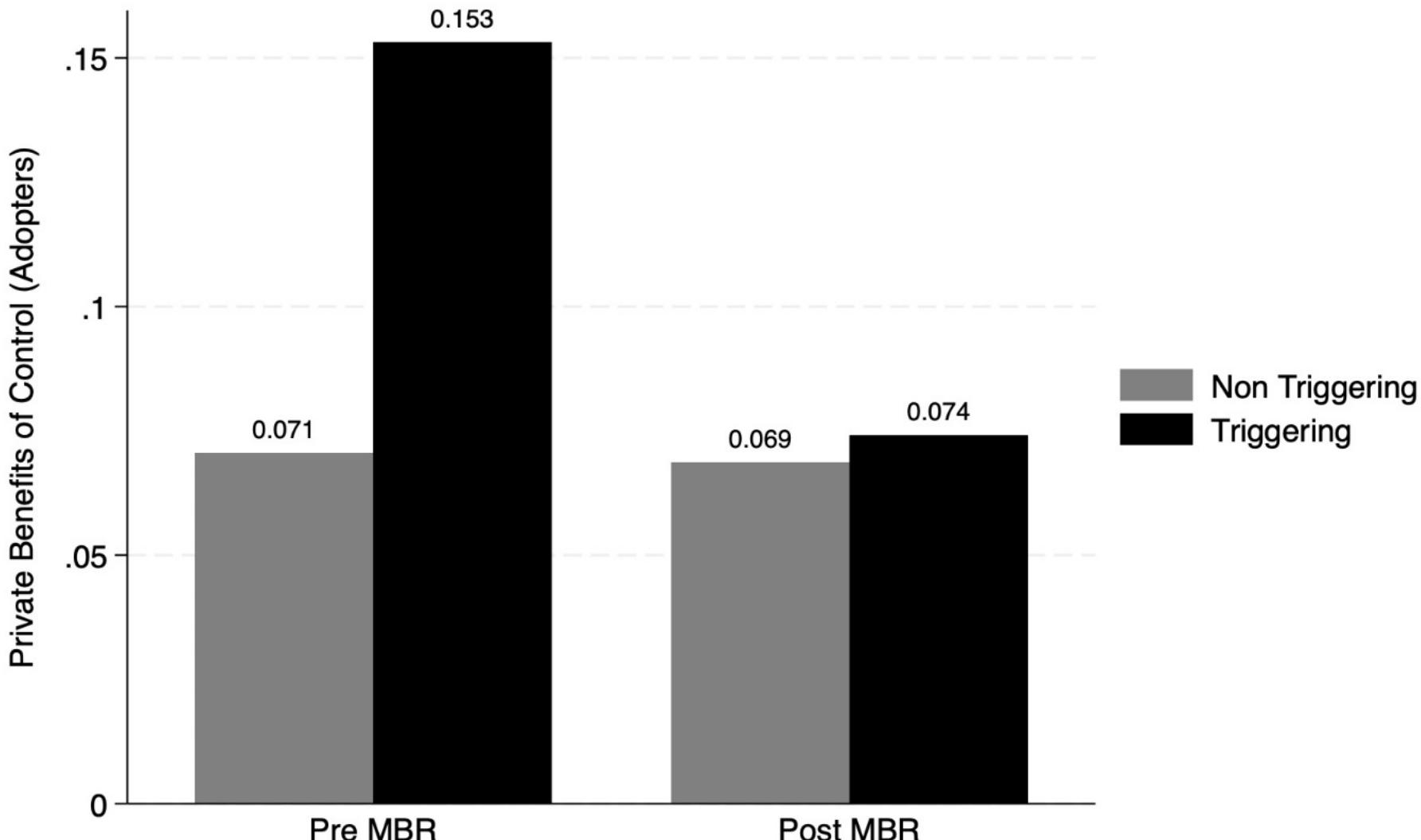
$$PBC(i \text{ day after}) = \frac{P_t^B - P_{t+i}}{P_{t+i}} \times \text{proportion of shares newly acquired}$$
$$i = 1, 2$$

- Robust to using P_{t-i} , $i = 1, 2$ (share price jump is not driving the result)

(H1) MBR and Control Premium



(H2) MBR and Private Benefits of Control



(H1) MBR and Control Premium

(MBR Adopter Sample)

	Control Premium (1 day after)			Control Premium (2 days after)		
	(1)	(2)	(3)	(4)	(5)	(6)
Post MBR	0.166*	0.140*	0.224**	0.176*	0.144*	0.237**
	(0.087)	(0.074)	(0.091)	(0.089)	(0.074)	(0.093)
Trigger	0.401***	0.404***	0.394***	0.386***	0.399***	0.384**
	(0.082)	(0.096)	(0.097)	(0.083)	(0.096)	(0.096)
Post MBR × Trigger	-0.434**	-0.448***	-0.435**	-0.445**	-0.461***	-0.446**
	(0.168)	(0.134)	(0.161)	(0.169)	(0.133)	(0.163)
Firm & Deal Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year F.E.	Yes	No	Yes	Yes	No	Yes
Country F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	0.058	0.074	0.076	0.049	0.067	0.066
No. of Observations	618	618	618	618	618	618

Firm-level controls: firm size, leverage, profitability

Deal-level controls: toehold, attitude, all cash, diversity, cross-acquisition

(H1) MBR and Control Premium

(Full Sample)

	Control Premium (1 day after)			Control Premium (2 days after)		
	(1)	(2)	(3)	(4)	(5)	(6)
Post MBR	-0.123 (0.105)	-0.389*** (0.011)	-0.116 (0.102)	-0.125 (0.111)	-0.398*** (0.010)	-0.116 (0.107)
Trigger	-0.094 (0.158)	-0.154 (0.240)	-0.152 (0.226)	-0.138 (0.180)	-0.200 (0.260)	-0.197 (0.253)
Adopt × Post MBR	0.625*** (0.113)	0.494*** (0.071)	0.630*** (0.133)	0.637*** (0.120)	0.502*** (0.071)	0.642*** (0.142)
Adopt × Trigger	0.534** (0.254)	0.518** (0.237)	0.526* (0.311)	0.569** (0.277)	0.554** (0.254)	0.562 (0.339)
Post MBR × Trigger	0.234 (0.187)	0.253 (0.269)	0.229 (0.230)	0.262 (0.215)	0.279 (0.296)	0.255 (0.262)
Adopt × Post MBR × Trigger	-0.698** (0.297)	-0.690** (0.287)	-0.674** (0.321)	-0.740** (0.321)	-0.729** (0.311)	-0.713** (0.351)
Firm Deal Controls	No	Yes	Yes	No	Yes	Yes
Year F.E.	Yes	No	Yes	Yes	No	Yes
Country F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	0.123	0.049	0.155	0.123	0.046	0.153
No. of Observations	1854	1854	1854	1854	1854	1854

