Why Do Directors Join Poorly Performing Firms?

Internet Appendix

I. Do PPF Directors Receive Higher Pay?

In this section, we test whether directors who join a poorly performing firm (PPF) receive significantly higher compensation compared to directors who join a normal firm (NF) or a top performing firm (TPF). If so, then this would represent an additional incentive explaining their decision to join PPFs. For this purpose, we merge our sample with the director compensation data from Execucomp. Our sample for this test includes all joining directors in Table 5 for whom compensation data are available. The disclosure of individual director compensation only became mandatory after 2006, thereby restricting our sample to 2006–2015 for this test. A PPF may not be in a position to pay a new director well at first because of the firm's prior poor performance. However, a PPF may offer long-term incentives to pay a new director more if the firm's performance improves subsequent to their joining. Therefore, we focus on both the cash component of the compensation and the total pay and use them as the two dependent variables in the test.

As pointed out by Ghannam, Bugeja, Matolcsy, and Spiropoulos (2018), some directors may join a firm at the beginning of the fiscal year while others may join any time throughout the year. As a result, directly comparing their annual compensation can be problematic, as some directors may have provided service for longer than others and would therefore receive higher pay. To account for the length of service directors have provided during the first fiscal year of their appointments, we once again make use of the Company Announcements segment in BoardEx, which contains information on the effective starting dates of the director appointments. We then calculate the number of days that the director has been on the board during the first fiscal year and include this as a control variable in the regressions.¹ The results are reported in Table A1. As expected, the control variable DAYS_ON_BOARD is positive and significant at the 1% and 5% levels for the two models. More importantly, for both models, the key explanatory variable PPF remains insignificant. In fact, we observe a significantly positive coefficient for the other key explanatory variable TPF in model (1) where the dependent variable is cash compensation. Therefore, even though the evidence in Table 5 suggests that directors are more likely to fill key board roles when they join PPFs, the results in Table A1 show that such key roles do not necessarily translate into higher pay.

[Insert Table A1 about here]

II. Are the New Directors Nominated by Creditors or Blockholders?

In this section, we consider the possibility that many of the director appointments we observe are pushed through by creditors or equity blockholders. Although directors who directly represent creditors or blockholders are usually classified as gray directors, it is possible that some directors are only indirectly affiliated with these capital providers and still satisfy the independence criteria. Ferreira, Ferreira, and Mariano (2018) show that following debt covenant violations, boards tend to appoint 24% more independent directors, most of whom have links to the creditors. We address this concern in two ways. First, we attempt to identify the independent directors who may be affiliated with the creditors of the appointing firm following the approach set out in Ferreira et al. (2018). Specifically, we first identify the banks that lend to the appointing firm using data from Dealscan. Next, we identify other firms that also borrow from these banks. The joining directors who also hold a position in these firms are classified as having

¹ As an alternative approach, we also re-estimate our regressions in this section while using the director compensation from their second year of service as the dependent variables. We obtain similar results with this approach.

an affiliation with the creditors. About 35% of the joining directors in our sample are potentially affiliated with the creditors. We then repeat the analyses in Tables 3–5 based on the director sample that excludes these observations and see if this exclusion changes the results.

Our second approach is to identify directly firms that are likely in violation of debt covenants. We follow Chava and Roberts (2008), Falato and Liang (2016), and Ferreira et al. (2018) and focus on covenants that concern the current ratio, net worth, tangible net worth, and debt-to-EBITDA. Chava and Roberts (2008) and Falato and Liang (2016) focus only on the first three variables, while Ferreira et al. (2018) also consider the debt-to-EBITDA ratio. Our tabulated results are based on all four types of covenants because this is the "conservative" approach in our context, although we obtain similar results when we only consider the first three.

