

2011

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Recommended Citation

Elsaid, Eahab; Wang, Xiaoxin; and Davidson III, Wallace N.. (2011). Does experience matter? CEO successions by former CEOs. *Managerial Finance*, 37 (10), 915-939.
<https://scholar.uwindsor.ca/odettepub/38>

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Does Experience Matter? CEO Successions by Former CEOs

Journal:	<i>Managerial Finance</i>
Manuscript ID:	Draft
Manuscript Type:	Original Article
Keywords:	Compensation, exCEO, stock market reaction, firm performance, non-exCEO

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Review

Does Experience Matter?

CEO Successions by Former CEOs

ABSTRACT

We distinguish external CEO successors between those who have and those who do not have previous CEO experience. We find that the stock market reacts positively to the hiring of an exCEO. Compared with firms that hire non-exCEOs, firms that hire exCEOs had higher debt ratios and greater bankruptcy chances pre-succession, but post-succession, these firms still have worse financial performances. Non-exCEOs come from larger firms than exCEOs. There is no consistently significant difference in compensation between an exCEO and a non-exCEO, though the compensation for both increases significantly from that of the predecessor's and that of their previous positions.

1. INTRODUCTION

On August 3rd, 2009, the troubled insurance giant AIG announced that it would replace the retiring CEO Edward Liddy with Robert Benmosche, the former MetLife CEO. AIG shares gained a modest 3.5% on that day. However, on September 30, 2009, Hartford Financial announced the hiring of Liam McGee, Bank of America's former head of consumer banking as its new chairman and CEO. Hartford stock fell 3.4% on that day, and continued to fall 5.7% the next day. Both successors are from outside the hiring firm, but one key difference between them is that Benmosche was formerly a CEO while McGee was not. Though market reactions to these succession announcements could be purely random, and there could be other factors behind their stock price movements, the issue of prior CEO experience of outside CEO successors is, nevertheless, important and warrants a closer look, especially if hiring an experienced CEO can help to turn-around a troubled company.

The study of CEO turnover remains an important research topic in part because the current economic climate has increased turnover rates. Research by Chicago-based executive recruitment firm Challenger Gray & Christmas has estimated that 1,484 CEOs left their jobs in 2008, the equivalent of six every working day, the most since the company began monitoring the market in 1999. Virtually all academic research on successor CEO origin focuses on the distinction between outside successors and those from inside the company. In prior decades, inside succession was considerably more common than outside succession (Helmich, 1974; Dalton & Kesner, 1983; Friedman & Singh, 1989). However, in recent years, the trend has reversed: Huson, Parrino and Starks (2001) find that the frequency of outside successions has increased from the 1970's to the 1990's. Murphy and Zabochnik (2007) discuss the relative frequency of external vs. internal CEO replacements for companies in the annual *Forbes* surveys from 1970 through 2005. During the

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6 1970s and 1980s, outside hires accounted for 15% and 17% of all CEO replacements, respectively.
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9 In contrast, during the 1990s more than one in four CEOs were hired from outside the company, and
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11 in the first half of the 2000s almost a third of all CEOs were hired from outside the company.
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13 In addition, Murphy and Zbojnik (2007) indicate that the percentage of outside hires with
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15 prior experience as a CEO of a publicly traded company has risen from less than 20% in the 1970s
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17 to nearly 50% in the 1990s. The average number of firms where the new CEO had been a prior CEO
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19 has nearly tripled over this time period (since many of the newly appointed CEOs had held this
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21 position at several firms previously). The average number of prior corporate employers has risen
22
23 significantly from the 1970s (when the typical CEO had been employed by an average of 1.88 other
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25 corporations) to the 1990s (when the typical CEO had been employed by an average of 2.72 other
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27 corporations) to the 1990s (when the typical CEO had been employed by an average of 2.72 other
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29 corporations).
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31 Agrawal, Knoeber and Tsoulouha (2006) argue that outside CEO successors are
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33 handicapped in the sense that they are only chosen if they are much better than the best insider
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35 candidate. Companies often appoint an outside candidate when its prior performance has been poor
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37 and when the situation calls for new direction (Cannella and Lubatkin, 1993; Davidson, Worrell &
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39 Dutia, 1993; Kesner & Sebor, 1994). As a result, the stock market tends to react more positively to
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41 the announcement of outside CEO appointments than to inside CEO appointments (Lubatkin,
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43 Chung, Rogers & Owers, 1989; Borokhovich, Parrino & Trapani, 1996; Huson, Malatesta & Parrino,
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45 2004).
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50 Though the research on outside CEO succession has been extensive, there has been little
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52 research on the differences between outside CEO successors who have prior CEO experience versus
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54 those without CEO experience. Murphy and Zbojnik (2004, 2007) argue that a successor's general
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56 managerial skills may be more important than his firm-specific skills. The requirement for
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6 managerial skills would give exCEOs an edge over those who were not CEOs in their previous
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8 firms. In addition, hiring an outsider with prior CEO experience may reduce the uncertainty that an
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10 outsider brings to the new firm because the candidate with prior CEO experience has a track record
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12 as CEO that the new firm, the stock market, and the firm's other constituents can observe.
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16 In this paper, we compare the antecedents and consequences of firms that hire outsiders with
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18 prior CEO experience to those outsiders that do not have this experience. First, we examine the
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20 stock market reaction to the succession announcements. We find that the market reacts positively to
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22 succession announcements when the successor has prior CEO experience but not when the outside
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24 successor lacks this experience. Second, we examine the financial performance of these two groups
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26 of firms prior to the succession. We find that firms hiring a CEO with experience have a worse
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28 financial condition (measured by their Z-scores) and higher debt ratios than those hiring a non-
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30 exCEO. Third, we compare the outsiders' previous firms. Non-exCEOs come from larger firms
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32 than exCEOs, but other performance measures show no significant differences. Fourth, we examine
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34 the pay of the two groups of successors. Surprisingly, there is no consistent significant difference in
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36 compensation, both in amount and in structure, between an exCEO and a non-exCEO, though both
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38 increase significantly in amount from that of the predecessor's and that of their previous
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40 positions. Finally, we examine the financial performance post-succession. After hiring an exCEO,
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42 the successor firms still have worse financial performance than non-exCEO successor firms, and the
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44 pre-to-post change in performance is insignificant between the two groups of successors.
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50 We organize the remainder of the paper as follows. Section 2 reviews past literature on
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52 CEO turnover and succession with a focus on successor origin. Based on the literature review, we
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54 establish six testable hypotheses. In section 3 we discuss the sample and data. In section 4 we
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6 discuss our results. Section 5 summarizes robustness checks with alternative factors. Section 6
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8 concludes.
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10 11 **2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