(H2) MBR and Private Benefits of Control

(MBR Adopter Sample)

	PBC (1 day after)			PBC (2 days after)		
	(1)	(2)	(3)	(4)	(5)	(6)
Post MBR	0.039 (0.024)	0.033* (0.019)	0.050** (0.023)	0.038 (0.023)	0.030 (0.019)	0.049* (0.022)
Trigger	0.133*** (0.021)	0.132*** (0.027)	0.131*** (0.026)	0.119*** (0.020)	0.118*** (0.026)	0.118** (0.024)
Post MBR × Trigger	-0.107** (0.048)	-0.111** (0.042)	-0.108** (0.045)	-0.104** (0.043)	-0.106*** (0.038)	-0.105* (0.041)
Firm & Deal Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year F.E.	Yes	No	Yes	Yes	No	Yes
Country F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	0.065	0.084	0.079	0.060	0.079	0.072
No. of Observations	618	618	618	618	618	618

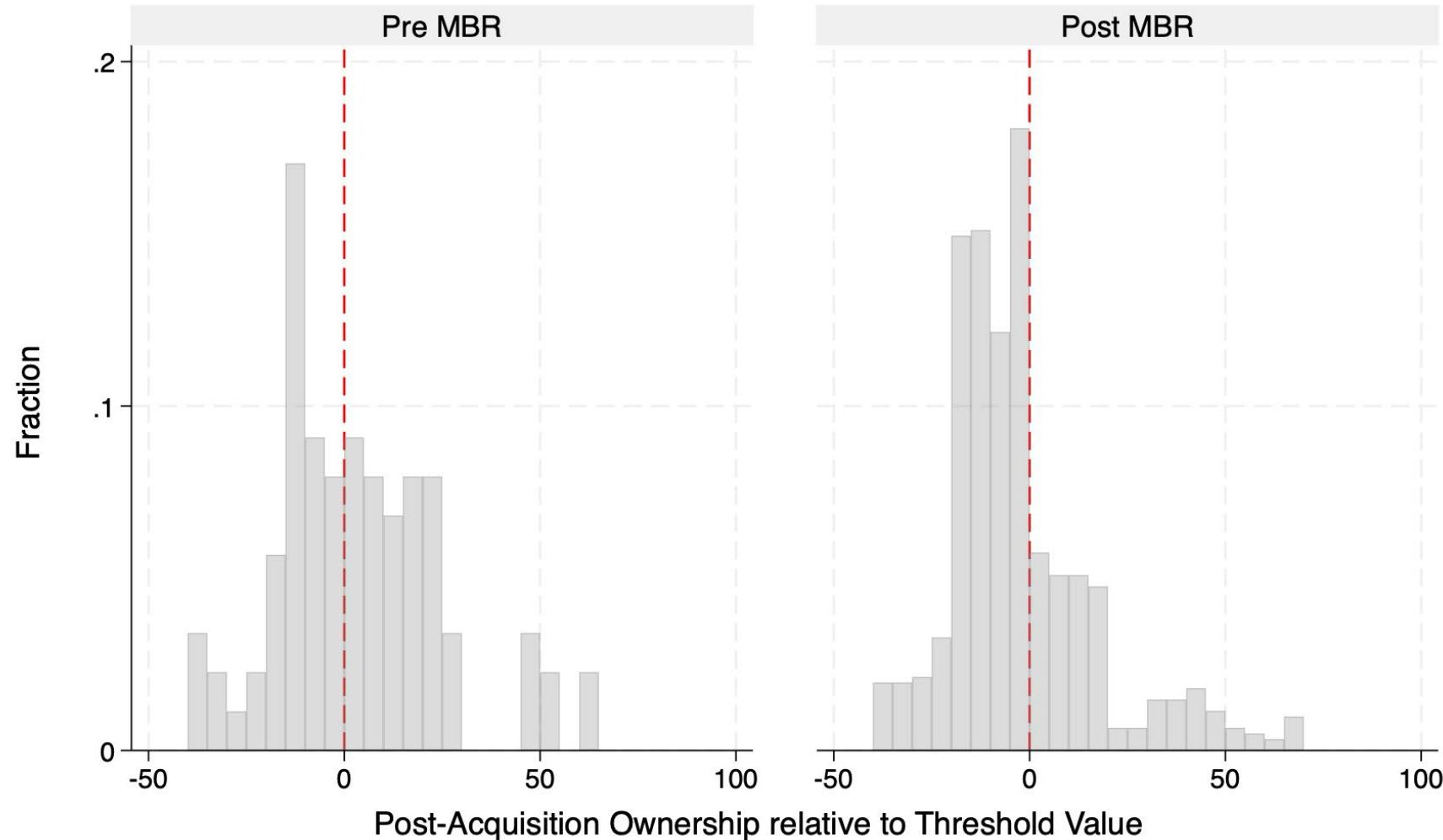
(H2) MBR and Private Benefits of Control

(Full Sample)

	PBC (1 day after)			PBC (2 days after)		
	(1)	(2)	(3)	(4)	(5)	(6)
Post MBR	-0.010 (0.020)	-0.067*** (0.004)	-0.009 (0.018)	-0.007 (0.020)	-0.064*** (0.004)	-0.006 (0.018)
Trigger	0.035 (0.025)	0.031 (0.046)	0.026 (0.038)	0.026 (0.025)	0.021 (0.046)	0.017 (0.038)
Adopt × Post MBR	0.120*** (0.027)	0.090*** (0.018)	0.121*** (0.029)	0.113*** (0.027)	0.083*** (0.018)	0.114*** (0.029)
Adopt × Trigger	0.099** (0.048)	0.094* (0.048)	0.097* (0.057)	0.093* (0.048)	0.090* (0.047)	0.093 (0.057)
Post MBR × Trigger	0.053* (0.030)	0.049 (0.053)	0.050 (0.038)	0.054 (0.033)	0.051 (0.056)	0.052 (0.041)
Adopt × Post MBR × Trigger	-0.159** (0.064)	-0.158** (0.063)	-0.156** (0.065)	-0.157** (0.063)	-0.156** (0.063)	-0.154** (0.065)
Firm & Deal Controls	No	Yes	Yes	No	Yes	Yes
Year F.E.	Yes	No	Yes	Yes	No	Yes
Country F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	0.124	0.067	0.149	0.126	0.062	0.149
Observations	1854	1854	1854	1854	1854	1854