We merge the Dealscan loan data (along with the associated covenant information) with the Compustat quarterly data. A covenant violation occurs when a firm's current ratio or (tangible) net worth falls below the threshold specified in the loan package or when its debt-to-EBITDA ratio rises above the pre-specified threshold. If the firm violates any of the four types of covenants in any quarter of a given year, we consider there to have been a violation in that year. In our director appointment sample, covenant violations occur in 25.37% of the firm-years. The proportion of PPFs, NFs, and TPFs that have just experienced a violation year are 38.24%, 25.21%, and 15.2%, respectively. We then repeat the tests in Tables 3–5 based on the remaining sample.

The directors joining PPFs could also have been nominated by large shareholders of the firm in light of the firm's poor performance. This scenario would be consistent with the new directors becoming influential and chairing major board committees to ensure better monitoring of the management. To ensure that our results are not driven by the blockholder-affiliated

4

directors, we exclude from our sample all PPFs that have any shareholder that owns more than 5% of the company stock and repeat the analyses in Tables 3–5. The likelihood that a shareholder with less than 5% ownership has the incentive and the power to push for board changes should be relatively low.

The results of the above three tests are presented in Tables A2–A4. For brevity, we omit the control variables from the table and only report the key coefficients. Panels A, B, and C of each table report the results of replicating Tables 3, 4, and 5 of the paper, respectively. In Panel A of each table, we observe similar patterns as in the determinants model in Table 3. Most of the variables that capture director quality remain either insignificant or significant in the direction opposite to what the quality matching hypothesis would predict, except for ROA_OTHER in column 3 of Table A3 and COMMITTEE_CHAIRMANSHIPS_OTHER in column 3 of Table A4. In Panel B of each table, we repeat the analysis of director appointment market reactions and continue to find that appointment announcements at the PPFs do not trigger lower market reactions to the appointing or interlocking firms. Lastly, in Panel C of each table, we repeat the analysis of the roles directors assume after joining the new boards. We continue to observe a significantly greater likelihood that these directors will fill leadership positions when they join PPFs. We therefore conclude that our results cannot be fully explained by these three possibilities.

[Insert Table A2 about here] [Insert Table A3 about here] [Insert Table A4 about here]

References

- Chava, S., and M. R. Roberts. "How Does Financing Impact Investment? The Role of Debt Covenants." *The Journal of Finance*, 63 (2008), 2085–2121.
- Falato, A., and N. Liang. "Do Creditor Rights Increase Employment Risk? Evidence from Loan Covenants." *The Journal of Finance*, 71 (2016), 2545–2590.
- Ferreira, D.; M. A. Ferreira; and B. Mariano. "Creditor Control Rights and Board Independence." *The Journal of Finance*, 73 (2018), 2385–2423.
- Ghannam, S.; M. Bugeja; Z. P. Matolcsy; and H. Spiropoulos. "Are Qualified and Experienced Outside Directors Willing to Join Fraudulent Firms and If So, Why?" *The Accounting Review*, 94 (2018), 205–227.

