

Executive Compensation Consultants and CEO Pay

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I. INTRODUCTION

Executive compensation is a controversial subject, and it is rarely far from the media's gaze. A popular view is that excess compensation is pervasive, with corporate boards frequently awarding overly generous pay packages to executives and Chief Executive Officers ("CEOs"). The media has been very critical of Wall Street. As the impact of the financial crisis deepened and Wall Street firms received massive government bailouts, the bonuses received by employees provoked widespread public outrage. Merrill Lynch and American International Group ("AIG") were perceived as especially controversial. In 2009 Merrill Lynch allocated \$3.6 billion in bonuses to its employees and AIG paid \$218 million in bonuses.¹ President Barack Obama described Wall Street bonuses as "shameful."²

Disapproval of executive compensation practices has been cast much further. Recently, policymakers have outlined reforms of the governance of executive pay. President Obama signed into law the far-reaching Dodd-Frank Wall Street Reform and Consumer Protection Act in July 2010. Its provisions include a regular non-mandatory shareholder vote on executive compensation (so-called "say on pay") and more requirements on information disclosure about the fees paid to compensation consultants.³ Generally, there seems to be considerable popular concern as to whether current executive compensation arrangements are consistent with shareholder and societal interests.

CEOs do indeed earn high levels of pay. Executive pay has increased considerably in the United States since the early 1990s. John Core and Wayne Guay illustrate that median CEO compensation in the S&P 500 firms has increased from approximately \$2 million in 1993 to about \$7.7 million in 2008.⁴ This corresponds to an annual

1. Mark Pittman & Christine Harper, *Treasury Preserves Bank Payday with AIG Rescue Cash*, BLOOMBERG, Mar. 24, 2009, <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aDYvjoj6a6ME&refer=home>.

2. President Barack Obama criticized Wall Street corporate behavior, calling it "the height of irresponsibility" for employees to be paid amounts of more than \$18 billion in bonuses. President Barack Obama, Remarks in Response to Wall Street Employee Bonuses (Jan. 29, 2009), available at http://www.huffingtonpost.com/2009/01/29/obama-18b-in-wall-street_n_162305.html. He added, "It is shameful What we're going to need is for the folks on Wall Street who are asking for help to show some restraint, and show some discipline, and show some sense of responsibility." *Id.*

3. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010). The Act was signed into law by President Barack Obama on July 21, 2010. It extends beyond Wall Street and has significant implications for publicly listed firms.

4. John E. Core & Wayne R. Guay, *Is CEO Pay Too High and Are Incentives Too Low? A Wealth-Based Contracting Framework*, ACAD. MGMT. PERSP., Feb. 2010, at 5, 5-19.

rate of growth of approximately 9.4 percent—a rate not achieved by the typical U.S. worker. Indeed, other evidence shows that the gap between CEO pay and typical worker pay has increased considerably over time. Steven Kaplan documents that total pay of U.S. CEOs in 1993 was just under one hundred times greater than median household income; in 2006 it was more than 200 times greater.⁵ With these facts in mind, it is perhaps not surprising that executive pay is controversial.

How is CEO pay actually set? In practice, shareholders are rarely involved in directly setting CEO pay, even though they are the firm's owners.⁶ Instead, the board of directors has the responsibility of setting the pay of the CEO and other senior figures in the firm. Over time many firms have delegated this role to the compensation committee, a specialist committee of the board of directors. Customarily, the compensation committee retains an expert executive compensation consultant. The consultant provides data, advice, and expert analysis to the firm. The board of directors makes the ultimate decisions about executive pay. However, the use of executive pay consultants is controversial. Critics contend that these consultants are not sufficiently independent or impartial, and they lead to excess compensation. Graef Crystal, a well-known critic of CEO pay practices, asserts: "Executive compensation in the United States did not go out of control simply through some random process; it went out of control because of the actions—or inactions—of a number of parties. The first culprits in what will be a litany of culprits are compensation consultants."⁷

Reports in the media are also often critical of compensation consultants, suggesting that they do not provide sufficiently independent advice.⁸ Other academics concur. Lucian Bebchuk and

5. Steven N. Kaplan, *Are U.S. CEOs Overpaid?*, ACAD. MGMT. PERSP., May 2008, at 5, 8–9; see also, Steven N. Kaplan & Joshua Rauh, *Wall Street and Main Street: What Contributes to the Rise in the Highest Incomes?*, 23 REV. FIN. STUD. 1004, 1004–50 (2010) (analyzing the reasons for and implications of the substantial increase in top executive pay over the past twenty-five years).