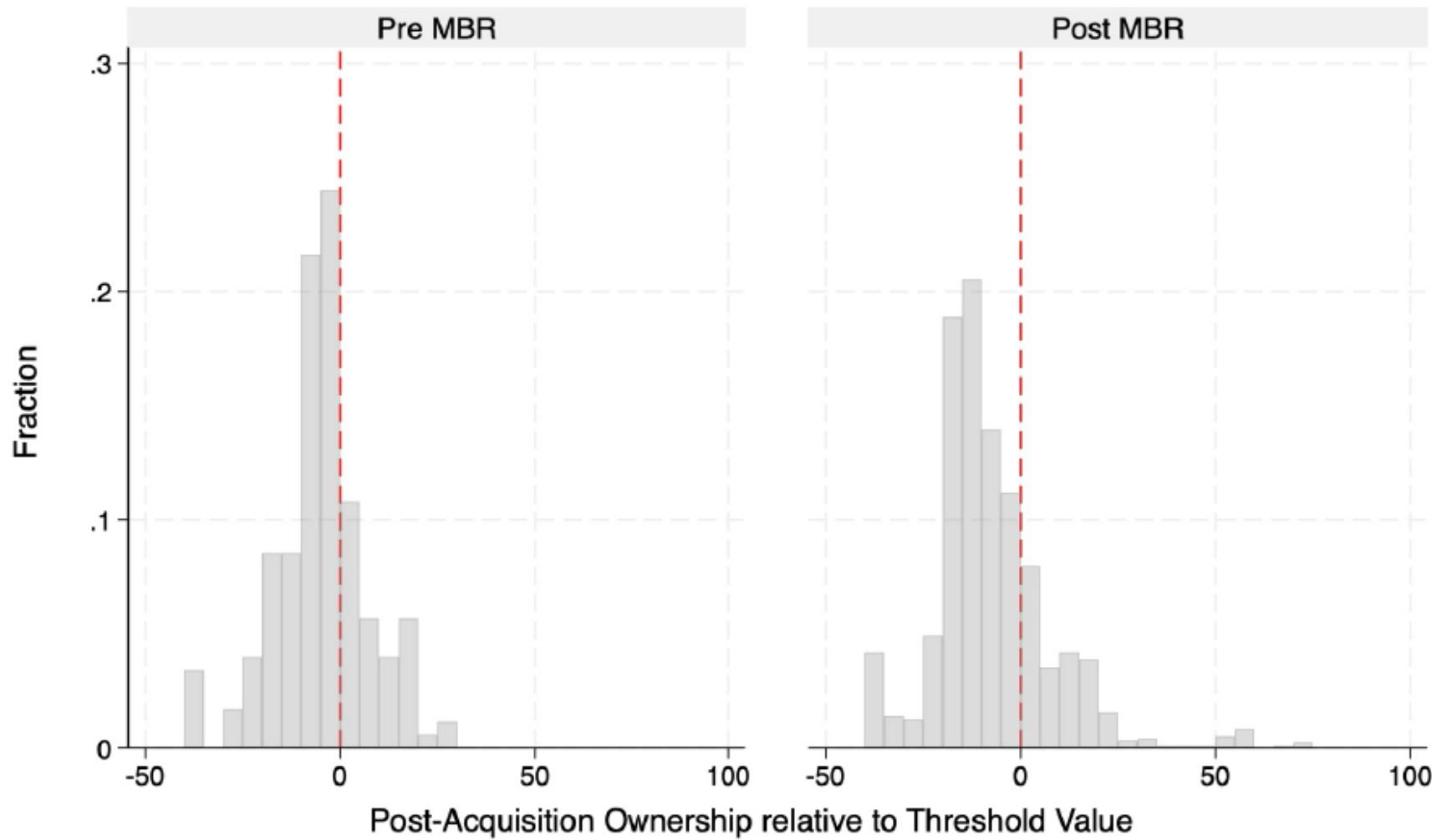
(H3a) Histogram of Post-Acquisition Ownership

(MBR Adopting Countries, N = 697)



(H3a) Histogram of Post-Acquisition Ownership

(MBR Non-Adopting Countries, N = 1,394)



(H3a) Manipulation Tests for Transactions

(MBR Adopting Countries, N = 697)

Figure 4-1. Manipulation Test for Deals Before Adoption (N = 88)