Table A1: Compensation Received on the New Board

This table reports the ordinary least squares regression results of comparing the compensation a director receives upon joining a poorly performing firm as opposed to joining a normal firm or a top performing firm. The dependent variables include the natural logarithm of fees paid in cash and the total compensation a director receives. The sample includes all newly appointed independent directors on the appointing boards. PPF is an indicator variable that equals one for directors who join poorly performing firms, and zero otherwise. TPF is an indicator variable that equals one for directors who join top performing firms, and zero otherwise. The coefficients of DIRECTOR_ROLODEX are multiplied by 10. Appendix A contains variable definitions. Standard errors are clustered at the industry level and are reported beneath each coefficient. The row PPF = TPF at the bottom of the table reports the F-stats (or χ^2) of testing the equality of the two coefficients. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	CASII_IAI	IUIAL_IAI
	1	2
PPF	0.012	0.015
	(0.898)	(0.875)
TPF	0.135**	0.045
	(0.031)	(0.638)
BOARD_CHAIR	0.962***	1.084**
	(0.000)	(0.032)
COMMITTEE_CHAIRMANSHIPS	0.192***	0.041
	(0.009)	(0.514)
COMMITTEE_MEMBERSHIPS	0.169***	0.043
	(0.000)	(0.121)
DAYS_ON_BOARD	0.006***	0.006***
	(0.000)	(0.000)
AGE	0.007**	0.001
	(0.026)	(0.798)
FEMALE	0.034	0.093**
	(0.393)	(0.041)
DIRECTORSHIPS	0.018	0.016
	(0.220)	(0.422)
INDUSTRY_EXPERTISE	-0.075	0.154*
	(0.266)	(0.064)
RECENT_DEPARTURE	-0.052	0.004
	(0.245)	(0.928)
PRIOR_PPF_APPOINTMENT	0.074	0.043
	(0.188)	(0.642)
DIRECTOR_ROLODEX	-0.005^{***}	-0.000
	(0.000)	(0.873)
COMMITTEE_CHAIRMANSHIPS_OTHER	-0.001	0.039
	(0.985)	(0.200)
CONNECTED_TO_APPOINTING_BOARD	0.061	-0.063
	(0.196)	(0.235)
BOARD_SIZE	0.034**	0.004
	(0.034)	(0.844)
BOARD_INDEPENDENCE	0.220	0.253
	(0.364)	(0.382)
BUSY_BOARD	-0.052	-0.041
	(0.515)	(0.578)
FIRM SIZE	0.117***	0.166***

-0.308 (0.131)	0.651***		
(0.131)	(0,000)		
	(0.000)		
-0.381	1.742**		
(0.558)	(0.016)		
-0.241	0.934***		
(0.323)	(0.003)		
0.025	-0.139		
(0.767)	(0.328)		
2,240	2,240		
2.25	0.14		
0.393	0.432		
Industry, Year			
	-0.381 (0.558) -0.241 (0.323) 0.025 (0.767) 2,240 2.25 0.393 Indust		

