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Golden Parachutes, Severance, and Firm Value

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GOLDEN PARACHUTES, SEVERANCE, AND FIRM VALUE

*Andrew C.W. Lund***Robert Schonlau***

Golden parachutes (GPs) are now standard contract provisions for public company CEOs. While they have become ubiquitous, they have also been severely criticized for harming shareholder value. As a result, GPs are subjected to intense shareholder activism and are uniquely penalized under both tax and securities law. Recent empirical work suggests that they may indeed be associated with poor firm performance, validating the steps taken to reduce or eliminate GPs.

This Article offers reasons to rethink the consensus that has developed around GPs. First, this Article highlights a substantial endogeneity problem, which earlier studies linking GPs and firm values fail to fully answer. Second, this Article's novel empirical analysis suggests that the earlier evidence linking GPs with lower firm values is not robust to the use of more recent data and may have been driven by the omission of complete data regarding regular severance promises. It may be that regular severance promises, rather than GPs, drive poor performance and that past results to the contrary are likely based on incomplete data in prior periods. These findings comport with a set of relatively uncontroversial arguments for severance's dominance over GPs when it comes to shaping CEO incentives. Taken together, these findings suggest that law and market participants ought not to necessarily view GPs as uniquely problematic.

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INTRODUCTION

Golden parachutes (GPs) have become standard contract provisions for public company CEOs. In 2013, over eighty percent of S&P 1500 companies promised their CEO additional payments in the event of their termination following a change in control of the firm.¹ Since their introduction over thirty years ago,² these promises have been criticized on a number of grounds ranging from their distributive consequences to the degree to which they may harm shareholder value. This general antipathy toward GPs has culminated in a series of unique regulatory and non-regulatory penalties on the provisions. The tax code imposes harsh rules on them unlike any other set of compensation promises.³ More recently, the Dodd–Frank Wall Street Reform and Consumer Protection Act (Dodd–Frank Act)⁴ subjects GPs alone, among all compensation provisions, to their own “say-on” vote by shareholders.⁵ In addition to explicit regulation, the business press, politicians, and academics often single out GPs for criticism.

Until recently, however, their effect on shareholder value has been unclear. On the one hand, GPs may serve as an adaptive device that aligns managers’ interests with those of shareholders, particularly shareholders’ interest in receiving takeover bids at a premium to current share prices.⁶ On the other hand, GPs might provide significant *ex ante* effort disincentives for CEOs by mitigating the threat of employment termination,⁷ a point made with increasing specificity by several recent

1. See Vipal Monga, *Approval on Golden Parachutes Rose in 2013*, WALL ST. J.: THE CFO REP. (Dec. 30, 2013, 3:18 PM), <http://blogs.wsj.com/cfo/2013/12/30/approval-on-golden-parachutes-rose-in-2013>.

2. See PAUL A. ARGENTI, CORPORATE RESPONSIBILITY 212 (2016) (noting that “the term ‘golden parachute’ was first used in 1961”).

3. See Joy Sabino Mullane, *Incidence and Accidents: Regulation of Executive Compensation Through the Tax Code*, 13 LEWIS & CLARK L. REV. 485, 514–16 (2009).

4. Pub. L. No. 111-203, 124 Stat. 1376 (2010) (codified as amended in scattered sections of 15 U.S.C. (2012)).

5. See 15 U.S.C. § 78n-1(b)(2).

6. See Andrei Shleifer & Robert W. Vishny, *Management Entrenchment: The Case of Manager-Specific Investments*, 25 J. FIN. ECON. 123, 132 (1989).

7. See Lucian Bebchuk et al., *Golden Parachutes and the Wealth of Shareholders*, 25 J. CORP. FIN. 140, 150–51 (2014) [hereinafter Bebchuk et al., *Wealth of Shareholders*]; Lucian

studies.⁸ For instance, Professors Lucian A. Bebchuk, Alma Cohen, and Charles C.Y. Wang recently found that GP presence was correlated with both low firm value (measured in terms of buy-and-hold portfolio values) at the time of adoption *and* deteriorating firm value post-adoption.⁹ These results could imply that (1) GPs are inefficient contract terms and perhaps the result of managerial power during contract negotiations and (2) the regulatory interventions described above are appropriately targeted and perhaps ought to be augmented to constrain GPs even further.

There remain questions about each of the earlier studies on their own terms.¹⁰ Leaving such issues to the side, this Article reexamines the evidence linking GPs to firm value destruction using more recent data. Rather than merely updating prior work, this Article enhances the literature by including new data on another common term in CEO employment agreements—regular severance promised to CEOs upon termination, regardless of a change in control. Prior to 2006 the SEC disclosure requirements did not require regular reporting of severance arrangements with many firms simply not providing the information in public documents. Hence, prior studies were unable to effectively control for regular severance. Comparing the percent of CEOs at S&P 1500 firms reporting regular severance packages just after the new disclosure requirements with the percent who made voluntary disclosures of such arrangements prior to 2006 illustrates the extent of the under reporting problem. For example, the Investor Responsibility Research Center (IRRC) data used in those earlier studies indicate that only 6.0% of CEOs at S&P 1500 firms had regular severance arrangements in 2004. In contrast, in 2006 with the new disclosure requirements the ExecuComp data indicates that 50.2% of the CEOs at S&P 1500 firms had regular severance arrangements.¹¹ The under-reporting of severance arrangements reflected in the IRRC data is important considering that regular severance provides similar and perhaps greater CEO-effort disincentives than do GPs.¹²

Bebchuk et al., *What Matters in Corporate Governance?*, 22 REV. FIN. STUD. 783, 793 (2009) [hereinafter Bebchuk et al., *What Matters?*]; Paul Gompers et al., *Corporate Governance and Equity Prices*, 118 Q.J. ECON. 107, 148 (2003); Shleifer & Vishny, *supra* note 6, at 132.

8. See, e.g., Bebchuk et al., *What Matters?*, *supra* note 7, at 798, 805 (GP adoption is one of six variables in the streamlined “E Index”); Gompers et al., *supra* note 7, at 128–29, 148 (GP adoption is one of twenty-four variables in the “G Index”).

9. See Bebchuk et al., *Wealth of Shareholders*, *supra* note 7, at 151–53.

10. In their most recent work, Professors Bebchuk, Cohen, and Wang acknowledge the substantial endogeneity issue facing their study and use various sophisticated approaches in an attempt to resolve it. See *id.* at 144. As discussed in Section I.A below, this Article cautions that causal inferences may remain problematic despite those attempts.

11. IRRC collected data in 2004 but not 2005. *Id.* at 142. Past studies assume that governance variables, including severance, remain constant in years without data. *Id.*

12. See *infra* text accompanying notes 117–20.

This Article uses GP and severance data on S&P 1500 firms from ExecuComp, following the implementation of new SEC disclosure rules in 2006. This data is rich and, unlike earlier research using the IRRC data, includes the dollar amounts associated with each type of post-employment package. This Article also presents hand-collected proxy data from 2009 for S&P 500 firms to confirm the accuracy of ExecuComp's data. One of the key findings is that the correlation between GPs and lower firm values does not continue into this more recent period. A second key finding is that newly transparent regular severance promises become significant in the recent period. We obtained similar results when we measured GP and severance *amount* as opposed to *incidence*, an approach that seems more likely to capture any incentive effects given the wide variation in amounts promised. In sum, this suggests that, in most circumstances, GPs do not create *unique* effort disincentives and certainly none that are distinct from those created by other common terms in CEO employment contracts.¹³

Regarding the findings of a significant and negative relationship between severance and firm performance, it remains unclear whether that relationship is evidence of an effort-disincentive effect. That is because the severance findings are subject to the same omitted variable concerns discussed above. Despite the limitations to this empirical approach, we deliberately utilized the same approach as used in the earlier GP papers, not only to be consistent with the literature but also to highlight that (1) even using such an approach, the correlation between GPs and lower firm values are not robust to recent periods and (2) a different CEO contract term, severance, appears to be more significant for firm performance than previously believed. Ultimately, more work is necessary to determine if such contract provisions contribute to poor firm performance.

Part I of this Article describes GPs and regular severance as well as briefly examines the theory and evidence surrounding each. Part II offers this Article's findings of GP and regular severance incidence and magnitude. It also presents findings regarding post-termination promises and their relationship to firm value. This Article concludes suggesting the limitations of conclusions researchers may draw about the harm caused by GPs.

I. GOLDEN PARACHUTES AND REGULAR SEVERANCE

This Part begins with a description of GPs and regular severance, briefly explaining the theory and evidence surrounding each. Next, it examines how certain phenomena influence the relationship between GPs and effort

13. Of course, as is the case with most issues in executive compensation, there may be other reasons to discourage the use of GPs, but those matters are beyond the scope of this Article.

incentives, on the one hand, and regular severance and GPs, on the other.

A. GPs: Theory and Evidence

Beginning in the early 1980s, large U.S. firms adopted GPs in significant numbers as a way to reduce management opposition to takeovers.¹⁴ An active takeover market allowed acquirers to buy and fix unsuccessful firms¹⁵ while sharing a portion of the future value with the selling shareholders.¹⁶ Because the entire process relied on the new owners monitoring and disciplining target management, those managers understandably anticipated that a takeover could result in personal losses up to and including termination.¹⁷ Thus, the threat of a takeover was also thought to lead managers to exert more effort in the first instance so as to make the firm a less attractive target.¹⁸ In this way, even if most firms were not ultimately taken over, the shareholders benefitted from a vibrant takeover market as it lowered agency costs at firms generally.¹⁹

Incumbent managers, however, were in a position to frustrate takeovers by virtue of their control of the target company,²⁰ causing many takeover attempts to fail.²¹ In response, shareholders and their advocates sought devices that would invigorate the market for corporate control

14. See Richard A. Lambert & David F. Larcker, *Golden Parachutes, Executive Decision-Making, and Shareholder Wealth*, 7 J. ACCT. & ECON. 179, 179 (1985).

15. See Frank H. Easterbrook & Daniel R. Fischel, *The Proper Role of a Target's Management in Responding to a Tender Offer*, 94 HARV. L. REV. 1161, 1184 (1981); Ronald J. Gilson, *A Structural Approach to Corporations: The Case Against Defensive Tactics in Tender Offers*, 33 STAN. L. REV. 819, 841–42 (1981); Henry G. Manne, *Mergers and the Market for Corporate Control*, 73 J. POL. ECON. 110, 113 (1965).

16. See Easterbrook & Fischel, *supra* note 15, at 1161.

17. See Lambert & Larcker, *supra* note 14, at 184 (“There are three aspects of the loss incurred by the managers of target firms. First, the manager does not receive wages until he finds new employment. Second, the manager may not be paid as much in his new job. . . . Finally, the manager loses any non-pecuniary benefits of his position, including his power and prestige.”).

