Do females on boards affect acquisition outcomes and target selection: a replication and extension of Levi, Li and Zhang (2014)

Rebecca L. Bachmann & Helen Spiropoulos[*]

University of Technology Sydney

JEL: G340

Key words: director gender; gender-diversity; bid initiation; bid premium; mergers and acquisitions

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Abstract: We replicate and extend the 2014 study by Levi, Li and Zhang in the Australian setting and examine whether female representation on corporate boards affects acquisition outcomes. Consistent with the original study, we find that bidders with female representation on their boards make fewer acquisitions and pay lower premiums, on average. We also document that bidders with female representation on their boards prefer to select target firms that also have female representation on their boards. These results are robust to propensity-score matching and instrumental variable estimation.

1. Introduction

This paper replicates the study by Levi, Li and Zhang (2014) titled 'Director gender and mergers and acquisitions' in the Australian setting to demonstrate the robustness of the results and to extend the analysis. In summary, Levi, Li and Zhang (2014) find that female directors on bidding firms assist in the creation of shareholder value through their influence on acquisition decisions which they posit is due to gender differences in overconfidence. We conduct the replication using a sample of ASX listed firms from 2004 to 2019, adding 10 years to the original sample period which covered S&P 1500 firms from 1997 to 2009. Like the US, Australia does not mandate gender quotas for corporate boards making it an ideal setting for the replication. Given the absence of gender quotas, we additionally explore whether gender-diversity at the board level reflects social and/or cultural values of the firm, hence influences target selection.

We extend the original study owing to literature which suggests that, besides differences in overconfidence, distinctions between men and women can also be observed when it comes to leadership styles (e.g. Appelbaum, Audent and Miller 2002). Since leadership shapes the culture of an organisation (Lok and Crawford 2004), gender-diversity of a firm's top leadership group (the board) may reflect social/cultural values within the firm. Cultural disparity between two merging entities may explain adverse performance consequences commonly associated with mergers and acquisitions (M&As), or at the very least make integration difficult (e.g. Datta 1991). Hence, we combine the literature on gender-diversity and organisation culture and predict that gender-diverse bidders are more likely to acquire gender-diverse targets.

Using a sample of ASX listed firms from 2004 to 2019, we find that the results of Levi et al. (2014) are robust to an alternative but similar institutional setting and a more recent sample

period. Our results show that gender-diversity of the bidding firm's board is negatively related to acquisition initiations and bid premiums, consistent with Levi et al. (2014). These results are robust to the inclusion of firm fixed effects, propensity-score matching and instrumental variable estimation. Last, in our extension of the original study, we find that gender-diverse bidders are more likely to select gender-diverse target firms. This lends support to the idea that social/cultural values of firms which can impact successful post-acquisition integration are factored in by the board when making acquisition decisions relating to target firm selection.

The remainder of this paper is structured as follows. In Section 2, we present the data and research design; in Section 3 we discuss the main results; and Section 4 concludes this paper.

2. Data and research design

The sample period covers ASX listed firms over the period 2004 to 2019. To construct the bid initiation sample, we obtain firm-year observations from the DatAnalysis Database and merge this with board-level characteristics and M&A data from the Connect 4 database. The final bid initiation sample consists of 9,629 firm-year observations and the final M&A sample consists of 414 acquisition bids where the bidder's toehold before the deal announcement is less than 50 percent.[1] The four-week bid premium as well as any missing data is hand collected.