Table A2: Creditor-Affiliated Directors

This table reports the results of repeating the baseline analyses while excluding directors that may be affiliated with the creditors of the firm. Directors are considered as affiliated if they sit on the board of another firm that shares the same creditor with the appointing firm. Panels A–C repeat the regression models in Tables 3–5. Control variables are included in the models but omitted from the table for brevity. PPF is an indicator variable that equals one for directors who join poorly performing Firms, and zero otherwise. TPF is an indicator variable that equals one for directors who join top performing firms, and zero otherwise. The coefficients of DIRECTOR_ROLODEX are multiplied by 10. Appendix A contains variable definitions. Standard errors are clustered at the industry level and are reported beneath each coefficient. The row PPF = TPF at the bottom of the table reports the F-stats (or χ^2) of testing the equality of the two coefficients. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$		_	All Multi-Boarded Only			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			1	2	3	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	DIRECTORSHIPS		0.028	0.110	-0.007	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			(0.032)	(0.078)	(0.160)	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	INDUSTRY_EXPERTISE		0.474***	0.447***	0.799***	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			(0.111)	(0.168)	(0.196)	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	RECENT_DEPARTURE		0.102	0.061	-0.049	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			(0.110)	(0.219)	(0.358)	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	PRIOR_PPF_APPOINTMENT		0.161	0.125	0.201	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			(0.186)	(0.234)	(0.296)	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	DIRECTOR_ROLODEX		-0.003	0.003	0.007	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			(0.002)	(0.004)	(0.008)	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	BOARD_CHAIR_OTHER		0.075	0.050	-0.334	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			(0.125)	(0.162)	(0.257)	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	COMMITTEE_CHAIRMANSHI	S_OTHER	-0.040	-0.077	-0.060	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			(0.106)	(0.111)	(0.222)	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	FIRM_SIZE_OTHER				0.138	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$					(0.107)	
Observations $3,398$ $1,073$ 532 Pseudo R-squared 0.103 0.139 0.199 Fixed Effects Industry, Year All Announcements Non-Scheduled Announcement Appointing Interlocking Appointing Interlocking Firms Firms Firms Firms 1 2 3 4 PPF -0.003 -0.006 -0.004 -0.006 (0.003) (0.005) (0.004) (0.004) TPF 0.001 -0.004 0.000 -0.004 Observations $2,813$ 898 $2,554$ 750 PPF = TPF 1.41 0.18 1.31 0.14	ROA_OTHER				-0.773	
Observations $3,398$ $1,073$ 532 Pseudo R-squared 0.103 0.139 0.199 Fixed Effects Industry, Year All Announcements Non-Scheduled Announcement Appointing Interlocking Appointing Interlocking Firms Firms Firms Firms 1 2 3 4 PPF -0.003 -0.006 -0.004 -0.006 (0.003) (0.005) (0.004) (0.004) TPF 0.001 -0.004 0.000 -0.004 Observations $2,813$ 898 $2,554$ 750 PPF = TPF 1.41 0.18 1.31 0.14					(1.068)	
Pseudo R-squared Fixed Effects 0.103 0.139 0.199 All Announcements Non-Scheduled Announcement Appointing Firms Interlocking Firms Appointing Firms Interlocking Firms PPF -0.003 -0.006 -0.004 -0.006 (0.003) (0.005) (0.004) (0.004) TPF 0.001 -0.004 0.000 -0.004 Observations $2,813$ 898 $2,554$ 750 PPF = TPF 1.41 0.18 1.31 0.14	Observations		3,398	1,073	532	
Fixed Effects Industry, Year All Announcements Non-Scheduled Announcement Appointing Interlocking Appointing Interlocking Firms Firms Firms Firms Firms 1 2 3 4 PPF -0.003 -0.006 -0.004 -0.006 (0.003) (0.005) (0.004) (0.004) TPF 0.001 -0.004 0.000 -0.004 Observations $2,813$ 898 $2,554$ 750 PPF = TPF 1.41 0.18 1.31 0.14 Adjusted R-squared 0.007 0.006 0.007 0.019	Pseudo R-squared		0.103	0.139	0.199	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Fixed Effects	-	I	ndustry, Yea	ar	
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$		All A	nnounceme	ents	Non-Schedu	led Announcemen
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$		Appointin	g Inte	erlocking	Appointing	Interlocking
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Firms]	Firms	Firms	Firms
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		1		2	3	4
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	PPF	-0.003	-	-0.006	-0.004	-0.006
TPF 0.001 -0.004 0.000 -0.004 (0.002)(0.003)(0.002)(0.003)Observations $2,813$ 898 $2,554$ 750 PPF = TPF 1.41 0.18 1.31 0.14 Adjusted R-squared 0.007 0.006 0.007 0.019		(0.003)	(0.005)	(0.004)	(0.004)
(0.002) (0.003) (0.002) (0.003) Observations2,8138982,554750PPF = TPF1.410.181.310.14Adjusted R-squared0.0070.0060.0070.019	TPF	0.001	-	-0.004	0.000	-0.004
Observations $2,813$ 898 $2,554$ 750 PPF = TPF 1.41 0.18 1.31 0.14 Adjusted R-squared 0.007 0.006 0.007 0.019		(0.002)	(0.003)	(0.002)	(0.003)
PPF = TPF 1.41 0.18 1.31 0.14 Adjusted R-squared 0.007 0.006 0.007 0.019	Observations	2,813		898	2,554	750
Adjusted R-squared 0.007 0.006 0.007 0.019	PPF = TPF	1.41		0.18	1.31	0.14
	Adjusted R-squared	0.007		0.006	0.007	0.019
Fixed Effects Industry, Year	Fixed Effects			Industr	y, Year	

	LEADERSHIP	BOARD	COMM	COMM	COMM_	COMM_
	ROLE	_ CHAIR_	CHAIR	CHAIR	MEMBER	MEMBER
		LEAD	ANY	TOTAL	ANY	TOTAL
	1	2	3	4	5	6
PPF	0.815***	0.594**	0.824** *	0.649** *	-0.229	-0.033
	(0.158)	(0.276)	(0.167)	(0.126)	(0.161)	(0.043)
TPF	-0.067	-0.658	-0.038	-0.048	-0.146	-0.001
	(0.201)	(0.521)	(0.215)	(0.176)	(0.135)	(0.030)
Observations	3,404	3,264	3,404	3,599	3,554	3,599
PPF = TPF	15.85***	6.07**	12.43** *	14.14** *	0.39	0.58
Pseudo R-squared	0.148	0.105	0.156	0.155	0.046	0.025
Fixed Effects		Industry, Year				