6. See Martin J. Conyon & Simon I. Peck, *Board Control, Remuneration Committees, and Top Management Compensation*, 41 ACAD. MGMT. J. 146, 146–57 (1998) (discussing the limited role of shareholders in setting the pay of CEOs).

7. Graef S. Crystal, *Why CEO Compensation Is So High*, CAL. MGMT. REV., Fall 1991, at 9, 9–29.

8. In 2004 Warren Buffet, the iconic investment guru, was reported as saying: "The typical large company has a compensation committee . . . They don't look for Dobermans on that committee, they look for chihuahuas." After pausing he then added, "Chihuahuas that have been sedated." Jason Swieig, *What Warren Buffet Wants You to Know*, CNNMONEY.COM, http://money.cnn.com/2004/05/03/pf/buffett_qanda/index.htm (last visited Jan. 22, 2011). Charles Munger interjected, "I would rather throw a viper down my shirtfront than hire a compensation consultant." *Id.*

Jesse Fried, for example, argue that CEOs have significant power and influence over the board of directors, leading to excess pay and contracts that are not in shareholders' best interests.⁹ Do pay consultants really lead to excessive pay, as critics contend? Or do they help busy boards determine the optimal level and structure of CEO pay as viewed from the shareholders' perspective?¹⁰

This Article surveys some recent empirical studies on the relation between compensation consultants and CEO pay. The literature finds that pay consultants are important in explaining executive compensation, although the findings are sometimes mixed and the precise effects of consultants on pay are yet to be fully understood. Second, this Article provides some new evidence on the correlation between CEO pay and consultants using U.S. and U.K. data. Adopting a slightly different approach to prior studies, I show that there is a positive cross-section correlation between executive pay and compensation consultants. Based on existing data and the types of estimation strategies, the existing evidence supports the hypothesis that CEOs of U.K. firms using consultants receive higher pay than those that do not use compensation consultants. However, the findings may be sensitive to the type of estimation methods employed, and addressing this concern is a challenge for future research.¹¹ However, I find that the evidence does not support the hypothesis that firms switch consultants as a mechanism of increasing CEO pay. In addition, interpreting the data is fraught with difficulties because of selection effects and the possibility of reverse causation.

The rest of this Article is organized as follows. Part II provides an overview of the role of executive compensation consultants. Part III surveys some existing studies emanating from North America and the United Kingdom. Part IV provides preliminary new evidence on the relation between CEO pay and consultants. Finally, Part V contains a summary and conclusion.

9. See LUCIAN A. BEBCHUK & JESSE M. FRIED, PAY WITHOUT PERFORMANCE: THE UNFULFILLED PROMISE OF EXECUTIVE REMUNERATION (2004); Lucian A. Bebchuk & Jesse M. Fried, *Pay Without Performance: Overview of the Issues*, ACAD. MGMT. PERSP., Feb. 2006, at 5, 18.

10. A fundamental question is why executive pay has increased so much. A complete answer is beyond the scope of this Article, which focuses only on the relation between pay and consultants. For recent analyses of the growth of executive pay, see generally Marianne Bertrand, *CEOs*, 1 ANN. REV. ECON. 121 (2009); Carola Frydman & Raven E. Saks, *Executive Compensation: A New View from a Long-Term Perspective, 1936–2005*, 23 REV. FIN. STUD. 2099 (2010); Xavier Gabaix & Augustin Landier, *Why Has CEO Pay Increased So Much?*, 123 Q.J. ECON. 49 (2008).

11. For example, when dynamic panel data ("DPD") analysis and propensity score methods are applied to U.S. data, the effects of compensation consultants on CEO pay seem to be less robust.

II. COMPENSATION CONSULTANTS AND CEO PAY

A. *Executive Compensation Consultants*

Executive compensation consultants are organizations that provide advice to the board of directors of client firms about senior management pay.¹² The consultants are generally retained by the board of directors or alternatively by the management of the company. However, several parties, including Representative Henry Waxman, who served as Chairman of the House Committee on Oversight and Government Reform (“Waxman Committee”) from 2007 to 2008, perceived that compensation consultants were not sufficiently independent.¹³ The Waxman Committee investigation found that the use of pay consultants is widespread. Specifically, it noted the following:

Large companies routinely retain compensation consultants to provide advice on executive pay, such as developing compensation peer groups, designing equity compensation plans, conducting compensation surveys, and analyzing the tax, accounting, and legal implications of specific pay packages. These consultants can be retained by either the corporate board (typically, the compensation committee of the board) or management, and they may advise the board, management, or both on executive pay issues. Whether retained by the board or management, these consultants can have a major impact on executive pay decisions.¹⁴