18. See Shleifer & Vishny, *supra* note 6, at 126–32 (“We assume that control mechanisms such as . . . hostile takeovers are only partially effective. It is in the interest of the manager to make them less effective. We show how manager-specific investments help the manager reduce the threat of replacement.”).

19. See WILLIAM T. ALLEN ET AL., COMMENTARIES AND CASES ON THE LAW OF BUSINESS ORGANIZATION 511 (4th ed. 2012).

20. The most famous entrenchment device is the poison pill, which effectively prevents takeovers unless the target’s board approves them. See Bebchuk et al., *What Matters?*, *supra* note 7, at 792. But more subtle subversion tools are available to target managers. See Brian J. Broughman, *CEO Side Payments in M&A Deals* 18–19 (Ind. Legal Studies Research Paper No. 313, 2015), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2584699 (“Targets generally rely on their CEO to negotiate the merger agreement. This position gives the CEO considerable discretion to negotiate personal benefits into the agreement that is sent to the board.”).

21. Jay C. Hartzell et al., *What's in It for Me? CEOs Whose Firms Are Acquired*, 17 REV. FIN. STUD. 37, 37 (2004).

generally and encourage target managers to be open to takeover bids specifically. Increased equity compensation naturally pushed in this direction because takeovers would offer a premium to current share prices and perhaps early vesting,²² but even managers with a significant equity stake in the firm often faced a net financial loss upon takeover and termination. GPs make takeovers incrementally more palatable for target managers by promising additional payments.²³ Specifically, GPs commit acquirers to pay severance and other amounts to target managers for a period of time following (and, in some cases, targets for a period of time prior to) a change in control.²⁴ In fact, some GPs do not require a subsequent termination of employment before being paid out,²⁵ but these so-called “single-trigger” GPs have fallen out of favor in recent times.²⁶

Usually, the GP defines a “change in control” trigger as a merger, the acquisition of some percentage of company shares, or turnover of the incumbent board.²⁷ A number of subsequent termination scenarios then serve as a second trigger resulting in the GP payment.²⁸ Those scenarios commonly involve a termination by the company without “cause” or a resignation by the CEO for “good reason.”²⁹ The GP payment often includes a multiple of salary and bonus.³⁰ It also usually permits

22. See *id.* at 44–45; Marcel Kahan & Edward B. Rock, *How I Learned to Stop Worrying and Love the Pill: Adaptive Responses to Takeover Law*, 69 U. CHI. L. REV. 871, 884 (2002).

23. See Bebchuk et al., *What Matters?*, *supra* note 7, at 793.

24. See Lucian Arye Bebchuk et al., *Managerial Power and Rent Extraction in the Design of Executive Compensation*, 69 U. CHI. L. REV. 751, 834–36 (2002) (discussing the use of GPs to discourage CEOs from blocking takeovers).

25. See Walther, Note, *Employment Agreements and Tender Offers: Reforming the Problematic Treatment of Severance Plans Under Rule 14d-10*, 102 COLUM. L. REV. 774, 782 n.25 (2002) (stating that single-trigger chutes “can be pulled simply upon a change in control”).

26. See ALVAREZ & MARSAL TAXAND, LLC, EXECUTIVE CHANGE IN CONTROL REPORT 2013/2014 9 (2014), <http://www.alvarezandmarsal.com/sites/default/files/Change%20in%20Control.pdf> (reporting that, in 2013, ninety-six percent of companies with agreements included double-trigger payouts and only nine percent of companies with agreements included single-trigger payouts). We found single-trigger payouts in 9.8% of GPs in our hand-collected data.

27. See Lambert & Larcker, *supra* note 14, at 179. Sales of substantially all assets of the company are usually covered as well.

28. See Ben Walther, *supra* note 25, at 782 n.25 (stating that double-trigger chutes can be pulled “only upon [the executive] losing his or her job within a certain time after a change in control”).

29. Simone M. Sepe & Charles K. Whitehead, *Rethinking Chutes: Incentives, Investment, and Innovation*, 95 B.U. L. REV. 2027, 2041 (2015). For more on definitions of “cause” and “good reason,” see Stewart J. Schwab & Randall S. Thomas, *An Empirical Analysis of CEO Employment Contracts: What Do Top Executives Bargain for?*, 63 WASH. & LEE L. REV. 231, 249 tbl.3, 253 (2006) (noting “just cause” for CEO termination triggers including willful misconduct, moral turpitude, and failure to perform duties, and “good reason” for CEO resignation triggers including diminution in responsibilities, diminution in compensation, and forced relocation).

30. Sepe & Whitehead, *supra* note 29, at 2042.

accelerated vesting of equity awards,³¹ if not already effected by the change in control event under the terms of the relevant equity compensation plans. Many GPs promise other items, including continuation of perquisites, outplacement services, and enhanced contributions to retirement plans.³² Finally, GPs may include provisions to deal with tax consequences unique to the GP context,³³ up to a promise to gross up the CEO for any excise tax he would have to pay on account of the GP.³⁴

Those tax consequences are the result of the first legislative attack on GPs.³⁵ In 1984, Congress responded to a spate of high-profile transactions and a related group of high-profile GPs by passing Sections 280G and 4999 of the Internal Revenue Code as part of the Deficit Reduction Act of 1984.³⁶ The former prevented firms from taking a normal compensation deduction for “excess parachute payments,”³⁷ while the latter imposed a twenty-percent excise tax on recipients of excess parachute payments.³⁸ Until the adoption of Section 409A in 2004, which restricted payment of deferred compensation to executives,³⁹ GPs were the only terms in an executive employment agreement subject to their own special tax penalty.⁴⁰

More recently, Congress passed the Dodd–Frank Act.⁴¹ The Act includes a requirement that public companies submit the entirety of their

31. *Id.*

32. *Id.* at 2042–43. We found these “other” amounts at seventy-six percent of firms that make some sort of GP promise.

33. *See* I.R.C. § 280G (2012) (excluding company deduction for excess parachute payments); *id.* § 4099 (imposing excise tax on recipients of excess parachute payment).

34. Sepe & Whitehead, *supra* note 29, at 2043. In our hand-collected data, for instance, we found excise tax gross-ups at 29.8% of firms with GPs in place. *See infra* Part II for more descriptive statistics.

35. *See* Steven E. Prokesch, *Too Much Gold in the Parachutes?*, N.Y. TIMES (Jan. 26, 1986), <http://www.nytimes.com/1986/01/26/business/too-much-gold-in-the-parachutes.html> (“The golden parachute provision of the Deficit Reduction Act of 1984 marked the first legislative attempt to curb excessive golden parachutes.”).

36. Pub. L. No. 98-369, § 67(a), (b)(1), 98 Stat. 494, 585, 587 (codified as amended at I.R.C. §§ 280G, 4999 (2012)). *See generally* Edward A. Zelinsky, *Greenmail, Golden Parachutes and the Internal Revenue Code: A Tax Policy Critique of Sections 280G, 4999 and 5881*, 35 VILL. L. REV. 131 (1990) (discussing the history of Sections 280G and 4999).

37. I.R.C. § 280G(a).

38. *Id.* § 4999(a).

39. *See id.* § 409A(a).

40. Section 162(m) also imposes tax consequences on high levels of pay that are not sufficiently “performance-based.” *See id.* § 162(m); Mullane, *supra* note 3, at 519–26; Gregg D. Polsky, *Controlling Executive Compensation Through the Tax Code*, 64 WASH. & LEE L. REV. 877, 884–85 (2007).

41. Pub. L. No. 111-203, 124 Stat. 1376 (2010) (codified as amended in scattered sections of 15 U.S.C. (2012)).

executive compensation arrangements to a non-binding say-on-pay vote.⁴² In a lesser-known provision, the Dodd–Frank Act also includes a specific “say-on-GP” provision, which requires public companies to (1) disclose any GPs when soliciting shareholder votes on sales, mergers, or other dispositions⁴³ and (2) submit those GPs for a *special* advisory shareholder vote.⁴⁴ Thus, GPs are the only term in CEO compensation contracts subjected to their own discrete shareholder votes.⁴⁵

The results of such votes have generally been favorable for GPs. According to a Pearl Meyer white paper, of the 298 GP votes held between implementation in 2011 and October 31, 2013, seventy percent resulted in high shareholder approval (eighty-percent approval or greater), while only five percent of cases resulted in a majority of negative votes.⁴⁶ On the other hand, Institutional Shareholder Services

42. See 15 U.S.C. § 78n-1(a) (requiring firms to submit to a nonbinding say-on-pay vote once every one, two, or three years, with that vote occurring no less frequently than once every six years).

43. See *id.* § 78n-1(b)(1). Many targets already disclosed such information in proxy solicitations pursuant to Item 5 of Schedule 14A, which requires disclosure of “any substantial interest, direct or indirect, by security holdings or otherwise, of any person who has been an executive officer or director since the beginning of the last fiscal year in any matter to be acted upon.” Shareholder Approval of Executive Compensation, Exchange Act Release No. 9153, 99 SEC Docket 2041 (Oct. 18, 2010).

44. See 15 U.S.C. § 78n-1(b)(2).

45. See *id.* § 78n-1(a)(1) (permitting firms to avoid the special vote by disclosing GPs at an earlier date, thereby making them subject to the regular say-on-pay advisory vote). To qualify as having been subject to a prior say-on-pay vote (and thus exempt from the specific GP advisory vote requirement at a later date), firms must disclose information required by Item 402(t) of Regulation S-K. See 17 C.F.R. § 229.402(t) (2015). For annual report purposes, on the other hand, they need only provide information under Item 402(j). See *id.* § 229.402(j). The two disclosures are similar; thus, one might have expected firms to disclose under 402(t) to receive the waiver from future say-on-GP votes. However, practitioners report that few firms are availing themselves of this option, instead choosing to submit GPs to a shareholder vote in the event of a later deal. See MICHAEL G. O'BRYAN ET AL., MORRISON FOERSTER, NEW GOLDEN PARACHUTE COMPENSATION DISCLOSURE AND SHAREHOLDER ADVISORY VOTE REQUIREMENTS 2 (2011), <http://media.mofo.com/files/Uploads/Images/110603-SEC-Golden-Parachute-Requirements.pdf> (“Based on the filings thus far this proxy season, it is unlikely that companies will often use the Say-on-Pay vote exception. In the months since the requirement for a mandatory Say-on-Pay vote became effective, only a handful of issuers have voluntarily included the Item 402(t) golden parachute compensation disclosures in their annual meeting proxy statements.” (footnote omitted)). It seems likely that firms view the downside of waiting for a say-on-GP vote at the time of a deal as being relatively small since the advisory nature of the vote pushes all consequences into the future while final period transactions trigger most GPs.