Table A3: Directors of Firms in Violation of Debt Covenants

This table reports the results of repeating the baseline analyses while excluding directors who join firms that are likely in violation of debt covenants. Covenants that are considered include those that concern the current ratio, net worth, tangible net worth, and the debt-to-EBITDA ratio. A covenant violation occurs when a firm's current ratio or (tangible) net worth falls below the threshold specified in the loan package or when its debt-to-EBITDA ratio rises above the pre-specified threshold. A firm-year is in violation as long as the firm violates any of the four types of covenants in any quarter of that year. Panels A–C repeat the regression models in Tables 3–5. Control variables are included in the models but omitted from the table for brevity. PPF is an indicator variable that equals one for directors who join top performing firms, and zero otherwise. TPF is an indicator variable that equals one for directors who join top performing firms, and zero otherwise. The coefficients of DIRECTOR_ROLODEX are multiplied by 10. Appendix A contains variable definitions. Standard errors are clustered at the industry level and are reported beneath each coefficient. The row PPF = TPF at the bottom of the table reports the F-stats (or χ^2) of testing the equality of the two coefficients. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	All	All Multi-Boarded Onl	
	1	2	3
DIRECTORSHIPS	0.020	0.018	-0.035
	(0.036)	(0.053)	(0.061)
INDUSTRY_EXPERTISE	0.369***	0.413**	0.373**
	(0.080)	(0.071)	(0.150)
RECENT_DEPARTURE	0.135	0.145	0.095
	(0.104)	(0.096)	(0.132)
PRIOR_PPF_APPOINTMENT	0.273	0.331	0.245
	(0.187)	(0.289)	(0.200)
DIRECTOR_ROLODEX	0.000	0.003	0.007*
	(0.002)	(0.003)	(0.004)
BOARD_CHAIR_OTHER	0.037	0.054	-0.100
	(0.108)	(0.107)	(0.124)
COMMITTEE_CHAIRMANSHIPS_OTHER	-0.087	-0.056	-0.055
	(0.080)	(0.082)	(0.100)
FIRM_SIZE_OTHER			-0.065
			(0.067)
ROA_OTHER			-2.678***
_			(0.852)
Observations	3,937	2,004	1,354
Pseudo R-squared	0.084	0.091	0.106
Fixed Effects	1	Industry, Ye	ear

	All Annound	cements	Non-Scheduled	Announcements
	Appointing Firms	Interlocking	Appointing	Interlocking
	11 8	Firms	Firms	Firms
	1	2	3	4
PPF	0.001	-0.001	0.000	-0.001
	(0.003)	(0.003)	(0.004)	(0.003)
TPF	-0.000	-0.001	-0.000	-0.000
	(0.002)	(0.002)	(0.002)	(0.002)
Observations	3,243	2,191	2,994	1,868
PPF = TPF	0.21	0.00	0.02	0.13
Adjusted R-squared	0.011	0.009	0.012	0.012

Fixed Effects			Industry	, Year		
	LEADERSHIP	BOARD	COMM	COMM	COMM_	COMM_
	ROLE	CHAIR	CHAIR	CHAIR	MEMBER	MEMBER
		LEAD	ANY	TOTAL	ANY	TOTAL
	1	2	3	4	5	6
PPF	0.728***	0.939**	0.694** *	0.555** *	-0.278*	-0.057
	(0.165)	(0.416)	(0.171)	(0.126)	(0.152)	(0.045)
TPF	0.049	-0.434	0.091	0.059	-0.254**	-0.033
	(0.181)	(0.463)	(0.185)	(0.158)	(0.126)	(0.034)
Observations	3,745	3,659	3,745	4,066	4,012	4,066
PPF = TPF	9.77***	10.96***	6.81***	7.43***	0.03	0.21
Pseudo R-squared	0.143	0.108	0.144	0.154	0.045	0.021
Fixed Effects	Industry, Year					