In an earlier study, George Baker, Michael Jensen, and Kevin Murphy documented the importance of consultants in setting pay in executive labor markets.¹⁵

Current information disclosure requirements about compensation consultants are stringent in the United States, Canada, and the United Kingdom. Strong disclosure requirements elsewhere are not routinely mandated and are patchy, especially in continental Europe. Since 2007, the United States has required disclosure of compensation consultant information for public companies filing with

12. See Martin J. Conyon, *Compensation Consultants and Executive Compensation*, in CORPORATE GOVERNANCE: A SYNTHESIS OF THEORY, RESEARCH, AND PRACTICE 285, 285 (H. Kent Baker & Ronald Anderson eds., 2010).

13. *Role of Consultants in Executive Pay: Hearing Before the H. Comm. on Oversight and Government Reform*, 110th Cong. (2007) (statement of Rep. Henry Waxman, Chairman, H. Comm. on Oversight and Government Reform), available at <http://www.youtube.com/watch?v=dmvJZS9JJvw>.

14. MAJORITY STAFF OF H.R. COMM. ON OVERSIGHT & GOV'T REFORM, 110TH CONG., EXECUTIVE PAY: CONFLICTS OF INTEREST AMONG COMPENSATION CONSULTANTS 5 (Comm. Print 2007) (prepared for Chairman Henry A. Waxman) [hereinafter WAXMAN REPORT].

15. George P. Baker et al., *Compensation and Incentives: Practice vs. Theory*, 43 J. FIN. 593 (1988). However, such studies do not provide broad empirical evidence due to lack of available data.

the Securities and Exchange Commission (“SEC”).¹⁶ Item 407(e) of the regulations mandates that firms both identify the consultants and disclose any role of compensation consultants in determining or recommending the amount or form of executive and director compensation.¹⁷ In the United Kingdom, the Directors’ Remuneration Report Regulations of 2002 mandated that U.K. firms disclose consultant information for financial years ending after December 2002.¹⁸ U.K. firms must name any person who provided material advice or services to the compensation committee and must disclose whether services in addition to compensation advice were given.¹⁹ Disclosure has been required in Canada since 2005. In April 2005, the Canadian Securities Administrators issued National Instrument 58-101 that requires corporations to disclose whether a firm has used a compensation consultant.²⁰ As noted, requirements about the presence and role of compensation consultants in continental European countries and Asia are weak compared with North America and the United Kingdom.

B. The Dodd-Frank Act

On July 21, 2010, President Obama signed into law the Dodd-Frank Wall Street Reform and Consumer Protection Act, known as the Dodd-Frank Act.²¹ The Act will affect all U.S. public companies, far beyond financial services companies, by extending the regulation relating to corporate governance and executive compensation. Specifically, it will enhance U.S. disclosure in relation to executive compensation consultants.

The Dodd-Frank Act requires firms to adopt new practices regarding their compensation committees’ independence and use of compensation consultants, as well as other advisers to the board. It

16. See Executive Compensation and Related Person Disclosure, 71 Fed. Reg. 53,158 (Sept. 8, 2006), available at <http://www.sec.gov/rules/final/2006/33-8732a.pdf> (amending, among other disclosure requirements, those for Form 10-K, Item 11 regarding executive compensation).

17. See 17 C.F.R. § 229.407(e) (2010) (setting forth amended requirements for disclosure of executive compensation); see also SEC, Form 10-K, Item 11, available at <http://www.sec.gov/about/forms/form10-k.pdf> (indicating that the firm must meet the reporting requirements of section 229.407(e)).

18. See Directors’ Remuneration Report Regulations 2002, 2002, S.I. 1986 (U.K.), available at <http://www.opsi.gov.uk/si/si2002/20021986.htm>.

19. *Id.*, Regulation 3 & Schedule 7A (amending Companies Act, 1985 (U.K.)).

20. Corporate Governance Rules, Nat’l Instrument No. 58-101 (2009) (Can.) available at http://www.osc.gov.on.ca/en/SecuritiesLaw_rule_20050415_58-201_gov-practices_1.jsp.

21. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010).

mandates that the national stock exchanges adopt listing standards requiring that members of a listed company's compensation committee meet enhanced independence standards.²² Subtitle E (sections 951 to 957) of the Act deals with accountability and executive compensation.²³ Section 952 requires the members of the compensation committee to be independent, which takes into account factors such as the source of compensation received by the member of the board of directors, including any consulting, advisory, or other compensatory fee paid to the member of the board of directors.²⁴ In addition, independence is assessed by whether a member of the board of directors is affiliated with the issuer, a subsidiary, or an affiliate of a subsidiary of the issuer.

The Dodd-Frank Act also requires an assessment of the independence of the compensation consultant (and other advisors). Compensation committees may only select their consultants (or other advisors) after taking into account factors affecting the independence of the potential committee adviser as specified by SEC rules. These criteria include: other services that are provided, the amount of fees that are paid to the advisor, business or personal relationships, company stock held by the committee adviser, and conflicts of interest policies and procedures.²⁵ In addition, the Act gives the compensation committee sole discretion to retain or obtain the advice of a compensation consultant.²⁶ The compensation committee will be directly responsible for the appointment, compensation, and oversight of the work of a compensation consultant. In summary, the Dodd-Frank Act significantly upgrades disclosure on executive compensation and compensation advisors. Future research on the

22. *Id.* § 952(a) (adding to the Securities Exchange Act of 1934, § 10C, 15 U.S.C. § 78).

23. *Id.* §§ 951–57, at 1899–1907.

24. *Id.* § 952(a), at 1901 (amending 15 U.S.C. § 78–j3).

25. Section 952 of the Dodd-Frank Act outlines independence criteria as follows:

(A) the provision of other services to the issuer by the person that employs the compensation consultant, legal counsel, or other adviser;

(B) the amount of fees received from the issuer by the person that employs the compensation consultant, legal counsel, or other adviser, as a percentage of the total revenue of the person that employs the compensation consultant, legal counsel, or other adviser;

(C) the policies and procedures of the person that employs the compensation consultant, legal counsel, or other adviser that are designed to prevent conflicts of interest;

(D) any business or personal relationship of the compensation consultant, legal counsel, or other adviser with a member of the compensation committee; and

(E) any stock of the issuer owned by the compensation consultant, legal counsel, or other adviser.

Id.

26. *Id.* § 952, at 1902.

efficacy of compensation consultants will undoubtedly take advantage of these new provisions.

C. Compensation Consulting Firms

Prior to 2010 there were six leading compensation consultants in the United States: Frederick W. Cook & Company, Hewitt Associates, Mercer Human Resources Consulting, Pearl Meyer & Partners, Towers Perrin, and Watson Wyatt. Studies show that these organizations account for the majority of the constituents listed on the major stock market indexes, such as the S&P 500. In June 2009, Towers Perrin and Watson Wyatt announced a friendly merger, which was subsequently approved by shareholders and regulatory agencies. Towers Watson was formed in January 2010.²⁷ The merger established a large employee-benefits consulting firm. The “big six” had become the “big five.”

Table 1 shows the prevalence of executive compensation consultants in the United States. The five leading consultants advise seventy percent of all firms in the S&P 1500, over three-quarters of the constituents of the S&P 500, and over sixty percent of the Russell 3000 index.²⁸ Towers Watson is (now) the market leader, and advises approximately one-quarter of firms in each of the S&P 1500, the S&P 500, and the Russell 3000.²⁹ The market for executive compensation services is a structural oligopoly: a few firms supply executive compensation services to many client firms. This fact does not necessarily suggest that the market configuration is against the social interest or adversely impacts the welfare of the client firm’s owners. The presence of economies of scale, market expertise, or both is one plausible explanation for the observed distribution of executive compensation consulting firms.

27. *History*, TOWERS WATSON, <http://www.towerswatson.com/about/1443> (last visited Jan. 23, 2011). Historically, Towers Watson is the successor of the oldest actuarial firm in the world, R. Watson & Sons, which was formed in the United Kingdom in 1878. B.E. Wyatt founded The Wyatt Company as an actuarial consulting firm in the United States in 1946. The two firms formed a global alliance under the brand Watson Wyatt Worldwide in 1995. Towers, Perrin, Forster & Crosby was established in the United States in 1934. In 1987 the company shortened its name to Towers Perrin.

28. EQUILAR, INC., 2010 CONSULTANT LEAGUE REPORT: AN ANALYSIS OF CONSULTANT ENGAGEMENT PREVALENCE 12 (2010). Results are based on a report from received from Equilar by the Author.