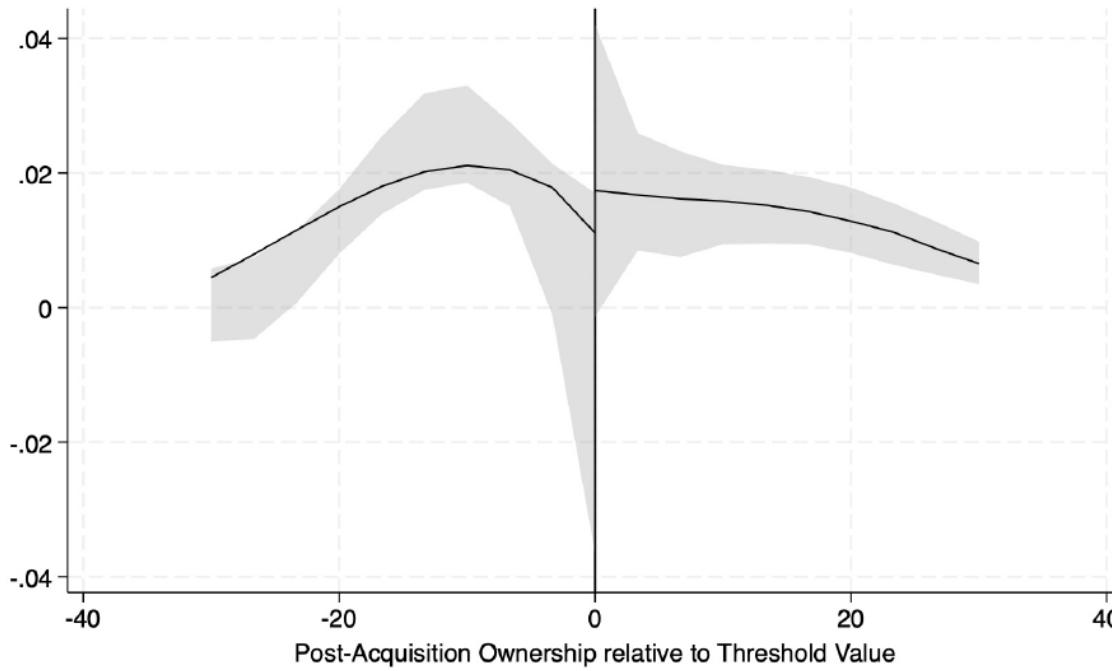
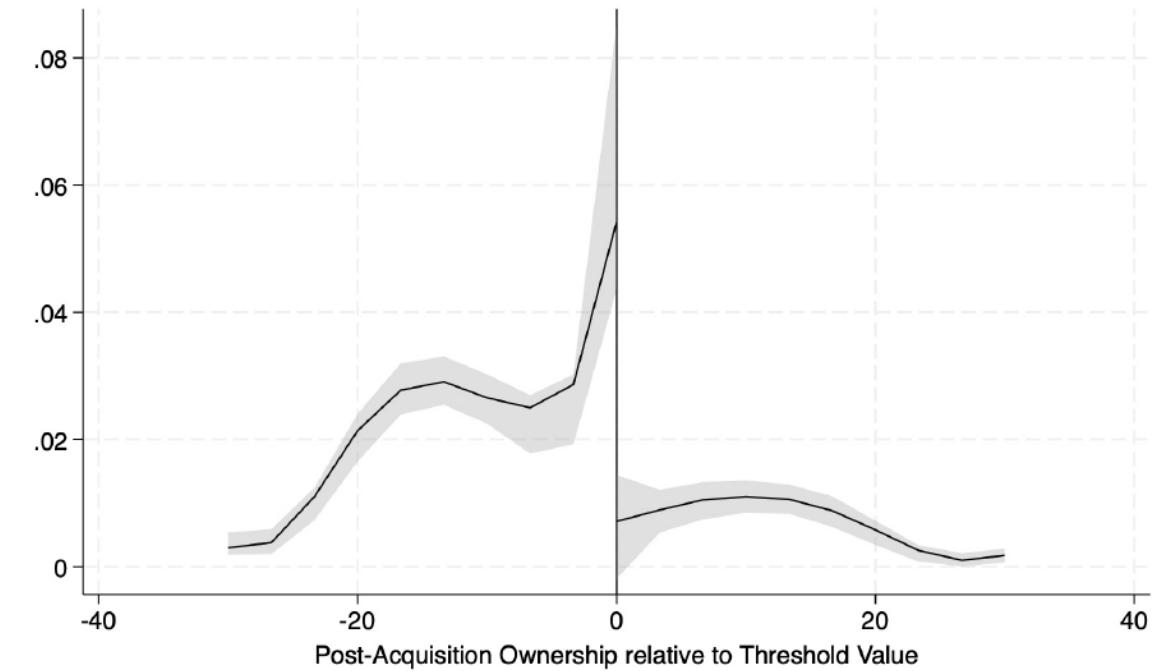


Figure 4-2. Manipulation Test for Deals After Adoption (N = 609)



(H3a) Manipulation Tests for Transactions

(MBR Non-Adopting Countries, N = 1,394)

Figure 5-1. Manipulation Test for Deals before Adoption (N = 176)

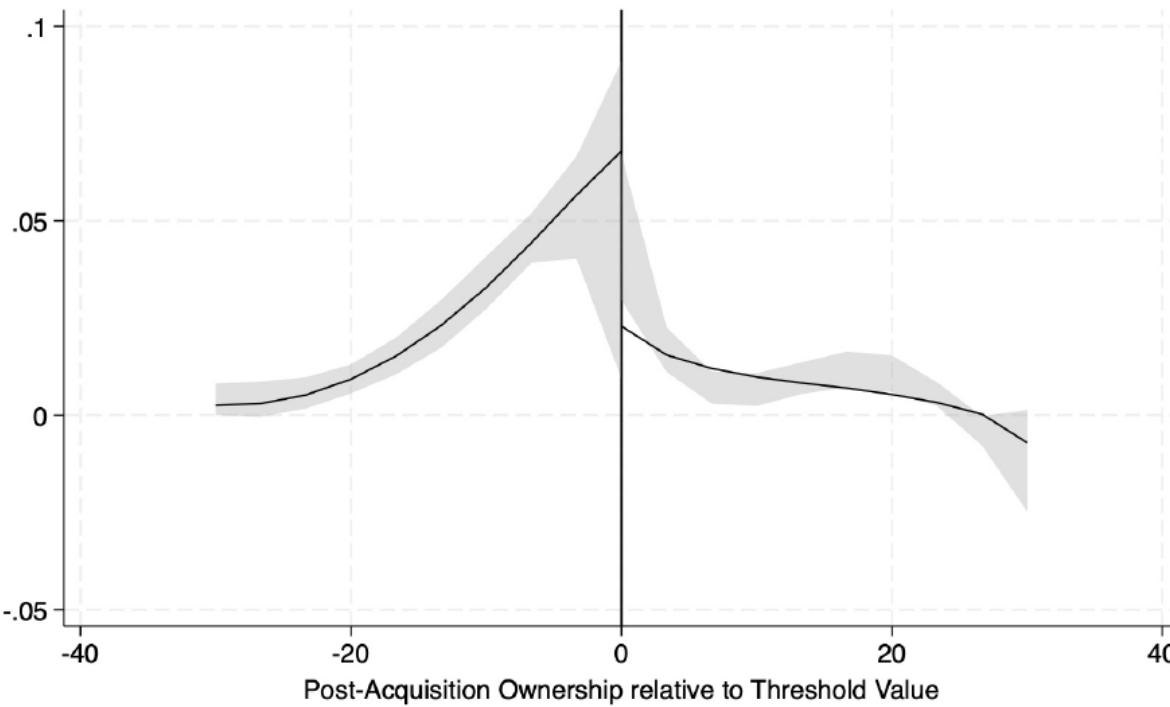
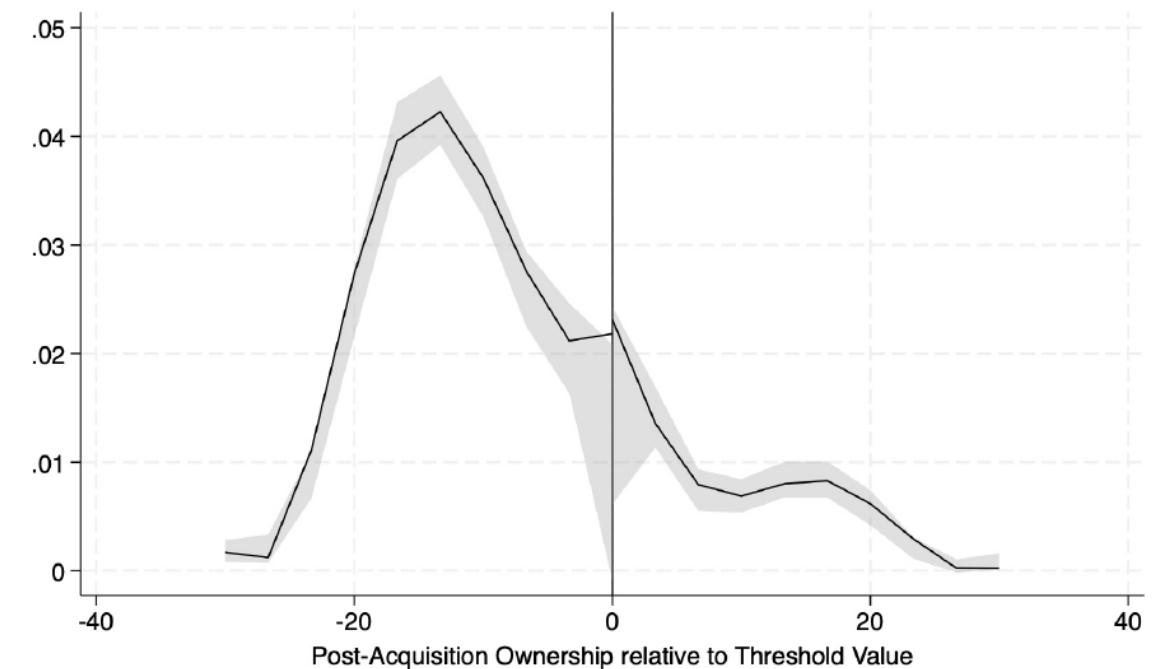


