

# Why Do Directors Join Poorly Performing Firms?

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## Abstract

Prior research has suggested that sitting on the board of a poorly performing firm (PPF) can be undesirable to directors. Still, almost 60% of such firms are able to appoint new directors following director departures. Contrary to a quality matching explanation, we do not find that only poorly performing directors join these firms. Upon joining PPFs, directors are more likely to fill leadership positions without necessarily receiving higher pay. These directors subsequently receive career benefits, especially those who are relatively junior in the pool. As such, the evidence is consistent with the leadership positions providing a certification effect.

## I. Introduction

Sitting on the board of a poorly performing firm (PPF) can be highly undesirable for directors. They suffer damage to their reputation (Srinivasan (2005), Fich and Shivdasani (2007)), an increased workload (Vafeas (1999), Fahlenbrach, Low, and Stulz (2017)), and sometimes an increased litigation risk (Agrawal and Chen (2011), Brochet and Srinivasan (2014)). Consequently, many directors have an incentive to abandon the firm when they anticipate subsequent negative performance (Fahlenbrach et al. (2017)).

While many directors are willing to relinquish their board seats to avoid being connected to poor performance, the board size of PPFs does not always decrease. Among a sample of firms that persistently underperform and subsequently experience independent director departures, close to 60% are able to fill these vacancies within a relatively short time frame. Therefore, even though some directors give up their directorships to avoid being present during bad times, there are also directors who are willing to join at precisely the same time.

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We examine the incentives of the directors who agree to join PPFs. A few explanations exist. First, there could be a quality matching effect, where high-quality directors self-select to join high-quality firms, leaving the PPFs as the only board seat opportunities available to low-quality directors. Under this explanation, directors accept the board positions of poorly performing firms because they cannot find board seats elsewhere. This hypothesis implies that the directors who join poorly performing firms are of significantly lower quality relative to the directors who join better-performing firms.

On the other hand, the board seats at poorly performing firms may also attract high-quality directors. Under this explanation, directors who join poorly performing firms choose to join these firms because of certain benefits that are more likely to manifest when firms are experiencing performance downturns. These benefits could include opportunities to assume leadership roles on the board or greater monetary compensation. We refer to this as the attractive option hypothesis.

We empirically test these two hypotheses using a sample of independent directors of U.S. public firms over the period 2004–2015. We define firms with returns on assets (ROAs) that have ranked in the bottom, middle (two), and top quartiles of the corresponding industry for 3 consecutive years as poorly performing firms (PPFs), normal firms (NFs), and top-performing firms (TPFs), respectively. The individuals who immediately join these firms as independent directors in the following year form our sample.

We test the quality matching hypothesis in two ways. First, we estimate a director's likelihood of joining a poorly performing firm based on measures reflecting the director's quality and/or the demand for the director's service in the labor market. These measures include the number of public firm directorships held by the director, whether the director possesses any relevant industry experience, whether the director has just lost a directorship, whether the director sat on the board of a poorly performing firm in the past, whether the director is well connected in the labor market, the prestige and performance of the other firms for which the director is currently a board member, and whether the director holds important roles on these other boards. Among a total of 9 measures, only 1 has a significantly negative impact on a director's likelihood of joining poorly performing firms. As a whole, our results do not suggest that directors who join poorly performing firms are significantly different from directors joining better-performing firms.

Second, we examine the market reactions to announcements made by poorly and nonpoorly performing firms regarding new independent directors' appointments. According to the quality matching hypothesis, directors who are willing to join poorly performing firms signal to the labor market that they cannot gain board seats elsewhere due to their low quality and/or the low demand for their service. If so, then these appointments should trigger an immediate negative valuation impact on the interlocking firms that currently have these directors on their boards. The director appointments at poorly and nonpoorly performing firms are plausibly unrelated to these interlocking firms and are therefore reasonably exogenous. We do not find evidence that appointments to the boards of poorly performing firms trigger significantly poorer market reactions than appointments to the boards of nonpoorly performing firms. To some extent, the findings in the above 2 tests are consistent with the evidence in Armstrong, Kepler, Shi, and Tsui (2020), who

document no significant differences in firm characteristics between the boards that well-performing and poorly-performing directors subsequently join. In other words, the director labor market is shaped not by its demand but by its supply. Overall, our results do not suggest that directors join poorly performing firms because these are the only options available to them.

Next, we explore the possibility that joining poorly performing firms is an attractive option for some directors because certain benefits are more likely to manifest during performance downturns. We first examine the roles that directors fill upon joining new boards. Given that a director's past experience of chairing a board or chairing a major board committee (audit, compensation, or nomination) is often mentioned in companies' proxy statements and 8-K filings, it is possible that directors value the opportunity to be a chair, even if the opportunity is at a poorly performing firm.<sup>1</sup> Consistent with this prediction, we find that directors are significantly more likely to immediately become the chair (or the lead independent director) of the board or the chair of a major board committee when they join poorly performing firms. This finding could be driven by poorly performing firms undertaking more structural changes to their boards, naturally resulting in more vacant positions for the newly appointed directors. However, we do not observe a similar effect when we focus on being a nonchair member of a board committee. Therefore, the effects we document only exist for the leadership positions. These results suggest one possible explanation, which is that some directors join poorly performing firms because they are able to fill leadership roles on the boards.

Another potential draw to join poorly performing firms is that these firms may offer higher monetary compensation. To see if this is indeed the case, we directly compare the compensation received by the new directors when they join poorly and nonpoorly performing firms. We examine both the director fees paid in cash and the total compensation, which also includes components such as stock grants, option grants, and pension. We do not find a significant difference for either measure. Taken together, these findings suggest that leadership positions, rather than the monetary benefits associated with them, are what attract directors to join the boards of poorly performing firms.

There can be several alternative explanations to the baseline findings documented above. For example, some director appointments to poorly performing firms can be the outcome of creditor requirements. Ferreira, Ferreira, and Mariano (2018) document a 24% increase in independent directors among firms that violate a debt covenant. Most of these newly appointed directors are affiliated with the creditors. If the poorly performing firms in our sample are either close to violating or

<sup>1</sup>For example, when PepsiCo announced the appointment of William Johnson as an independent director, Johnson's experience as the chairman of H. J. Heinz was mentioned in PepsiCo's 8-K filing (see [https://www.sec.gov/Archives/edgar/data/77476/000129993315000081/htm\\_51138.htm](https://www.sec.gov/Archives/edgar/data/77476/000129993315000081/htm_51138.htm)). Similarly, Gregory Brown's experience as the chairman of Motorola Solutions was mentioned when he was appointed to the board of Cisco (see <https://www.sec.gov/Archives/edgar/data/858877/000119312513034682/d479187d8k.htm>). Prior experience of chairing a board committee also appears to be recognized. For example, Apple mentions Tim Cook's experience as the chair of the Compensation Committee at Nike (<https://www.sec.gov/Archives/edgar/data/320193/000119312514008074/d648739ddef14a.htm>), and Boeing mentions Edward Liddy's experience as the chair of the Audit Committee at Goldman Sachs and 3M (<https://www.sec.gov/Archives/edgar/data/12927/000119312519076793/d686032ddef14a.htm>).

have already violated covenants, then it is possible that many of the new directors we identify were in fact nominated by the creditors. Similarly, the new directors at poorly performing firms can also be associated with large equity blockholders of the firm. Brav, Jiang, Ma, and Tian (2018) show that activist hedge funds often send directors to firms that are not performing well. These two possibilities would explain why director quality does not predict a director's likelihood of joining a poorly performing firm. It can also explain why these directors immediately start assuming key roles on the new boards. In additional tests, we find that our results are robust to excluding from our sample directors who may be affiliated with the creditors, directors joining firms that are likely to have just violated debt covenants, or directors joining firms with large equity holders.

The evidence so far seems to suggest that some directors voluntarily choose to join poorly performing firms over better-performing firms because of the leadership positions available to them. Still, establishing that these directors had the opportunity to join better-performing firms is challenging because we cannot observe which other boards a director could have potentially joined before accepting the current one. To overcome this challenge, we focus on directors who have at least one appointment at a poorly performing firm and one appointment at a nonpoorly performing firm within our sample period. We then repeat the leadership tests while replacing the industry-fixed effects with director-fixed effects. Our results remain significant, suggesting that the same director is more likely to fill a leadership role upon joining a poorly performing firm than when joining nonpoorly performing firms. These results provide additional support for the claim that it is the opportunity to assume leadership positions that attract directors to join poorly performing firms.

Why are directors more likely to gain chair positions when they join poorly performing firms? One explanation is that there may be a higher director turnover rate at these firms due to the recent poor performance. If the directors departing poorly performing firms held leadership positions on the boards, then their departures will lead to a greater demand to fill these key positions. However, we do not empirically find that chairpersons more frequently depart from poorly performing firms. We then further conjecture that poorly and nonpoorly performing firms may fill vacant leadership positions in different ways. While the recent satisfactory performance makes it reasonable for nonpoorly performing firms to appoint existing board members to leadership positions, poorly performing firms may be more inclined to rely on an injection of "fresh blood" to effect change. We find evidence consistent with this conjecture.

Finally, we examine whether joining a poorly performing firm has any labor market consequences for the directors. We find that joining a poorly performing firm per se does not lead to a different labor market outcome, but joining a poorly performing firm and immediately taking on a leadership position appears to increase the demand for this director's service in the labor market, reflected in the director subsequently holding more directorships. This finding indicates that the appointments (along with the leadership positions) at the poorly performing firms may improve the director's visibility in the labor market and generate a certification effect. To further investigate this possibility, we conduct subsample analyses and find that these results mainly hold among directors who are relatively young in the

director pool and directors whose appointments are followed by an improvement in subsequent firm performance. These findings further support the existence of a certification effect.

This paper contributes to existing knowledge of both the supply and demand sides of the director labor market. On the supply side, the literature has shown that directors prefer to sit on prestigious boards, such as those of large firms (Masulis and Mobbs (2014)) and firms that perform well (Yermack (2004)), and that the anticipation of future negative events can make independent directors choose to leave the board (Fahlenbrach et al. (2017)). Still, close to 60% of the firms that perform poorly is still able to quickly find replacement directors to fill the board vacancies. This paper therefore analyzes the incentives of the directors who agree to join these boards. We complement the existing literature by showing that independent directors who join poorly performing firms are not necessarily poorly performing directors. Further, because we show that directors who join poorly performing firms do not subsequently hold fewer directorships, the results imply that the director labor market does not penalize directors for joining a poorly performing firm. This finding also means that the market does not perceive a director as a low-quality director just because the director accepts an offer from a poorly performing firm.

On the demand side, studies have documented several types of director experience that boards value, such as working in a related industry (Dass, Kini, Nanda, Onal, and Wang (2014)), making acquisitions (Harford and Schonlau (2013)), being a CEO (Fahlenbrach, Low, and Stulz (2010)), and firing a CEO (Ellis, Guo, and Mobbs (2021)). Our paper adds to this literature by showing that even the experience of chairing a board or a major board committee is valued by the labor market, especially for directors who are still in the process of establishing their reputation.