Following Levi et al. (2014), we first examine the propensity to engage in M&As using a negative binomial regression (model (1)). Accordingly, the dependent variable is the natural logarithm of the number of acquisition bids made by a firm during the year.[2] The key

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[1] In a sample of S&P 1500 firms over the period 1996 to 2009, Levi et al. (2014)'s findings are based on a final bid initiation sample of 19,634 firm-year observations and a merger and acquisition sample of 458 acquisition bids.
[2] As an additional test, we do not log bid initiations in model (1) and results remain the same across all model specifications presented in Table 2.

independent variable is the proportion of female directors on the board. We include controls

consistent with prior research (e.g. Levi et al. 2014).[3]

$$Log(Bid\ initiation) = \alpha + \beta_1\ \%Female\ directors + \beta_2\ Board\ Size + \beta_3\%Independent\ directors$$
$$+ \beta_4 Sales\ growth + \beta_5 Tobin's\ Q + \beta_6 ROA + \beta_7 Book\ leverage$$
$$+ \beta_8 Cash\ holdings + \beta_9 MktCap + Year\ FE + Industry\ FE + \varepsilon_i \qquad (1)$$

Second, we estimate model (2) below to examine whether the presence of female directors on

the board is associated with a lower bid premium. The proportion of female directors on the

board is the key independent variable of interest and control variables are consistent with prior

research (e.g. Levi et al. 2014).

$$Bid\ premium = \alpha + \beta_1\ Acq\_\%Female + \beta_2\ Tgt\_\%Female + \beta_3\ Toehold + \beta_4\%Independent$$
$$+ \beta_5 Cash + \beta_6 Hostile + \beta_7 SOA + \beta_8 Deal\ Value + \beta_9 Acq\ Board\ Size$$
$$+ \beta_{10} Acq\ \%Indep. + \beta_{11}\ Acq\ Sales\ Growth + \beta_{12} Acq\ Tobin's\ Q$$
$$+ \beta_{13} Acq\ ROA + \beta_{14} Acq\ Leverage + \beta_{15} Tgt\ Board\ Size + \beta_{16} Tgt\ \%Indep.$$
$$+ \beta_{17}\ Tgt\ Sales\ Growth + \beta_{18} Tgt\ Tobin's\ Q + \beta_{19} Tgt\ ROA + \beta_{20} Tgt\ Leverage$$
$$+ Year\ FE + Industry\ FE + \varepsilon_i \qquad (2)$$

Last, we extend Levi et al. (2014) and examine whether gender-diversity of the bidding firm

affects target firm selection. Model (3) below, employs a probit regression model with the

dependent variable being an indicator variable equal to 1 if the target firm has female

representation on its board and 0 otherwise. Control variables are consistent with Model (2).

$$Target\ female = \alpha + \beta_1\ Acq\_\%Female + \beta_2\ Toehold + \beta_3\%Independent$$
$$+ \beta_4 Cash + \beta_5 Hostile + \beta_6 SOA + \beta_7 Deal\ Value + \beta_8 Acq\ Board\ Size$$
$$+ \beta_9 Acq\ \%Indep. + \beta_{10}\ Acq\ Sales\ Growth + \beta_{11} Acq\ Tobin's\ Q$$
$$+ \beta_{12} Acq\ ROA + \beta_{13} Acq\ Leverage + \beta_{14} Tgt\ Board\ Size + \beta_{15} Tgt\ \%Indep.$$
$$+ \beta_{16}\ Tgt\ Sales\ Growth + \beta_{17} Tgt\ Tobin's\ Q + \beta_{18} Tgt\ ROA + \beta_{19} Tgt\ Leverage$$
$$+ Year\ FE + Industry\ FE + \varepsilon_i \qquad (3)$$

3. Results

Panel A in Table 1 presents the descriptive statistic of the bid initiation sample.

[Insert Table 1 about here]

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[3] All variable definitions and calculations come from the original study (Levi et al. (2014), with the exception of CEO Chair duality. Consistent with prior research conducted in the Australian setting (e.g. Bachmann et al. (2020); Ghannam et al. (2019)), CEO Chair duality is not included as a control since the role of CEO and Chairperson are separated in the majority of Australian listed firms.