Figure 5-2. Manipulation Test for Deals after Adoption (N = 1,218)



(H3b) MBR and Post-Acquisition Ownership Size

(MBR Adopter Sample)

	Post-Acq. Ownership			
	(1)	(2)	(3)	(4)
Post MBR	0.002 (0.010)	-0.001 (0.001)	0.011* (0.006)	0.008 (0.006)
Adopt		0.043*** (0.010)	0.045*** (0.010)	
Post MBR × Adopt	-0.004 (0.028)	-0.028** (0.012)	-0.028* (0.014)	-0.033** (0.014)
Firm & Deal Controls	Yes	Yes	Yes	Yes
Year F.E.	Yes	No	Yes	Yes
Country F.E.	Yes	No	No	Yes
Adjusted R ²	0.122	0.560	0.579	0.585
No. of Observations	2091	2091	2091	2091

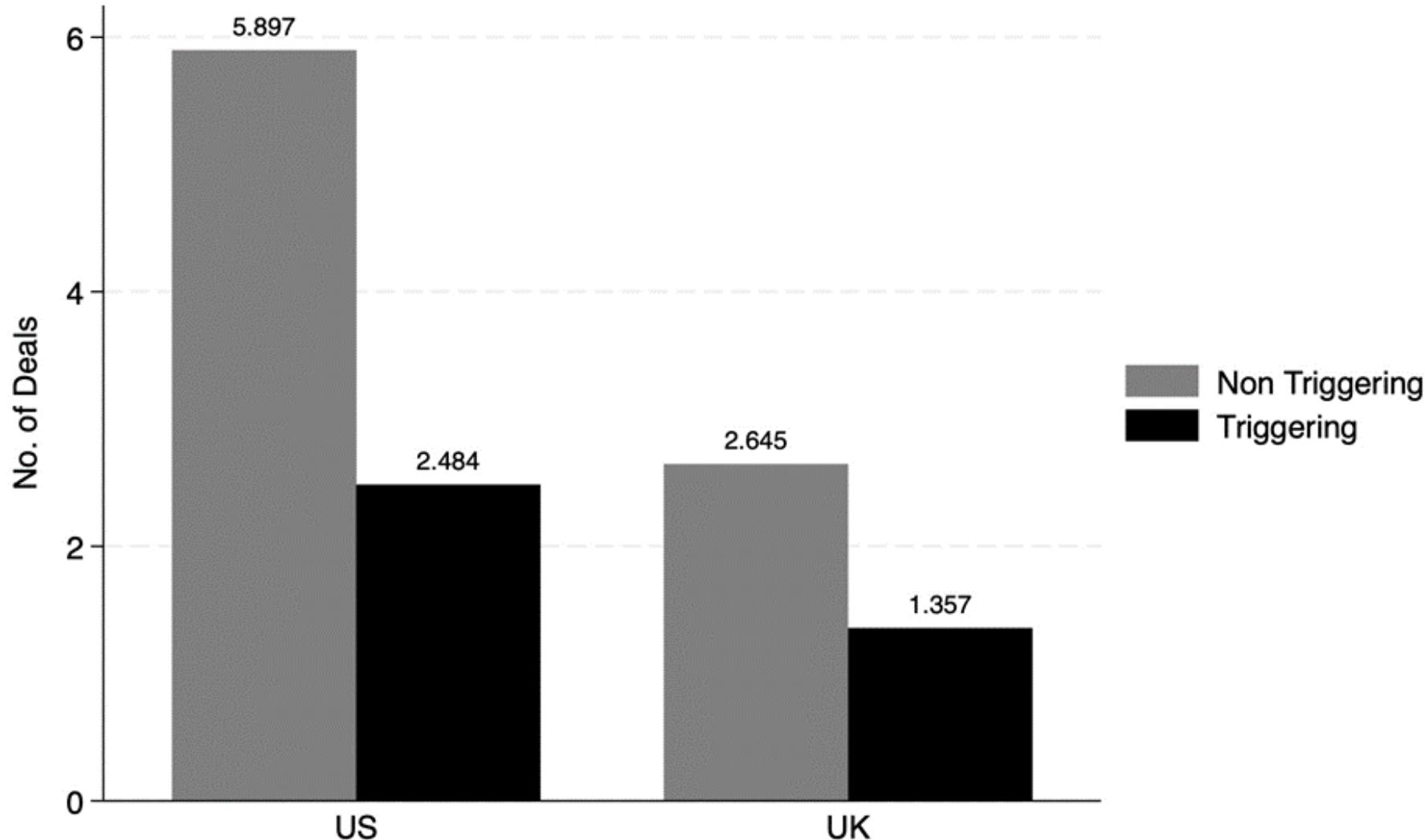
(H3c) MBR and Choice of Post-Acquisition Ownership

(MBR Adopter Sample)

	Post-acq. ownership > Threshold)							
	Full Sample				MBR Adopter Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post MBR	-0.059 (0.037)	-0.018 (0.036)	-0.050 (0.036)	-0.006 (0.035)	-0.195*** (0.057)	-0.172*** (0.063)	-0.141** (0.070)	-0.119 (0.082)
Adopt	0.101* (0.054)	0.110** (0.054)						
Post MBR × Adopt	-0.101** (0.048)	-0.099** (0.047)	-0.079 (0.059)	-0.048 (0.062)				
Firm & Deal Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year F.E.	No	Yes	No	Yes	No	Yes	No	Yes
Country F.E.	No	No	Yes	Yes	No	No	Yes	Yes
Pseudo R ²	0.035	0.066	0.066	0.099	0.032	0.062	0.104	0.141
No. of Observations	2091	2091	2046	2046	697	679	652	635

(H3d) MBR and Deal Frequency

(U.K. versus U.S.)