46. MARGARET BLACK & DAN WETZEL, PEARL MEYER & PARTNERS, SAY ON GOLDEN PARACHUTE VOTES 1 (2013), <http://www.pearlmeyer.com/Pearl/media/PearlMeyer/Articles/Whitepapers/PMP-ART-SOGPUupdate-12-17-2013.pdf>.

(ISS) is becoming more aggressive in its recommendations against GPs.⁴⁷ ISS and other firms have guidelines relating to GPs that predate the say-on-GP regime.⁴⁸ ISS's 2013 Proxy Voting Guidelines state that the company will make case-by-case recommendations with respect to say-on-GP votes and go on to list a number of GP features it generally opposes—single-trigger severance or equity-vesting acceleration, cash severance greater than three times base salary and bonus, 280G excise tax gross-ups, etc.—but the guidelines do not indicate how the features will be weighted in the company's analysis or how GP compliance will be weighted in a general say-on-pay vote.⁴⁹ Other shareholder advisors and institutional shareholders have begun to adopt similar guidelines. Glass, Lewis & Co., ISS's most significant competitor, has adopted guidelines which are, if anything, even more opaque.⁵⁰ Vanguard, similar to other institutional investors, has explicitly accepted that GPs may be appropriate in most contexts, subject to restraints on specific features.⁵¹

All of the anti-GP activity leaves unsettled the question of whether GPs actually increase or decrease shareholder wealth. Obviously, GPs might increase shareholder value by encouraging more takeovers at

47. *See id.* at 3 (“These recent changes in its voting guidelines appear to be increasing the likelihood that ISS will issue a negative voting recommendation on transaction pay proposals. In fact, ISS seems to be doing so roughly twice as often as for Say on Pay proposals. Negative voting recommendations were made for 35 of the 125 SOGP proposals (approximately 28%) brought before shareholders in meetings between February 1, 2013 and October 31, 2013. In contrast, 20% of proposals received ‘Against’ recommendations in voting results filed through December 31, 2012, as reported in our March 2013 update.”).

48. *See, e.g.*, GEORGESON S’HOLDER, CORPORATE GOVERNANCE: ANNUAL MEETING SEASON WRAP-UP 4 (1996), <http://www.computershare-na.com/sharedweb/georgeson/acgr/acgr1996.pdf>. This makes sense given the common belief that GPs were the subject of a large number of shareholder proposals in earlier periods. *See* Bebchuk et al., *Wealth of Shareholders*, *supra* note 7, at 140. In fact, Georgeson Annual Corporate Governance reports categorized shareholder proposals relating to all forms of severance as “Golden Parachute” proposals, artificially inflating the perceived levels of shareholder dissatisfaction with GPs in particular. GEORGESON S’HOLDER, *supra*, at 4.

49. *See* INSTITUTIONAL S’HOLDER SERVS., 2013 U.S. PROXY VOTING SUMMARY GUIDELINES 54, <http://www.issgovernance.com/files/2013ISSUSSummaryGuidelines1312013.pdf>.

50. *See* GLASS, LEWIS & CO., PROXY PAPER GUIDELINES 7 (2012), http://www.glasslewis.com/assets/uploads/2012/02/Guidelines_UnitedStates_2013_Abridged1.pdf (noting that “[e]gregious or excessive bonuses, equity awards or severance payments, including golden handshakes and golden parachutes” are factors that militate in favor of a negative recommendation on a say-on-pay vote).

51. *See Vanguard’s Proxy Voting Guidelines*, VANGUARD, <https://investor.vanguard.com/about/vanguards-proxy-voting-guidelines> (last visited Feb. 1, 2016) (“Although executives’ incentives for continued employment should be more significant than severance benefits, there are instances, particularly in the event of a change in control, in which severance arrangements may be appropriate. Severance benefits payable upon a change of control AND an executive’s termination (so-called double-trigger plans) are generally acceptable to the extent that benefits paid do not exceed three times salary and bonus.”).

premiums to current share prices.⁵² GPs might also allow current shareholders to shift compensation costs onto future shareholders.⁵³ Finally, GPs might encourage managers to pursue risky projects and manage for the long-term by reducing the penalties for short-term failure normally associated with takeovers.⁵⁴ On the other hand, GPs necessarily involve the diversion of some of the takeover premium from shareholders to executives.⁵⁵ Beyond that obvious distributional concern, recent academic criticisms of GPs have focused more on the potential for GPs to exacerbate agency costs at public firms.⁵⁶ Specifically, by making terminations less painful, GPs might create effort disincentives for CEOs.

The theoretical ambivalence about GPs has led to substantial empirical research over the years. Numerous studies have examined whether GPs have actually resulted in more takeovers.⁵⁷ GPs have been associated with an increased likelihood of a firm receiving a takeover bid and being subject to takeover activity generally.⁵⁸ In certain studies, more “important” parachutes were associated with higher likelihood of deal completion and lower acquisition premia,⁵⁹ while in others GPs were not

52. See *supra* notes 15–18 and accompanying text.

53. See Albert Choi, *Golden Parachute as a Compensation-Shifting Mechanism*, 20 J.L. ECON. & ORG. 170, 183 (2004) (suggesting that GPs permitted target shareholders to shift some of their *ex ante* compensation burden onto acquirers).

54. See Sepe & Whitehead, *supra* note 29, at 2033–34.

55. See Lambert & Larcker, *supra* note 14, at 185 (“[T]he GP increases the cost of a [sic] conducting a takeover and dismissing management. That is, the GP contract requires the acquiring firm to retain and/or compensate executives that it might prefer to terminate. This reduces the takeover premium that the acquiring firm is willing to pay.”).

56. See Bebchuk et al., *supra* note 24, at 754. There are, of course, other criticisms of GPs, mostly centered on concerns for distributive justice. See, e.g., Paul G. Wilhelm, *Application of Distributive Justice Theory to the CEO Pay Problem: Recommendations for Reform*, 12 J. BUS. ETHICS 469, 472–73 (1993).

57. See, e.g., Thomas W. Bates et al., *Board Classification and Managerial Entrenchment: Evidence from the Market for Corporate Control*, 87 J. FIN. ECON. 656, 671 (2008); Jeffery A. Born et al., *Golden Parachutes: Incentive Aligners, Management Entrenchers, or Takeover Bid Signals?*, 16 J. FIN. RES. 299, 303 (1993); Eliezer M. Fich et al., *On the Importance of Golden Parachutes*, 48 J. FIN. & QUANTITATIVE ANALYSIS 1717, 1718 (2013); Ellie G. Harris, *Anti takeover Measures, Golden Parachutes, and Target Firm Shareholder Welfare*, 21 RAND J. ECON. 614, 614 (1990); Hartzell et al., *supra* note 21, at 38–39; Judith C. Machlin et al., *The Effects of Golden Parachutes on Takeover Activity*, 36 J.L. & ECON. 861, 861 (1993); Jonathan M. Karpoff et al., *Do Takeover Defenses Deter Takeovers?* 2–3 (Aug. 14, 2015) (unpublished manuscript), <http://ssrn.com/abstract=2608759>.

58. See Bates et al., *supra* note 57, at 671 (finding firms with GPs 1.8% more likely to receive a takeover bid); Machlin et al., *supra* note 57, at 868 (noting that firms with GPs are more likely to undergo a change in control than firms without).

59. See, e.g., Fich et al., *supra* note 57, at 1728–30. The researchers derived the “importance” of the parachute by scaling it against a model of lost wages for given CEOs. *Id.* at 1725.

associated with a decrease in premia.⁶⁰ Recent work on the subject by Professors Bebchuk, Cohen, and Wang found a correlation consistent with the former group (GP adoption associated with higher incidence of takeovers but lower takeover premia) and further found that incidence dominated premium amount such that GPs are correlated with higher expected unconditional takeover premia.⁶¹ Moreover, the authors found that even “older” GPs were associated with higher incidence of takeovers, indicating that an executive’s private information leading her to seek out a GP in advance of an expected takeover does not drive the observed effect on deal activity.⁶²

But increased deal premia do not necessarily mean that GPs are an unalloyed good from a shareholder perspective since such findings do not examine what happened to the firm after GP adoption but prior to a takeover bid. Some early work found significant negative returns following announcement of a GP, suggesting that the market may have predicted an effort-disincentive effect.⁶³ However, other work found conflicting results or no relationship at all.⁶⁴ More recently, a set of sophisticated studies has found a correlation between GP adoption and lower firm values measured in terms of Tobin’s Q, which is the ratio between a firm’s assets and its market value. Professors Paul A. Gompers, Joy L. Ishii, and Andrew Metrick included GP adoption in their “governance index” (G index), although they admitted that theoretical accounts were ambivalent about GPs’ effect on managerial entrenchment.⁶⁵ They found that GP adoption, when aggregated with twenty-three other governance features tending toward entrenchment, was correlated with lower firm value, though they could not determine causality.⁶⁶ Importantly for our project, regular severance incidence was also included as a variable in the G index.⁶⁷

60. See, e.g., Machlin et al, *supra* note 57, at 872. But see Born et al., *supra* note 57, at 305–06 (noting that the presence of GPs correlated with higher cumulative abnormal returns).

61. See Bebchuk et al, *Wealth of Shareholders*, *supra* note 7, at 147–48.

62. See *id.* at 150.

63. See, e.g., Pamela L. Hall & Dwight C. Anderson, *The Effect of Golden Parachutes on Shareholder Wealth and Takeover Probabilities*, 24 J. BUS. FIN. & ACCT. 445, 454–55 (1997); Damian J. Mogavero & Michael F. Toyne, *The Impact of Golden Parachutes on Fortune 500 Stock Returns: A Reexamination of the Evidence*, 34 Q.J. BUS. & ECON. 30, 35 (1995).

64. See, e.g., Lambert & Larcker, *supra* note 14, at 201 (positive returns upon GP announcement); Born et al., *supra* note 57, at 299 (no abnormal returns upon GP announcement).

65. See Gompers et al, *supra* note 7, at 148. The researchers found a correlation between GP adoption and fifteen of the other “Dictatorship” provisions, indicating that GPs restricted shareholder rights. See *id.*

66. See *id.* at 142, 144–45.

67. See *id.* at 112 tbl. 1, 149–50 (listing regular severance as one of the provisions used for the G index calculation).