## II. Data and Sample

We start the analysis by constructing a sample of PPFs within the Compustat S&P 1500 universe. Following other studies that examine performance declines, such as Denis and Kruse (2000), Huson, Malatesta, and Parrino (2004), and Perry and Shivdasani (2005), we measure performance using ROAs. Specifically, PPFs are defined as firms whose annual ROAs have ranked within the bottom quartile of the corresponding industry for 3 consecutive years from year  $t - 3$  to the end of year  $t - 1$ . Industry is defined based on the 2-digit SIC codes. We require PPFs to underperform for 3 consecutive years to ensure that the PPF sample does not contain firms experiencing performance shocks that are temporary in nature due to events such as a CEO turnover. We then similarly construct a sample of NFs and a sample of TPFs defined as firms whose annual ROAs have ranked within the middle 2 quartiles and the top quartile of the corresponding industry for 3 consecutive years, respectively. Our sample period is 2004–2015.

### A. Firm-Level Summary Statistics

Table 1 reports the summary statistics at the firm level. After merging PPFs, NFs, and TPFs with BoardEx, our sample contains 1,952 PPFs, 5,010 NFs, and

TABLE 1  
Firm-Level Summary Statistics

Table 1 reports summary statistics at the firm level. Panel A reports financial and board characteristics whereas Panel B reports information on independent director departures and appointments. Poorly performing firms, normal firms, and top-performing firms are firms whose annual returns on assets have ranked within the bottom quartile, the middle 2 quartiles, and the top quartile of the corresponding 2-digit SIC industry for 3 consecutive years from year  $t - 3$  to year  $t - 1$ , respectively. ID\_POSITION\_UNFILLED at the 3 individual year levels refers to when at least one independent director leaves the board in the corresponding year and the total number of independent directors on this board stays lower until the end of the following year. ID\_POSITION\_UNFILLED\_THREE\_YEARS refers to when at least one independent director leaves the board any time during the 3-year period from the beginning of  $t - 2$  to the end of  $t$  and the total number of independent directors decreases from the beginning to the end of this 3-year period. The Appendix contains variable definitions. \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

|  | PPF (1)   | NF (2)     | TPF (3)   | (1) - (2)  | $t$        | (1) - (3)  | $t$        |
|--|-----------|------------|-----------|------------|------------|------------|------------|
| <i>Panel A. Financial and Board Characteristics</i>              |           |            |           |            |            |            |            |
| No. of obs.  | 1,952     | 5,010      | 2,970     |            |            |            |            |
| TOTAL_ASSETS_(IN_MILLIONS)                                       | 5,059.510 | 11,026.235 | 6,381.833 | -5,966.726 | -5.669***  | -1,322.324 | -2.468**   |
| SALES_GROWTH   | 0.037     | 0.080      | 0.100     | -0.043     | -9.866***  | -0.063     | -12.357*** |
| CAPEX  | 0.033     | 0.046      | 0.062     | -0.013     | -11.001*** | -0.029     | -21.713*** |
| CASH   | 0.157     | 0.103      | 0.141     | 0.053      | 18.027***  | 0.016      | 4.292***   |
| LEVERAGE   | 0.191     | 0.221      | 0.192     | -0.030     | -6.376***  | 0.000      | -0.065     |
| ROA  | 0.000     | 0.133      | 0.258     | -0.133     | -61.334*** | -0.259     | -75.844*** |
| STOCK_RETURN   | -0.021    | 0.060      | 0.065     | -0.080     | -12.046*** | -0.085     | -11.667*** |
| TOBIN'S_Q  | 1.771     | 1.751      | 3.065     | 0.020      | 0.749      | -1.294     | -27.985*** |
| BOARD_SIZE   | 8.544     | 9.376      | 9.098     | -0.830     | -14.265*** | -0.553     | -8.482***  |
| BOARD_INDEPENDENCE   | 0.772     | 0.792      | 0.777     | -0.020     | -6.323***  | -0.004     | -1.187     |
| BUSY_BOARD_[0,1]   | 0.255     | 0.237      | 0.249     | 0.018      | 1.607      | 0.006      | 0.445      |
| <i>Panel B. Independent Director Departures and Appointments</i> |           |            |           |            |            |            |            |
| ANY_ID_DEPARTURE_YEAR_T  | 0.393     | 0.363      | 0.319     | 0.031      | 2.390**    | 0.075      | 5.387***   |
| ANY_ID_DEPARTURE_YEAR_T-1  | 0.381     | 0.347      | 0.307     | 0.035      | 2.665***   | 0.074      | 5.347***   |
| ANY_ID_DEPARTURE_YEAR_T-2  | 0.355     | 0.320      | 0.285     | 0.035      | 2.694***   | 0.070      | 5.046***   |
| ANY_ID_DEPARTURE_THREE_YEARS                                     | 0.694     | 0.673      | 0.628     | 0.020      | 1.632      | 0.066      | 4.774***   |
| NUMBER_OF_ID_DEPARTURES_YEAR_T                                   | 0.605     | 0.510      | 0.411     | 0.094      | 3.970***   | 0.193      | 8.037***   |
| NUMBER_OF_ID_DEPARTURES_YEAR_T-1                                 | 0.598     | 0.465      | 0.401     | 0.133      | 5.847***   | 0.197      | 7.971***   |
| NUMBER_OF_ID_DEPARTURES_YEAR_T-2                                 | 0.539     | 0.423      | 0.360     | 0.117      | 5.298***   | 0.180      | 7.640***   |
| NUMBER_OF_ID_DEPARTURES_THREE_YEARS                              | 1.662     | 1.365      | 1.150     | 0.297      | 7.094***   | 0.512      | 11.545***  |
| ANY_ID_APPOINTMENT_YEAR_T  | 0.423     | 0.423      | 0.392     | 0.000      | -0.025     | 0.031      | 2.173**    |
| ANY_ID_APPOINTMENT_YEAR_T-1                                      | 0.437     | 0.444      | 0.409     | -0.007     | -0.488     | 0.029      | 1.962**    |
| ANY_ID_APPOINTMENT_YEAR_T-2                                      | 0.436     | 0.441      | 0.409     | -0.005     | -0.386     | 0.027      | 1.834*     |
| ANY_ID_APPOINTMENT_THREE_YEARS                                   | 0.790     | 0.800      | 0.763     | -0.010     | -0.900     | 0.028      | 2.258**    |
| NUMBER_OF_ID_APPOINTMENTS_YEAR_T                                 | 0.660     | 0.604      | 0.530     | 0.056      | 2.250**    | 0.130      | 5.089***   |
| NUMBER_OF_ID_APPOINTMENTS_YEAR_T-1                               | 0.696     | 0.615      | 0.548     | 0.081      | 3.363***   | 0.148      | 5.621***   |
| NUMBER_OF_ID_APPOINTMENTS_YEAR_T-2                               | 0.669     | 0.612      | 0.555     | 0.057      | 2.387**    | 0.114      | 4.386***   |
| NUMBER_OF_ID_APPOINTMENTS_THREE_YEARS                            | 1.929     | 1.786      | 1.602     | 0.143      | 3.392***   | 0.327      | 7.258***   |
| THREE_YEAR_NET_ID_APPOINTMENTS                                   | 0.267     | 0.421      | 0.453     | -0.154     | -4.134***  | -0.186     | -4.712***  |
| ID_POSITION_UNFILLED_YEAR_T                                      | 0.423     | 0.375      | 0.335     | 0.047      | 2.147**    | 0.088      | 3.544***   |
| ID_POSITION_UNFILLED_YEAR_T-1                                    | 0.437     | 0.377      | 0.343     | 0.060      | 2.715***   | 0.093      | 3.805***   |
| ID_POSITION_UNFILLED_YEAR_T-2                                    | 0.412     | 0.366      | 0.335     | 0.045      | 1.990**    | 0.076      | 3.004***   |
| ID_POSITION_UNFILLED_THREE_YEARS                                 | 0.347     | 0.268      | 0.248     | 0.079      | 5.447***   | 0.099      | 6.163***   |

2,970 TPFs. Overall, PPFs tend to be smaller than NFs and TPFs as measured by total assets. They also have lower sales growth rates, invest less, hold more cash, and borrow less. By construction, PPFs have significantly lower ROAs (as well as stock returns and Tobin's Q). The ROA in our full sample has an unconditional mean of 13%. Consequently, the PPF sample still has a nonnegative average ROA

of 0%. The nonnegative ROA for the PPF sample is comparable to the findings of other studies that examine firms with performance declines.<sup>2</sup>

In Panel B of Table 1, we examine and compare the departures of existing independent directors from, and the appointments of new independent directors to, the 3 subgroups of firms. We separately examine the departures and appointments that occur in years  $t - 2$ ,  $t - 1$ , and  $t$ . Consistent with the idea that boards may remove incompetent directors upon suffering poor performance and that directors may choose to “jump ship” when firm performance declines, PPFs are more likely to see independent director departures than NFs and TPFs in any of these 3 years. They also tend to see a greater number of departures. Meanwhile, PPFs also appoint more independent directors to their boards when compared to NFs and TPFs. Over this 3-year period, PPFs lose 1.66 independent directors and appoint 1.93, leading to a net increase of 0.27 independent directors. The net increase for PPFs is significantly lower than for NFs (0.42) and TPFs (0.45). However, the fact that PPFs still experience a net gain of independent directors rather than a net loss suggests that PPFs on average are able to find replacement directors to fill the vacant board positions.

Next, we limit our focus to firms that have at least one independent director departure and examine the frequency with which firms leave these vacant positions unfilled. A position is unfilled if at least one independent director leaves the board in a given year and the number of independent directors remains low until the end of the following year. We find that for each of the 3 years, between 41.2% and 43.7% of the PPFs with at least one independent director departure leave this position unfilled (voluntarily or not). This percentage is significantly lower for NFs (36.6%–37.7%) and TPFs (33.5%–34.3%). Nevertheless, this percentage means that 56.3%–58.8% of PPFs are able to appoint new directors to fill the vacant positions. In other words, even though there are various costs of being a director of a troubled firm, there is still a nontrivial number of directors who are willing to join these boards nonetheless.

## B. Director-Level Summary Statistics

Table 2 reports the summary statistics at the director level. We define PPF directors, NF directors, and TPF directors as the independent directors who join PPFs, NFs, and TPFs during year  $t$ . Firms that appoint more than 5 independent directors in the same year are excluded from the sample, as these appointments are likely driven by strategic reasons. Overall, PPF directors appear to be younger than NF directors. They are also less likely to be female and more likely to have prior work experience in the same industry as the appointing firm. We construct several variables to measure director quality. Holding more directorships indicates a high demand for the director’s service. Therefore, we use the number of directorships at public firms as one director quality measure. Chairing a board or a major board committee (audit, compensation, or nomination) at another firm can also be a signal

<sup>2</sup>For example, in Denis and Kruse (2000), the operating performance during the year of the performance decline has a mean value of 3.9%.