(H3d) MBR and Deal Frequency

(U.K. versus U.S.)

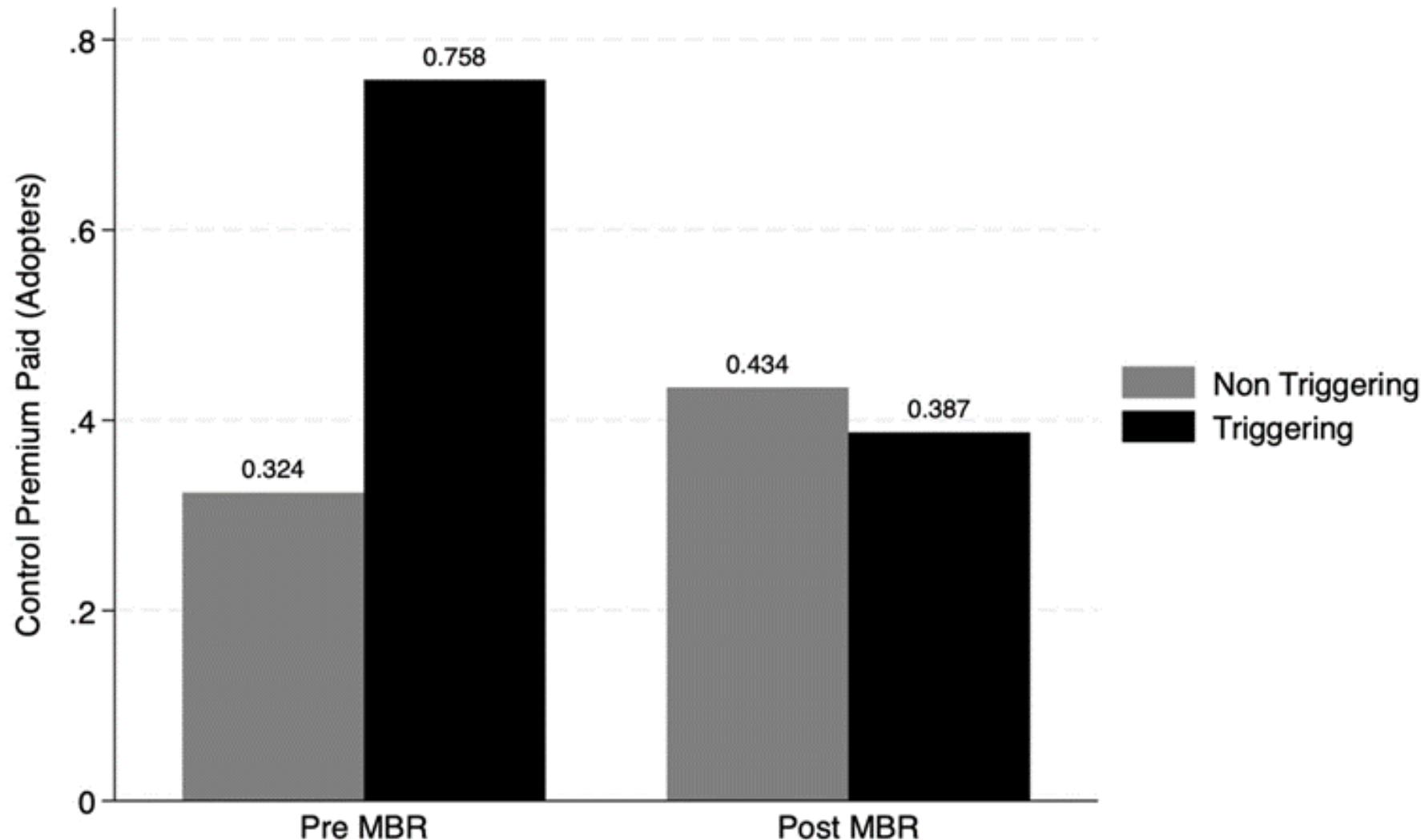
	No. of Deals	
	(1)	(2)
U.K.	-3.252*** (0.733)	-3.614*** (0.703)
Trigger	-3.414*** (0.678)	-3.979*** (0.689)
U.K. × Trigger	2.126*** (0.808)	1.771* (0.947)
Constant	5.897*** (0.627)	1.000*** (0.000)
Year F.E.	No	Yes
Adjusted R ²	0.286	0.354
No. of Observations	115	115