The average number of acquisition bids initiated by a firm in one year is 0.028. The average corporate board consists of 6.587 members, of which 8.7 are women and 44.6 percent are independent outsiders. These figures are lower than those reported by Levi et al. (2014), yet consistent with the Australian setting (e.g. Ghannam et al. 2019). Panel B presents the descriptive statistics of the merger and acquisition sample and shows that in our sample, the average bid premium is 33.1 percent. This is consistent with Levi et al. (2014) who report a bid premium of 35 percent. 7.5 percent of directors on the bidder's board are female and 5.6 percent female directors on the target's board. On average, 24.4 percent of bids are deemed as hostile. This is higher than reported than in the US setting, yet consistent with the Australian setting. Overall, the firm characteristics in the merger and acquisition sample are consistent with the larger bid initiation sample.[4]

Table 2 presents the negative binomial regression results on the association between female directors presence on the board and bid initiations.[5]

[Insert Table 2 about here]

The Adjusted R^2 ranges from 12.7 to 14.8 percent and is consistent with the Adjuster R^2 reported by Levi et al. (2014) (ranging from 8 to 9.7 percent).[6] Column (3) presents results using a PSM sample of firms with and without gender-diverse boards. To obtain the control sample, we run a probit regression model with an indicator variable equal to 1 if female directors are present on the board, and 0 otherwise.[7] Columns (4) and (5) present the results of the instrumental variable regression. Following prior research (Adams and Ferreira 2009; Levi

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[4] For reasons of brevity the correlation matrix is not tabulated. Overall, the correlations among all pairs of control variables does not raise concern for multicollineraity in our regression models.

[5] Due to recent criticisms of the negative binomial model, we also re-estimate these models using Poisson regressions and find consistent results with those presented in Section 3.

[6] We perform a Durbin-Wu-Hausman test to examine if gender-diversity is correlated with the error term of the bid initiation regression. The Hausman test statistics of 0.732 does not reject the null hypothesis, indicating that the dependent variable is not endogenous. Regardless, we perform a number of tests to address endogeneity.

[7] We match with a caliper of 1 percent with no replacement (i.e. one-to-one match) which results in a slightly smaller sample size due to some firms having no match.

et al. 2014), the instrumental variable is the fraction of a firm's male directors who sit on another board that has at least one female director. As expected, the instrumental variable is positively correlated with the faction of female directors, as reported in Column (4). Overall, the fraction of female directors on bidding firms' boards is negative and significant across all tests, suggesting that firms with female representation are associated with fewer M&A deal initiations, consistent with Levi et al. (2014).

Table 3 presents the ordinary least squares (OLS) regression results on the association between female representation on the board and the bid premium.

[Insert Table 3 about here]

Column (1) presents the main specification of model (2) and Column (2) presents results using a PSM subsample following the same method discussed previously in this paper. We find no significant relation on our main test variable in Column (1), but a negative and significant relation in Column (2). Column (3) to (5) present the results of the instrumental variable regressions using the instrumental variables of the fraction of a firm's male directors who sit on another board that has at least one female directors for the bidder and the target board. Both instruments display positive and significant coefficients with the fraction of female directors, as displayed in Columns (3) and (4).[8] Column (5) reports a negative and significant coefficient on the fraction of female directors on the bidding firm's board, consistent with Column (2) and with the results reported by Levi et al. (2014).

Table 4 displays the results on the association between gender-diversity of the bidding firm and target firm selection.

[Insert Table 4 about here]

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[8] A Durbin-Wu-Hausman test statistic at 0.362 does not reject the null hypothesis, indicating that the fraction of female directors is not endogenous.

Column (1) presents results from the main estimation of Model (3) and Column (2) uses a sample of PSM firms.[9] Columns (3) and (4) present the instrumental variable regression using the same instruments discussed earlier in this paper. Overall, the results consistently indicate that gender-diverse bidding firms tend to prefer gender-diverse targets, lending support to the idea that organisational social/cultural values as represented by gender-diversity of a firm's leadership (i.e. the board) is considered during mergers and acquisitions.