29. *Id.*

Table 1. Executive Compensation Consultants in the United States

Consulting Firm	S&P 1500	S&P 500	Russell 3000
Towers Watson	24.5	26.4	22.3
Frederic W. Cook & Co	15.1	22.1	13.0
Hewitt Associates	11.5	12.2	9.3
Mercer	10.7	9.8	10.5
Pearl Meyer & Partners	7.2	5.9	7.2
Hay Group	2.9	n.a	3.2
Compensia	2.7	2.4	4.3
Semler Brossy Consulting	2.7	5.0	2.2
Radford	2.3	n.a	n.a
Deloitte Consulting	1.3	1.3	n.a
Exequity	1.3	2.0	n.a

Source: Equilar 2010 Consultant League Report: An Analysis of Consultant Engagement Prevalence. The firm Towers Watson is the result of a merger between Towers Perrin and Watson Wyatt in January 2010. See <http://www.equilar.com/> for further information.

Studies show that these executive compensation consultant firms are also dominant in other countries. Murphy and Sandino show that Towers Perrin and Mercer Consulting are major consulting firms in the Canadian market.³⁰ Towers Perrin and Mercer are also leading consultants in the U.K. market, in addition to New Bridge Street. It is assumed that Towers Perrin also has a significant presence in other continental European markets, but systematic evidence is scarce due to weaker disclosure rules in those countries. These large consulting firms have an important presence in Australia as well.³¹

D. The Role of Executive Compensation Consultants

The economic rationale for using executive compensation consultants is that they supply valuable data, information, and professional expertise to client firms. Kevin Murphy and Tatiana Sandino suggest the following role for consultants:

30. Kevin J. Murphy & Tatiana Sandino, *Executive Pay and "Independent" Compensation Consultants*, 49 J. ACCT. & ECON. 247, 250 (2010).

31. I am grateful to Professor Kym Sheehan at Sydney Law School for information about compensation consultants in Australia. The role and influence of pay consultants in Australia appears to share similar attributes to those discussed in this Article.

[Firms] rely on executive compensation consultants to make recommendations on appropriate pay levels, to design and implement short-term and long-term incentive arrangements, and to provide survey and competitive-benchmarking information on industry and market pay practices. In addition, consultants are routinely asked to opine on existing compensation arrangements and to give general guidance on change-in-control and employment agreements, as well as on complex and evolving accounting, tax, and regulatory issues related to executive pay.³²

In the economics, or contracting, view, firms use consultants to better align the interests of CEOs and firms, and hence lower agency costs. By retaining a professional compensation consultant, the firm can design an optimal compensation contract at a lower cost than devising the pay plan itself.³³ According to this view, consultants are experts, helping boards and compensation committees understand the value of complex pay packages and associated tax, disclosure, and accounting issues.³⁴ Compensation consultants lower agency costs and help solve the latent principal-agent problem. Resulting pay contracts are optimal for shareholders (and other stakeholders) and lead to better alignment of pay with performance.

Within this framework, the role of executive compensation consultants is seemingly uncontroversial. The consultant's task is purely functional, ensuring that pay is effectively linked to performance and that shareholder interests are optimized. Consultants *are* controversial, however, and are frequently blamed for contributing to excessive pay. The core criticism is that consultants are not sufficiently independent or impartial and this leads to pay packages that are not optimal from the shareholders' perspective.

32. Murphy & Sandino, *supra* note 30, at 247.

33. See Baker et al., *supra* note 15, at 613–15 (discussing inefficiencies in compensation arrangements at large firms).

34. Executive compensation consultants themselves (not surprisingly) also stress their central role in aligning the interests of executives with owners. Towers Watson asserts that:

A well-designed executive compensation program should encourage leaders to take *appropriate* risks to achieve key business objectives and align pay with performance. Towers Watson can help you develop plans that fit the needs of your organization—balancing the views of shareholders, executives and other stakeholders. We work with you to select the right performance metrics and goals—beyond just total returns to shareholders—and to deliver the right mix of incentives to drive performance and retain experienced leaders.

Talents and Rewards: Executive Compensation, TOWERS WATSON, <http://www.towerswatson.com/services/Executive-Compensation> (last visited Jan. 23, 2011).

E. The Independence of Compensation Consultants

1. Cross Selling of Other Services

The Waxman Committee inquiry argued that consultant independence and impartiality might be compromised, leading consultants to give biased advice to clients. Specifically, the Committee was concerned about conflicts arising from the cross selling of business services:

Corporate consultants can have a financial conflict of interest if they provide both executive compensation advice and other services to the same company. According to experts on corporate governance, consultants hired by corporate executives to administer employee benefit plans or to provide other services to a company may not be able to provide objective advice about the compensation of the executives who hire them.³⁵

The implementation of the Dodd-Frank Act in 2010 will require firms to address more carefully the issue of independence.