Contributions

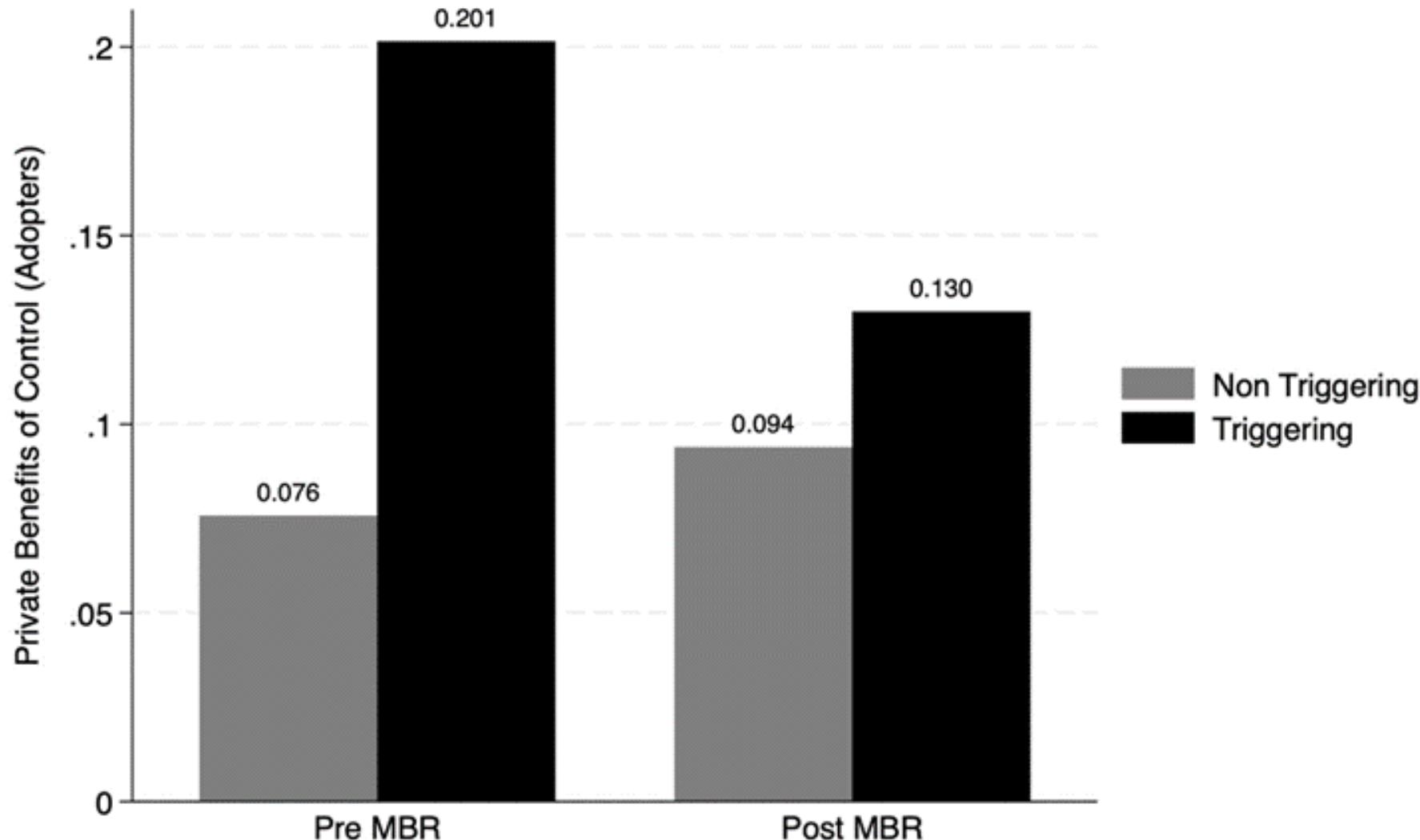
- **Contribution to the literature**
 - First empirical study to show that MBR may not discourage acquisition activities
 - Existing literature:
 - Focus on explaining its mechanism theoretically
 - Empirical studies focus on the control premium of block sellers or the market reaction to MBR adoptions
- **Policy implication**
 - A modified version of MBR that relaxes the level of mandatory bid obligation (for example, 50% + 1 proposed by the Korean government) should be reconsidered

Appendix

(H1) MBR and Control Premium (using P_{t-2})



(H2) MBR and Private Benefits of Control (using P_{t-2})



(H1) MBR and Control Premium

(MBR Adopter Sample, Using P_{t-2})

	Control Premium (1 day before)			Control Premium (2 days before)		
	(1)	(2)	(3)	(4)	(5)	(6)
Post MBR	0.254** (0.118)	0.237** (0.113)	0.317** (0.133)	0.262** (0.111)	0.245** (0.116)	0.324* (0.128)
Trigger	0.445*** (0.089)	0.470*** (0.109)	0.430*** (0.103)	0.485*** (0.087)	0.500*** (0.113)	0.473** (0.104)
Post MBR \times Trigger	-0.492*** (0.171)	-0.516*** (0.151)	-0.487*** (0.164)	-0.537*** (0.164)	-0.548*** (0.148)	-0.534** (0.159)
Firm & Deal Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year F.E.	Yes	No	Yes	Yes	No	Yes
Country F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	0.025	0.043	0.039	0.033	0.049	0.047
No. of Observations	618	618	618	618	618	618

(H1) MBR and Control Premium

(Full Sample, Using P_{t-2})

	Control Premium (1 day before)			Control Premium (2 days before)		
	(1)	(2)	(3)	(4)	(5)	(6)
Post MBR	-0.191*	-0.482***	-0.176*	-0.194*	-0.498***	-0.179*
	(0.098)	(0.054)	(0.089)	(0.112)	(0.041)	(0.102)
Trigger	-0.017	-0.104	-0.077	-0.044	-0.139	-0.103
	(0.173)	(0.213)	(0.231)	(0.193)	(0.246)	(0.257)
Adopt × Post MBR	0.824***	0.681***	0.823***	0.856***	0.702***	0.850***
	(0.109)	(0.111)	(0.127)	(0.109)	(0.110)	(0.130)
Adopt × Trigger	0.558**	0.523**	0.530*	0.616**	0.576**	0.577*
	(0.260)	(0.212)	(0.309)	(0.289)	(0.241)	(0.341)
Post MBR × Trigger	0.196	0.228	0.169	0.243	0.276	0.206
	(0.216)	(0.257)	(0.241)	(0.236)	(0.287)	(0.262)
Adopt × Post MBR × Trigger	-0.766**	-0.736**	-0.721**	-0.848**	-0.810**	-0.788**
	(0.319)	(0.281)	(0.326)	(0.341)	(0.306)	(0.351)
Firm & Deal Controls	No	Yes	Yes	No	Yes	Yes
Year F.E.	Yes	No	Yes	Yes	No	Yes
Country F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	0.112	0.046	0.150	0.111	0.049	0.152
Observations	1854	1854	1854	1854	1854	1854

(H2) MBR and Private Benefits of Control

(MBR Adopter Sample, Using P_{t-2})