4. Conclusion

We replicate Levi et al. (2014) and examine whether female representation on bidding firm's boards impacts M&A outcomes. We utilise a similar regulatory setting where gender-quotas are not mandated and extend the initial sample period by a further ten years. Our main findings are consistent with the original study in that female representation on bidding firms' boards is associated with fewer bid initiations and lower bid premiums. In our extension, we find that bidding firms with female representation on their boards are more likely to select target firms that also have female representation on their boards. These results are robust to alternative methods and model specifications and suggest that target firm culture, as represented by board gender-diversity, is considered during M&As.

References

Adams, R.B. and D. Ferreira, 2009, Women in the boardroom and their impact on governance and performance, *Journal of Finance and Economics* 94, 291–309.

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[9] Note that the sample size is reduced significantly due to some treatment firms not having a suitable match. We follow the same PSM procedure as detailed earlier in this paper. We perform this test even though the Durbin-Wu-Hausman test statistic at 0.782 does not reject the null hypothesis, indicating that the fraction of female directors is not endogenous.

Appelbaum, S., L. Audet, and & J. Miller, 2003, Gender and Leadership? Leadership and Gender? A Journey Through the Landscape of Theories. *Leadership & Organization Development Journal* 24, 43-51.

Bachmann, R.L., A. Loyeung, Z.P. Matolcsy, and H. Spiropoulos, 2020, Powerful CEOs, cash bonus contract and firm performance, *Journal of Business Finance and Accounting*, 47, 100-131.

Datta, D.K., 1991, Organizational fit and acquisition performance: Effects of post-acquisition integration, *Strategic Management Journal*, 12, 81-297.

Ghannam, S., Z.P. Matolcsy, H. Spiropoulos, and N. Thai, 2019, The Influence of Powerful Non-executive Chairs in Mergers and Acquisitions, *Journal of Contemporary Accounting and Economics*, 15, 87-104.

Levi, M., K. Li and F. Zhang, 2014, Director gender and mergers and acquisitions, *Journal of Corporate Finance* 28, 185-200.

Lok, P. and J. Crawford, 2004, The effect of organisational culture and leadership style on job satisfaction and organisational commitment. *Journal of management development* 23, 321-338.

Table 1: Summary statistics

Panel A: Bid initiation sample

Variable	Obs	Mean	Median	Std. Dev.	Min	Max
# Initiation	9,629	0.028	0.000	0.176	0.000	3.000
lnInitiation	9,629	0.018	0.000	0.110	0.000	0.693
%Female	9,629	0.087	0.000	0.122	0.000	0.800
Board Size	9,629	6.587	6.000	2.531	3.000	15.000
%Indep.	9,629	0.446	0.500	0.256	0.000	0.917
lnSales Growth	9,629	0.151	0.080	0.868	-3.507	4.061
Tobin's Q	9,629	0.813	1.177	3.481	-21.643	8.854
ROA	9,629	-0.051	0.047	0.331	-1.934	0.358
Book Leverage	9,629	0.195	0.144	0.232	0.000	1.424
Cash holdings	9,629	0.159	0.089	0.182	0.000	0.840
lnMkcap	9,629	18.597	18.423	2.222	13.979	24.167