TABLE 2  
Director-Level Summary Statistics

Table 2 reports summary statistics at the director level. Poorly performing firm directors, normal firm (NF) directors, and top-performing firm (TPF) directors are directors who join poorly performing firms, NFs, and TPFs in the year immediately following the 3-year performance window. The Appendix contains variable definitions. \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

|  | PPF<br>Directors<br>(1) | NF<br>Directors<br>(2) | TPF<br>Directors<br>(3) | (1) – (2) | t-Stat    | (1) – (3) | t-Stat    |
|--|-------------------------|------------------------|-------------------------|-----------|-----------|-----------|-----------|
| No. of obs.  | 1,216                   | 2,907                  | 1,493                   |           |           |           |           |
| AGE  | 56.302                  | 57.041                 | 56.358                  | -0.738    | -2.814*** | -0.056    | -0.182    |
| FEMALE   | 0.157                   | 0.194                  | 0.205                   | -0.037    | -2.796*** | -0.047    | -3.170*** |
| DIRECTORSHIPS  | 1.969                   | 1.971                  | 1.955                   | -0.002    | -0.036    | 0.014     | 0.319     |
| INDUSTRY_EXPERTISE                                   | 0.166                   | 0.116                  | 0.101                   | 0.050     | 4.369***  | 0.065     | 5.018***  |
| ANY_CHAIR_POSITION_OTHER_<br>EXISTING                | 0.330                   | 0.322                  | 0.334                   | 0.008     | 0.378     | -0.004    | -0.179    |
| BOARD_CHAIR_LEAD_OTHER_<br>EXISTING                  | 0.113                   | 0.123                  | 0.105                   | -0.010    | -0.799    | 0.008     | 0.634     |
| COMMITTEE_CHAIRMANSHIPS_<br>OTHER_EXISTING           | 0.253                   | 0.228                  | 0.253                   | 0.025     | 1.328     | 0.001     | 0.033     |
| COMMITTEE_MEMBERSHIPS_<br>OTHER_EXISTING             | 0.857                   | 0.810                  | 0.756                   | 0.047     | 1.049     | 0.101     | 1.979**   |
| TENURE_OTHER_EXISTING                                | 4.554                   | 4.884                  | 4.884                   | -0.331    | -1.682*   | -0.330    | -1.505    |
| RECENT_DEPARTURE                                     | 0.164                   | 0.160                  | 0.151                   | 0.004     | 0.294     | 0.013     | 0.922     |
| PRIOR_PPF_APPOINTMENT                                | 0.030                   | 0.028                  | 0.023                   | 0.003     | 0.513     | 0.007     | 1.124     |
| CONNECTIONS_PROFESSIONAL                             | 54.502                  | 63.171                 | 60.995                  | -8.668    | -3.810*** | -6.492    | -2.588*** |
| CONNECTIONS_SOCIAL                                   | 65.258                  | 83.657                 | 79.099                  | -18.398   | -4.070*** | -13.841   | -2.747*** |
| CONNECTIONS_EDUCATION                                | 18.899                  | 19.114                 | 20.043                  | -0.215    | -0.192    | -1.144    | -0.885    |
| CONNECTIONS_TOTAL_<br>(DIRECTOR_ROLODEX)             | 137.248                 | 163.972                | 158.238                 | -26.725   | -4.783*** | -20.990   | -3.365*** |
| CONNECTED_TO_APPOINTING_<br>BOARD_PROFESSIONAL_LINKS | 0.230                   | 0.208                  | 0.184                   | 0.022     | 1.579     | 0.046     | 2.959***  |
| CONNECTED_TO_APPOINTING_<br>BOARD_SOCIAL_LINKS       | 0.081                   | 0.135                  | 0.139                   | -0.053    | -4.843*** | -0.058    | -4.747*** |
| CONNECTED_TO_APPOINTING_<br>BOARD_EDUCATION_LINKS    | 0.006                   | 0.010                  | 0.014                   | -0.004    | -1.328    | -0.008    | -2.128**  |
| CONNECTED_TO_APPOINTING_<br>BOARD_ANY_LINKS          | 0.299                   | 0.316                  | 0.289                   | -0.016    | -1.040    | 0.010     | 0.568     |
| ANY_CHAIR_POSITION_APPOINTING                        | 0.152                   | 0.060                  | 0.071                   | 0.093     | 9.740***  | 0.081     | 6.839***  |
| BOARD_CHAIR/LEAD_APPOINTING                          | 0.021                   | 0.004                  | 0.002                   | 0.016     | 4.943***  | 0.019     | 4.766***  |
| COMMITTEE_CHAIRMANSHIPS_<br>APPOINTING               | 0.143                   | 0.057                  | 0.070                   | 0.086     | 9.005***  | 0.073     | 6.070***  |
| COMMITTEE_MEMBERSHIPS_<br>APPOINTING                 | 1.081                   | 1.040                  | 1.075                   | 0.041     | 1.619     | 0.006     | 0.185     |

of high director quality. As such, we also consider these dimensions when comparing directors from different samples. However, as shown in Table 2, the differences across the 3 subgroups based on these dimensions are not statistically different, suggesting that PPFs, while being seemingly less attractive to directors, do not always end up appointing lower quality directors.

Many director appointments occur via connections (Cai, Nguyen, and Walking (2021)). Therefore, it is important to account for directors' social networks in our study because well-connected directors are likely to have more directorship opportunities via their connections. We follow the approach employed by Engelberg, Gao, and Parsons (2013) and Fahlenbrach, Kim, and Low (2020) to measure the size of a director's network. Specifically, using BoardEx data, we count the number of individuals connected to a director via professional, educational, and social links. Two individuals share a professional link if they worked at the same company at the same time in any year leading up to the year before the appointment. Two individuals share an education link if they graduated from the same university with the same degree within 1 year of each other. We sort all degrees recorded by BoardEx



into 6 categories, including undergraduate, master's, MBA, PhD, law, and others. Two individuals share a social link if they are both active members of the same organization. Lastly, for each director, we count the total number of unique connections via all 3 channels and label this the `DIRECTOR_ROLODEX`. As reported in Table 2, PPF directors have significantly fewer connections than NF directors and TPF directors.

The above network measures are constructed at the director level. We also construct similar measures for each specific directorship. For each new appointment, we look at whether there are any pre-existing links (professional, education, or social) between the joining director and any of the existing board members. According to Table 2, PPF directors are more likely to be connected to the appointing boards via professional links but less likely to be connected via education and social links. However, once we pool all 3 types of connections together, the differences are no longer significant.

Finally, we compare the roles that directors assume after joining a new board. Even though directors from different subgroups appear to hold similar roles on their existing boards, they take on significantly different roles after joining the appointing firms. In aggregate, 15% of the PPF directors immediately become the chair or the lead independent director of the board or the chair of a major board committee. On the other hand, only 6% of the NF directors and 7% of the TPF directors join the board and immediately take on a chair position. Therefore, being able to fill leadership roles may provide directors with an incentive to join PPFs.

### III. Quality Matching Hypothesis

We start our analysis by testing the quality matching hypothesis. Under the quality matching hypothesis, all directors desire to sit on high-quality boards. Therefore, the observed appointments to low-quality boards indicate that these directors cannot gain board seats at better-performing firms. In other words, the quality matching hypothesis predicts that directors who join PPFs are of significantly lower quality than the directors who join NFs or TPFs.

#### A. Determinants Analysis

Our first approach to test this hypothesis is to estimate an ordered logit model of the likelihood of joining a PPF as opposed to joining an NF or a TPF as a function of director characteristics and control variables. The sample in this test contains new independent director appointments at all 3 groups of firms. The dependent variable is equal to 1 for PPF directors, 0 for NF directors, and  $-1$  for TPF directors.<sup>3</sup> Model 1 includes all new independent directors, whereas models 2 and 3 include only those that hold at least one other independent directorship

<sup>3</sup>We obtain very similar results when we exclude the middle group (NF directors) from the sample and estimate a logit model where the dependent variable is equal to 1 for PPF directors and 0 for TPF directors.

at the time of the new appointment. All regressions include industry and year fixed effects, with standard errors clustered at the industry level. Because we identify PPFs, NFs, and TPFs based on their performance over a 3-year window, we also construct firm-level and board-level control variables by taking the average values across the past 3 years.

The results are reported in [Table 3](#). The key explanatory variables in this test include several measures that may reflect director quality, the demand for a director's service, and other factors that may affect a director's incentive to join a PPF. Essentially, our null hypothesis in this section is that there is no significant difference between the quality of directors who join poorly and nonpoorly performing firms. Observing whether these key explanatory variables have significant predictive power in this model would indicate whether we can reject the null hypothesis. The first variable is the number of directorships at public firms held by the director. Holding more directorships indicates that the director's service is in high demand in the labor market. The variable DIRECTORSHIPS has a positive coefficient and is statistically insignificant across the 3 models, suggesting that directors who join PPFs do not hold fewer directorships than other directors.<sup>4</sup> A director may also be considered of high quality when he/she has accumulated relevant industry experience in the recent past. This variable is significantly positive across the 3 models, meaning that directors joining PPFs are more likely to have the relevant industry experience. These two findings do not support the claim that only low-quality directors would consider joining PPFs.

We also consider whether the director has lost a directorship in the previous or current year, because these directors may have stronger incentives to quickly add a new seat to their portfolio. Consequently, such stronger incentives could lead to a greater propensity to settle for a directorship at a PPF. Nevertheless, the coefficient of RECENT\_DEPARTURE is insignificant in all models. In addition, we consider whether the director has joined a PPF in prior years within our sample period. If low-quality directors are matched to low-quality firms, then we should expect an appointment at a PPF in the past to positively predict the probability of joining another PPF. Also, Ellis (2012) shows that some CEOs are turnover specialists. If some directors also specialize in joining (and helping) troubled firms, then variable PRIOR\_PPF\_APPOINTMENT would capture this effect. We find that the coefficient of this variable is insignificant across all 3 models, supporting neither of these 2 conjectures.

Furthermore, we control for director network size. A director with a sizable network is likely to find it easier to acquire new board seats via his/her network. Therefore, if all directors desire to join better-performing firms, then DIRECTOR\_ROLODEX should be negatively correlated with the likelihood of joining a PPF. Again, this variable is not significant in [Table 3](#). Although the summary statistics in

<sup>4</sup>We recognize that the number of directorships may not be a clean measure of director quality, as directors who hold many directorships can also be distracted and therefore be low-quality directors. In untabulated results, we repeat the regression models in this table while excluding directors who hold more than 3 directorships. The distraction effect is likely to be weak among the remaining directors in the sample. The coefficient of the number of directorships is insignificant within this subsample. Therefore, even after removing the distraction effect, this variable still does not have a significantly negative impact on the likelihood of joining PPFs.