Using data from 2006, the Waxman Committee concluded that conflicts of interest among consultants were pervasive. The Committee found that at least 113 of the Fortune 250 companies received executive pay advice from consultants that were providing other services to the company.³⁶ Murphy and Sandino, using publicly available U.S. data, report a lower figure (approximately twelve percent).³⁷ However, this might be an underestimate because disclosure of other services supplied by the consultant in U.S. proxy statements is not mandated. Notably, at least two executive compensation consultants (Frederic W. Cook and Pearl Meyer) are specialized firms and do not supply other business services to their clients, and therefore may be considered as independent. In the United Kingdom, Martin Conyon, Simon Peck, and Graham Sadler find that about forty-five percent of firms supply other business to client firms.³⁸ Importantly, and in contrast to U.S. firms, U.K. firms are mandated to report this information in the annual report and accounts.

The Waxman inquiry also found that compensation consultants of Fortune 250 firms were paid almost eleven times more for providing other services than they were paid for providing executive compensation advice. The mean payment was about \$2.3 million for

35. WAXMAN REPORT, *supra* note 14, at i.

36. *Id.*

37. Murphy & Sandino, *supra* note 30, at 252.

38. Martin J. Conyon et al., *Compensation Consultants and Executive Pay: Evidence from the United States and the United Kingdom*, 23 ACAD. MGMT. PERSP., Feb. 2009, at 43, 51.

other services and less than \$220,000 for executive compensation advice.³⁹ Implicitly, this questions the consultant's impartiality when offering executive compensation advice. In general, the fees consultants received for executive compensation advice and for other services are not voluntarily reported by U.S. firms. The Waxman Committee had unique access to proprietary information. However, Canadian firms do report these data. Murphy and Sandino report that the ratio of fees for other non-executive pay services to fees for executive compensation advice is approximately one to thirteen.⁴⁰ In the case of the United Kingdom, the ratio of fees from other non-executive pay services to executive pay fees is not reported by firms in annual reports or other shareholder documents. Although somewhat imprecise due to the lack of systematic data, the overall picture suggests that consultants earn far more from their non-executive compensation services relative to their executive compensation advice. Because of this, there is a concern that the consultant's advice may not be sufficiently impartial.

2. Repeat Business

Murphy and Sandino suggest (but ultimately reject) the argument that the consultant's desire to generate "repeat business" may also compromise independence.⁴¹ Bebchuk and Fried have taken this argument more seriously. They claim that "[c]ompensation consultants have strong incentives to use their discretion to benefit the CEO. . . . Providing advice that hurts the CEO's pocketbook is hardly a way to enhance the consultant's chances of being hired in the future by this firm or, indeed, by any other firms."⁴² If the consultant recommends a compensation package below the CEO's expectations, then presumably the probability that the consultant will be terminated increases. In addition, the likelihood that the consultant will be offered business from other clients falls.⁴³ Consultants who fear being fired, losing repeat business, or both are more likely to recommend pay contracts that favor the CEO at the expense of shareholders.

One potential constraint on overtly self-serving consultant behavior is the desire to maintain a professional reputation. A

39. WAXMAN REPORT, *supra* note 14, at i.

40. Murphy & Sandino, *supra*, note 30, at 252.

41. *Id.* at 248.

42. Lucian Arye Bebchuk & Jesse M. Fried, *Executive Compensation as an Agency Problem*, 17 J. ECON. PERSP., Summer 2003, at 71, 78-79.

43. *Id.*

compensation consultant who is exposed as colluding with management, or recommending lucrative pay deals for poor performance, will suffer a loss of valuable market reputation. In addition, the consultant may risk termination by the client firm's board of directors, fail to attract and retain assignments at other firms, or even risk litigation.

How close are the ties between pay consultants and management? Although these ties are difficult for researchers to properly observe, some studies cast some light on the interactions between boards and consultants. Murphy and Sandino, for example, report that in about forty-one percent of U.S. firms employing compensation consultants, the consultant works exclusively for the board or compensation committee.⁴⁴ In addition, they find that about forty-five percent of firms' proxy statements refer to the pay consultant as "independent."⁴⁵ In the United Kingdom, Conyon, Peck, and Sadler report that in about fifty percent of firms studied, the compensation committee retains the consultant.⁴⁶ With the passage of the Dodd-Frank Act, a more accurate picture will emerge of consultant independence and their relation to management and boards.