Panel B: Merger and acquisition sample

Variable	Obs	Mean	Median	Std. Dev.	Min	Max
Premium	414	0.331	0.237	0.526	-0.902	5.071
Target Female_d	414	0.278	0.000	0.448	0.000	1.000
Acq_ %Female	414	0.075	0.000	0.112	0.000	0.500
Tgt_ %Female	414	0.056	0.000	0.099	0.000	0.400
Acq_male_female connection	414	0.177	0.000	0.243	0.000	1.000
Tgt_male_female connection	414	0.108	0.000	0.193	0.000	1.000
Toehold	414	0.082	0.000	0.106	0.000	0.499
Cash	414	0.285	0.000	0.452	0.000	1.000
Hostile	414	0.244	0.000	0.430	0.000	1.000
SOA	414	0.382	0.000	0.486	0.000	1.000
lnDeal Value	414	18.327	18.132	1.943	14.091	23.311
Relative Size	414	0.991	0.310	2.820	0.000	23.160
Acq Board Size	414	6.708	6.000	2.505	3.000	14.000
Acq %Indep	414	0.450	0.500	0.276	0.000	0.875
Acq lnSales Growth	414	0.176	0.058	1.437	-5.806	6.277
Acq Tobin's Q	414	0.839	1.338	4.225	-29.571	8.491
Acq ROA	414	-0.011	0.040	0.212	-1.084	0.416
Acq Book Leverage	414	0.200	0.124	0.234	0.000	0.957
Tgt Board Size	414	5.838	5.000	2.154	3.000	12.000
Tgt %Indep	414	0.336	0.333	0.285	0.000	0.889
Tgt lnSales Growth	414	0.187	0.070	1.475	-5.296	5.690
Tgt Tobin's Q	414	0.308	1.088	4.664	-32.350	11.126
Tgt ROA	414	-0.146	0.011	0.463	-2.696	0.256
Tgt Book Leverage	414	0.220	0.136	0.239	0.000	0.957

All variable definitions and calculations come from the original study (Levi et al. (2014).

Table 2: Female directors and bid initiation

VARIABLES	(1) Initiations	(2) Initiations	(3) Initiations	(4) %Female	(5) Initiations
%Female	**-1.880****	**-0.031***	**-2.263***		**-2.501****
	(-1.975)	**(-1.684)**	**(-1.890)**		**(-2.194)**
%Male directors linked to female directors				**0.282*****	
				(23.553)	
Board Size	-0.075**	-0.001	-0.130***	0.004***	-0.083**
	(-1.962)	(-0.758)	(-2.662)	(4.377)	(-2.002)
%Indep.	-0.458	-0.006	-0.698	0.020**	-0.562*
	(-1.447)	(-0.876)	(-1.566)	(2.413)	(-1.878)
lnSales Growth	0.162*	0.000	0.247**	-0.002***	0.170**
	(1.888)	(0.044)	(2.447)	(-2.611)	(2.519)
Tobin's Q	-0.094***	0.000	-0.161***	0.001**	-0.094***
	(-2.758)	(0.447)	(-4.999)	(2.174)	(-5.345)
ROA	0.343	0.001	0.478	0.011*	0.329
	(0.793)	(0.111)	(0.752)	(1.954)	(1.226)
Book Leverage	-0.809*	0.011	-1.776***	0.015	-0.869**
	(-1.679)	(1.261)	(-2.762)	(1.129)	(-1.971)
Cash holdings	-0.154	-0.000	-0.477	0.017	-0.158
	(-0.288)	(-0.035)	(-0.513)	(1.570)	(-0.331)
lnMkcap	0.461***	0.005**	0.468***	-0.002	0.452***
	(8.280)	(2.415)	(7.162)	(-1.547)	(8.972)
Invmills					-3.004
					(-1.167)
Constant	-10.794***	-0.058*	-9.940***	0.021	-8.196***
	(-10.878)	(-1.672)	(-7.778)	(0.742)	(-3.565)
Year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	No	Yes	Yes	Yes
Firm FE	No	Yes	No	No	No
Clustered by firm	Yes	No	Yes	Yes	Yes
Observations	9,629	9,509	7,961	9,629	9,629
Mc Fadden's Psd. R2/Adjusted R2	0.127	0.127	0.148	0.416	0.127

Columns (1) and (2) present the Negative Binomial regression results for the number of bid initiations and column (3) presents the Negative Binomial regression results for firms with female directors and their propensity-score-matched control firms. Column (4) and (5) presents the two-stage instrumental variable regression results. In the first stage OLS regression, Column (4), the fraction of female directors is regressed on the instrumental variable and other controls. In the second stage Negative Binomial regression, Column (5), the number of bid initiations in a year is regressed on the predicted fraction of female directors based on the first-stage estimation and other controls.