TABLE 3  
Determinants Analysis

Table 3 reports the ordered logit regression results of the effects of director and firm characteristics on the director's likelihood of joining a poorly performing firm, a normal firm (NF), or a top-performing firm (TPF). The dependent variable takes the value of 1 for directors who join TPFs, 0 for directors who join NFs, and -1 for directors who join TPFs. The results reported in column 1 are based on all the newly appointed independent directors, whereas the results reported in columns 2 and 3 are based only on directors that hold at least one other board seat at the time of their appointment. The addition of \_APPOINTING in the variable name refers to the new board the director is joining, whereas \_OTHER refers to all the other existing directorships the director holds. The coefficients of DIRECTOR\_ROLODEX are multiplied by 10. The Appendix contains variable definitions. Standard errors are clustered at the industry level and are reported beneath each coefficient. \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

|                               | All                   | Multi-Boarded Only    |                       |
|-------------------------------|-----------------------|-----------------------|-----------------------|
|                               | 1                     | 2                     | 3                     |
| AGE                           | -0.004<br>(0.004)     | 0.005<br>(0.006)      | 0.011<br>(0.008)      |
| FEMALE                        | -0.127**<br>(0.059)   | -0.033<br>(0.101)     | -0.040<br>(0.111)     |
| DIRECTORSHIPS                 | 0.025<br>(0.022)      | 0.064<br>(0.050)      | 0.088<br>(0.062)      |
| INDUSTRY_EXPERTISE            | 0.344***<br>(0.080)   | 0.344***<br>(0.076)   | 0.334***<br>(0.120)   |
| RECENT_DEPARTURE              | 0.068<br>(0.075)      | 0.050<br>(0.077)      | -0.075<br>(0.094)     |
| PRIOR_PPF_APPOINTMENT         | 0.027<br>(0.153)      | -0.021<br>(0.204)     | -0.014<br>(0.204)     |
| DIRECTOR_ROLODEX              | -0.001<br>(0.002)     | 0.001<br>(0.002)      | 0.004<br>(0.003)      |
| TENURE_OTHER                  | -0.002<br>(0.009)     | -0.007<br>(0.010)     | -0.007<br>(0.011)     |
| BOARD_CHAIR_OTHER             | 0.009<br>(0.099)      | -0.003<br>(0.096)     | -0.134<br>(0.115)     |
| COMMITTEE_CHAIRMANSHIPS_OTHER | -0.068<br>(0.068)     | -0.072<br>(0.070)     | -0.120<br>(0.089)     |
| CONNECTED_TO_APPOINTING_BOARD | 0.089<br>(0.065)      | -0.018<br>(0.094)     | -0.139<br>(0.111)     |
| BOARD_SIZE_APPOINTING         | -0.035<br>(0.045)     | -0.047<br>(0.062)     | -0.047<br>(0.068)     |
| BOARD_INDEPENDENCE_APPOINTING | -0.290<br>(0.496)     | -0.113<br>(0.710)     | -0.022<br>(0.875)     |
| BUSY_BOARD_APPOINTING         | 0.118<br>(0.151)      | 0.114<br>(0.154)      | 0.108<br>(0.178)      |
| FIRM_SIZE_APPOINTING          | -0.206**<br>(0.093)   | -0.196*<br>(0.101)    | -0.106<br>(0.106)     |
| SALES_GROWTH_APPOINTING       | -1.184<br>(0.938)     | -1.206<br>(0.953)     | -1.203<br>(1.125)     |
| CAPEX_APPOINTING              | -21.145***<br>(3.390) | -22.174***<br>(3.720) | -22.921***<br>(3.803) |
| CASH_HOLDING_APPOINTING       | -1.226*<br>(0.730)    | -1.725*<br>(0.962)    | -2.155**<br>(1.053)   |
| LEVERAGE_APPOINTING           | 0.068<br>(0.690)      | 0.165<br>(0.661)      | -0.330<br>(0.662)     |
| BOARD_SIZE_OTHER              |                       |                       | -0.055**<br>(0.025)   |
| BOARD_INDEPENDENCE_OTHER      |                       |                       | -0.208<br>(0.503)     |
| BUSY_BOARD_OTHER              |                       |                       | -0.004<br>(0.127)     |
| FIRM_SIZE_OTHER               |                       |                       | -0.050<br>(0.047)     |
| SALES_GROWTH_OTHER            |                       |                       | 0.503*<br>(0.269)     |
| CAPEX_OTHER                   |                       |                       | -0.722<br>(1.414)     |
| CASH_HOLDING_OTHER            |                       |                       | 0.225<br>(0.528)      |
| LEVERAGE_OTHER                |                       |                       | 0.350<br>(0.237)      |
| ROA_OTHER                     |                       |                       | -1.960**<br>(0.776)   |
| No. of obs.                   | 5,271                 | 2,664                 | 1,764                 |
| Pseudo R <sup>2</sup>         | 0.085                 | 0.092                 | 0.107                 |
| Fixed effects                 |                       | Industry, Year        |                       |

Table 2 suggest that PPF directors have smaller social networks, this difference is no longer significant once we control for all other characteristics in a regression setting. We also use a director's importance to his/her other boards to measure the demand for his/her service. Directors who chair the board or chair a major board committee (audit, compensation, or nomination) are likely to face greater demand for their service. As such, there should be plenty of firms that are willing to offer board positions to these directors. However, neither having experience chairing another board nor the number of committee chairmanships held on other boards have significant relations to the likelihood of joining PPFs. Finally, we assume that directors are of higher quality if they work for firms that are performing better or are larger in size (Masulis and Mobbs (2014)). We find that the firm size of a director's other directorships does not have significant predictive power, while the performance of these directorships negatively affects the probability that the director joins a PPF.

Overall, with the exception of the performance of other existing directorships (in model 3), all of the other 8 variables that reflect director quality are either insignificant or significant in the direction opposite to what the quality matching hypothesis would predict. As a whole, we cannot reject the null hypothesis. That is, the aggregate results in Table 3 suggest that directors joining poorly and nonpoorly performing firms have similar quality and face similar demand for their services in the labor market. This finding is in line with the evidence in a recent study by Ghannam, Bugeja, Matolcsy, and Spiropoulos (2018), who show that directors with prior experience and accounting or legal expertise are willing to join firms that have recently been named as defendants in class action lawsuits involving accounting manipulation.

## B. Market Reactions to Director Appointments

We also examine how the market reacts to announcements of new director appointments at different types of firms. Under the quality matching hypothesis, directors who are willing to join PPFs immediately send a signal to the labor market that they cannot gain board seat appointments at better-performing firms. If so, then this signal should trigger a negative valuation impact to the firms that are appointing these directors to their boards, as well as the interlocking firms for which these directors are currently board members. Therefore, we compare the market reactions when a director joins a PPF to when a director joins an NF or a TPF. The quality matching hypothesis predicts a significantly lower market reaction for the appointments to PPFs.

Our data on director appointment announcements come from 2 sources. First, we make use of the Company Announcements segment in BoardEx. The announcements recorded in this database broadly fall into 4 categories: i) directors leaving a board, ii) directors joining a board, iii) existing board members stepping down from board roles (e.g., board chair or committee chair/member), and iv) existing board members taking on new board roles. We focus only on category ii) in our study. The Company Announcements segment covers close to 60% of the director appointments in our sample. For the remaining appointments, we manually search for the

company's 8-K filings (accessed via the Electronic Data Gathering, Analysis, and Retrieval system, or EDGAR) and press articles (accessed via Factiva). We then choose the earliest date that such information is revealed to the public as the announcement date.<sup>5</sup> Firms sometimes mention the appointments of multiple directors in one single announcement. To maintain a reasonably clean sample without substantially losing observations, we exclude announcements where more than 2 directors are joining at the same time.

Another potential issue with studying director appointment announcements is that some directors are nominated, elected, and then announced at annual shareholder meetings. These announcements are often contaminated with other material information, and these directors' names could already have been known to the market prior to the meetings. Our approach to dealing with this concern is to exclude the director appointment announcements that are made within 15 calendar days either before or after the date of the annual shareholder meeting. Information on shareholder meeting dates is obtained from Voting Analytics.

To measure the market reaction to the announcements, we estimate a market model with an estimation window of  $[-252, -31]$ . We calculate the cumulative abnormal returns (CARs) based on an event window of  $[-1, 1]$ , with day 0 being the date of the announcement. We first calculate CARs for the firms announcing the appointments ("appointing firms") and compare the CARs of the PPFs to the CARs of the NFs and TPFs. However, the director appointments made by PPFs are likely to be in response to the firms' recent poor performance, and can therefore be highly endogenous. For example, since the PPFs have exhibited bottom quartile industry performance for at least 3 years, the market may already expect the next director appointment to be of low quality. In this case, the appointment announcements would not surprise the market. As such, we also calculate the CARs for the nonappointing firms where the joining director is currently a board member ("interlocking firms"). The director appointments are likely to be exogenous to these interlocking firms, enabling us to obtain cleaner evidence. We then test if the interlocking firms react significantly more negatively to the appointment announcement when one of their board members joins a PPF than the interlocking firms do when one of their board members joins an NF or a TPF.

The results are reported in Table 4. We report results estimated from both the full sample and the subsample of off-schedule announcements. Columns 1 and 3 report the results based on the appointing firms, whereas columns 2 and 4 report the results based on the interlocking firms. We regress CARs on 2 key explanatory indicator variables, PPF and TPF, which equal 1 for appointments made by PPFs and TPFs, respectively. The appointments made by NFs are the omitted group.<sup>6</sup> Inconsistent with the quality matching hypothesis, the PPF indicator is not significantly negative in any model. At the bottom of the table, we also report the *F*-statistics of testing the equality of the 2 key coefficients. The *F*-statistics across

<sup>5</sup>We obtain similar results when we restrict our sample to either of the 2 sources.

<sup>6</sup>For Tables 4–8, we also employ an alternative estimation approach where we drop the NF directors from the sample and take PPF as the only key explanatory variable. This variable exhibits very similar patterns as in the tabulated results.

TABLE 4  
Market Reaction to Appointment Announcements

Table 4 reports the ordinary least squares regression results of the market reactions to announcements of new independent director appointments. The dependent variable for all models is the cumulative abnormal returns estimated from a market model with an estimation window of [-252, -31] and an event window of [-1, 1]. The samples in columns 1 and 2 include all appointment announcements, whereas the samples in columns 3 and 4 exclude announcements that are made within 15 calendar days before or after the appointing firm's annual shareholder meeting date. PPF is an indicator variable that equals 1 for directors who join poorly performing firms, and 0 otherwise. TPF is an indicator variable that equals 1 for directors who join top-performing firms, and 0 otherwise. Columns 1 and 3 examine the market reactions at the firms appointing the new directors (appointing firms), whereas columns 2 and 4 examine the market reactions at the firms where the joining director is currently a board member (interlocking firms). The coefficients of AGE and DIRECTOR\_ROLODEX are multiplied by 10 and 100, respectively. The Appendix 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*-statistics (or  $\chi^2$ ) of testing the equality of the 2 coefficients. \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