Next, Professors Bebchuk, Cohen, and Allen Ferrell included GP adoption as one of six G index provisions in their streamlined “entrenchment index” (E index).⁶⁸ They found that the presence of GPs—along with classified boards, bylaw and charter amendment restrictions, supermajority voting provisions, and poison pills—proved explanatory for the declines in firm value observed in Professors Gompers, Ishii, and Metrick’s research.⁶⁹ This was the case for GPs *even controlling for regular severance* and the other components of the G index.⁷⁰

But the interpretation of the observed correlation between GPs and firm performance is subject to endogeneity concerns, as there is a fairly obvious omitted variable: private information a CEO-to-be might have about poor firm prospects. Because GPs function in part as an insurance plan in the case of poor performance, CEOs with knowledge that firm prospects are bleak may be more apt to demand them.⁷¹ That such firms then experience declines in value is hardly surprising. Professors Bebchuk, Cohen, and Wang explicitly recognize this issue in their recent paper⁷² and go to great lengths to grapple with it. They use buy-and-hold portfolios centered on “long-term GP adopters” and find a correlation between GP adoption and lower firm value both at the time of adoption and over a subsequent two-year period.⁷³ Again, they control for many of the G index variables, including regular severance.⁷⁴

That firm values decline subsequent to adoption might indicate that GPs are causing shareholder value to decline. But given that the subsequent period is only two years post-adoption, it is equally plausible that the negative firm prospects leading to the adoption of the GP continued to influence poor firm performance in the second year out.⁷⁵ Professors Bebchuk, Cohen, and Wang transparently acknowledge as

68. See Bebchuk et al., *What Matters?*, *supra* note 7, at 805.

69. See *id.* at 797 tbl.1.

70. See *id.* at 805–06.

71. See Lambert & Larcker, *supra* note 14, at 189.

72. Bebchuk et al., *Wealth of Shareholders*, *supra* note 7, at 151 (“Such a correlation [found in earlier work] could arise either because GPs have a negative effect on shareholder value or because of a selection effect (i.e., the greater tendency of low-value firms to have GPs). However, the current literature has not disentangled these two effects, and we therefore proceed to examine further the impact of GPs on shareholder value.”).

73. *Id.* at 153. Specifically, Professors Bebchuk, Cohen, and Wang compare firms with GPs in the prior, current, and subsequent IRRC volumes with “long-term non-adopters”—firms that do not have GPs in the previous, current, and succeeding IRRC volumes. *Id.*

74. *Id.* at 144.

75. The researchers attempt to solve for this by including acquired firms with GPs as “GP adopters” to artificially raise the returns of adopting firms, since acquired firms should show an increase in valuation. *Id.* at 152–53. Even with this “push,” they found statistically significant negative valuation differences between GP long-term adopters and others, and they interpret these findings to be consistent with the GP effort–effect hypothesis. *Id.* at 153.

much: “[I]t could be suggested that [the results] are driven by a selection effect. Under this explanation, the firms with GPs that face higher acquisition likelihood but are not acquired for three consecutive IRRC volumes could be very poorly performing firms.”⁷⁶ Making the strongest case available, they then included all firms acquired during the post-GP measurement period that had been excluded in the earlier specifications.⁷⁷ One would reasonably predict that acquired firms would both (1) have had GPs and (2) experience abnormal positive returns due to the acquisition.⁷⁸ Even after including these firms, Professors Bebchuk, Cohen, and Wang found significant negative abnormal returns.⁷⁹

At the time of this Article’s publication, this represents the last, best word on GPs’ effects on firm performance and CEO-effort incentives. But as much as this recent work clarifies, it also suggests a puzzle—have eighty percent of S&P 1500 firms adopted provisions in their CEO contracts that systematically reduce shareholder wealth? Or have the studies failed to control for variables that might explain away GPs’ apparent effect on firm performance?

B. Regular Severance: Theory and Evidence

One such variable might be regular severance, another common provision in CEO employment agreements. Regular severance, like its GP cousin, promises to cushion executives against the blow of a “without cause” or “good reason” termination.⁸⁰ Unlike GPs, however, regular severance covers terminations when there has been no recent or contemporaneous change in corporate control. Regular severance usually consists of a cash payment, often based on a multiple of salary and bonus,⁸¹ and may also include accelerated equity vesting, outplacement services, pension enhancements, and continued perquisites.⁸² Some or all of these payments may be conditioned on the executive agreeing to

76. *Id.* at 152.

77. *Id.*

78. *Id.* (“*Ex ante*, we should expect the inclusion of these stocks to decrease the portfolio abnormal returns, since firms with GPs are more likely to be acquired and should therefore be more likely to earn positive acquisition premiums.”).

79. *Id.*

80. See Tjomme O. Rusticus, Executive Severance Agreements 4–5 (Feb. 21, 2006) (unpublished Ph.D. dissertation, University of Pennsylvania), <http://areas.kenan-flagler.unc.edu/Accounting/Lists/Upcoming%20Accounting%20Events/Attachments/13/Rusticus%20Paper.pdf>.

81. See *id.* The multiple may be equal to or less than the multiple applied to a GP. There is no evidence of a CEO who was entitled to a higher multiple of salary and bonus under regular severance than he was under a GP.

82. See *id.*; Deborah L. Jacobs, *How to Get the Best Severance Deal*, FORBES (Nov. 2, 2011, 5:54 PM), <http://www.forbes.com/sites/deborahljacobs/2011/11/02/how-to-play-your-hand-when-youve-been-fired/>.

nondisclosure, noncompetition, or nondisparagement provisions.⁸³ Severance payments may be paid in a lump sum or over time, although the latter has become more challenging under recently established tax rules aimed at constraining deferred compensation arrangements.⁸⁴ Unlike GPs, regular severance never includes any tax gross-ups because the tax code does not impose particular penalties on regular severance.⁸⁵ Regular severance is rarely, if ever, more lucrative than a GP held by a given CEO and is usually less lucrative.

Regular severance promises may be part of an efficient CEO employment contract. As was the case with GPs, a CEO may anticipate losing any firm-specific human capital investment and significant future cash flows upon a future dismissal from the firm.⁸⁶ This may be particularly significant since high-profile dismissals bring reputational harm, making it harder for a fired CEO to obtain a similar position in short order and generating personal solvency and liquidity crises.⁸⁷ As a consequence, potential CEOs may avoid taking positions at risky firms or may demand higher wages to offset the greater risk.⁸⁸ Once in office, undiversified managers might avoid risky but valuable projects for fear of losing their positions in downside scenarios.⁸⁹ Restricted stock and, in particular, stock options partially solve this risk aversion by increasing the gain to the executive if the risk pays off.⁹⁰ Severance agreements, on the other hand, operate to compensate if the project fails and the executive loses his position.⁹¹ Along these lines, regular severance promises may

83. See MICHAEL S. MELBINGER, EXECUTIVE COMPENSATION ¶ 401 (2013); Schwab & Thomas, *supra* note 29, at 254–55.

84. See I.R.C. § 409A (2012); DURWARD J. GEHRING, APPLYING SECTION 409A TO SEVERANCE BENEFITS 2 (2010), http://www.seyfarth.com/dir_docs/news_item/baa36085-d2a4-4ef3-bfb1-67338f98ae90_documentupload.pdf (“If the employee has no legally binding right to receive compensation in a future year, there is no deferred compensation in the first place. . . . If severance pay is paid in installments that could be paid in years after the year of termination, the severance pay may be subject to Section 409A unless it meets one of the other exceptions.”).

85. See Rusticus, *supra* note 80, at 2 & n.2.

86. See C. Edward Fee & Charles J. Hadlock, *Management Turnover Across the Corporate Hierarchy*, 37 J. ACCT. & ECON. 3, 5 (2004).

87. See *id.*; Stuart C. Gilson, *Management Turnover and Financial Distress*, 25 J. FIN. ECON. 241, 261 (1989); Hartzell et al., *supra* note 21, at 49, 51.

88. Brian D. Cadman et al., *Are Ex-Ante CEO Severance Pay Contracts Consistent with Efficient Contracting?* 7–8 (Nov. 15, 2011) (unpublished manuscript), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1773070.

89. *Id.* at 7.

90. See John E. Core et al., *Executive Equity Compensation and Incentives: A Survey*, 9 FED. RES. BANK N.Y. ECON. POL’Y REV. 27, 29, 33 (2003). Options also limit losses as the executive is free to decline to call the shares.

91. See Nengjiu Ju et al., *Options, Option Repricing in Managerial Compensation: Their Effects on Corporate Risk*, 29 J. CORP. FIN. 628, 639 (2014).

(1) induce a talented CEO to join a firm even though the CEO faces a significant information deficit regarding the firm and (2) encourage risk-taking once in place.⁹² Firms operating in volatile environments or where the CEO is new to the organization typically should be more likely to make regular severance promises.⁹³ Similarly, regular severance promises should appear more often in contracts covering CEOs who might bear particularly large labor market penalties following a termination.⁹⁴

On the other hand, regular severance promises may represent run-of-the-mill rent extraction by powerful managers. The managerial power may be a product of the agency problems Professors Bebchuk and Jesse M. Fried famously described,⁹⁵ or it may simply reflect an overestimation of marginal CEO value in board negotiations with new hires, particularly new hires from outside of the firm.⁹⁶ In either case, regular severance promises may reflect rents obtained by management as a result of these sorts of market inefficiencies rather than provisions that increase shareholder wealth.

Even in a world of arm's length bargaining, prior theoretical accounts were ambivalent as to whether regular severance enhances firm value generally. As discussed above, severance agreements may encourage CEOs to take on risky but valuable projects.⁹⁷ Yet such promises are also open to an effort-disincentive critique similar to the one leveled at GPs. If the threat of termination for poor performance motivates CEOs to exert effort, then reducing the costs of such terminations might lead to less effort.⁹⁸ Thus, an alternative hypothesis regarding severance adoption is that it would be correlated with higher risk-taking but lower firm value going forward.

92. See Stuart L. Gillan et al., *Explicit Versus Implicit Contracts: Evidence from CEO Employment Agreements*, 64 J. FINANCE 1629, 1631 (2009); Ju et al., *supra* note 91, at 638.

93. Gillan et al., *supra* note 92, at 1631; Roman Inderst & Holger M. Mueller, *CEO Compensation and Private Information: An Optimal Contracting Perspective* 4–5 (N.Y. Univ., Working Paper No. CLB-06-022, 2006), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1291610; see also Rusticus, *supra* note 80, at 8–9 (summarizing other arguments for the efficiency of regular severance, including encouraging CEOs to share bad news).

94. For instance, younger or poorer CEOs, or those currently enjoying large compensation levels, will bear larger costs from an involuntary termination than older or wealthier CEOs or those paid less. See Gillan et al., *supra* note 92, at 1635 (providing evidence that CEOs expecting to earn greater abnormal compensation over time are more likely to have contractual protection).

95. *E.g.*, LUCIAN BEBCHUK & JESSE FRIED, *PAY WITHOUT PERFORMANCE* 8 (2004); Bebchuk et al., *supra* note 24, at 784.

96. For more on the unique attributes of negotiations over new CEO hires, see RAKESH KHURANA, *SEARCHING FOR A CORPORATE SAVIOR* 186–203 (2004).