Table A4: Blockholder-Affiliated Directors

This table reports the results of repeating the baseline analyses while excluding PPFs that have any blockholder with an ownership of 5% or above. Doing so ensures that the directors who join the remaining PPFs are unlikely to have been nominated to the board as an outcome of corporate activism activities. Panels A–C repeat the regression models in Tables 3–5. Control variables are included in the models but omitted from the table for brevity. PPF is an indicator variable that equals one for directors who join poorly performing firms, and zero otherwise. TPF is an indicator variable that equals one for directors who join top performing firms, and zero otherwise. The coefficients of DIRECTOR ROLODEX are multiplied by 10. Appendix A contains variable definitions. Standard errors are clustered at the industry level and are reported beneath each coefficient. The row PPF = TPF at the bottom of the table reports the F-stats (or χ^2) of testing the equality of the two coefficients. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

		All	Multi-Boa	arded Only	
	_	1	2	3	
DIRECTORSHIPS		0.025	0.081	0.099	
		(0.029)	(0.065)	(0.086)	
INDUSTRY EXPERTISE		0.169	0.180	0.234	
_		(0.133)	(0.127)	(0.159)	
RECENT_DEPARTURE		0.025	-0.032	-0.078	
		(0.098)	(0.099)	(0.117)	
PRIOR_PPF_APPOINTMENT		0.223	-0.015	0.046	
		(0.187)	(0.227)	(0.259)	
DIRECTOR_ROLODEX		-0.003	-0.001	0.002	
		(0.003)	(0.003)	(0.003)	
BOARD_CHAIR_OTHER		-0.006	-0.040	-0.120	
		(0.105)	(0.108)	(0.133)	
COMMITTEE_CHAIRMANSHIP	S_OTHER	-0.081	-0.108	-0.146*	
		(0.067)	(0.073)	(0.087)	
FIRM_SIZE_OTHER				-0.097	
				(0.060)	
ROA_OTHER				-1.641	
				(1.068)	
Observations		4,239	2,157	1,454	
Pseudo R-squared	_	0.100	0.102	0.115	
Fixed Effects		Industry,	Year		
_	All A	nnouncem	ents	Non-Schedu	uled Announcements
	Appointing	g Inte	erlocking	Appointing	g Interlocking
-	Firms		Firms	Firms	Firms
	1		2	3	4
PPF	-0.014		0.005	-0.015	0.005
	(0.009)	(0.005)	(0.010)	(0.005)
TPF	0.002	-	-0.002	0.002	-0.002
	(0.002)	(0.002)	(0.002)	(0.002)
Observations	3,507		2,117	3,193	1,837
PPF = TPF	3.18*		1.10	2.74	2.05
Adjusted R-squared	0.013		0.001	0.019	0.003
Fixed Effects			Indust	y, Year	

	LEADERSHIP_	BOARD_	COMM_	COMM_	COMM_	COMM_
	ROLE	CHAIR_	CHAIR_	CHAIR	MEMBE R	MEMBE R
		LEAD	ANY	TOTAL	ANY	TOTAL
	1	2	3	4	5	6
PPF	1.023***	0.514	1.092***	0.951** *	-0.215	-0.029
	(0.259)	(0.584)	(0.242)	(0.157)	(0.206)	(0.065)
TPF	-0.003	-0.238	0.034	0.012	-0.117	-0.004
	(0.173)	(0.334)	(0.186)	(0.156)	(0.127)	(0.031)
Observations	4,180	4,269	4,180	4,401	4,361	4,401
PPF = TPF	12.08***	1.27	15.60***	29.74** *	0.17	0.12
Pseudo R-squared	0.155	0.125	0.158	0.159	0.050	0.025
Fixed Effects			Industry, Ye	ar		