III. PRIOR COMPENSATION CONSULTANT STUDIES

A. U.S. and Canada Studies

Murphy and Sandino examine the relation between CEO pay and compensation consultants in a sample of U.S. and Canadian firms, controlling for other economic determinants of executive compensation.⁴⁷ Their U.S. sample consists of 1,341 companies, distributed across the S&P 500 index (408 firms), the S&P Mid Cap (291 firms), the S&P Small Cap (382 firms), and some additional firms in year 2006-2007. Their Canadian sample consists of 124 firms for the fiscal year 2006.

Murphy and Sandino test whether consultants supplying "other business" lead to greater CEO pay at client firms. They find evidence both in the United States and Canada that CEO pay is higher in companies where the consultant provides other services. In addition, they find that CEO pay is higher in Canadian firms in cases

44. Murphy & Sandino, *supra* note 30, at 251.

45. *Id.*

46. Martin J. Conyon et al., *New Perspectives on the Governance of Executive Compensation: An Examination of the Role and Effect of Compensation Consultants*, 15 J. MGMT. & GOVERNANCE 29 (2011).

47. Murphy & Sandino, *supra*, note 30, at 249.

where the fees paid to consultants for other services are large compared to the fees received for executive compensation services. This supports the hypothesis that potential conflicts of interest faced by consultants lead to greater agency costs. Murphy and Sandino also test the “repeat business” hypothesis, and investigate whether CEO pay is higher when the consultant works for management rather than for the board of directors. They find, contrary to expectations, that U.S. CEO pay is actually higher in the cases where the consultant works for the board rather than for management.

Murphy and Sandino evaluate the robustness of their findings by augmenting their ordinary least squares (“OLS”) estimates with a statistical propensity score analysis to correct for the endogenous selection of the compensation consultant. Propensity score matching methods are used to compare like-for-like firms when comparing pay differences between firms that use consultants and those that do not. They find that differences in CEO pay become insignificant when comparing firms where the consultants provide “other services” to an optimally matched set of firms not providing such other services. In addition, their sensitivity analysis confirms their earlier finding that CEO pay is greater in firms where the board hires the consultant, rather than management. The authors provide a discussion of their propensity score approach, noting that their statistical model predicting the decision to retain a consultant has poor explanatory power. However, the additional results do seem to show that finding an effect of consultants on CEO pay may be sensitive to the statistical estimation method used by researchers.

Brian Cadman, Mary Ellen Carter, and Steven Hillegeist also investigate whether CEO pay is higher in firms when the executive compensation consultant supplies cross-selling services.⁴⁸ Their sample consists of 755 firms from the S&P 1500 in the fiscal year 2006. They argue that consultants may give biased advice to secure greater revenues from their clients when other business services are supplied. Consultants are deemed independent if the client firm uses Pearl Meyer or Frederick W. Cook, since these consultants did not supply other non-executive pay services to clients. The authors are unable to isolate a significantly robust relation between pay and the presence of conflicted consultants. They conclude: “Overall, we do not find evidence suggesting that potential conflicts of interest associated

48. Brian Cadman et al., *The Incentives of Compensation Consultants and CEO Pay*, 49 J. ACCT. & ECON. 263, 263 (2010).

with the much criticized cross-selling incentives [between the firm and its consultant] are a primary driver of excessive CEO pay.”⁴⁹

Christopher Armstrong, Christopher Ittner, and David Larcker study approximately 2,000 U.S. firms in the fiscal year 2006 and investigate the effects of consultants on CEO pay.⁵⁰ The sample is substantially larger than other U.S. studies. They find that “CEO pay is generally higher in clients of most consulting firms, even after controlling for economic determinants of compensation.”⁵¹ They find that most firms use compensation consultants (almost ninety percent). In addition, the authors find that users and nonusers, matched by economic and governance characteristics, do not have significantly different pay levels. Overall, Armstrong and colleagues find little evidence that CEO pay is higher in firms using consultants who potentially offer additional non-compensation related services.

Canyon, Peck, and Sadler investigate the relation between CEO pay and compensation consultants.⁵² Their sample consists of 308 U.S. firms from the S&P 500 in 2006 and 231 large U.K. firms in 2003. They find the level of CEO pay is positively correlated with the presence of consultants in both the United States and the United Kingdom. In addition, they show that the mix of CEO pay, defined as the fraction of equity pay in total CEO compensation, is greater in firms that use consultants. One interpretation of the data is that pay consultants recommend greater pay-at-risk for the CEOs of client firms, reflecting greater pay-for-performance. The authors further note that risk-averse CEOs whose contracts contain more risky compensation such as stock options will demand greater levels of pay.⁵³ Their results may suggest that higher CEO pay associated with the presence of pay consultants is part of an efficient contract and not due to upward pay pressures promulgated by non-independent advisors.