97. See *supra* text accompanying note 92.

98. See Rusticus, *supra* note 80, at 7.

Relatively little work, however, has been done to examine the question of regular severance's effect on firm performance. Professors Stewart J. Schwab and Randall S. Thomas, using a database compiled by The Corporate Library, found high levels of regular severance in CEO employment contracts.⁹⁹ But they found CEO employment contracts for only 375 of 865 firms that responded to The Corporate Library's inquiry.¹⁰⁰ Similarly, Professors Stuart Gillan, Jay C. Hartzell, and Robert Parrino found only 225 explicit CEO employment agreements either voluntarily provided to The Corporate Library or referenced in SEC filings on EDGAR among S&P 500 firms in 2000.¹⁰¹ Professor Tjomme O. Rusticus studied a sample of agreements with starting CEOs hired from 1994 through 1999.¹⁰² He hand collected severance agreements referenced in SEC filings and found that just over half of the CEOs in that cohort of 305 had some sort of severance promise in their agreements.¹⁰³ He also found conflicting evidence on the relationship between severance promises and CEO turnover.¹⁰⁴ Finally, economist Peggy Huang found that straight severance incidence correlated with higher investment levels but that the higher investment was value-decreasing for firms.¹⁰⁵

Professors Brian D. Cadman, John L. Campbell, and Sandy Klasa hand collected post-2006 proxy data and found high levels of regular severance relative to historic estimations by database providers.¹⁰⁶ Moreover, they found that regular severance is correlated with stock return volatility, firm leverage, and focused (as opposed to diversified)

99. See Schwab & Thomas, *supra* note 29, at 251.

100. *Id.* at 240, 242. Surprised by this finding, Professors Schwab and Thomas were eventually able to track down documents to allow them to conclude that the "vast majority" of CEOs had some sort of contractual arrangement regarding their employment but did not indicate whether the newly discovered arrangements provided for severance. *Id.* at 241.

101. Gillan et al., *supra* note 92, at 1636–37. Of the agreements they studied, 91.8% had terms distinguishing terminations with and without cause. *Id.* at 1638–39. Even assuming each of those contracts offered payments upon without-cause terminations, the numbers imply that over half of S&P 500 CEOs are operating *without* regular severance protection. Studies from earlier eras reveal even smaller numbers. See, e.g., Anup Agrawal & Charles R. Knoeber, *Managerial Compensation and the Threat of Takeover*, 47 J. FIN. ECON. 219, 226 (1998) (noting that twelve percent of Forbes 800 firms had CEO employment agreements).

102. Rusticus, *supra* note 80, at 17–18.

103. *Id.* at 18. The 305-firm sample was drawn from the S&P 1500. Consistent with other studies, Professor Rusticus found that eighty-six percent of CEOs in his sample had some form of a GP. *Id.* For those CEOs who obtained severance promises, the median promised payout was equivalent to \$2,278,000, about three-quarters of which came in the form of cash. *Id.* at 19.

104. *Id.* at 33–34.

105. Peggy Huang, *Marital Prenups? A Look at CEO Severance Agreements* 29 (Mar. 15, 2011) (unpublished manuscript), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1786540.

106. Cadman et al., *supra* note 88, at 2, 3 n.4.

acquisitions—each a proxy for firm risk-taking.¹⁰⁷ Finally, they found some indication of *increased* firm value, using acquisition announcement returns and the contribution of cash holdings to firm value as proxies.¹⁰⁸ However, Professors Cadman, Campbell, and Klasa did not control for GP adoption, leaving open the possibility that GP promises rather than regular severance drive the correlations.

C. *A Fresh Look at Golden Parachutes and Effort Incentives*

Do CEOs with GPs exert less effort? Do regular severance promises create similar incentives? If both, which is more important? The empirical studies undertaken to this point are unclear on these questions. Significant endogeneity concerns remain, with studies showing a correlation between GP adoption and lower firm values. Moreover, although earlier work suggesting GP effort-incentive effects controlled for regular severance,¹⁰⁹ the studies used IRRC databases for pre-2006 periods that indicated startlingly low levels of severance.¹¹⁰ Prior to 2006, researchers (including IRRC) had to rely on voluntary provision of severance terms to research requests¹¹¹ or to comb through CEO agreements and severance plans intermittently filed as exhibits to periodic reports.¹¹² For instance, in 2004, the IRRC database reported that only 6.0% of firms offered straight severance promises to their CEOs.¹¹³ Professors Cadman, Campbell, and Klasa, however, found CEO straight severance at 73.7% of firms in their hand-collected sample covering 2006–2007,¹¹⁴ generally consistent with the 50.2% and 72.0% of S&P 1500 firms ExecuComp found in 2006 and 2013 respectively and the 63.8% we find in our hand-collected sample of 2009 S&P 500 firms.¹¹⁵ Some of the disparity may reflect changes in contracting between the pre- and post-2006 periods. Certainly, it is logical that the demand for severance would rise as CEO positions became more precarious over this period.¹¹⁶ However, the stark differences between the historical IRRC data and the recent data from ExecuComp, Professors Cadman,

107. *Id.* at 22–28.

108. *Id.* at 29.

109. See *supra* notes 54–58 and accompanying text.

110. See, e.g., Bebchuk et al., *What Matters?*, *supra* note 7, at 783–84, 797 (reporting severance arrangements in 2002 at only 6.1% of firms); see also Agrawal & Knoeber, *supra* note 101, at 228 (noting that only two percent of Forbes 800 firms had both GPs and explicit executive employment contracts).

111. See, e.g., Schwab & Thomas, *supra* note 29, at 240.

112. See, e.g., Rusticus, *supra* note 80, at 5; Schwab & Thomas, *supra* note 29, at 241.

113. Data on file with authors.

114. Cadman et al., *supra* note 88, at 2, 17–18.

115. Data on file with authors.

116. See *infra* Subsection I.C.1.

Campbell, Klasa, and this Article indicate that prior studies that evaluated GPs while controlling for severance may have used inaccurate datasets. At the very least, the disparity calls into question the applicability of prior work's GP-incentive-effect findings to today's contracting environment.

Prior to a discussion of the empirical analysis, this Article examines whether a GP or straight severance is more likely to provide effort-disincentive effects in today's CEO labor market. Because CEOs were rarely fired outside of the change in control context during earlier periods, it may have been plausible to believe that GPs were the crucial post-termination promise for CEO incentives.¹¹⁷ However, there is more reason today to believe that straight severance should create equal or greater effort disincentives than a GP in many circumstances. Poor-performing CEOs face far more significant labor market penalties outside of the takeover context than before.¹¹⁸ Moreover, a well-known practice of paying *ex post* "deal bounties" to target CEOs¹¹⁹ has provided a substitute for *ex ante* GP promises, making them potentially less important to CEO incentives. Finally, GP values are more dependent on share prices than straight severance values,¹²⁰ potentially mitigating incentives for CEOs to slack. Given these phenomena it seems plausible that straight severance will play a greater role vis-à-vis GPs in shaping CEO behavior than they may have in prior periods.

1. The New CEO Labor Market and Regular Severance

GPs arose in a corporate governance environment where acquirers were seen as the most, and perhaps only, dynamic actors among potential monitors.¹²¹ Shareholders at public companies were dispersed and rationally ignorant, and boards were seen as yielding and generally absent.¹²² For example, CEO turnover was so rare outside the takeover context that many believed the managerial labor market produced few

117. See, e.g., Dirk Jenter & Fadi Kanaan, *CEO Turnover and Relative Performance Evaluation*, 70 J. FINANCE 2155, 2163 (2015) (excluding CEO turnovers associated with mergers from the CEO turnover analysis); Lucian A. Taylor, *Why Are CEOs Rarely Fired? Evidence from Structural Estimation*, 65 J. FINANCE 2051, 2064 (2010) (excluding CEO dismissals due to a takeover in the study involving the low occurrence of CEO firings).

118. See *supra* text accompanying note 94.

119. See *infra* Subsection I.C.2.

120. See Marcia Heroux Pounds, *Office Depot CEO Could Walk with \$39 Million After Merger*, SUN SENTINEL (Feb. 10, 2015, 5:51 PM), <http://www.sun-sentinel.com/business/consumer/fl-office-depot-ceo-golden-parachute-20150210-story.html>.

121. See *supra* notes 14–17 and accompanying text.

122. See Bengt Holmstrom & Steven N. Kaplan, *Corporate Governance and Merger Activity in the United States: Making Sense of the 1980s and 1990s*, 15 J. ECON. PERSP. 121, 123 (2001).

incentive effects.¹²³ Product markets and capital markets compelled some level of managerial effort, but the market for corporate control was commonly understood to be the most important constraint on managerial slack.

However, alternative devices to drive managerial effort have become far more robust over time.¹²⁴ Institutional shareholders hold a greater share of the public equity market than ever before.¹²⁵ Hedge funds have taken the lead in a new brand of shareholder activism and have drafted otherwise sleepy monitors like mutual funds to their side in battles with management.¹²⁶ Proxy advisory firms have increased their influence, lowering monitoring costs generally.¹²⁷ And, at the same time that shareholders have increased their monitoring activities, boards have become more active in enforcing share price maximization and other

123. See, e.g., Core et al., *supra* note 90, at 30, 45 n.2 (2003) (noting that the assumption of ignoring termination threats for incentive purposes “likely does not hold for CEOs with large turnover probabilities”). Research at the end of the twentieth century confirmed this view. Kevin J. Murphy, *Executive Compensation*, in 3B HANDBOOK OF LABOR ECONOMICS 2485, 2547 (Orley C. Ashenfelter & David Card eds., 1999) (finding a 7.9% probability of departure for young CEOs at average-performing firms increasing only to an 8.5% probability if the young CEO’s firm realizes returns 30% below industry average); Kevin J. Murphy & Ján Zábajník, *Managerial Capital and the Market for CEOs*, 28–30 (Apr. 2007) (unpublished manuscript), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=984376 (finding “departure probabilities for CEOs realizing returns 30% below the industry average were increased by 0.4% in the 1970s, 0.7% in the 1980s, and 0.4% in the 1990s” and concluding that “the turnover-performance relation . . . has fallen since the 1980s”).

124. See William W. Bratton & Michael L. Wachter, *The Case Against Shareholder Empowerment*, 158 U. PA. L. REV. 653, 691–709 (2010); Kahan & Rock, *supra* note 22, at 896–97; Marcel Kahan & Edward Rock, *Embattled CEOs*, 88 TEX. L. REV. 987, 1039–40, 1051 (2010).

125. See Kahan & Rock, *supra* note 124, at 998 (“Mutual funds . . . have taken off, tripling their percentage holdings from 7% to 22%.”); see also Paul Rose, *Common Agency and the Public Corporation*, 63 VAND. L. REV. 1355, 1356 (2010) (noting that ownership of public companies has become more institutionalized).