Table 3: Female directors and the bid premium

VARIABLES	(1) Premium	(2) Premium	(3) Acq %Female	(4) Tgt %Female	(5) Premium
Acq %Female	-0.220	**-0.363****			**-0.285***
	(-1.158)	**(-2.077)**			**(-1.656)**
Tgt %Female	-0.129	-0.098			0.051
	(-0.725)	(-0.501)			(0.256)
Acq_%Male directors linked to female directors			**0.244****		
			(9.970)		
Tgt_%Male directors linked to female directors				**0.275****	
				(7.255)	
Toehold	-0.037	-0.299	-0.052*	-0.021	-0.069
	(-0.146)	(-1.168)	(-1.922)	(-0.490)	(-0.411)
Cash	-0.027	0.036	0.005	-0.012	0.008
	(-0.558)	(0.654)	(0.454)	(-1.157)	(0.169)
Hostile	0.037	0.067	0.006	-0.000	0.001
	(0.508)	(0.899)	(0.530)	(-0.030)	(0.027)
SOA	-0.116	-0.018	0.012	-0.004	-0.115**
	(-1.550)	(-0.244)	(1.221)	(-0.422)	(-2.058)
lnDeal Value	0.000	-0.031	-0.000	-0.007**	-0.012
	(0.002)	(-1.129)	(-0.031)	(-2.051)	(-0.716)
Relative Size	-0.013	-0.022	-0.001	-0.000	-0.001
	(-1.242)	(-0.917)	(-1.259)	(-0.357)	(-0.169)
Acq Board Size	0.007	0.002	-0.004**	0.003	0.011
	(0.612)	(0.184)	(-1.998)	(1.353)	(1.212)
Acq %Indep.	0.025	-0.058	0.029*	0.012	-0.074
	(0.231)	(-0.485)	(1.696)	(0.616)	(-0.878)
Acq lnSales Growth	0.064***	0.067***	0.009**	0.000	0.050***
	(3.666)	(2.988)	(2.376)	(0.164)	(3.374)
Acq Tobin's Q	0.004	0.020	0.003***	0.002*	0.004
	(0.461)	(1.027)	(2.701)	(1.818)	(0.549)
Acq ROA	-0.049	-0.150	-0.026	0.020	-0.047
	(-0.330)	(-1.144)	(-1.217)	(1.247)	(-0.329)
Acq Book Leverage	-0.046	-0.161	0.036	0.034	-0.019
	(-0.391)	(-1.103)	(1.339)	(1.324)	(-0.164)
Tgt Board Size	-0.021	-0.016	-0.000	0.001	-0.009
	(-1.183)	(-1.218)	(-0.010)	(0.282)	(-0.836)
Tgt %Indep.	0.001	0.101	-0.025	0.013	-0.012
	(0.008)	(0.945)	(-1.267)	(0.710)	(-0.143)
Tgt lnSales Growth	-0.049*	-0.018	0.002	0.005	-0.029
	(-1.701)	(-1.008)	(0.461)	(1.450)	(-1.575)
Tgt Tobin's Q	0.003	-0.000	-0.001	0.001	0.001
	(0.428)	(-0.065)	(-0.769)	(1.123)	(0.236)
Tgt ROA	-0.085	-0.172*	-0.002	0.004	-0.025
	(-1.077)	(-1.850)	(-0.197)	(0.359)	(-0.380)
Tgt Book Leverage	0.082	0.116	0.009	0.003	0.152
	(0.692)	(0.951)	(0.472)	(0.144)	(1.401)
Invmills1					-1.248**
					(-2.095)
Invmills2					0.614

					(1.091)
Constant	0.515*	1.057**	0.005	0.095	0.986
	(1.723)	(2.111)	(0.105)	(1.446)	(1.383)
Year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
Clustered by firm	Yes	Yes	Yes	Yes	Yes
Observations	414	222	414	414	414
Adj. R2	0.0404	0.0714	0.451	0.392	0.0722

Column (1) presents the OLS regression results for the size of the bid premium. Column (2) presents the OLS regression results for firms with female directors and their propensity-score-matched control firms. In Column (3) (Column (4)) we regress the fraction of female directors on the bidder (target) board on the instrumental variable and other controls. The second stage results are presented in Column (5).