|                               | All Announcements |                     | Nonscheduled Announcements |                      |
|-------------------------------|-------------------|---------------------|----------------------------|----------------------|
|                               | Appointing Firms  | Interlocking Firms  | Appointing Firms           | Interlocking Firms   |
|                               | 1                 | 2                   | 3                          | 4                    |
| PPF                           | -0.001<br>(0.003) | 0.001<br>(0.003)    | -0.001<br>(0.003)          | 0.001<br>(0.003)     |
| TPF                           | 0.002<br>(0.001)  | -0.001<br>(0.002)   | 0.002<br>(0.001)           | -0.001<br>(0.002)    |
| AGE                           | 0.001<br>(0.001)  | 0.003*<br>(0.001)   | 0.001<br>(0.001)           | 0.003**<br>(0.001)   |
| FEMALE                        | 0.002<br>(0.002)  | 0.001<br>(0.002)    | 0.002<br>(0.002)           | 0.001<br>(0.003)     |
| DIRECTORSHIPS                 | -0.001<br>(0.001) | 0.001<br>(0.001)    | -0.001<br>(0.001)          | 0.001*<br>(0.001)    |
| INDUSTRY_EXPERTISE            | -0.001<br>(0.003) | 0.000<br>(0.002)    | -0.001<br>(0.003)          | 0.001<br>(0.002)     |
| RECENT_DEPARTURE              | 0.001<br>(0.002)  | 0.002<br>(0.002)    | -0.001<br>(0.002)          | 0.002<br>(0.002)     |
| PRIOR_PPF_APPOINTMENT         | 0.005<br>(0.004)  | 0.002<br>(0.003)    | 0.003<br>(0.005)           | 0.003<br>(0.003)     |
| DIRECTOR_ROLODEX              | -0.000<br>(0.001) | 0.001<br>(0.000)    | -0.000<br>(0.001)          | 0.000<br>(0.000)     |
| COMMITTEE_CHAIRMANSHIPS_OTHER | 0.001<br>(0.001)  | -0.002**<br>(0.001) | 0.001<br>(0.001)           | -0.002**<br>(0.001)  |
| CONNECTED_TO_APPOINTING_BOARD | 0.000<br>(0.002)  | -0.003**<br>(0.001) | 0.000<br>(0.002)           | -0.005***<br>(0.001) |
| BOARD_SIZE                    | 0.000<br>(0.001)  | 0.000<br>(0.001)    | 0.001<br>(0.001)           | 0.000<br>(0.001)     |
| BOARD_INDEPENDENCE            | 0.002<br>(0.010)  | 0.002<br>(0.008)    | -0.002<br>(0.011)          | 0.003<br>(0.009)     |
| BUSY_BOARD                    | -0.001<br>(0.002) | -0.002<br>(0.002)   | -0.000<br>(0.002)          | -0.002<br>(0.002)    |
| FIRM_SIZE                     | -0.001<br>(0.001) | -0.000<br>(0.001)   | -0.001<br>(0.001)          | 0.000<br>(0.001)     |
| SALES_GROWTH                  | -0.001<br>(0.004) | -0.007<br>(0.009)   | 0.001<br>(0.005)           | -0.010<br>(0.012)    |
| CAPEX                         | -0.031<br>(0.025) | 0.011<br>(0.025)    | -0.031<br>(0.026)          | 0.012<br>(0.033)     |
| CASH_HOLDING                  | -0.007<br>(0.008) | 0.023***<br>(0.008) | -0.005<br>(0.008)          | 0.036***<br>(0.011)  |
| LEVERAGE                      | -0.004<br>(0.004) | 0.007<br>(0.006)    | -0.004<br>(0.005)          | 0.010<br>(0.006)     |
| No. of obs.                   | 4,360             | 2,607               | 3,971                      | 2,250                |
| PPF = TPF                     | 0.93              | 0.65                | 1.04                       | 0.34                 |
| Adj. <i>R</i> <sup>2</sup>    | 0.016             | 0.002               | 0.014                      | 0.001                |
| Fixed effects                 | Industry, Year    |                     |                            |                      |

these 4 models range from 0.34 to 1.04, meaning that PPF is not significantly different from TPF.<sup>7</sup>

Overall, similar to the findings in Section III.A, we do not find PPF directors to be lower quality directors relative to TPF and NF directors. These findings are consistent with the inelastic director labor market supply documented by Armstrong et al. (2020), who show that even the worst-performing directors are able to gain new board seats after losing existing ones. More importantly, the authors do not find the characteristics of these new board seats to be significantly different from those gained by better-performing directors. In other words, the director labor market is shaped by its supply rather than its demand. As such, directors wanting to add additional board seats to their directorship portfolios do not have to compromise by joining firms with poor performance. This argument further supports the finding in this paper that directors who join PPFs choose to do so because they expect to receive certain benefits, not because these are the only opportunities available to them.

## IV. Attractive Option Hypothesis

### A. Roles on the New Boards

In this section, we explore the possibility that some directors choose to join PPFs over NFs and TPFs because of certain benefits that are more accessible when firms are not performing well. Recall that the results in Table 2 show that the directors who join PPFs are more likely to instantly take on a leadership role. To investigate this issue further, we construct several variables to measure the roles that the new directors fill upon joining the appointing boards: whether the director immediately takes on any leadership role (LEADERSHIP\_ROLE), whether the director immediately becomes the chair or the lead independent director of the board (BOARD\_CHAIR\_LEAD), whether the director immediately becomes the chair of the audit, compensation, or nomination committee (COMM\_CHAIR\_ANY),

<sup>7</sup>The results in columns 2 and 4 suggest that although the directors joining PPFs often assume leadership positions, these appointments do not always trigger negative reactions in the interlocking firms. This finding is somewhat inconsistent with the findings in a recent study by Bar-Hava, Gu, and Lev (2020), who document higher announcement returns for interlocking firms when a director resigns from another firm where he/she had certain committee assignments prior to the resignation. The authors attribute the higher returns to such resignations freeing up more of the director's time. In untabulated results, we estimate the same regression model as in column 3 of Table 6 in Bar-Hava et al. (2020) based on our director appointment sample, but do not obtain the opposite results. This seeming contradiction is likely to be driven by the differences between director resignations and appointments. While the resignation of a director (with committee assignments) only leads to a lower time constraint effect, a new appointment (also with committee assignments) might carry an additional positive certification effect that offsets a greater time constraint effect. We then separate our director appointments based on whether the director is already holding committee assignments in the interlocking firm. Consistent with this conjecture, our results suggest that the appointments with committee assignments are associated with significantly negative market reactions when the director is already holding a chair position on the interlocking board and thus does not yield an incremental certification effect. When a director does not have any leadership role on the interlocking board, new appointments with committee assignments are associated with significantly positive market reactions, suggesting that the certification effect in this case outweighs the time constraint effect.



and the total number of chairmanships the director holds among these 3 committees (COMM\_CHAIR\_TOTAL). These four measures are the primary dependent variables in this section. The key independent variables once again include PPF and TPF, with the NF directors being the omitted group.

The results are reported in Table 5. We find strong evidence that directors who join PPFs are more likely to immediately take on key board positions, such as chairing the board or chairing a major board committee. The key explanatory variable PPF is positive and significant at the 1% level across models 1–4. As reported at the bottom of the table, the PPF indicator is also significantly different from the TPF indicator across these 4 models. These results suggest that some directors opt to join PPFs likely because they are able to assume leadership roles on these boards.

One alternative explanation for these results is that the prior poor performance of PPFs leads to more vacancies on their boards, making it more likely for PPF directors to obtain leadership positions on them. To examine whether this effect drives the results, we construct 2 additional dependent variables, COMM\_MEMBER\_ANY and COMM\_MEMBER\_TOTAL, and report the results in columns 5 and 6. If the results are driven by PPFs having more board vacancies, then we should expect this effect to exist among chair positions as well as nonchair member positions. However, the coefficient of PPF is insignificant in columns 5 and 6. In the BoardEx universe, only 34.5% of the independent directors assume any committee chair positions. Once nonchair committee memberships are also considered, this proportion increases to 88.5%. Therefore, compared to chairmanships, committee memberships are much more common and much less likely to be considered key board positions. As such, the effects documented in this section only exist for the leadership positions.

Another possibility is that the decision to join PPFs is driven by the higher pay behind these leadership roles, rather than the leadership roles per se. Using the Execucomp director compensation data that starts in 2006, we separately regress director cash compensation and total compensation on the PPF and TPF indicators, along with a set of control variables. A description of the detailed procedure as well as the estimation results can be found in the Supplementary Material. We do not find any evidence that directors who join PPFs receive higher compensation than directors who join NFs or TPFs. These results are consistent with the findings in a Dutch survey conducted by De Jong, Hooghiemstra, and van Rinsum (2014), who show that monetary reward is not an important factor explaining a director's decision to join a board. Taken together, these results suggest that it is the possibility of taking on a leadership position, rather than the monetary benefits, that attracts directors to the boards of PPFs.

## B. Alternative Explanations

Certain alternative explanations exist for our baseline findings presented in Tables 3–5. First, many of the director appointments at PPFs that we observe could have been pushed through by creditors as the result of a firm's poor performance. Ferreira et al. (2018) show that following debt covenant violations, boards tend to appoint 24% more independent directors, most of whom have links to the creditors. Similarly, Brav et al. (2018) show that activist hedge funds often send directors to

TABLE 5  
Roles on the New Board

Table 5 reports the regression results of examining the roles a director assumes upon joining a poorly performing firm as opposed to joining a normal firm or a top-performing firm (TPF). The dependent variables include whether the director immediately takes any leadership role (LEADERSHIP\_ROLE), whether the director immediately becomes the chair or the lead independent director of the board (BOARD\_CHAIR\_LEAD), whether the director immediately becomes the chair of a major board committee (COMM\_CHAIR\_ANY), the total number of chairmanships the director holds among the major board committees (COMM\_CHAIR\_TOTAL), whether the director immediately becomes a member of a major board committee (COMM\_MEMBER\_ANY), and the total number of memberships the director holds among the major board committees (COMM\_MEMBER\_TOTAL). Major board committees include the audit committee, the compensation committee, and the nomination committee. Models 1–3 and 5 are logit regressions, and models 4 and 6 are negative binomial regressions. All board and firm characteristics are constructed at the appointing firm level. PPF is an indicator variable that equals 1 for directors who join poorly performing firms, and 0 otherwise. TPF is an indicator variable that equals 1 for directors who join TPFs, and 0 otherwise. The coefficients of DIRECTOR\_ROLODEX are multiplied by 10. The Appendix 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  $F$ -statistics (or  $\chi^2$ ) of testing the equality of the 2 coefficients. \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