126. Kahan & Rock, *supra* note 124, at 998, 1001–04. For more on the interplay between activist investors and mutual and pension fund voting, see generally Ronald J. Gilson & Jeffrey N. Gordon, *The Agency Costs of Agency Capitalism: Activist Investors and the Revaluation of Governance Rights*, 113 COLUM. L. REV. 863 (2013) (finding that institutionalized ownership of equity has led to an agency problem because institutional records owners and beneficial owners do not have the same interests). For a recent example of this phenomenon, consider the saga of Sotheby’s, in which Daniel Loeb’s activism led to the CEO’s departure. See Laura Lorenzetti, *Sotheby’s CEO Steps Down After an Extended Activist Investor Battle*, FORTUNE (Nov. 21, 2014, 10:40 AM), <http://fortune.com/2014/11/21/sothebys-ceo-steps-down-after-an-extended-activist-investor-battle/>.

127. See Kahan & Rock, *supra* note 124, at 1005. For an example of how proxy advisory firms wield influence over governance questions, see Andrew C.W. Lund, *Say on Pay’s Bundling Problems*, 99 KY. L.J. 119, 121, 126–27 (2010).

shareholder-friendly rules.¹²⁸ At least partially as a result of this more interventionist environment, executive compensation has tilted heavily toward a performance-based pay model.¹²⁹ This tilt may itself have affected CEO effort.¹³⁰

The new interventionism has led most directly, however, to a far more penal managerial labor market at public companies. Between 1992 and 2007, the CEO turnover rate was 15.8% annually, and the average tenure of a CEO was less than seven years.¹³¹ The increased turnover rate was not random either. CEO terminations were closely linked with changes in share price measured against industry-adjusted and market-adjusted performance. The correlation between poor performance and turnover is particularly strong in cases of lagging performance on an industry-adjusted basis, and boards are correspondingly more generous to CEOs where a firm at least outperforms its industry.¹³² This “limited arbitrariness” provides significant effort incentives to CEOs at firms where below-median industry-adjusted performance is more than a *de minimis* possibility,¹³³ exactly the sorts of firms that are likely to be potential takeover targets. While there may remain a threshold level of underperformance necessary to trigger labor market discipline,¹³⁴ it is

128. See Andrew C.W. Lund & Gregg D. Polsky, *The Diminishing Returns of Incentive Pay in Executive Compensation Contracts*, 87 NOTRE DAME L. REV. 677, 693, 705 n.121 (2011).

129. See Lund & Polsky, *supra* note 128, at 684–85. *But see* Bebchuk et al., *supra* note 24, at 754 (presenting their managerial power model of executive compensation).

130. Elsewhere, one of us has criticized the assumption that performance-based pay currently produces exceptionally important CEO incentive effects. See Andrew C.W. Lund, *Compensation as Signaling*, 64 FLA. L. REV. 591, 600–04 (2012); Lund & Polsky, *supra* note 128, at 682–83. Even if redesigned compensation structures can no longer deliver on the promise to dramatically reshape CEO incentives, the shift to performance-based pay was likely significant at some point.

131. Steven N. Kaplan & Bernadette A. Minton, *How Has CEO Turnover Changed?*, 12 INT’L REV. FIN. 57, 58 (2012). Similar results were reached in a recent study on CEO tenure. Joann S. Lublin, *CEO Tenure, Stock Gains Often Go Hand-in-Hand*, WALL ST. J. (July 6, 2010, 12:01 AM), <http://online.wsj.com/article/SB10001424052748703900004575325172681419254.html> (finding that the average S&P 500 CEO tenure is 6.6 years and that—excluding founders—only twenty-eight such executives have had tenures exceeding fifteen years).

132. See Jenter & Kanaan, *supra* note 117, at 2165–79; *see also* Lund & Polsky, *supra* note 128, at 702–04 (finding a correlation between poor performance and CEO turnover, but noting that boards can filter out “exogenous shocks” to firm share price as long as CEOs outperform peers in the industry).

133. See Lund & Polsky, *supra* note 128, at 704.

134. See, e.g., Jenter & Kanaan, *supra* note 117, at 2160–61; *see also* John C. Coates IV & Reinier Kraakman, *CEO Tenure, Performance and Turnover in S&P 500 Companies* 15–17 (European Corp. Governance Inst., Finance Working Paper No. 191/2007; Harvard Law Sch., Law & Econ. Discussion Paper No. 595, 2010), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=925532 (explaining patterns of CEO turnover in terms of a “term structure” wherein CEOs are unlikely to depart in the first three-year term, much more likely to depart in the subsequent term, and relatively unlikely to depart in the final term).

hard to imagine CEOs with career concerns exploiting any slack in such a labor market.

This more penal labor market obviously makes straight severance more relevant to CEO incentives than it would have been in prior eras when terminations effectively only occurred post-takeover. As straight severance protections become relatively more important to CEOs vis-à-vis GPs, it is to be expected that effort disincentives related to straight severance should also become more pronounced.

2. Renegotiating Promises and Introducing Promises Midstream

Regular severance promises, like GPs, are *ex ante* promises made by a firm to its CEO that inform the CEO's expectation of payouts in the event of his termination.¹³⁵ But it may be that a CEO believes he will be able to extract a payout from the firm at the time of his future termination in any event. Earlier work finds some evidence supporting such an expectation.¹³⁶ If so, that possibility should make the provisions' marginal incentive effects weaker. As the CEO is more certain of his ability to gain *ex post* severance, the *ex ante* promise becomes less important. Effort disincentives may exist, but they no longer depend on the presence of a contractual promise.

But such ad hoc contracting dynamics, if they exist, would seem *more* relevant in the GP context. For regular involuntary terminations, departing CEOs will likely have at least some difficulty extracting additional severance payments from firms beyond that specified in their contracts.¹³⁷ What leverage they have consists mainly of personal relationships with directors (who just fired them), public relations headaches to avoid, and possibly noncompetition promises.

Ahead of a takeover, on the other hand, an incumbent CEO will often have the ability as gatekeeper to condition the acquisition on her personal receipt of substantial sums.¹³⁸ Recall that this phenomenon is largely the cause of GPs becoming common in the first place. Studies have found that CEOs without GPs are able to extract significant additional compensation from bidders through the takeover process.¹³⁹ If, as seems plausible, parties informally negotiate deal bounties as opposed to

135. See *supra* Section I.B.

136. See, e.g., David Yermack, *Golden Handshakes: Rewards for CEOs Who Leave* 1–2, 9 (N.Y. Univ., Working Paper No. FIN-04-020, 2004), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1294455 (finding “only a minority of [observed] severance pay is delivered according to pre-negotiated contracts”).

137. See *id.* at 7 (“CEOs who are dismissed should receive little or no severance [outside of contracted-for amounts], since their ability probably proved to be lower than expected.”).

138. See *supra* note 20 and accompanying text.

139. See, e.g., Broughman, *supra* note 20, at 5–9.

satisfied private equity firms bestowing them as *ex post* gifts, parties will likely similarly bestow such bounties even when the target CEO does not continue as an employee of the firm. Other studies validate this expectation. Professor Brian Broughman summarized much of this work and found that bounties or side payments averaged \$2 million for CEOs of target firms.¹⁴⁰ Side payments consist of enhancements to existing GPs, amounts paid in exchange for noncompetition pledges or consulting services, and unscheduled stock option grants ahead of a deal's announcement.¹⁴¹ These amounts do not take into account compensation paid for continued employment, which may also function as a non-GP side payment.¹⁴²

The existence of side payments tends to cut against an effort-disincentive hypothesis as it relates to GPs. Predictable side payments should make *ex ante* GPs less important to CEO behavior since CEOs can expect to extract *ex post* GPs in any event. In terms of CEO effort, this implies that CEOs with GPs should behave similarly to those without them. Certain boards may be able to override CEO resistance to a deal, thereby removing the CEO's leverage to extract side payments from an acquirer.¹⁴³ A CEO cognizant of his vulnerable position vis-à-vis side-payment extraction *would* tend to be influenced by the guarantee of compensation and might exert less effort than one without the contractual protection. But the argument for GPs providing effort disincentives that are unique from those provided by regular severance then requires a board that is (1) able to force a CEO to promote a takeover and (2) not interested in terminating the employment of a CEO outside of the takeover context for exerting low effort or taking too little risk.

3. Equity-Heavy GPs

Finally, a significant portion of a GP's value consists of accelerated vesting of equity awards. ExecuComp does not distinguish between the components of a GP, but in our hand-collected data we found that 81.9% of GPs involve the acceleration of some amount of equity, with the median value of such accelerated equity equaling 34.7% of the total GP package. Regular severance, on the other hand, is much less likely to include accelerated vesting of equity. In many cases, departing CEOs forfeit all unvested equity awards. We found that only 50.6% of regular

140. Broughman, *supra* note 20, at 7.

141. *Id.* at 6. Professors Jay C. Hartzell, Eli Ofek, and David Yermack suggest that these side payments are substitutes for continued employment. *See* Hartzell et al., *supra* note 21, at 44. When continued employment is observed, CEO compensation increases over pre-deal compensation by over \$4 million, implying that this is the cost perceived by incumbent managers of being subject to a takeover. *See id.* at 44, 52–53.

142. *See* Broughman, *supra* note 20, at 5–7.

143. *See id.* at 6.

severance packages include such vesting, with a median value of 43.9% of a severance package.

Accordingly, if the safety net provided by GPs is contingent to a great extent on share price received in the takeover, the CEO has reason to exert at least some minimal level of effort to support that price. On the other hand, because regular severance payouts are less a function of share price, they do not provide even that floor for CEO effort. In both cases, the CEO will have significant vested equity holdings providing some effort incentives regardless of post-termination payment promises, but at the margins GPs seem more apt to include incentives to drive shareholder value.

Taking all of this together, one would expect that regular severance, depending upon its magnitude relative to a GP, would produce equally or more significant effort disincentives than GPs, contrary to the recent studies measuring GP effort disincentives. In the next Part, this Article tests this hypothesis.

II. EFFECTS ON PERFORMANCE

The goal was to quantify specific types of post-termination promises and examine their effects, if any, on CEO incentives using the same types of empirical approaches used in the past with GPs. Thus, we compiled regular severance and GP arrangements for the 2006–2013 period at S&P 1500 firms. We generally used ExecuComp, which began coding the information in 2006. We also hand collected 2009 arrangements at S&P 500 firms after reviewing proxy statements as a check on ExecuComp's coding, which has been questioned.¹⁴⁴ Contrary to Professors Bebchuk, Cohen, and Wang's work on the 1990–2007 period,¹⁴⁵ we found that the presence of a GP in the 2006–2013 period did not have a statistically significant relationship with either current Tobin's Q or Tobin's Q two years following observation of the GP. Moreover, when we controlled for severance during this period, severance was significantly negatively related to both measures. For the first time in the literature, we not only controlled for GPs using indicator variables as done in prior studies, but we also used continuous variables for GP and severance dollar amounts. Even using dollar amounts, we still did not find a statistically significant relationship between GP amounts and firm performance in recent years. But we did find a significant and negative relationship between firm value and severance.¹⁴⁶

144. See *supra* text accompanying note 106 (Professors Cadman, Campbell, and Klasa questioned the database's information prior to 2006 because historic estimations of severance agreements were found to be inaccurate).