12 13 **2.1 Outsider Succession Literature**

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17 There is considerable literature on the origin of CEO successors. Some of this research has
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19 found that firms tend to hire outside successors when their performance has been poor (Boeker &
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21 Goodstein, 1993; Cannella & Lubatkin, 1993; Davidson, Worrell & Dutia, 1993; Kesner and Sebor,
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23 1994). One conclusion from this research is that companies appoint an outside successor when
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25 there is a need for a new direction in hope of improved performance.
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29 As a result, investors usually welcome the hiring of an outside successor. Lubatkin, Chung,
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31 Rogers and Owers (1989), document a positive reaction from the stock market at the announcement
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33 of the hiring of an outside CEO, especially for firms that had poor prior performance. Positive
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35 market reactions to the hiring announcements of outside successors have also been documented in
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37 Reinganum (1985), Chung, Lubatkin, Rogers, and Owers (1987), Warner, Watts, and Wruck (1988),
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39 Borokhovich, Parrino, and Trapani (1996) and Davidson, Nemec, Worrell, and Lin (2002). Huson,
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41 Malatesta, and Parrino (2004) find that firm performance does improve following the appointment
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43 of an outside CEO, and the stock market reacts positively to the appointment and to the later
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45 improved performance. Murphy and Zbojnik (2004, 2007) state that boards are more likely to
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47 appoint outside successors when their general managerial skills are more important than firm-
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49 specific skills. This would give successors with CEO experience an advantage over those who do
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51 not have the experience.
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56 Another area of research is the industrial origin of outside successors. Coles, McWilliams,
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58 and Sen (2001) document the importance of industry related variables in corporate governance
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6 decisions. The industry effect on governance has also been documented by Jenter and Kanaan
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8 (2008); poor industry performance and even poor performance of the entire market are not filtered
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10 out by corporate boards in CEO dismissal decisions. As a result, poor industry and market
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12 conditions significantly increase the chance of forced CEO turnovers. However, Kaplan and
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14 Minton (2006) show that it is only the internal turnovers that are significantly related to three
15
16 components of firm performance—performance relative to industry, industry performance relative
17
18 to the overall market, and the performance of the overall market, while external turnovers are not
19
20 significantly related to any of them. Industry effects may also be present in board hiring decisions.
21
22 Parrino (1997) argues that succession decisions may be influenced by industry specific human
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24 capital of successor candidates. In addition, the stock market reacts more positively to
25
26 announcements of outside successions when the outsider comes from the same industry as the new
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28 firm (Davidson, Nemec, Worrell, and Lin, 2002). Due to the extensive research in industry origin
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30 of CEO successors, we control for the industry effect in our analyses in this paper.
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38 **2.2 Antecedents to Hiring a Successor with CEO Experience**

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40 What would prior CEO experience do for a successor candidate? CEO experience would
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42 give the successor experience with the demands of being at the helm of an organization. While
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44 outside successors either with or without CEO experience would need time to learn about their new
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46 company, the non-exCEO would also have to learn to be a CEO. The exCEO, on the other hand,
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48 would likely have a shorter learning curve having already experienced the demands of a CEO
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50 position. In addition, having CEO experience would lessen the uncertainty that is inherent in a
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52 succession decision. The new firm and the market can view the experienced candidate's
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6 performance as CEO, something that cannot be done for outside successors without CEO experience.

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8 Because of the reduced uncertainty, we propose the following first hypothesis:

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11 *H₁: The stock market will react more positively towards succession announcements when the*
12 *outside successor has prior CEO experience than when the successor does not.*

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14
15 Prior research has documented that firms are more likely to hire outsiders rather than
16
17 insiders following poor performance. The goal of hiring an outsider under these conditions is to
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19 make changes that will improve the financial performance of the firm. We propose that firms with
20
21 poor performance will want an experienced leader as the successor; therefore, firms that hire
22
23 successors with CEO experience will have worse prior financial performance than firms that hire
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25 outside CEOs without CEO experience. This provides our second hypothesis.

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29 *H₂: Firms that hire successors with CEO experience are likely to have experienced worse*
30 *financial performance than firms hiring a successor without CEO experience.*

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32
33 Ocasio (1999) proposes that firms rely on informal rules of appropriateness to keep
34
35 organizational activities on track particularly in ambiguous situations. Hiring an outsider without
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37 CEO experience creates more uncertainty than when the outsider has CEO experience. Following
38
39 the rules of appropriateness if a firm hiring an outside successor cannot hire an experienced CEO
40
41 then the prior performance, size and industry of the successor's prior firm may become more
42
43 important to their hiring decision¹. Since the board is not hiring an experienced outsider, the board
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45 must be able to justify its decision; it can do so by hiring an outside candidate from a larger firm that
46
47 is performing well. Since the board can justify its decision to hire an exCEO based on the
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49 candidate's experience at the helm, the issue of the prior-firm performance and industry would play
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51 a smaller role in the board's decision. This provides our third hypotheses:

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58 ¹Note that this does not mean that firms hiring exCEOs do not consider the performance of the
59 previous firms the successor comes from.
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6 *H_{3a}: Non-exCEOs come from bigger and better performing firms than exCEOs.*

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9 *H_{3b}: Non-exCEOs are more likely to come from the same industry than exCEOs.*

10 11 12 13 **2.3. Outsider Successor Bargaining Experience**

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15 If the goal of executives is advancement then the CEO position would be highly coveted.
16
17 Being hired as a CEO would bring the executive to the top position in the company. Once a board
18 makes the decision to hire an outside successor, the CEO candidate and board would negotiate the
19 position. While there would be many potential issues to negotiate, compensation amount and
20 structure for the successor would be a potential negotiation topic. A candidate for the position who
21 does not have CEO experience may have a reduced bargaining position when compared to the
22 candidate with CEO experience. The outside successor that is already CEO has achieved this
23 position already. To be attracted to the new position the experienced CEO may want to be
24 compensated more.
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36 Firm performance and CEO turnover have been the focus of many corporate governance
37 studies for years. The importance of firm performance in CEO turnover has been examined
38 extensively in studies such as Puffer and Weintrop (1991), Gibbons and Murphy (1992), Murphy
39 (1999), Engel, Hayes and Wang (2003), Farrell and Whidbee (2003), Kaplan and Minton (2006),
40 and Jenter and Kanaan (2008). However, Tosi, Werner, Katz and Gomez-Mejia (2000) test the
41 relation among firm size, performance and CEO pay, and find that firm size accounts for more than
42 40% of the variance in CEO pay while firm performance accounts for less than 5%. Apparently,
43 firm size is also a big, if not bigger, factor in determining CEO compensation. Then, how much are
44 firm performance and firm size related to CEO compensation in the exCEO vs. non-exCEO
45 comparison? Cao and Wang (2008) show that in CEO contracting, total compensation is used to
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6 induce retention while pay-at-risk is used to induce effort as a response to the risk involved in hiring
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8 a candidate. Zhang and Rajagopalan (2003, 2006) state that hiring an outsider successor can impose
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10 higher risk to the hiring company. Then, the hiring of an exCEO would lower some of the
11
12 uncertainty associated with hiring an outsider. Combined with the greater bargaining position of the
13
14 experienced CEO, the compensation (adjusted for firm size) would likely be greater for the
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16 experienced outside CEO successor than for the outside successor without CEO experience. This
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18 provides our next hypothesis:
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22 *H₄: Outside successors that have experience as CEO will receive greater total compensation*
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24 *than outside successors without CEO experience, and have a less percentage of pay-at-*
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26 *risk compensation.*
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30 **2.4. Do Firms that Hire Experienced CEOs Achieve Better Performance?**