|                                   | LEADERSHIP_<br>ROLE  | BOARD_<br>CHAIR_<br>LEAD | COMM_<br>CHAIR_<br>ANY | COMM_<br>CHAIR_<br>TOTAL | COMM_<br>MEMBER_<br>ANY | COMM_<br>MEMBER_<br>TOTAL |
|-----------------------------------|----------------------|--------------------------|------------------------|--------------------------|-------------------------|---------------------------|
|                                   | 1                    | 2                        | 3                      | 4                        | 5                       | 6                         |
| PPF                               | 0.748***<br>(0.146)  | 0.781***<br>(0.249)      | 0.736***<br>(0.148)    | 0.600***<br>(0.117)      | -0.174<br>(0.148)       | -0.026<br>(0.036)         |
| TPF                               | -0.017<br>(0.165)    | -0.353<br>(0.347)        | 0.025<br>(0.177)       | 0.004<br>(0.148)         | -0.095<br>(0.122)       | -0.001<br>(0.028)         |
| AGE                               | 0.015**<br>(0.006)   | 0.003<br>(0.017)         | 0.015**<br>(0.007)     | 0.007<br>(0.007)         | -0.003<br>(0.004)       | 0.002<br>(0.001)          |
| FEMALE                            | -0.609***<br>(0.157) | -1.166***<br>(0.365)     | -0.575***<br>(0.163)   | -0.540***<br>(0.147)     | 0.084<br>(0.081)        | 0.000<br>(0.021)          |
| DIRECTORSHIPS                     | -0.070<br>(0.049)    | 0.035<br>(0.126)         | -0.064<br>(0.052)      | -0.039<br>(0.043)        | 0.044<br>(0.041)        | 0.011<br>(0.008)          |
| INDUSTRY_EXPERTISE                | -0.137<br>(0.175)    | 0.267<br>(0.332)         | -0.138<br>(0.161)      | -0.128<br>(0.130)        | -0.001<br>(0.104)       | -0.048<br>(0.032)         |
| RECENT_DEPARTURE                  | 0.128<br>(0.173)     | 0.437<br>(0.277)         | 0.072<br>(0.197)       | 0.065<br>(0.161)         | 0.124<br>(0.133)        | 0.057*<br>(0.034)         |
| PRIOR_PPF_APPOINTMENT             | 0.220<br>(0.287)     | 0.092<br>(0.417)         | 0.055<br>(0.384)       | -0.012<br>(0.334)        | 0.171<br>(0.176)        | -0.009<br>(0.052)         |
| DIRECTOR_ROLODEX                  | 0.002<br>(0.003)     | -0.002<br>(0.008)        | 0.002<br>(0.003)       | 0.001<br>(0.003)         | -0.000<br>(0.003)       | 0.000<br>(0.001)          |
| COMMITTEE_CHAIRMANSHIPS_<br>OTHER | 0.366***<br>(0.104)  | 0.148<br>(0.191)         | 0.361***<br>(0.103)    | 0.293***<br>(0.082)      | -0.037<br>(0.064)       | -0.023<br>(0.018)         |
| CONNECTED_TO_APPOINTING_<br>BOARD | 0.196*<br>(0.101)    | 0.511*<br>(0.270)        | 0.180*<br>(0.098)      | 0.172**<br>(0.086)       | 0.008<br>(0.083)        | -0.004<br>(0.024)         |
| BOARD_SIZE                        | -0.286***<br>(0.047) | -0.026<br>(0.114)        | -0.319***<br>(0.043)   | -0.276***<br>(0.035)     | -0.129***<br>(0.021)    | -0.070***<br>(0.007)      |
| BOARD_INDEPENDENCE                | -2.121***<br>(0.506) | 0.409<br>(1.074)         | -2.374***<br>(0.538)   | -2.326***<br>(0.453)     | 0.158<br>(0.357)        | -0.353***<br>(0.131)      |
| BUSY_BOARD                        | -0.243<br>(0.246)    | -1.055***<br>(0.397)     | -0.245<br>(0.288)      | -0.266<br>(0.235)        | -0.013<br>(0.109)       | -0.000<br>(0.031)         |
| FIRM_SIZE                         | -0.121*<br>(0.074)   | -0.184<br>(0.162)        | -0.090<br>(0.077)      | -0.076<br>(0.063)        | 0.006<br>(0.032)        | -0.006<br>(0.011)         |
| SALES_GROWTH                      | -0.245<br>(0.279)    | -0.876<br>(0.601)        | -0.116<br>(0.239)      | -0.157<br>(0.183)        | 0.068<br>(0.235)        | 0.049<br>(0.069)          |
| CAPEX                             | 1.373<br>(2.123)     | 3.560**<br>(1.491)       | 1.846<br>(2.234)       | 1.660<br>(1.807)         | 1.368<br>(1.043)        | 0.478*<br>(0.283)         |
| CASH_HOLDING                      | -0.472<br>(0.526)    | -0.648<br>(0.737)        | -0.437<br>(0.610)      | -0.354<br>(0.464)        | -0.537<br>(0.332)       | -0.147<br>(0.104)         |
| LEVERAGE                          | 0.205<br>(0.248)     | -0.578<br>(0.913)        | 0.307<br>(0.256)       | 0.270<br>(0.218)         | -0.021<br>(0.156)       | -0.110**<br>(0.050)       |
| No. of obs.                       | 5,284                | 5,435                    | 5,284                  | 5,453                    | 5,409                   | 5,453                     |
| PPF = TPF                         | 16.40***             | 10.77***                 | 12.57***               | 13.84***                 | 0.400                   | 0.440                     |
| Pseudo $R^2$                      | 0.146                | 0.106                    | 0.148                  | 0.143                    | 0.039                   | 0.019                     |
| Fixed effects                     |                      |                          | Industry, Year         |                          |                         |                           |

firms that are not performing well. These possibilities would explain why director quality is not related to the director's likelihood of joining a PPF (Table 3). It can also explain why these directors immediately start taking on key roles on the new boards (Table 5).

We minimize the creditor and blockholder influence in three ways. First, we attempt to identify the newly appointed directors who may have affiliations with the creditors of the appointing firm. Following Ferreira et al. (2018), we consider directors who also hold directorships in other firms that share the same bank with the appointing firm as potentially affiliated with the creditor. Second, we attempt to directly identify firms that are likely to have just violated covenants. Following Chava and Roberts (2008), Falato and Liang (2016), and Ferreira et al. (2018), we calculate the current ratio, net worth, tangible net worth, and debt-to-EBITDA for each firm and compare them to the corresponding covenants obtained via Dealscan. Finally, we attempt to minimize the blockholder influence by only focusing on appointing firms that do not have any shareholders whose ownership exceeds 5%. We find that our results presented so far are robust to excluding any of these 3 sets of observations from our sample. We describe the tests and results in more detail in the Supplementary Material.

### C. Director-Fixed Effects

So far, we show that directors are more likely to obtain leadership positions when they join PPFs. Taken together with the findings in Section III that directors who join PPFs are not of lower quality relative to directors who join NFs and TPFs, the evidence seems to suggest that some directors could have joined non-PPFs but chose to join PPFs instead because of the leadership positions. However, since we cannot observe how many board seat offers a director has received before accepting the current one, it is challenging, if not impossible, to establish that a director "could have joined" a board that he/she does not ultimately join in reality. In this section, we attempt to overcome this challenge with director-fixed effects.

We limit our sample to include only directors who have at least one appointment at a PPF and one appointment at an NF or a TPF within our sample period. We then re-estimate the models in Table 5 and see if the same director is more likely to fill a leadership role upon joining a PPF relative to a non-PPF. The results are presented in Table 6. To accommodate the use of director-fixed effects, we estimate ordinary least squares regressions for all models. The PPF indicator remains positive and significant at the 1% level for model 1, at the 10% level for model 2, and at the 5% level for models 3 and 4.<sup>8</sup> Therefore, even among directors who clearly have received offers from both PPFs and non-PPFs, there is still a higher likelihood of them filling leadership roles at PPFs. Although one can argue that the quality of the same director can change over time, the average gap between the first and the last appointments of each director in this sample is only 3.5 years, thereby limiting the potential relevance of this concern. These findings provide additional support for the claim that the leadership positions are what attract directors to join PPFs.

<sup>8</sup>Within this small sample, there are no observations where the newly appointed director immediately receives more than one committee chair position. As a result, model 4 becomes identical to model 3.

TABLE 6  
Director-Fixed Effects

Table 6 reports the results of repeating the regression analyses in Table 5 while replacing industry-fixed effects with director-fixed effects. The sample only includes directors who have at least one appointment at a Poorly performing firm and one appointment at a normal firm or a top-performing firm (TPF) during the sample period. PPF is an indicator variable that equals 1 for directors who join poorly performing firms, and 0 otherwise. TPF is an indicator variable that equals 1 for directors who join TPFs, and 0 otherwise. The coefficients of DIRECTOR\_ROLODEX are multiplied by 10. The Appendix 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  $F$ -statistics (or  $\chi^2$ ) of testing the equality of the 2 coefficients. \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

|                                   | LEADERSHIP_<br>ROLE  | BOARD_<br>CHAIR_<br>LEAD | COMM_<br>CHAIR_<br>ANY | COMM_<br>CHAIR_<br>TOTAL | COMM_<br>MEMBER_<br>ANY | COMM_<br>MEMBER_<br>TOTAL |
|-----------------------------------|----------------------|--------------------------|------------------------|--------------------------|-------------------------|---------------------------|
|                                   | 1                    | 2                        | 3                      | 4                        | 5                       | 6                         |
| PPF                               | 0.094***<br>(0.034)  | 0.029*<br>(0.015)        | 0.083**<br>(0.034)     | 0.083**<br>(0.034)       | -0.033<br>(0.044)       | -0.040<br>(0.072)         |
| TPF                               | 0.052<br>(0.038)     | 0.017<br>(0.020)         | 0.053<br>(0.040)       | 0.053<br>(0.040)         | 0.080<br>(0.091)        | 0.141<br>(0.126)          |
| AGE                               | 0.009<br>(0.053)     | -0.050*<br>(0.026)       | 0.033<br>(0.054)       | 0.033<br>(0.054)         | 0.090<br>(0.084)        | 0.035<br>(0.133)          |
| DIRECTORSHIPS                     | -0.020<br>(0.047)    | -0.005<br>(0.016)        | -0.017<br>(0.039)      | -0.017<br>(0.039)        | 0.025<br>(0.052)        | 0.018<br>(0.072)          |
| INDUSTRY_EXPERTISE                | 0.011<br>(0.071)     | -0.006<br>(0.026)        | 0.014<br>(0.055)       | 0.014<br>(0.055)         | -0.104<br>(0.092)       | -0.207*<br>(0.115)        |
| RECENT_DEPARTURE                  | -0.064<br>(0.057)    | 0.022<br>(0.030)         | -0.063<br>(0.057)      | -0.063<br>(0.057)        | -0.011<br>(0.058)       | -0.013<br>(0.092)         |
| DIRECTOR_ROLODEX                  | 0.031<br>(0.023)     | -0.008<br>(0.015)        | 0.039**<br>(0.017)     | 0.039**<br>(0.017)       | 0.020<br>(0.028)        | 0.027<br>(0.040)          |
| COMMITTEE_CHAIRMANSHIPS_<br>OTHER | -0.173***<br>(0.048) | -0.009<br>(0.015)        | -0.159***<br>(0.047)   | -0.159***<br>(0.047)     | -0.037<br>(0.063)       | -0.080<br>(0.124)         |
| CONNECTED_TO_APPOINTING_<br>BOARD | -0.024<br>(0.037)    | -0.002<br>(0.035)        | -0.022<br>(0.046)      | -0.022<br>(0.046)        | 0.084<br>(0.052)        | 0.198*<br>(0.113)         |
| BOARD_SIZE                        | -0.001<br>(0.011)    | 0.010*<br>(0.006)        | -0.012<br>(0.011)      | -0.012<br>(0.011)        | -0.027<br>(0.020)       | -0.067**<br>(0.032)       |
| BOARD_INDEPENDENCE                | 0.349<br>(0.276)     | 0.062<br>(0.093)         | 0.333<br>(0.246)       | 0.333<br>(0.246)         | -0.468<br>(0.287)       | -1.486***<br>(0.453)      |
| BUSY_BOARD                        | -0.009<br>(0.036)    | 0.017<br>(0.029)         | -0.030<br>(0.050)      | -0.030<br>(0.050)        | 0.090<br>(0.078)        | 0.294**<br>(0.119)        |
| FIRM_SIZE                         | -0.022<br>(0.027)    | -0.014<br>(0.011)        | -0.006<br>(0.024)      | -0.006<br>(0.024)        | 0.044<br>(0.029)        | 0.069**<br>(0.031)        |
| SALES_GROWTH                      | 0.057<br>(0.137)     | 0.114*<br>(0.062)        | -0.045<br>(0.109)      | -0.045<br>(0.109)        | -0.086<br>(0.159)       | 0.262<br>(0.286)          |
| CAPEX                             | 0.083<br>(0.509)     | -0.233<br>(0.173)        | 0.211<br>(0.515)       | 0.211<br>(0.515)         | 1.382<br>(1.046)        | 2.424*<br>(1.369)         |
| CASH_HOLDING                      | 0.049<br>(0.263)     | 0.119<br>(0.095)         | -0.077<br>(0.257)      | -0.077<br>(0.257)        | 0.046<br>(0.391)        | 0.056<br>(0.565)          |
| LEVERAGE                          | 0.072<br>(0.116)     | -0.013<br>(0.035)        | 0.088<br>(0.115)       | 0.088<br>(0.115)         | -0.171<br>(0.125)       | -0.433<br>(0.264)         |
| No. of obs.                       | 441                  | 441                      | 441                    | 441                      | 441                     | 441                       |
| PPF = TPF                         | 0.95                 | 0.77                     | 0.49                   | 0.49                     | 2.100                   | 2.650                     |
| Adj. $R^2$                        | 0.098                | 0.138                    | 0.094                  | 0.094                    | 0.103                   | 0.156                     |
| Fixed effects                     |                      |                          | Director, Year         |                          |                         |                           |