145. See Bebchuk, et al., *Wealth of Shareholders*, *supra* note 7, at 143.

146. In unreported results, we examined the stock performance of firms with and without GPs using more recent data. Unlike the earlier studies, we did not find that firms with GPs

A. Data Collection and Sample Description

We observed GP and severance data for S&P 1500 firms in 2006–2013 using ExecuComp’s database. We additionally hand-collected data on GPs and regular severance at S&P 500 firms as reported on their 2009 proxy statements.¹⁴⁷ As of 2006, SEC rules require public companies to tabulate all post-termination payments they were obligated to make to named executive officers.¹⁴⁸ Before that change, researchers faced considerable difficulties in determining the values promised to CEOs upon departure—whether voluntary or involuntary, related to a change in control or not.¹⁴⁹ Even with the tabulation requirements, the coding process is not trivial and requires substantial analysis and interpretation. Perhaps as a result, our estimates of post-termination amounts often differ slightly from those of ExecuComp, though our estimates of incidence are broadly consistent.¹⁵⁰

In our hand-coding exercise, we collected information on the amount of post-termination compensation promised and its terms. We divided termination payments into three groups: (1) amounts payable upon voluntary termination; (2) amounts payable only upon termination without cause or for good reason; and (3) GPs—amounts payable upon a change in control of the firm, a termination without cause, or a resignation for good reason in the context of a change in control.¹⁵¹ Professors Cadman, Campbell, and Klasa specifically excluded the first category, which consists of retirement accounts and deferred compensation accounts, because they were looking specifically for *incremental* risk-taking incentives provided by severance agreements.¹⁵² It is likely that such vested amounts, if large enough, create a wealth effect that would make regular severance and GPs inconsequential with respect to CEO

experience negative abnormal returns relative to non-GP firms, further highlighting the notion that the earlier conclusions about GPs’ supposed disincentive effects may have been an artifact of the data in that particular time period and not a universal or robust result.

147. For firms issuing proxy statements in October, November, or December, we used the 2008 proxies.

148. See, e.g., Executive Compensation and Related Person Disclosure, Securities Exchange Act Release Nos. 33-8732A, 34-54302A, 2006 WL 6325877 (Aug. 29, 2009).

149. For more on the specific difficulties, see Cadman et al., *supra* note 88, at 12 & nn.9–10.

150. Professors Cadman, Campbell, and Klasa note the same issue in their study of 2007 proxies. *Id.* at 15–16. Also, our data covers only S&P 500 firms while ExecuComp includes S&P 1500 firms.

151. Many payments are conditioned on the CEO entering into non-competition or confidentiality agreements with the firm, which we assumed to be regularly completed.

152. See Cadman et al., *supra* note 88, at 13.

incentives.¹⁵³ It would be fruitful in future work to incorporate measures of background wealth in determining the incentive effects of post-termination promises.

ExecuComp codes GPs as values payable due to a termination related to a change in control and severance as values payable due to an involuntary, without-cause termination.¹⁵⁴ Consistent with earlier studies, we merged the ExecuComp and hand-collected data with annual financial data from the CRSP–Compustat merged sample by fiscal year and firm-identifying information. We also merged in firm CEO and insider characteristics, such as CEO age, tenure, and ownership from ExecuComp. We excluded firms from our dataset if there were missing variables from these sources. Our final sample includes 11,147 observations.

Table 1 provides summary statistics regarding firms and post-termination promises for the period.

Table 1: Characteristics of CEOs in Sample

	count	mean ¹⁵⁵	p5	p50	p95
Tenure	11,147	8.99	2.00	7.00	24.00
Total annual compensation	11,147	5763.85	666.27	3848.25	16,847.63
Salary	11,147	810.92	310.00	763.75	1456.00
Bonus	11,147	227.16	0.00	0.00	1100.00
Value of CEO equity holdings	11,073	111,196.01	1164.86	17,981.02	254,138.75
Value of accumulated pension	11,146	3233.03	0.00	0.00	17,517.50
Aggregate deferred compensation	11,147	2876.74	0.00	183.37	12,224.43
ExecuComp CIC	11,147	13,962.76	0.00	7881.99	47,450.79
ExecuComp severance	11,147	7245.08	0.00	2042.69	30,967.39
ExecuComp CIC > \$1M	8770	17,724.31	1968.17	11,367.29	51,875.00
ExecuComp severance > \$1M	6611	12,146.55	1312.25	6058.36	40,266.02

The median CEO in our sample was fifty-six years old and had a tenure of seven years. The median annual compensation for CEOs was about \$3.85 million. The average post-termination obligation to a CEO under any termination circumstances (i.e., vested amounts) was \$3.23 million in pension amounts and \$2.88 million in deferred compensation balances, both of which were dwarfed by CEO equity holdings, with the average CEO holding \$111 million in vested company equity with a median of almost \$18 million.

The average post-termination obligation to a CEO following a

153. For an explanation of how wealth effects on CEO incentives are likely to be large but difficult to measure, see John Core & Wayne Guay, *The Use of Equity Grants to Manage Optimal Equity Incentive Levels*, 28 J. ACCT. & ECON. 151, 179–80 (1999).

154. See, e.g., Cadman et al., *supra* note 88, at 8 (“Earlier work on CEO severance pay has focused on payments, often called golden parachutes, that CEOs receive when their firms are acquired. . . . More recently, there has been interest in severance payments given to dismissed CEOs that are not paid out in the context of a firm being acquired.”).

155. Numbers represent thousands.

“without cause” or “good reason” departure (i.e., regular severance) was \$7.25 million, and the median amount was \$2.04 million. During the sample period, severance incidence ranged (and continuously increased) from 50.2% of firms (2006) to 72.0% (2013). The percentage of CEOs with promised severance of more than \$1 million ranged from 45.6% (2006) to 64.3% (2013). Conditioned on the CEO having a regular severance promise of more than \$1 million, the median promised payment was \$6.06 million. In sum, this data confirms Professors Cadman, Campbell, and Klasa’s findings on severance incidence and suggests a significant departure from the IRRC severance data from 1990 to 2006, in which regular severance incidence ranged from 5.8% to 13.6% of firms.

The average obligation to a CEO under a GP is \$13.96 million, and the median amount is \$7.88 million. During the sample period, GP incidence ranged from 69.7% of firms (2006) to 85.6% (2013). The number of CEOs with promised GPs of more than \$1 million ranged from 67.6% (2006) to 83.7% (2013). Conditioned on the CEO having a GP with a value over \$1 million, the median promised payment is \$11.37 million—slightly less than two times the median of regular severance promises.

As expected, there is significant overlap between GP firms and severance firms. In the sample from 2006, 91.9% of CEOs with regular severance promises also had GPs, and 66.1% of CEOs with GPs also had regular severance promises. For 2013, 95.7% of CEOs with regular severance promises also had GPs, while 80.6% of CEOs with GPs also had regular severance promises.

B. Regular Severance, GPs, and Firm Value

We first attempted to confirm the earlier finding that the presence of a GP is associated with lower firm value. As Table 2 demonstrates, there is a significant negative relationship between GP presence and Tobin’s Q during the 1990–2006 period and a negative but insignificant relationship in the 2006–2013 period. We use Tobin’s Q consistent with the G Index and E Index papers but not with the buy-and-hold portfolio approach from Professors Bebchuk, Cohen, and Wang’s most recent paper.¹⁵⁶ Because we cannot measure adoption of the GP at most firms during the sample period, as the vast majority of firms already had GPs, an approach focused on returns is unable to rule out the possibility of the market pricing the disincentive effects prior to the sample period.¹⁵⁷ Similar

156. See Bebchuk et al., *Wealth of Shareholders*, *supra* note 7, at 151.

157. In unreported results, we examined the stock performance of firms with and without GPs using more recent data. Unlike the earlier studies, we did not find that firms with GPs

concerns likely apply to findings related to severance in the analyses below.

Table 2: GP Incidence Versus Firm Value (Base Case)¹⁵⁸

	(1)	(2)	(3)	(4)
Dependent Variable:	$\ln(5+Q_t)$	$\ln(5+Q_{t+2})$	$\ln(5+Q_t)$	$\ln(5+Q_{t+2})$
Sample:	IRRC	IRRC	ExecuComp 2006–	ExecuComp 2006–
Period:	1990–2006	1990–2006	2013	2013
GP in place (t)	-0.026*** ($<.001$)	-0.021*** ($<.001$)	-0.008 (0.129)	-0.008 (0.150)
$\ln(1+\text{Assets})$	-0.012*** ($<.001$)	-0.010*** ($<.001$)	-0.017*** ($<.001$)	-0.017*** ($<.001$)
$\ln(1+\text{Firm Age})$	-0.020*** ($<.001$)	-0.015*** ($<.001$)	-0.013*** (0.001)	-0.010** (0.026)
Leverage	0.082* (0.067)	0.066* (0.078)	0.001 (0.970)	0.007 (0.690)
Delaware	-0.003 (0.600)	-0.005 (0.358)	-0.000 (0.928)	-0.005 (0.297)
ROA	0.693*** ($<.001$)	0.512*** ($<.001$)	0.970*** ($<.001$)	0.834*** ($<.001$)
CAPEX to Assets	0.380*** ($<.001$)	0.256*** ($<.001$)	0.336*** ($<.001$)	0.282*** ($<.001$)
RD per Sales	0.004*** ($<.001$)	0.004*** ($<.001$)	0.115*** ($<.001$)	0.098*** ($<.001$)
Herfindahl Index	-0.001** (0.044)	-0.001** (0.045)	-0.001 (0.509)	-0.001 (0.346)
Constant	1.713*** ($<.001$)	1.696*** ($<.001$)	1.704*** ($<.001$)	1.717*** ($<.001$)
Year controls	Yes	Yes	Yes	Yes
Industry controls	Yes	Yes	Yes	Yes
Observations	25,862	25,862	11,147	11,147
R-square	0.264	0.181	0.428	0.352

In the first two specifications, we were able to replicate findings from earlier studies demonstrating the significance of GP incidence for firm performance during the pre-2006 period. Relative-industry Tobin's Q is

experience negative abnormal returns relative to non-GP firms, further highlighting the notion that the earlier conclusions about GPs' supposed disincentive effects may have been an artifact of the data in that particular time period and not a universal or robust result.