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33 If firms hire outside CEOs with CEO experience in an attempt to improve poor prior
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35 performance, then an important question is whether this strategy is worth it. Hiring an experienced
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37 CEO from the outside, one with a relatively short learning curve, may be able to find solutions to
38
39 the problems that created the poor performance. We, therefore, propose that hiring an outsider with
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41 CEO experience is more likely to bring improved financial performance than hiring an outsider
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43 without CEO experience. So, our final hypothesis is:
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47 *H₅: Firms that hire exCEOs experience better performance and bigger performance gains*
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49 *post hiring than firms that hire Non-exCEOs.*
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53 **3. DATA**

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55 We identify CEO succession announcements through *ExecuComp* and *LexisNexis* from 1993
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57 to 2008, and find 613 firms that have CEO turnovers; this number includes both inside and outside
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6 successions. We use the “SIC” column in the *ExecuComp* database which provides the last four-
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8 digit Standard Industrial Classification code of the firms to eliminate regulated financial services
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10 firms (SIC is 6020-6799) and public utilities (SIC is 4911-4932). We exclude regulated firms
11
12 because they likely have systematically different compensation schemes due to restrictions on their
13
14 investment opportunity sets (DeFusco, Zorn & Johnson, 1991; Smith & Watts, 1992; Gaver &
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16 Gaver, 1993). This filter deletes 61 firms from the sample (14 financial services firms and 47 public
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18 utilities). The sample decreases to 552 CEO turnovers. We then match the sample with the *CRSP*
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20 database for data on stock market reaction, the *ExecuComp* database for compensation data and the
21
22 *COMPUSTAT* database for data on firm performance. After matching, we have 347 observations
23
24 remaining in the sample with available data. Since we are only examining outside successions we
25
26 search for information about the successor’s origin and about the predecessor CEOs in the hiring
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28 firms from company proxy statements and from news announcements in the *Wall Street Journal*, the
29
30 *New York Times*, and *LexisNexis*. Fifty eight firms are deleted at this step due to lack of data. Our
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32 final sample includes 289 outside succession announcements between the years of 1993 and 2008,
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34 of which 146 are exCEO successions and 143 are non-exCEO successions. Of the 146 exCEOs,
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36 101 (69.2%) held the CEO position in one previous firm, 40 (27.4%) in two previous firms, 3 (2.1%)
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38 in three previous firms and 2 (1.4%) in four previous firms.
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48 **4. EMPIRICAL RESULTS**

49 **4.1 Market Reaction to Outside Succession**

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52 We have hypothesized that the market will react more positively to outside CEO succession
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54 announcements when the outsider has prior CEO experience. To address this hypothesis we
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56 conduct an event study with the succession announcement taking place on day 0. We examine the
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following event windows (0, 0), (-1, 0), (0, +1), and (-1, +1) for short-term effect and for long-term effect, the two windows of (-20,-1) and (0, +20). The details of our event test procedure appear below.

We first estimate a single index market model from day -300 to day -46 relative to day 0:

$$R_{it} = \alpha_i + \beta_i R_{mt} + e_{it}, t = -300 \dots -46. \quad (1)$$

where:

R_{it} = the return on security i at day t ;

R_{mt} = the return on the equally-weighted market index at day t .

We then obtain the abnormal return for security i on day t :

$$AR_{it} = R_{it} - (\alpha_i + \beta_i R_{mt}), t = -1, 0, +1. \quad (2)$$

We compute the cumulative abnormal returns from day t_1 to day t_2 for security i , $CAR_i(t_1, t_2)$ as:

$$CAR_i(t_1, t_2) = \sum_{t=t_1}^{t_2} AR_{it}, \text{ where } t_1 = -20, -1, 0, \text{ and } t_2 = -1, 0, +1, +20 \quad (3)$$

For a sample of N securities, we obtain the mean cumulative abnormal return, $CAR(t_1, t_2)$, as:

$$CAR(t_1, t_2) = \sum_{i=1}^N CAR_i(t_1, t_2) / N \quad (4)$$

If there is no abnormal stock price movement, then $CAR(t_1, t_2)$ would not be statistically different from zero. To test the statistical significance of $CAR(t_1, t_2)$, we first use the parametric Patell Z-statistic, and follow it with a non-parametric generalized sign Z statistic. We further compare the abnormal returns of the exCEO successors to the non-exCEOs with a t-statistic.

-----Insert Table 1 About Here-----

Table 1 reports the $CAR(t_1, t_2)$ estimations. Prior to the announcement, both long-term and short-term windows show that firms that hire exCEOs underperform those that hire Non-exCEOs,

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6 and the differences are significant with t-value at -3.206 for the window of $(-1, 0)$ and -4.529 for
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8 the window of $(-20, -1)$. The results completely flipped at the announcement and post
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10 announcement, for both short term and long term. On day 0, exCEO firms have a mean CAR of
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12 0.98% while the non-exCEO firms have a mean CAR of 0.60% , the difference is statistically
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14 significant with a t-value of 7.399 . Post announcement CARs extending to day 1 show the same
15
16 pattern, with exCEO firms having a mean CAR(0, +1) of 1.69% versus 1.09% for non-exCEO firms,
17
18 a significant difference with a t-value of 8.158 . Longer-term effect repeat the same results, when
19
20 exCEO firms have a mean CAR of 2.86% , while non-exCEO firms' mean CAR is 0.97% , with a
21
22 significant t-value of 10.403 for the difference between the two groups. The significant positive
23
24 difference in reaction to the hiring of an exCEO, compared to the hiring of a non-exCEO is
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26 consistent with *Hypothesis 1*, implying that the stock market reacts more positively to outside
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28 succession announcements when the outside successor already has CEO experience, especially
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30 given that prior to the announcement, the results are completely the opposite.
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39 **4.2 Pre-Succession Performance**

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41 Our second hypothesis is that firms that hire an outsider who is an experienced CEO have
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43 worse financial performance than firms hiring non-experienced CEOs pre-succession. We
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45 measure the financial strength of a firm by its *debt* ratio and *Z* score. Debt ratio is calculated as total
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47 debt divided by book value of assets. *Z* score measures the probability of bankruptcy and we adopt
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49 the classic Altman (1968)'s definition to calculate a firm's *Z* score.
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52 -----Insert Table 2 About Here-----
53