Table 4: Female directors and target selection

VARIABLES	(1) Tgt Female_d	(2) Tgt Female_d	(3) Tgt Female_d	(4) Tgt Female_d
Acq %Female	**2.111****	**2.697****		**1.732***
	(2.445)	**(2.485)**		**(1.746)**
Acq_%Male directors linked to female directors			**0.263*****	
			(8.982)	
Toehold	-0.304	0.857	-0.022	-0.926
	(-0.327)	(0.631)	(-0.399)	(-0.950)
Cash	-0.299	-0.516*	0.004	-0.255
	(-1.509)	(-1.688)	(0.316)	(-1.221)
Hostile	0.049	0.299	0.003	0.105
	(0.264)	(0.998)	(0.279)	(0.531)
SOA	-0.213	-0.095	0.011	-0.239
	(-1.065)	(-0.318)	(1.029)	(-1.145)
lnDeal Value	0.075	0.099	0.000	0.078
	(1.078)	(0.991)	(0.049)	(1.045)
Relative Size	-0.011	-0.075	-0.002	-0.014
	(-0.379)	(-1.271)	(-1.462)	(-0.472)
Acq Board Size	0.057	0.063	-0.006**	0.057
	(1.458)	(1.132)	(-2.481)	(1.366)
Acq %Indep.	-0.081	0.137	0.037*	0.020
	(-0.206)	(0.250)	(1.963)	(0.046)
Acq lnSales Growth	-0.050	-0.096	0.008**	-0.051
	(-0.842)	(-0.933)	(2.076)	(-0.840)
Acq Tobin's Q	0.021	-0.006	0.003**	0.028
	(1.043)	(-0.052)	(2.414)	(1.266)
Acq ROA	0.464	0.608	-0.024	0.426
	(1.242)	(0.895)	(-1.125)	(1.104)
Acq Book Leverage	0.259	-0.625	0.043	0.268
	(0.611)	(-0.955)	(1.496)	(0.601)
Tgt Board Size	0.113***	0.071	-0.001	0.144***
	(3.097)	(1.301)	(-0.348)	(3.733)
Tgt %Indep.	0.739**	0.932**	-0.017	0.831***
	(2.528)	(2.054)	(-0.781)	(2.769)
Tgt lnSales Growth	0.016	-0.026	0.001	0.029
	(0.324)	(-0.316)	(0.312)	(0.553)
Tgt Tobin's Q	0.004	0.000	-0.001	-0.001
	(0.198)	(0.005)	(-0.789)	(-0.032)
Tgt ROA	0.210	-0.032	0.004	0.191
	(1.018)	(-0.077)	(0.336)	(0.902)
Tgt Book Leverage	0.295	-0.034	0.002	0.317
	(0.832)	(-0.058)	(0.108)	(0.842)
Invmills				0.884
				(0.312)
Constant	-3.279***	-3.387*	0.060	-4.224
	(-3.056)	(-1.919)	(1.043)	(-1.532)
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Clustered by firm	Yes	Yes	Yes	Yes

Observations	414	186	414	414
Adj. R2/Psd. R2	0.253	0.236	0.406	0.286

Column (1) presents the probit regression results for target selection. Column (2) presents the probit regression results for firms with female directors and their propensity-score-matched control firms. In Column (3) we regress the fraction of female directors on the bidder board on the instrumental variable and other controls. The second stage results are presented in Column (4).