158. Three asterisks shows significance at the 1% confidence level—the most powerful. One asterisk represents the 10% level—still significant but less so. Two asterisks is 5%.

calculated as the firm's Q minus the industry median Q for that year (either the year of GP observation or two years subsequent, depending upon the specification). We added 5 to this value because in cases where a firm's Q is below the industry-median Q, the relative-industry Q can range as low as negative 4.8 in the sample. In the first and second specifications, we used contemporaneous and forward-looking measures of Tobin's Q using IRRC data for the pre-2006 period studied in earlier work. For purposes of measuring CEO incentive effects, the second column is particularly important to account for subsequent firm performance that may be driven by CEO incentives in the initial year but takes time to filter through performance. To avoid survivorship biases, in the cases where Q is not available in year t+2 for a firm, we used the Q value from t+1. In the third and fourth specifications, we find those results do not continue into the post-2006 period as predicted by the effort-disincentive hypothesis. Our inability to replicate earlier results when using more recent data, even when not controlling for severance, calls into question that hypothesis.

We further explored the relation between firm value and incentive payments in light of new information about severance. As discussed above, IRRC's pre-2006 data on severance differs remarkably from ExecuComp's for the post-2006 period and our hand-coded data for 2009.¹⁵⁹ Given the high correlation between GPs and regular severance in the latter datasets, we added severance as a control to the regressions in Table 3.

Table 3: GP Incidence Versus Firm Value (with Severance Control)

	(1)	(2)	(3)	(4)
Dependent Variable:	$\ln(5+Q_t)$	$\ln(5+Q_{t+2})$	$\ln(5+Q_t)$	$\ln(5+Q_{t+2})$
Sample:	IRRC	IRRC	ExecuComp	ExecuComp
Period:	1990–2006	1990–2006	2006–2013	2006–2013
GP in place (t)	-0.027*** (<.001)	-0.022*** (<.001)	0.002 (0.788)	0.002 (0.809)
Severance in place (t)	-0.007 (0.386)	-0.009 (0.254)	-0.017*** (<.001)	-0.018*** (0.002)
$\ln(1+\text{Assets})$	-0.012*** (<.001)	-0.010*** (<.001)	-0.016*** (<.001)	-0.017*** (<.001)
$\ln(1+\text{Firm Age})$	-0.020*** (<.001)	-0.015*** (<.001)	-0.013*** (0.001)	-0.010** (0.019)
Leverage	0.082* (0.065)	0.066* (0.076)	0.002 (0.887)	0.009 (0.615)
Delaware	-0.003	-0.005	0.001	-0.004

159. See Cadman et al., *supra* note 88, at 13; *supra* Part II.

	(0.612)	(0.369)	(0.883)	(0.412)
ROA	0.693***	0.513***	0.969***	0.833***
	(<.001)	(<.001)	(<.001)	(<.001)
CAPEX to Assets	0.379***	0.255***	0.335***	0.282***
	(<.001)	(<.001)	(<.001)	(<.001)
RD per Sales	0.004***	0.004***	0.115***	0.098***
	(<.001)	(<.001)	(<.001)	(<.001)
Herfindahl Index	-0.001**	-0.001**	-0.001	-0.001
	(0.042)	(0.042)	(0.604)	(0.417)
Constant	1.714***	1.698***	1.706***	1.719***
	(<.001)	(<.001)	(<.001)	(<.001)
Year controls	Yes	Yes	Yes	Yes
Industry controls	Yes	Yes	Yes	Yes
Observations	25,862	25,862	11,147	11,147
R-square	0.264	0.181	0.430	0.354

In the first (contemporaneous) and second (forward-looking) specifications covering the pre-2006 period, we found that GPs' correlation to firm performance is robust to inclusion of severance as a control variable, similar to the results from earlier studies. Recall, however, that these specifications use questionable IRRC severance data driven by the lack of transparency in reporting severance packages during that time.

For the 2006–2013 period, we used ExecuComp data on severance with markedly different results given the changes to disclosure requirements discussed above. Indeed, the results show that severance is significant under both specifications at the one-percent level. GPs are no longer significant and, indeed, their correlation has switched from negative to positive (although statistically insignificant). This suggests that an omitted severance variable due to data collection problems at IRRC may explain earlier findings of the relationship between firm performance and GP incidence. Thus, our central finding is that there is little evidence that GPs have a CEO effort-disincentive effect, even leaving aside the serious endogeneity problems discussed above.¹⁶⁰

160. In *Golden Parachutes and the Wealth of Shareholders*, Professors Bebchuk, Cohen, and Wang do not use Tobin's Q and instead describe a regression where a monthly portfolio return in month t is regressed on the following four factors:

$$(\text{Monthly Portfolio Return})_t = a + B_1(R_m - R_f)_t + B_2(\text{SMB})_t + B_3(\text{HML})_t + B_4(\text{Carhart})_t + (\text{error})_t$$

They report the results from this regression where they calculate monthly portfolio return slightly differently depending upon the prior, current, or continued status of a firm as a GP adopter. They interpret the intercept as the monthly "risk-adjusted excess returns." See Bebchuk et al., *Wealth of Shareholders*, *supra* note 7, at 151 (describing buy-hold portfolio methodology). In unreported

After the 2006 amendments to the SEC disclosure rules, we were also able to more easily observe severance and GP *amounts* along with incidence. More granular detail regarding post-termination promises should provide a better view into such promises' incentive effects. Severance and GP promises are not all alike and, indeed, the data shows substantial variation among firms. GP and severance *amount* rather than *incidence* is better able to capture this heterogeneity. Thus, we reran the regressions in Table 3, removing binary variables for GP and severance, instead using the total amounts promised.

Table 4: GP Value Versus Firm Value (Base Case with Severance Control)

Dependent Variable:	(1)	(2)	(3)	(4)
Sample:	ln(5+Q _t)	ln(5+Q _{t+2})	ln(5+Q _t)	ln(5+Q _{t+2})
Period	ExecuComp	ExecuComp	ExecuComp	ExecuComp
	2006–2013	2006–2013	2006–2013	2006–2013
ln(Execucomp GP \$s)	-0.000 (0.927)	-0.000 (0.597)	0.001* (0.082)	0.001 (0.299)
ln(1+Execucomp severance \$s)			-0.002*** ($<.001$)	-0.002*** (0.005)
ln(1+Assets)	-0.017*** ($<.001$)	-0.017*** ($<.001$)	-0.016*** ($<.001$)	-0.017*** ($<.001$)
ln(1+Firm Age)	-0.012*** (0.001)	-0.010** (0.027)	-0.013*** (0.001)	-0.010** (0.022)
Leverage	-0.001 (0.971)	0.007 (0.721)	0.001 (0.950)	0.008 (0.656)
Delaware	-0.000 (0.917)	-0.005 (0.294)	0.001 (0.912)	-0.005 (0.385)
ROA	0.970*** ($<.001$)	0.834*** ($<.001$)	0.968*** ($<.001$)	0.833*** ($<.001$)
CAPEX to Assets	0.337*** ($<.001$)	0.283*** ($<.001$)	0.337*** ($<.001$)	0.282*** ($<.001$)
RD per Sales	0.115*** ($<.001$)	0.098*** ($<.001$)	0.115*** ($<.001$)	0.098*** ($<.001$)
Herfindahl Index	-0.001 (0.513)	-0.001 (0.349)	-0.001 (0.598)	-0.001 (0.406)
Constant	1.698*** ($<.001$)	1.712*** ($<.001$)	1.699*** ($<.001$)	1.713*** ($<.001$)
Year controls	Yes	Yes	Yes	Yes
Industry controls	Yes	Yes	Yes	Yes
Observations	11,147	11,147	11,147	11,147
R-square	0.427	0.351	0.429	0.353

results, we replicated the contemporaneous GP adopter analysis using each year's ExecuComp data. We designate each firm as either being a GP or non-GP firm, depending on whether ExecuComp reports a non-zero dollar value in the change-in-control payment each year 2006–2013. We obtained insignificant intercepts using either equal-weighted or value-weighted approaches.

Similar to the results in Table 3, we found an insignificant correlation between GP amounts and firm performance (both forward-looking and contemporaneous) when not controlling for severance. When we did control for severance amounts, similar to the earlier results, we found a statistically significant negative relationship between severance amounts and firm performance, although this time at the one-percent level (contemporaneous Tobin's Q) and five-percent level (forward-looking Tobin's Q). The relationship between GP amounts and firm performance remained insignificant in the lagged returns and actually was positively correlated with firm performance at the ten-percent level. Given endogeneity concerns, we were extremely reluctant to interpret these findings as indicating that severance provisions harm CEO incentives and therefore firm value. Such an interpretation is subject to the same omitted-variable rejoinder discussed above in relation to the GP results from the pre-2006 period. But our results do suggest that earlier studies, hamstrung by the data source's failure to provide accurate severance information, offer little support for a GP-disincentive-effect hypothesis. There remains little evidence, then, that GPs harm shareholder value.

CONCLUSION

These findings must be cautiously interpreted insofar as they imply severance is an important driver of firm value. Interpretations about causation are fraught in this sphere given the candidates for omitted variables discussed above. Grappling with this endogeneity in some way would be an obvious next step in future research. Moreover, we have left concerns about CEO background wealth to the side in our analysis, consistent with past work. Given the importance that background wealth plausibly has in determining effort incentives, future research incorporating related adjustments would be welcome.¹⁶¹

These findings, however, do strongly suggest that the empirical evidence previously thought to link GPs with CEO-effort disincentives is suspect. Indeed, this Article's central contribution is demonstrating that earlier findings of a relationship between GPs and poor firm performance are not robust to the use of more recent data and that the omission of complete data regarding regular severance promises may have driven them. This finding coincides with uncontroversial theoretical reasons for believing that GPs should matter less than regular severance for CEO incentives absent extraordinary differences in magnitude. Along this line, the finding that severance dominates GPs holds when using newly available continuous variables measuring both sorts of post-employment promises.

161. Additionally, a straightforward implication of our work is to call into question some of the IRRC data from earlier periods that have formed the basis for many important papers in law and finance. We cannot say what other fields in those databases are subject to the problems we found with respect to severance.

In sum, there remains little uncontroverted evidence that GPs pose a threat to shareholder value in an environment—especially where regular severance is regularly available. We could not rule out the possibility that GPs might matter for CEO incentives if companies greatly diminish severance. But our findings, along with the mass adoption of GPs across firms and the general shareholder acquiescence to their adoption, do call into question the special opprobrium GPs receive at the hands of regulators, the business press, and some shareholder activists. Perhaps companies ought to reduce or dispense with GPs entirely, but the argument for doing so must rest for now on grounds other than shareholder value.