54 Table 2 first lists the firm's prior performances for each of the 5 years before succession.
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56 We can see that consistent with *Hypothesis 2*, firms that hired exCEOs had significantly lower *Z*
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6 scores (except for year -5), thus higher chance of bankruptcy than those that hired non-exCEOs. T-
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8 values range from 1.977 for year -4 to 3.055 for year -2 . Consistently, exCEO firms also had
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10 significantly higher *debt* ratio (except for year -4) than those that hired non-exCEOs, with t-values
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12 ranging from -1.759 to -2.196 . The findings of lower *Z* score and higher *debt* ratio echo with the
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14 larger, and more significant positive market reaction to the hiring of an experienced CEO in Table 1.
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16 The results suggest that the stock market welcomes the hiring of an exCEO to help turn around a
17
18 poorly performing firm².
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22 Table 2 also lists the successors' previous firms' prior performances for each of the five
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24 years before the succession. For accounting measures such as the return on assets (*ROA*), we adjust
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26 for industry average as suggested by Barber and Lyon (1996). A Chi-square test indicates that
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28 industry origination differs significantly between exCEO successors and non-exCEO successors ,
29
30 consistent with *Hypothesis 3b*, and a Fisher Exact test shows the same. For the null hypothesis of
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32 the same industry origin between the two groups of successors, Pearson uncorrected, Yates
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34 corrected and Mantel-Haenszel Chi-square tests have *p* values of 0.02, 0.028 and 0.02 respectively,
35
36 and the Fisher Exact test has a *p* value of 0.022, all of which reject the null at the 5% level.
37
38 Therefore, consistent with previous research, there is significant industry effect and we have
39
40 decided to use the industry-adjusted *ROA* measure. To rule out any skewed effect from outliers, we
41
42 delete any number that is outside of the $\pm 300\%$ thresholds. We define *ROA* as net profits divided
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44 by the book value of assets and adjusted it for the industry median using four-digit SIC codes and
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46 three-digit SIC codes when there are less than three other firms in the same four-digit SIC code.
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51 We calculate *IndAdjROA* for the five years leading up to the succession. Contradictory to
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53 *Hypothesis 3a*, *IndAdjROA* does not differ between the two types of origination firms with the
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57
58 ² Note that the *Tobin's Q* values are also higher for firms that hire exCEOs, which may imply a tendency of some
59 overvaluation of these firms. We calculate *Tobin's Q* using the method provided by Chung and Pruitt (1996).
60

highest t-value at 1.573 for year -4 . However, consistent with *Hypothesis 3a*, the log of total assets, $LogTA$ is significantly larger for the prior firms of non-exCEOs than it is for the prior firms of exCEOs, for all five previous years. The t-values for the difference in size range from 2.320 for year -1 to 3.489 for year -5 . Perhaps if the hiring firm cannot hire an experienced CEO, they will hire someone who has worked in a larger firm.

To further investigate if the hiring of an exCEO is related to prior-to-hiring performance of the current firm and the previous firm, we adopt a probit regression with an exCEO dummy (1 if hiring an exCEO; 0 otherwise) as the dependent variable and the current and previous firm's prior-to-hiring performance as independent variables.

$$\begin{aligned} ExCEO_i = & \alpha + \beta_1 Q^c_{i,t} + \beta_2 Z^c_{i,t} + \beta_3 DEBT^c_{i,t} + \beta_4 IndAdjRoA^c_{i,t} + \beta_5 LogTA^c_{i,t} \\ & + \gamma_1 Q^p_{i,t} + \gamma_2 Z^p_{i,t} + \gamma_3 DEBT^p_{i,t} + \gamma_4 IndAdjRoA^p_{i,t} + \gamma_5 LogTA^p_{i,t} + \varepsilon_i \quad (5) \end{aligned}$$

The performance is measured in the same dimensions as in Table 2: *Tobin's Q*, *Z score*, *Debt ratio*, *IndAdjROA* and *LogTA*. The superscript 'c' denotes the performance of the current firm, while 'p' denotes the performance of the previous firm. For the time frame t , we examine year -1 , year -3 to -1 aggregate and year -5 to -1 aggregate performance, all relative to the succession year 0, to capture all short-term and long-term effects. That is, we estimate the probit regression three times, once for each time frame.

-----Insert Table 3 About Here-----

The probit regression results appear in Table 3. We find that successor's previous firm's size in year -1 significantly decreases the chance of the hiring of an exCEO, while the current firm's size of the same year significant increases the chance. *Z score* (which is inversely related to bankruptcy chance) of the current firm from year -3 to year -1 is significantly negatively related with the chance of hiring an exCEO, perhaps because the board feels more comfortable hiring an

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6 exCEO if he/she has dealt with high chance of bankruptcy in his/her previous company. Several
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8 other variables show marginal positive significance at the 10% level, such as the *Tobin's Q* of the
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10 current firm at year -1 and year -5 to -1 , and the firm's industry adjusted *ROA* at year -1 .
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12

13 14 15 **4.3 CEO Compensation** 16

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18 In H_4 we hypothesized that due to greater bargaining power, successor CEOs with prior
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20 CEO experience would receive greater total compensation than successors without CEO experience.
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22 Total compensation is generally structured to include a fixed salary component and a performance
23
24 related pay-at-risk component. We include bonus, restricted stocks and options in the pay-at-risk
25
26 compensation. We examine the various components of compensation surrounding the succession
27
28 for both the predecessor at year -1 and the successor at year $+1$ relative to the hiring year, year 0.
29
30 As a result, the compensation for the predecessor is measured in the fiscal year prior to the hiring
31
32 year and the compensation for the successor is measured as of the fiscal year following the hiring
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34 year. We ignore the transition year (i.e. year 0, the year of hiring) since the transition year
35
36 compensation data may include partial year compensation. In addition, year 0 compensation may
37
38 include extra compensation for the successor CEO for lost options at their previous firm and may
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40 contain departure compensation for the predecessor CEO.
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45 -----Insert Table 4 About Here-----
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47
48 Table 4 lists the univariate comparison in size ($\log TA$) adjusted dollar amount compensation
49
50 between the two types of successions. In the first set of columns, we compare successor
51
52 compensation in year $+1$ for exCEOs to that of non-exCEOs. The results show that exCEO
53
54 successors do not have significantly higher total compensation than non-exCEO successors
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56 (\$415.4466T vs. \$346.0233T with a t-value of 1.321), though they have a marginally significantly
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6 higher salary (\$70.2273T vs. \$64.0811T with a t-value of 1.708). Other components of
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8 compensation all have insignificant t statistics between the two types of CEOs. In the second set of
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10 columns, we compare the predecessor CEO compensation between those firms whose successor is
11
12 an exCEO to those whose successor is a non-exCEO. We do not find a significant difference in the
13
14 predecessors' compensation between the two groups. In the third set of columns, we compare the
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16 prior compensation (in their former position). That is, for exCEOs we compare their compensation
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18 as a CEO in their former firm to the prior compensation of the non-exCEO in their former position.
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20 ExCEOs, being CEOs in their previous jobs, have significantly higher total compensation, including
21
22 salary and pay-at-risk than the non-exCEOs in their former position. ExCEO successors made a
23
24 yearly average of \$355.6271T vs. non-exCEO successors' \$201.4268T with a t-value of 2.924, of
25
26 which salary is 57.6641T vs. 45.2074T with a t-value of 2.771, and pay-at-risk is 205.3727T vs.
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28 106.0858T with a t-value of 2.214. Among the three components of pay-at-risk, bonus and options
29
30 both show significant difference, but there is no significance in the difference on restricted stocks.
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36 Table 5 examines compensation in more detail: instead of comparing the two successor
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38 groups, this time, the comparison is done over time for each group. Panel A of Table 5 compares
39
40 the successor pay amount in previous job with that of the new position, and Panel B of Table 5
41
42 compares the pay amount of a predecessor's with that of the successor's. Both show a statistically
43
44 significant increase to the successor's pay no matter if it is from the previous job, or as compared to
45
46 the predecessor; no matter it is the overall compensation amount or its component pay amount.
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48 Because compensation is heavily affected by firm size, the numbers reported here are all firm-size
49
50 adjusted.
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55 -----Insert Table 5 About Here-----
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4.4 Post Hiring Performance

In H_5 we hypothesized that outside successors with prior experience as CEO would be more likely to have better post-succession performance than CEOs without this prior experience. So we examine the post hiring performance of the firms that hired exCEOs and those that hired non-exCEOs. We first check firm performance post succession, and then connect the performance with CEO compensation in a regression framework to see if the compensation is in anyway justified by performance.