#### D. Why Do Directors Obtain More Chair Positions at PPFs?

Why are directors more likely to obtain leadership positions when they join PPFs? One explanation is that a firm's recent poor performance may have led to more directors departing from the board, either from being forced to leave due to their monitoring failure or voluntarily choosing to "jump ship." If the departing directors frequently held leadership positions, then there would be a greater demand

TABLE 7  
Departures of Previous Chairs from the Board

Table 7 reports the logit regression results of analyzing the reasons that directors are more likely to gain leadership positions when they join poorly performing firms. In column 1, the dependent variable is an indicator variable that equals 1 if the board chair or a board committee chair departs from the board during year  $t$ , and 0 otherwise. In column 2, the sample is based on the chairman departures identified in column 1. The dependent variable is an indicator variable that equals 1 if an existing board member becomes the new chair of the position, and 0 if a newly appointed director becomes the chair. Major board committees include the audit committee, the compensation committee, and the nomination committee. PPF is an indicator variable that equals 1 for directors who join poorly performing firms, and 0 otherwise. TPF is an indicator variable that equals 1 for directors who join top-performing firms, and 0 otherwise. The Appendix 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  $F$ -statistics (or  $\chi^2$ ) of testing the equality of the 2 coefficients. \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

|                    | CHAIR_DEPARTURE      | INTERNAL_SUCCESOR    |
|--------------------|----------------------|----------------------|
|                    | 1                    | 2                    |
| PPF                | 0.204<br>(0.171)     | -1.164***<br>(0.295) |
| TPF                | -0.160<br>(0.115)    | 0.097<br>(0.352)     |
| BOARD_SIZE         | -0.112***<br>(0.034) | 0.245**<br>(0.096)   |
| BOARD_INDEPENDENCE | 0.679*<br>(0.389)    | -0.933<br>(1.186)    |
| BUSY_BOARD         | -0.030<br>(0.147)    | 0.056<br>(0.455)     |
| FIRM_SIZE          | 0.050<br>(0.054)     | 0.040<br>(0.129)     |
| SALES_GROWTH       | -1.224***<br>(0.366) | 1.364**<br>(0.675)   |
| CAPEX              | -1.280<br>(1.169)    | -0.374<br>(2.303)    |
| CASH_HOLDING       | 0.402<br>(0.494)     | 0.684<br>(0.759)     |
| LEVERAGE           | 0.236<br>(0.219)     | -0.238<br>(0.355)    |
| No. of obs.        | 5,492                | 1,578                |
| PPF = TPF          | 2.12                 | 16.00***             |
| Pseudo $R^2$       | 0.036                | 0.169                |
| Fixed effects      | Industry, Year       |                      |

by PPFs to fill these vacancies. To examine whether this is the case, for all firms in our sample, we construct an indicator variable that equals 1 if any of the directors who chaired the board or a major board committee in year  $t - 1$  are no longer with the board in year  $t$ , and 0 if all of these directors are still present. We then regress this variable on PPF and TPF, along with control variables at the firm level. As shown in column 1 of Table 7, the PPF indicator does not have a significant coefficient and is also not significantly different from TPF. Although Table 1 shows that PPFs tend to see more director departures, the evidence here suggests that this difference is not significant when we only focus on directors in leadership positions.<sup>9</sup>

Given that the frequency of chair departures is similar across the 3 subgroups of firms, a follow-up explanation is that PPFs and non-PPFs may fill vacant chair positions in different ways. For non-PPFs, their recent satisfactory performance

<sup>9</sup>Since we define PPFs based on their performance over a 3-year window, we also consider the possibility that some directors resigned from leadership positions in years  $t - 2$  and  $t - 3$ , leaving the positions vacant until new directors join in year  $t$ . We find that there are very few cases that fall into this category. Including these cases does not change our findings in this table.

makes it reasonable for them to fill vacant leadership positions with directors who are already sitting on the board. On the other hand, PPFs may be more inclined to prefer an injection of “fresh blood” over relying on existing board members to bring about changes to the firm. As such, for all the leadership positions that became available in year  $t$ , we construct an indicator variable `INTERNAL_SUCCESSOR`, which equals 1 if this position is filled by an existing board member and 0 if a newly appointed director fills this position. We then estimate a logit regression, taking this variable as the dependent variable. As shown in column 2, the PPF indicator is significantly negative (and different from the TPF indicator). These results are not surprising, as they essentially reflect the reversed results of [Table 5](#). Nevertheless, taken together with the results in column 1, they help confirm the source of the effects we document in [Table 5](#).

## V. Labor Market Consequences

In this section, we examine whether a director’s decision to join a PPF or a non-PPF leads to any long-term effects on the director’s career. We rely on the new directorships a director obtains to capture the subsequent demand for this director’s service in the labor market, and consider both the quantity and the quality of the new directorships. First, we calculate the change in the total number of independent directorships each director holds (as covered by BoardEx) from the year of the appointment until 5 years after the appointment. Second, for the directors who obtain new directorships during this period, we construct an indicator variable which equals 1 if the firm size of the largest newly gained directorship is greater than the size of the focal appointing firm by at least 10%, and 0 otherwise. We follow Masulis and Mobbs (2014) and use the market value of equity to measure directorship prestige.

The results are presented in [Table 8](#). The PPF indicator has an insignificant coefficient in models 1 and 3, suggesting that joining a PPF per se does not lead to a different impact on the director’s subsequent career. The existing literature shows that directors who were already present when a firm experiences an adverse event (e.g., financial fraud, earnings management, or proxy contests) suffer a subsequent decline in the number of directorships they hold (Fich and Shivdasani (2007), Fos and Tsoutsoura (2014), and Dou (2017)). As such, the evidence above suggests that the labor market is able to differentiate directors who join a PPF after the poor performance and does not penalize them for being associated with PPFs. At the same time, this finding also implies that the experience of managing a “crisis period” does not appear to be rewarded by the labor market.

Next, we take into account whether the joining director immediately takes on a chair position on the appointing board. Specifically, we construct an indicator variable, `LEADERSHIP_ROLE`, which equals 1 if the new director joins as the chair (or the lead independent director) of the board or as the chair of any of the 3 major board committees, and 0 otherwise. We then interact this variable with the PPF indicator and the TPF indicator separately. We find that the interaction term between PPF and `LEADERSHIP_ROLE` is positive and significant at the 5% level in the number of directorships model, providing some suggestive evidence that

TABLE 8  
Labor Market Consequences

Table 8 reports the results of examining the impact of joining a poorly performing firm (PPF) on the subsequent demand for the director's service in the labor market. In columns 1 and 2, the dependent variable is the change in each director's number of directorships from the year of the new appointment until 5 years after, and the models are negative binomial regressions. The dependent variable is inflated by its minimum value so that all values are greater than or equal to 0. In columns 3 and 4, the dependent variable is an indicator variable that equals 1 if the largest directorship gained by the director within 5 years after the appointment is greater than the directorship at the appointing firm by at least 10%, and 0 otherwise. The models are logit regressions. PPF is an indicator variable that equals 1 for directors who join PPFs, and 0 otherwise. TPF is an indicator variable that equals 1 for directors who join top-performing firms, and 0 otherwise. LEADERSHIP\_ROLE is an indicator variable that equals 1 if the newly appointed director chairs the board, is the lead independent director, or is the chair of the audit committee, compensation committee, or nomination committee, and 0 if the director does not hold any chairing position. FIRM\_SIZE is measured by the natural logarithm of market value of equity for the prestige models. The coefficients of DIRECTOR\_ROLODEX are multiplied by 10. The Appendix contains variable definitions. Standard errors are clustered at the industry level and are reported beneath each coefficient. The rows PPF = TPF and PPF Interaction = TPF Interaction at the bottom of the table report the  $F$ -statistics (or  $\chi^2$ ) of testing the equality of the 2 coefficients. \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

|                                   | Directorships        |                      | Prestige             |                      |
|-----------------------------------|----------------------|----------------------|----------------------|----------------------|
|                                   | 1                    | 2                    | 3                    | 4                    |
| PPF                               | -0.008<br>(0.006)    | -0.012<br>(0.009)    | -0.216<br>(0.154)    | -0.255<br>(0.158)    |
| TPF                               | 0.002<br>(0.004)     | 0.003<br>(0.004)     | -0.127<br>(0.208)    | -0.093<br>(0.214)    |
| LEADERSHIP_ROLE                   |                      | -0.009<br>(0.012)    |                      | -0.110<br>(0.612)    |
| PPF × LEADERSHIP                  |                      | 0.035**<br>(0.018)   |                      | 0.392<br>(0.630)     |
| TPF × LEADERSHIP                  |                      | -0.006<br>(0.019)    |                      | -0.480<br>(0.786)    |
| AGE                               | -0.001**<br>(0.000)  | -0.001*<br>(0.000)   | -0.032***<br>(0.011) | -0.031***<br>(0.012) |
| FEMALE                            | 0.014***<br>(0.004)  | 0.014***<br>(0.004)  | -0.011<br>(0.173)    | -0.020<br>(0.163)    |
| DIRECTORSHIPS                     | -0.062***<br>(0.017) | -0.062***<br>(0.017) | 0.103*<br>(0.060)    | 0.104*<br>(0.059)    |
| INDUSTRY_EXPERTISE                | -0.013<br>(0.011)    | -0.013<br>(0.011)    | -0.201<br>(0.301)    | -0.207<br>(0.301)    |
| RECENT_DEPARTURE                  | -0.002<br>(0.006)    | -0.002<br>(0.006)    | 0.244<br>(0.182)     | 0.240<br>(0.180)     |
| PRIOR_PPF_APPOINTMENT             | -0.016<br>(0.017)    | -0.016<br>(0.017)    | -0.554<br>(0.360)    | -0.571<br>(0.359)    |
| DIRECTOR_ROLODEX                  | 0.000***<br>(0.000)  | 0.000***<br>(0.000)  | 0.014***<br>(0.005)  | 0.014***<br>(0.005)  |
| COMMITTEE_CHAIRMANSHIPS_OTHER     | -0.008<br>(0.013)    | -0.008<br>(0.013)    | -0.205*<br>(0.107)   | -0.199*<br>(0.108)   |
| BOARD_SIZE                        | 0.002<br>(0.001)     | 0.002<br>(0.001)     | 0.065<br>(0.072)     | 0.062<br>(0.070)     |
| BOARD_INDEPENDENCE                | 0.011<br>(0.031)     | 0.011<br>(0.032)     | 1.737***<br>(0.661)  | 1.699**<br>(0.724)   |
| BUSY_BOARD                        | -0.007<br>(0.011)    | -0.007<br>(0.011)    | 0.179<br>(0.259)     | 0.182<br>(0.258)     |
| FIRM_SIZE                         | 0.006***<br>(0.002)  | 0.006***<br>(0.002)  | -0.620***<br>(0.063) | -0.618***<br>(0.064) |
| SALES_GROWTH                      | 0.017<br>(0.015)     | 0.018<br>(0.015)     | -0.635<br>(0.619)    | -0.663<br>(0.629)    |
| CAPEX                             | -0.010<br>(0.062)    | -0.006<br>(0.061)    | 0.046<br>(1.547)     | 0.139<br>(1.591)     |
| CASH_HOLDING                      | 0.006<br>(0.015)     | 0.004<br>(0.014)     | -1.183**<br>(0.499)  | -1.193**<br>(0.500)  |
| LEVERAGE                          | -0.016<br>(0.012)    | -0.015<br>(0.012)    | 0.168<br>(0.448)     | 0.165<br>(0.450)     |
| No. of obs.                       | 5,253                | 5,253                | 1,107                | 1,107                |
| PPF = TPF                         | 1.71                 | 4.16**               | 0.15                 | 0.53                 |
| PPF interaction = TPF interaction |                      | 4.08**               |                      | 2.06                 |
| Pseudo $R^2$                      | 0.027                | 0.027                | 0.158                | 0.159                |
| Fixed effects                     |                      |                      | Industry, Year       |                      |



joining and taking on a leadership position at a PPF leads to certain benefits for the director.