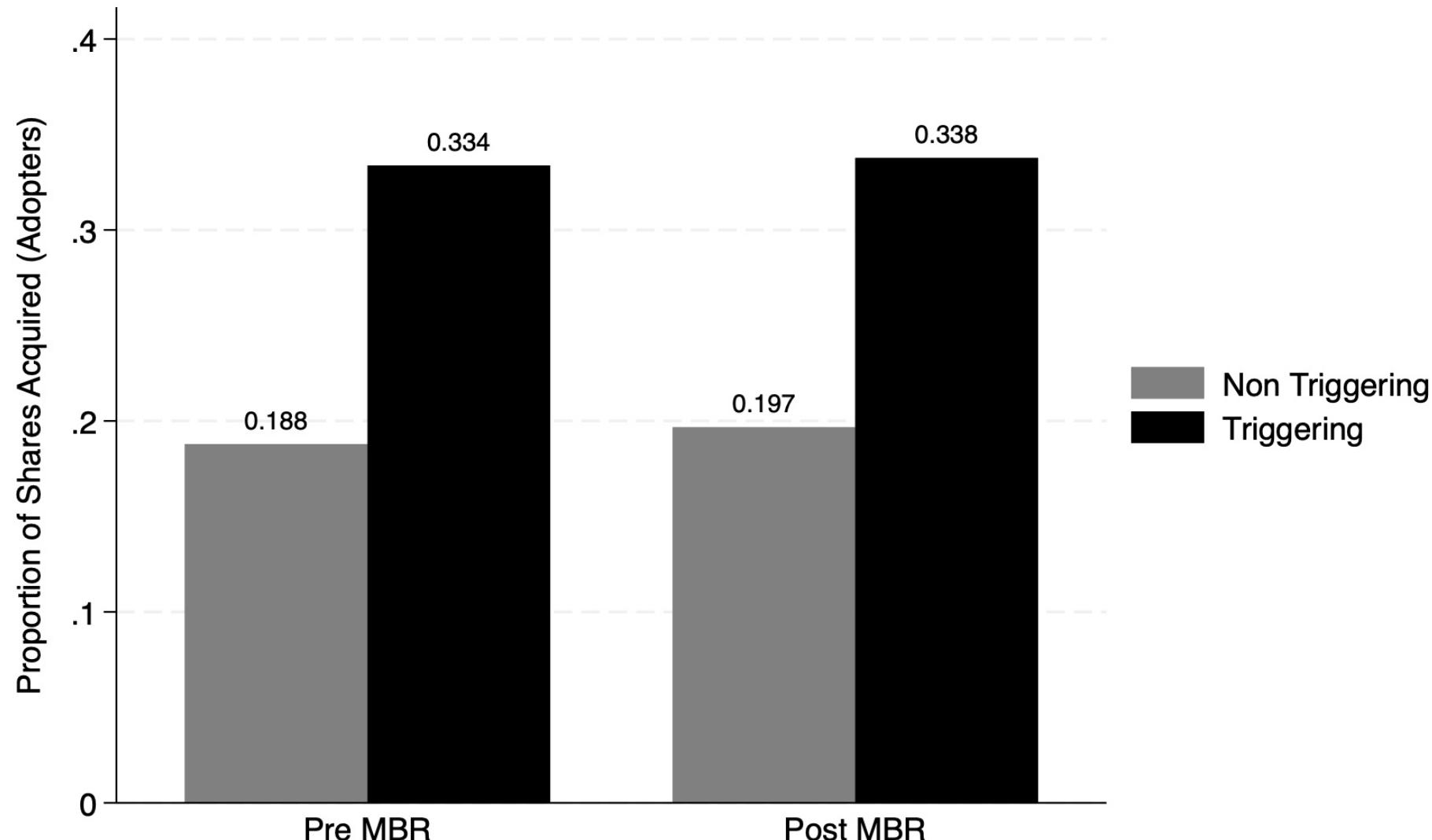
	PBC (1 day before)			PBC (2 days before)		
	(1)	(2)	(3)	(4)	(5)	(6)
Post MBR	0.050*	0.048*	0.062*	0.053*	0.051*	0.064**
	(0.029)	(0.027)	(0.031)	(0.028)	(0.028)	(0.030)
Trigger	0.147***	0.145***	0.143***	0.155***	0.153***	0.152***
	(0.021)	(0.029)	(0.026)	(0.021)	(0.030)	(0.026)
Post MBR × Trigger	-0.104**	-0.106**	-0.104**	-0.116***	-0.116***	-0.115***
	(0.045)	(0.043)	(0.043)	(0.042)	(0.042)	(0.040)
Firm & Deal Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year F.E.	Yes	No	Yes	Yes	No	Yes
Country F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	0.044	0.071	0.058	0.052	0.075	0.065
Observations	618	618	618	618	618	618

(H2) MBR and Private Benefits of Control

(Full Sample, Using P_{t-2})

	PBC (1 day before)			PBC (2 days before)		
	(1)	(2)	(3)	(4)	(5)	(6)
Post MBR	-0.022 (0.019)	-0.083*** (0.006)	-0.021 (0.016)	-0.027 (0.023)	-0.093*** (0.006)	-0.026 (0.020)
Trigger	0.082*** (0.024)	0.073* (0.036)	0.073** (0.036)	0.065** (0.029)	0.050 (0.044)	0.055 (0.043)
Adopt × Post MBR	0.150*** (0.028)	0.120*** (0.025)	0.151*** (0.030)	0.166*** (0.027)	0.132*** (0.025)	0.166*** (0.030)
Adopt × Trigger	0.073 (0.043)	0.064 (0.040)	0.069 (0.051)	0.101* (0.051)	0.092* (0.047)	0.094 (0.060)
Post MBR × Trigger	0.024 (0.042)	0.023 (0.055)	0.017 (0.046)	0.051 (0.046)	0.053 (0.062)	0.044 (0.051)
Adopt × Post MBR × Trigger	-0.134* (0.070)	-0.127* (0.065)	-0.127* (0.068)	-0.174** (0.074)	-0.167** (0.070)	-0.165** (0.073)
Firm & Deal Controls	No	Yes	Yes	No	Yes	Yes
Year F.E.	Yes	No	Yes	Yes	No	Yes
Country F.E.	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	0.115	0.067	0.147	0.116	0.068	0.153
Observations	1854	1854	1854	1854	1854	1854

(Appendix) MBR and Proportion of Shares Acquired



(Appendix) MBR and Proportion of Shares Acquired

(MBR Adopter Sample)

	Proportion of Shares Acquired			
	(1)	(2)	(3)	(4)
Post MBR	0.004 (0.014)	0.010 (0.025)	-0.000 (0.016)	0.000 (0.014)
Trigger	0.186*** (0.020)	0.143*** (0.037)	0.173*** (0.024)	0.186*** (0.021)
Post MBR × Trigger	-0.041* (0.022)	-0.001 (0.037)	-0.025 (0.026)	-0.042* (0.023)
Firm & Deal Controls	Yes	Yes	Yes	Yes
Year F.E.	Yes	No	No	Yes
Country F.E.	Yes	No	Yes	Yes
Adjusted R2	0.276	0.283	0.318	0.304
No. of Observations	618	618	618	618