-----Insert Table 6 About Here-----

Panel A of Table 6 shows that firms hiring exCEOs continue to experience higher *Tobin's Q*, lower *Z score* (thus higher chance of bankruptcy) and higher *debt ratio* than non-exCEO successor firms, exactly the same relation as pre-hiring shown in Table 2. The higher *Tobin's Q* and lower *Z score* are statistically significant for the exCEOs than for non-exCEOs in more years than is the *debt ratio*. Industry adjusted *ROA* and size only show marginal significant difference between the two types of firms in one of the five subsequent years. Panel B of Table 6 compares the pre-to-post change of the two groups. Non-exCEO firms actually see more significant increase in industry adjusted *ROA* and size than exCEO firms (Table 6 Panel B). In this sense, the results from both Panel A and Panel B of Table 6 do not lend support for H_5 .

-----Insert Table 7 About Here-----

To further examine the connection between compensation and performance, we estimate a regression model with successor's compensation as the dependent variable and the ex-status of the successor and firm performance pre and post succession as the test variables. We present the results in Table 7. The *ExCEO* dummy is included to see if being an exCEO introduces any upward tendency in successor compensation. The result shows that the estimated coefficient for the *ExCEO*

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6 dummy is statistically insignificant. Other independent variables in this regression include all the
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8 five performance measures used through the paper: Tobin's Q , Z score, $Debt$ ratio, $IndAdjROA$ and
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10 $LogTA$. The time frame for these performance measures are set for year +1 to +3, though other time
11
12 frames (+1, and +1 to +5) generate similar results and are thus omitted from being reported here.
13
14 To test if there is any marginal effect from being an exCEO, we also create interaction variables
15
16 with the *exCEO* dummy variable and each performance measure. We find that firm size post-
17
18 succession is significantly positive with a t -value of 5.729 in affecting successor compensation but
19
20 the *EXCEO* dummy combined with firm size is insignificant with a t -value of 0.178. Therefore,
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22 being an exCEO is not important in determining successor pay. Other performance measures are
23
24 not significant. The importance of firm size and the less importance of firm performance are
25
26 consistent with the finding of Tosi, Werner, Katz and Gomez-Mejia (2000), whose result shows that
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28 size is about eight times more important than performance in explaining CEO pay variance.
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36 5. ROBUSTNESS CHECK

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38 Performance measures such as *Tobin's Q* may not be as direct a measure of managerial
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40 performance as stock returns, therefore, we replace *Tobin's Q* with stock returns and our results
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42 persist. Other factors such as whether the new ExCEOs are retired CEOs who perform this duty on
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44 an interim basis (which we have 23 such cases out of the 146 ExCEOs) also produce insignificant
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46 changes to our main findings. There are 11 successors in our sample due to mergers or other value
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48 enhancing actions, but the results hold after we exclude them. In addition, as reported in Section 4.2,
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50 our sample of ExCEOs depicts significant differences in industry origins, with 105 of them had
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52 prior experience in the same industry. After re-running the tests with split samples of same-industry
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54 ExCEOs and different-industry ExCEOs, our results hold.
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Other characteristics of CEO successors such as age, education and career path all lead to insignificant changes to our results. Specifically, we have 1 (0.4%) new CEO who is a co-founder or a founding family member. We have 34 (13.5%) new CEOs who have an output functional background, 159 (63.1%) new CEOs who have a throughput functional background and 58 (23%) new CEOs who have a peripheral functional background. We follow prior research by Chaganti and Sambharya (1987), Murray (1989), Michel and Hambrick (1992) and Westphal and Zajac (1995) in determining the new CEOs' functional backgrounds by examining the prior job titles and employment history. Output functional backgrounds include positions in marketing and sales. Throughput functional backgrounds include positions in operations, R&D and engineering. Peripheral functional backgrounds include positions in law, finance and accounting. There is no significant difference between exCEOs and non-exCEOs when it comes to functional background. As to education backgrounds, we have 75 (31.1%) new CEOs who have an undergraduate degree, 145 (60.2%) new CEOs who have a masters level degree and 21 (8.7%) new CEOs who have a Ph.D. There is no significant difference between exCEOs and non-exCEOs when it comes to educational background. Even Ivy League education does not make a significant difference between the 66 (27.4%) new CEOs who have an Ivy League degree and 175 (72.6%) new CEOs who have a non-Ivy League degree. Finally, ExCEOs are slightly older with an average age of 53.4110 years than non-ExCEOs, who average 52.4406 years of age, but the difference is statistically insignificant with a t value of 1.300.

6. CONCLUSION

In this paper, we investigate an interesting yet mostly ignored distinction within external CEO successions: outside successors who have previous CEO experience and those who do not.

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6 We find that firms hiring a CEO with experience have higher debt ratios and higher chance of
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8 bankruptcy pre-succession than those hiring a non-exCEO. Consistently, the stock market reacts
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10 positively to succession announcements when the successor has prior CEO experience but not when
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12 the outside successor lacks this experience. Non-exCEOs come from larger firms than exCEOs, but
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14 there is generally no significant difference between the performances of their prior firms.
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18 More surprisingly, there is no consistent results supporting a significant difference in
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20 compensation, both in amount and in structure, between an exCEO and a non-exCEO, though both
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22 increase significantly from that of the predecessor's and their previous positions. After hiring an
23
24 exCEO, the successor firms still have worse financial performance than non-exCEO successor firms,
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26 and the pre-to-post change in performance indicates non-exCEO firms may even perform better
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28 between the two groups of successor firms.
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32 Future research could focus on the cost-benefit tradeoff of hiring an exCEO. It would be
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34 interesting to examine the role of the board of directors in assessing this cost-benefit tradeoff and
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36 determining the optimal choice for the firm. An important aspect that has not been sufficiently
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38 examined in the literature is the CEO fit. Hiring an exCEO may not always be the right choice for
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40 the firm.
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44 Given the increasing frequencies of CEO turnover, especially outside CEO successions in
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46 recent years, CEO succession, performance, and compensation remains a heavily studied topic in
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48 finance and management academia. It also remains as a heavily debated issue in popular media
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50 coverage, especially amid the current outrage over CEO compensation. Our study connects the
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52 three important aspects surrounding CEO turnover together, and helps shed further light on to this
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54 interesting yet controversial issue.
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Table 1: CARs around Hiring Announcements