### Certification Effect

The above findings suggest that not all appointments at PPFs lead to the same labor market outcome. Directors who join and fill the leadership roles on the board benefit from these appointments. For these directors, the fact that the appointing firms are willing to delegate chair positions to them appears to have a certification effect on their reputation, which then increases the likelihood that other firms will also start offering them board seats. Thus, our next test checks to see if the results documented above are really driven by a certification effect.

Intuitively, the certification effect should be stronger among directors who are relatively junior in the director labor market. For these directors, the labor market knows very little about their quality and is therefore more reliant on new signals revealed to the market. Consequently, all else equal, these directors will benefit more from the certification effect. As such, we partition all directors into the “junior” subsample and the “senior” subsample, depending on whether their age is below or above the sample median. We expect the effects to mainly exist among the junior directors.

We also test for the certification effect by examining the subsequent performance of the appointing firm after the new director joins the board. Directors should benefit from joining a PPF (and taking on key roles on the board) only if firm performance subsequently improves. Therefore, for each appointing firm, we check if its ROA of year  $t + 1$  is higher relative to its ROA of year  $t - 1$  by at least 10%. We then partition all director appointments into the “improvement” or “no improvement” subsamples and expect the certification effect to be present only in the improvement subsample.

The results are presented in [Table 9](#). For some subsamples in the directorship prestige test, there are fewer than 10 cases where directors who join TPFs immediately take on a leadership position. Therefore, for the subsample tests, we drop the TPF indicator and its interaction term with LEADERSHIP\_ROLE. That is, we pool NF directors and TPF directors into the same group and compare PPF directors to this combined group. In Panel A, we repeat the regression models in [Table 8](#) while partitioning directors based on their age. The interaction term between PPF and LEADERSHIP\_ROLE within the junior subsample is positive and significant at the 5% level in column 1 (number of directorships) and at the 10% level in column 3 (prestige of directorships). Meanwhile, this interaction term is insignificant within the Senior subsample in columns 2 and 4. In Panel B, we repeat the regressions on the improvement and no improvement subsamples and continue to observe a similar pattern. While the interaction term is positive and significant at the 10% level in column 1 and at the 5% level in column 3, it is once again insignificant in columns 2 and 4. Overall, the results from the subsample analyses support a certification effect. These findings further show that, at least for some directors, taking on a board position at a PPF helps them build a stronger reputation in the labor market.

TABLE 9  
Certification Effect

Table 9 reports the subsample analysis results of the labor market consequences. Panel A divides directors based on their age. The subsample of directors whose age is below (above) the sample median is labeled as the junior (senior) subsample. Panel B divides directors based on the return on assets (ROA) of the appointing firm over the year following the appointment. The subsample of directors appointed by firms whose ROA in the following year is higher than the ROA in the previous year by at least 10% is labeled as the improvement subsample, and vice versa. Control variables are included in the models but omitted from the table for brevity. PPF is an indicator variable that equals 1 for directors who join poorly performing firms, and 0 for directors who join normal firms or top-performing firms. ANY\_CHAIR is an indicator variable that equals 1 if the newly appointed director chairs the board, is the lead independent director, or is the chair of the audit committee, compensation committee, or nomination committee, and 0 if the director does not take any chairing position. FIRM\_SIZE is measured by the natural logarithm of market value of equity for the prestige models. The Appendix contains variable definitions. Standard errors are clustered at the industry level and are reported beneath each coefficient. \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

| <i>Panel A. Age Subsamples</i>                    | Directorships      |                   | Prestige             |                   |
|---|--------------------|-------------------|----------------------|-------------------|
|   | Junior 1           | Senior 2          | Junior 3             | Senior 4          |
| PPF   | -0.011<br>(0.009)  | -0.011<br>(0.008) | -0.392<br>(0.252)    | -0.193<br>(0.316) |
| LEADERSHIP_ROLE                                   | -0.005<br>(0.010)  | -0.015<br>(0.019) | -2.234***<br>(0.723) | 0.419<br>(0.426)  |
| PPF × LEADERSHIP                                  | 0.035**<br>(0.016) | 0.041<br>(0.025)  | 2.331*<br>(1.287)    | -0.009<br>(0.763) |
| Control variables                                 | Yes                | Yes               | Yes                  | Yes               |
| No. of obs.                                       | 2,691              | 2,562             | 540                  | 526               |
| Pseudo R <sup>2</sup>                             | 0.022              | 0.033             | 0.186                | 0.184             |
| Fixed effects                                     | Industry, Year     |                   |                      |                   |
| <i>Panel B. Subsequent Performance Subsamples</i> |                    |                   |                      |                   |
|   | Improvement        | No Improvement    | Improvement          | No Improvement    |
|   | 1                  | 2                 | 3                    | 4                 |
| PPF   | -0.004<br>(0.009)  | -0.013<br>(0.009) | -0.503<br>(0.307)    | 0.316<br>(0.328)  |
| LEADERSHIP_ROLE                                   | 0.009<br>(0.014)   | -0.022<br>(0.016) | -1.357<br>(0.977)    | 0.106<br>(0.433)  |
| PPF × LEADERSHIP                                  | 0.034*<br>(0.020)  | 0.008<br>(0.029)  | 1.451**<br>(0.677)   | 0.742<br>(1.639)  |
| Control variables                                 | Yes                | Yes               | Yes                  | Yes               |
| No. of obs.                                       | 1,792              | 3,210             | 361                  | 656               |
| Pseudo R <sup>2</sup>                             | 0.028              | 0.030             | 0.234                | 0.188             |
| Fixed effects                                     | Industry, Year     |                   |                      |                   |

## VI. Conclusion

Sitting on the board of a PPF can be costly to directors in a number of ways, yet the majority of these firms are able to appoint new directors to fill their board vacancies. We do not find evidence that the directors who join PPFs are of lower quality than those who join non-PPFs. In fact, our evidence is more consistent with these directors voluntarily choosing to join PPFs over non-PPFs. Directors who join PPFs are more likely to immediately hold a chair position on the board, although these key positions are not associated with higher compensation. This effect exists even for the same director who has joined both PPFs and non-PPFs during our sample period.

We subsequently explore the labor market consequences of joining PPFs, finding that directors who join these firms and fill important roles on the boards

subsequently hold more directorships. These effects are stronger among the subsample of directors who are comparatively younger. As such, the evidence suggests that filling key roles, even on poorly performing boards, can yield a certification benefit for directors, especially those that do not already have an established reputation.

## Appendix. Variable Definitions

AGE: Director age in years.

ANY\_CHAIR: Indicator variable that equals 1 if the director chairs the board, is the lead independent director, or is the chair of the audit committee, compensation committee, or nomination committee, and 0 otherwise.

BOARD\_CHAIR\_LEAD: Indicator variable that equals 1 if the director is the chair or the lead independent director of the board, and 0 otherwise.

BOARD\_INDEPENDENCE: Number of independent directors scaled by board size.

BOARD\_SIZE: Total number of inside, gray, and independent directors on board.

BUSY\_BOARD: Indicator variable that equals 1 if half or more of the independent directors on the board hold three or more directorships, and 0 otherwise.

CAPEX: Capital expenditure scaled by total assets.

CASH\_HOLDING: Cash and other marketable securities scaled by total assets.

COMMITTEE\_CHAIRMANSHIPS: Number of committee chairmanships the director has among the audit committee, compensation committee, and nomination committee.

COMMITTEE\_MEMBERSHIPS: Number of committee memberships the director has among the audit committee, compensation committee, and nomination committee.

CONNECTED\_TO\_APPOINTING\_BOARD\_ANY\_LINKS: Indicator variable that equals 1 if the joining director shares an education, professional, or social link with any director on the appointing board, and 0 otherwise.

CONNECTED\_TO\_APPOINTING\_BOARD\_EDUCATION\_LINKS: Indicator variable that equals 1 if any existing member on the appointing board graduated from the same university with the same degree 1 year before, in the same year of, or 1 year after the joining director, and 0 otherwise.

CONNECTED\_TO\_APPOINTING\_BOARD\_PROFESSIONAL\_LINKS: Indicator variable that equals 1 if any existing member on the appointing board worked at the same company at the same time with the joining director in any prior years, and 0 otherwise.

CONNECTED\_TO\_APPOINTING\_BOARD\_SOCIAL\_LINKS: Indicator variable that equals 1 if any existing member on the appointing board is an active member of organizations in which the joining director is also an active member, and 0 otherwise.

CONNECTIONS\_EDUCATION: Total number of individuals who graduated from the same university with the same degree 1 year before, in the same year of, or 1 year after the director.

- CONNECTIONS\_PROFESSIONAL:** Total number of individuals who worked at the same company at the same time with the director in any prior years.
- CONNECTIONS\_SOCIAL:** Total number of individuals who are active members of organizations in which the director is also an active member.
- CONNECTIONS\_TOTAL\_(DIRECTOR\_ROLODEX):** Total number of unique individuals connected to the director via education, professional, or social links.
- DAYS\_ON\_BOARD:** Number of days in the current fiscal year during which the director was a board member.
- DIRECTORSHIPS:** Number of board seats in public companies currently held by the director.
- FEMALE:** Indicator variable that equals 1 for female directors, and 0 otherwise.
- FIRM\_SIZE:** Natural logarithm of total assets.
- INDUSTRY\_EXPERTISE:** Indicator variable that equals 1 if the director sits or sat on the board of another firm in the same 2-digit SIC industry of the appointing firm in the current or previous year, and 0 otherwise.
- LEVERAGE:** Book value of debt scaled by book value of total assets.
- NF:** Firms whose annual ROAs have ranked within the middle 2 quartiles of the corresponding 2-digit SIC industry for 3 consecutive years.
- PPF:** Firms whose annual ROAs have ranked within the bottom quartile of the corresponding 2-digit SIC industry for 3 consecutive years.
- PRIOR\_PPF\_APPOINTMENT:** Indicator variable that equals 1 if the director joined a poorly performing firm in prior years within the sample period, and 0 otherwise.
- RECENT\_DEPARTURE:** Indicator variable that equals 1 if the director left another firm in the current or previous year, and 0 otherwise.
- SALES\_GROWTH:** Logarithm ratio of the net sales in the current year over the net sales in the previous year.
- TENURE:** Number of years since the director joined the board.
- TOTAL\_PAY:** Natural logarithm of director total compensation.
- TPF:** Firms whose annual ROAs have ranked within the top quartile of the corresponding 2-digit SIC industry for 3 consecutive years.

## Supplementary Material

To view supplementary material for this article, please visit <http://doi.org/10.1017/S0022109021000739>.

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