	ExCEO			Non-ExCEO			Paired T-test
	Mean CARs (N=122)	Rank Test Z-statistic	Patell Test Z-statistic	Mean CARs (N=129)	Rank Test Z-statistic	Patell Test Z-statistic	ExCEO-NonExCEO
CAR (0,0)	0.98%	1.761*	2.495**	0.60%	1.410†	3.056***	7.399***
CAR(-1, 0)	0.63%	0.770	1.216	0.82%	0.732	2.083*	-3.206***
CAR(0,+1)	1.69%	3.318***	3.834***	1.09%	1.161	3.811***	8.158***
CAR(-1,+1)	1.34%	2.321*	2.683**	1.31%	0.731	3.048***	0.413
CAR(-20,-1)	0.48%	1.976*	1.635†	1.26%	1.074	1.535\$	-4.529***
CAR(0,+20)	2.86%	0.693	1.865*	0.97%	0.448	1.154	10.403***

“ExCEO” represents the succession announcement day for the successor CEO who held CEO position in his/her previous firm. “Non-ExCEO” represents the succession announcement day for the successor CEO who did not hold the CEO position in his/her previous firm. “CAR” represents the cumulative abnormal stock price movement around the CEO succession announcement. “Patell Z-statistic” and “Rank Z-statistic” are used to test if the mean CARs are zero. Pair T-tests are used to test if the differences in mean CARs between ExCEO and Non-ExCEO announcements are zero.

†/**/**** indicate statistical significance at the 0.10/0.05/ 0.01/ 0.001 level.

**Table 2: Current and Previous Firms' Prior-to-Hiring Conditions
(Non-ExCEO vs. ExCEO)**

Current Firm		Year -5	Year -4	Year -3	Year -2	Year -1
Z score	Non-ExCEO	5.533	5.8237	6.2988	5.4992	4.5985
	ExCEO	5.7387	4.5326	4.0831	3.563	3.4973
	T test	-0.207	1.977*	2.970**	3.055**	2.321*
Debt Ratio	Non-ExCEO	22.588	23.2044	22.2059	23.1212	23.4534
	ExCEO	26.7797	25.9933	27.1284	27.1466	27.8399
	T test	-1.759†	-1.21	-2.196*	-1.833†	-1.904†
Tobin's Q	Non-ExCEO	0.15	0.1459	0.1495	0.1527	0.156
	ExCEO	0.2497	0.227	0.2301	0.236	0.2632
	T test	-2.275*	-1.974*	-1.937†	-2.120*	-2.652**
Previous Firm						
Ind.Adj.ROA	Non-ExCEO	17.0571	21.7449	17.0189	20.8579	14.1307
	ExCEO	16.0954	13.5137	21.7927	23.9597	15.4286
	T test	0.179	1.573	-0.869	-0.553	-0.311
Log TA	Non-ExCEO	8.8465	8.7931	8.8584	9.0134	9.1201
	ExCEO	7.6869	7.9322	8.07	8.161	8.3978
	T test	3.489***	2.748**	2.577*	2.851**	2.320*

“ExCEO” and “Non-ExCEO” represent the observations where the successor CEO did and did not hold the CEO position in his/her previous firm. Tobin's Q is estimated using the method provided by Chung and Pruitt (1996). *Debt* ratio is total debt divided by book value of assets. *Z* score is measured using the classic Altman (1968)'s definition. *ROA* is net profits divided by the book value of assets and adjusted for the industry median using four-digit SIC codes and three-digit SIC codes when there are less than three other firms in the same four-digit SIC code (*Ind.Adj.ROA*). Outliers of *Ind.Adj.ROA* outside of +/-300% are removed from the sample. Firm size is measured by log of total assets (*LogTA*). †/*/**/*** indicate statistical significance at the 0.1/0.05/ 0.01/ 0.001 level.

**Table 3: Probit Regression of ExCEO dummy on Prior to Hiring Performance
(Current Firm and Previous Firm)**

Dependent variable= ExCEO		Year -1		Year -3 to -1		Year -5 to -1	
		coefficient	p value	coefficient	p value	coefficient	p value
intercept		1.7509	0.0561	-0.2645	0.7458	-0.2467	0.7567
Current Firm Performance							
	<i>Tobin'sQ</i>	1.4564	0.0852	0.9651	0.1440	1.2425	0.0613
	<i>Z score</i>	-0.0443	0.3763	-0.0967	0.0400	-0.0509	0.1158
	<i>Debt ratio</i>	-0.0214	0.1069	-0.0140	0.2118	-0.0155	0.1739
	<i>Ind.Adj.ROA</i>	0.00748	0.0765	0.000295	0.9105	0.00331	0.1370
	<i>LogTA</i>	0.2925	0.0012	0.1117	0.1112	0.1059	0.1280
Previous Firm Performance							
	<i>Tobin'sQ</i>	0.5287	0.5347	-1.0919	0.1228	-0.8174	0.2804
	<i>Z score</i>	-0.0106	0.8738	0.0802	0.1214	0.0732	0.1232
	<i>Debt ratio</i>	-0.0189	0.1553	0.0171	0.1147	0.00982	0.3899
	<i>Ind.Adj.ROA</i>	-0.00080	0.8724	0.00560	0.1384	0.00400	0.3214
	<i>LogTA</i>	-0.3947	<0.0001	-0.0824	0.1753	-0.0904	0.1203
Likelihood Ratio Test							
	Chi square	42.2782	<0.0001	33.3376	0.0002	31.5128	0.0005

Dependent variable:

“ExCEO” represents a dummy variable equal to 1 if the successor CEO held the CEO position in his/her previous firm and 0 otherwise.

Independent variables:

Tobin's *Q* is estimated using the method provided by Chung and Pruitt (1996). *Debt* ratio is total debt divided by book value of assets. *Z* score is measured using the classic Altman (1968)'s definition. *ROA* is net profits divided by the book value of assets and adjusted for the industry median using four-digit SIC codes and three-digit SIC codes when there are less than three other firms in the same four-digit SIC code (*Ind.Adj.ROA*). Outliers of *Ind.Adj.ROA* outside of +/-300% are removed from the sample. Firm size is measured by log of total assets (*LogTA*). All the independent variables are either for year -1 or for year -3(-5) to -1 aggregate.

**Table 4: Side-by-side Comparison of Outside Successor Pay Amount and Structure
Non-ExCEOs vs. ExCEOs**

Dollar Amount (000s)

	Successor (t = +1)			Predecessor (t = -1)			Previous Job (t = -1)		
	Non- ExCEO	ExCEO	ExCEO Minus Non ExCEO T-test	Non- ExCEO	ExCEO	ExCEO Minus Non ExCEO T-test	Non- ExCEO	ExCEO	ExCEO Minus Non ExCEO T-test
Total Compensation	346.0233	415.4466	1.321	253.1249	302.8379	0.931	201.4268	355.6271	2.924**
Salary	64.0811	70.2273	1.708†	60.3475	60.7887	0.128	45.2074	57.6641	2.771**
Bonus	47.4662	60.7066	1.566	31.3606	32.4933	0.204	30.7529	49.0890	1.663†
Restricted Stock	50.7049	40.0393	-0.462	12.5427	19.8085	0.896	11.0784	22.3535	0.826
Options	164.7824	159.0106	-0.160	116.7989	142.2615	0.643	62.0449	127.0201	1.862†
Pay-at-Risk	268.9662	272.0453	0.060	162.7443	194.2879	0.737	106.0858	205.3727	2.214*

Total compensation and compensation components are shown in thousands of dollars. “Successor (t=+1)” represents the successor CEO’s total compensation and compensation components in the year following the succession. “Predecessor (t= -1)” represents the predecessor CEO’s total compensation and compensation components in the year prior to the succession. “Previous Job (t =-1)” represents the successor CEO’s total compensation and compensation components in his/her previous job in the year prior to the succession. “Total Compensation” is the sum of salary, bonus, restricted stock, and options. “Pay-at-Risk” is the summation of bonus, restricted stock, and options. All compensation figures are adjusted by firm size, *LogTA*. T-tests are to compare the differences between the Non-ExCEO and ExCEO total compensation and compensation components. †/*/**/**** indicate statistical significance at the 0.1/0.05/ 0.01/ 0.001 level.

Table 5: Pay Amount
Panel A: Successor Current vs. Previous Job

Variables			Median	Mean	N	Previous minus Current T-test
Non- ExCEO	Previous(-1)	Total Compensation	130.8112	201.4268	45	-2.572*
	Current(+1)		216.4438	346.0233	127	
ExCEO	Previous(-1)		217.1774	355.6271	54	-3.139**
	Current(+1)		246.3901	415.4466	127	
Non- ExCEO	Previous(-1)	Salary	44.3073	45.2074	45	-4.987***
	Current(+1)		67.2413	64.0811	129	
ExCEO	Previous(-1)		54.3807	57.6641	55	-3.422***
	Current(+1)		69.7348	70.2273	128	
Non- ExCEO	Previous(-1)	Bonus	26.6218	30.7529	45	-2.833**
	Current(+1)		33.1507	47.4662	136	
ExCEO	Previous(-1)		24.7820	49.0890	57	-1.815*
	Current(+1)		42.6206	60.7066	138	
Non- ExCEO	Previous(-1)	Restricted Stocks	0.0000	11.0784	50	-1.539
	Current(+1)		0.0000	50.7049	119	
ExCEO	Previous(-1)		0.0000	22.3535	63	-0.895
	Current(+1)		0.0000	40.0393	113	
Non- ExCEO	Previous(-1)	Options	26.4432	62.0449	44	-2.721**
	Current(+1)		53.9837	164.7824	114	
ExCEO	Previous(-1)		31.9097	127.0201	50	-1.155
	Current(+1)		55.1236	159.0106	112	
Non- ExCEO	Previous(-1)	Pay-at-Risk	77.9920	106.0858	44	-2.597*
	Current(+1)		125.9012	268.9662	114	
ExCEO	Previous(-1)		92.5392	205.3727	49	-2.238*
	Current(+1)		139.5205	272.0453	111	

“ExCEO” and “Non-ExCEO” represent the observations where the successor CEO did and did not hold the CEO position in his/her previous firm. Total compensation and compensation components are shown in thousands of dollars. “Current (+1)” represents the successor CEO’s total compensation and compensation components in the year following the succession. “Previous (-1)” represents the successor CEO’s total compensation and compensation components in his/her previous job in the year prior to the succession. “Total Compensation” is the sum of salary, bonus, restricted stock, and options. “Pay-at-Risk” is the summation of bonus, restricted stock, and options. All compensation figures are adjusted by firm size, *LogTA*. T-tests are to compare the differences between the Non-ExCEO and ExCEO total compensation and compensation components. †/*/**/*** indicate statistical significance at the 0.10/ 0.05/ 0.01/ 0.001 level.

Table 5: Pay Amount
Panel B: Successor vs. Predecessor

Variables			Median	Mean	N	Predecessor minus Successor T-test
Non- ExCEO	Predecessor (-1)	Total Compensation	150.0604	253.1249	130	-1.971†
	Successor (+1)		216.4438	346.0233	127	
ExCEO	Predecessor (-1)		166.9145	302.8379	139	-2.254*
	Successor (+1)		246.3901	415.4466	127	
Non- ExCEO	Predecessor (-1)	Salary	63.1418	60.3475	132	-1.468
	Successor (+1)		67.2413	64.0811	129	
ExCEO	Predecessor (-1)		62.9273	60.7887	141	-3.159**
	Successor (+1)		69.7348	70.2273	128	
Non- ExCEO	Predecessor (-1)	Bonus	13.3126	31.3606	134	-2.690**
	Successor (+1)		33.1507	47.4662	136	
ExCEO	Predecessor (-1)		12.3480	32.4933	141	-4.009***
	Successor (+1)		42.6206	60.7066	138	
Non- ExCEO	Predecessor (-1)	Restricted Stocks	0.0000	12.5427	127	-2.133*
	Successor (+1)		0.0000	50.7049	119	
ExCEO	Predecessor (-1)		0.0000	19.8085	131	-1.860†
	Successor (+1)		0.0000	40.0393	113	
Non- ExCEO	Predecessor (-1)	Options	40.4140	116.7989	125	-1.201
	Successor (+1)		53.9837	164.7824	114	
ExCEO	Predecessor (-1)		42.4642	142.2615	128	-0.193
	Successor (+1)		55.1236	159.0106	112	
Non- ExCEO	Predecessor (-1)	Pay-at-Risk	81.2310	162.7443	125	-2.470*
	Successor (+1)		125.9012	268.9662	114	
ExCEO	Predecessor (-1)		84.5906	194.2879	128	-1.711†
	Successor (+1)		139.5205	272.0453	111	

“ExCEO” and “Non-ExCEO” represent the observations where the successor CEO did and did not hold the CEO position in his/her previous firm. Total compensation and compensation components are shown in thousands of dollars. “Successor” represents the successor CEO’s total compensation and compensation components in the year following the succession, year +1. “Predecessor” represents the predecessor CEO’s total compensation and compensation components in the year prior to the succession, year -1. “Total Compensation” is the sum of salary, bonus, restricted stock, and options. “Pay-at-Risk” is the summation of bonus, restricted stock, and options. All compensation figures are adjusted by firm size, *LogTA*. T-tests are to compare the differences between the Non-ExCEO and ExCEO total compensation and compensation components. †/*/**/*** indicate statistical significance at the 0.10/ 0.05/ 0.01/ 0.001 level.

Table 6: ExCEO Firms vs. Non-ExCEO Firms
Panel A: Post Hiring Condition

Variable		Year +1	Year +2	Year +3	Year +4	Year +5
<i>Tobin's Q</i>	ExCEO	0.3208	0.3139	0.2848	0.2694	0.1860
	Non-ExCEO	0.1636	0.1595	0.1583	0.1503	0.1187
	T test	2.352*	2.921**	2.208*	1.884†	1.292
<i>Z score</i>	ExCEO	2.7984	2.9841	3.2114	3.2781	3.1175
	Non-ExCEO	4.2206	4.4319	4.1063	4.2349	4.8342
	T test	-4.219***	-3.517***	-1.602	-1.156	-1.994*
<i>Debt ratio</i>	ExCEO	29.4539	31.0255	28.7536	26.1143	22.2537
	Non-ExCEO	23.3010	23.1941	23.5665	23.0139	22.2585
	T test	1.752†	2.353*	1.304	0.935	-0.002
<i>Ind.Adj.ROA</i>	ExCEO	18.7671	31.4238	21.1515	38.7078	40.4769
	Non-ExCEO	25.8419	26.2026	34.0341	48.0725	31.8087
	T test	-1.212	0.812	-1.875†	-0.929	0.811
<i>LogTA</i>	ExCEO	7.3891	7.3498	7.4000	7.2524	7.3509
	Non-ExCEO	6.9724	7.0134	6.9976	7.0551	7.0288
	T test	1.824†	1.454	1.569	0.704	1.094

“ExCEO” and “Non-ExCEO” represent the observations where the successor CEO did and did not hold the CEO position in his/her previous firm. Tobin’s *Q* is estimated using the method provided by Chung and Pruitt (1996). *Debt ratio* is total debt divided by book value of assets. *Z score* is measured using the classic Altman (1968)’s definition. *ROA* is net profits divided by the book value of assets and adjusted for the industry median using four-digit SIC codes and three-digit SIC codes when there are less than three other firms in the same four-digit SIC code (*Ind.Adj.ROA*). Outliers of *Ind.Adj.ROA* outside of +/-300% are removed from the sample. Firm size is measured by log of total assets (*LogTA*). †/*/**/*** indicate statistical significance at the 0.10/ 0.05/ 0.01/ 0.001 level.

Table 6: ExCEO Firms vs. Non-ExCEO Firms
Panel B: Pre-to-Post Change

Variable		Year +1	Year +1to+3	Year +1to+5
		Vs. Year -1	Vs. Year -3 to -1	Vs. Year -5 to -1
<i>Tobin's Q</i>	ExCEO	0.04744	0.05825	0.04406
	Non-ExCEO	0.00222	0.02271	0.03994
	T test	1.025	2.747**	2.336*
<i>Z score</i>	ExCEO	-0.58922	-0.57276	-0.90754
	Non-ExCEO	-0.41268	-1.36122	-1.79694
	T test	-2.536*	-3.716***	-4.155***
<i>Debt ratio</i>	ExCEO	0.50018	1.75607	0.33753
	Non-ExCEO	-0.51540	0.81468	2.00849
	T test	-0.006	1.263	0.927
<i>Ind.Adj.ROA</i>	ExCEO	-2.29683	1.61298	16.95448
	Non-ExCEO	5.60915	9.94827	20.09300
	T test	0.564	2.040*	4.626***
<i>LogTA</i>	ExCEO	-0.03780	0.06239	0.20671
	Non-ExCEO	0.04751	0.13468	0.21420
	T test	0.194	3.318***	5.066***

“ExCEO” and “Non-ExCEO” represent the observations where the successor CEO did and did not hold the CEO position in his/her previous firm. Tobin’s *Q* is estimated using the method provided by Chung and Pruitt (1996). *Debt ratio* is total debt divided by book value of assets. *Z score* is measured using the classic Altman (1968)’s definition. *ROA* is net profits divided by the book value of assets and adjusted for the industry median using four-digit SIC codes and three-digit SIC codes when there are less than three other firms in the same four-digit SIC code (*Ind.Adj.ROA*). Outliers of *Ind.Adj.ROA* outside of +/-300% are removed from the sample. Firm size is measured by log of total assets (*LogTA*). †/*/**/*** indicate statistical significance at the 0.10/ 0.05/ 0.01/ 0.001 level.

Table 7: Regressions of Successor Pay on Performance

	Successor Total Compensation		Successor Total Compensation
Post-hiring Performance Year+1 to +3		Prior-hiring Performance Year -3 to -1	
<i>ExCEO</i>	-2188.968 (-0.945)	<i>ExCEO</i>	98.588 (0.031)
<i>Tobin Q</i>	-2333.258 (-1.215)	<i>Tobin Q</i>	-567.938 (-0.177)
<i>Z Score</i>	-33.297 (-0.262)	<i>Z Score</i>	162.024 (0.653)
<i>Debt Ratio</i>	25.521 (0.863)	<i>Debt Ratio</i>	5.867 (0.115)
<i>Ind.Adj.ROA</i>	-0.260 (-0.804)	<i>Ind.Adj.ROA</i>	3.213 (0.221)
<i>Log TA</i>	1269.509 (5.729)***	<i>Log TA</i>	365.915 (1.416)
<i>ExCEO * Tobin Q</i>	3186.233 (1.431)	<i>ExCEO * Tobin Q</i>	-1574.655 (-0.385)
<i>ExCEO * Z Score</i>	390.910 (2.079)*	<i>ExCEO * Z Score</i>	-236.417 (-0.878)
<i>ExCEO * Debt Ratio</i>	-9.024 (-0.261)	<i>ExCEO * Debt Ratio</i>	14.663 (0.238)
<i>ExCEO * Ind.Adj.ROA</i>	1.289 (1.028)	<i>ExCEO * Ind.Adj.ROA</i>	18.086 (1.035)
<i>ExCEO * Log TA</i>	48.210 (0.178)	<i>ExCEO * Log TA</i>	125.570 (0.372)
<i>Adjusted R²</i>	0.362	<i>Adjusted R²</i>	0.068
(<i>F</i>)	(6.244)***	(<i>F</i>)	(1.241)

“Successor Total Compensation (Post-hiring Performance)” is the dependent variable for the first regression and represents the successor CEO’s total compensation for the year following the succession. “Successor Total Compensation (Prior-hiring performance)” is the dependent variable for the second regression and represents the successor CEO’s total compensation in his/her previous job in the year prior to the succession. Independent variables are listed as following: “ExCEO” represents a dummy variable equal to 1 if the successor CEO held the CEO position in his/her previous firm and 0 otherwise. Tobin’s *Q* is estimated using the method provided by Chung and Pruitt (1996). *Debt* ratio is total debt divided by book value of assets. *Z* score is measured using the classic Altman (1968)’s definition. *ROA* is net profits divided by the book value of assets and adjusted for the industry median using four-digit SIC codes and three-digit SIC codes when there are less than three other firms in the same four-digit SIC code (*Ind.Adj.ROA*). Firm size is measured by log of total assets (*LogTA*). All the independent variables in the first regression are for year +1 to +3 aggregate and for the second regression for year -3 to -1 aggregate. †/**/*** indicate statistical significance at the 0.1/0.05/ 0.01/ 0.001 level. Year dummies from 1993 to 2008 are also included in the regressions, though their coefficient estimates are not reported to save space.