49. *Id.* at 280.

50. Christopher S. Armstrong et al., *Economic Characteristics, Corporate Governance, and the Influence of Compensation Consultants on Executive Pay Levels* 13 (Rock Ctr. for Corporate Governance, Working Paper No. 15, 2008), available at <http://ssrn.com/abstract=1145548>.

51. *Id.* at 1.

52. Canyon et al., *supra*, note 38, at 50–51.

53. *Id.*; see also Nuno G. Fernandes et al., *The Pay Divide: (Why) Are U.S. Top Executives Paid More?* 25 (ECGI Fin., Working Paper No. 255/2009, 2009), available at <http://ssrn.com/abstract=1341639> (“CEOs in the U.S. receive a much larger fraction of their pay through equity-based pay (primarily stock options and restricted shares), thus helping to explain the observed U.S. pay premium.”); Martin J. Canyon et al., *Are US CEOs Paid More than UK CEOs? Inferences from Risk-Adjusted Pay* 14 (Apr. 6, 2009) (unpublished manuscript), available at <http://ssrn.com/abstract=907469> (“[W]e show that US CEOs have more wealth at risk in their companies’ stock and stock options relative to UK CEOs.”).

In related research, Paul André, Samer Khalil, and Michel Magnan investigate the determinants of deferred compensation plans for corporate outside directors, as opposed to insiders.⁵⁴ They address the incentives of outsiders to perform their monitoring function by using data from approximately 130 Canadian firms over the time period 1997 to 2005. They show that the likelihood of firms adopting a deferred share unit plan for outside directors is greater in firms that retain a compensation consultant compared to those that do not. One interpretation of this result is that consultants promote incentives for active board monitoring. The authors also show that about fifty-six percent of their sample firms use pay consultants.

B. U.K. Studies

Lisa Goh and Aditi Gupta investigate compensation consultants and executive pay in a large sample of U.K. firms between 2002 and 2008.⁵⁵ Similar to other studies, they find the use of compensation consultants is widespread. Also, they demonstrate that both the level of executive pay and the proportion of equity-based pay are higher in client firms that retain compensation consultants. Again, this is consistent with prior studies. Importantly, Goh and Gupta study the effect of changes in compensation consultants on changes in executive pay. They hypothesize that firms may engage in “opinion shopping.”⁵⁶ That is, firms may shop in the market for executive compensation advice for opinions that favor the CEO over shareholders. Using a sample of Financial Times Stock Exchange firms (the “FTSE 350”) from 2002 to 2008, they find mixed evidence on the effect of changing consultants on executive pay.

Goh and Gupta find that CEOs and executives of firms that switch their main consultant receive higher salary increases in the year of the switch, consistent with opinion shopping. However, they find little evidence that switching consultants leads to greater changes in *total* pay, a figure that includes stock options. Rather, the authors find that executives at firms switching consultants receive less risky compensation packages measured as a lower proportion of equity pay,

54. Paul André et al., *The Adoption of Deferred Share Unit Plans for Outside Directors: Economic and Social Determinants*, J. MGMT. & GOVERNANCE (forthcoming 2010) (manuscript at 1), available at <http://www.springerlink.com/content/935q140441wr243m/>.

55. Lisa Goh & Aditi Gupta, *Executive Compensation, Compensation Consultants, and Shopping for Opinion: Evidence from the UK*, J. ACCT. AUDITING & FIN. (forthcoming 2010) (manuscript at 21), available at <http://ssrn.com/abstract=1577925>.

56. *Id.* at 14–15. The accounting literature discusses “opinion shopping” in the context of firms shopping for favorable audit opinions. See Clive Lennox, *Do Companies Successfully Engage in Opinion Shopping? Evidence from the UK*, 29 J. ACCT. & ECON. 321, 322 (2000).

which is more favorable to the executive. They also find that executives of consultant-switching firms receive a greater proportion of bonus pay. In contrast, firms that simply increase the number of consultants (as opposed to switching) do not have higher increases in compensation. Overall, the authors conclude that there is some evidence that companies successfully practice opinion shopping.

Rezaul Kabir and Marizah Minhat analyze 175 companies between 2003 and 2006.⁵⁷ They find statistical evidence that executive compensation is higher when firms use multiple consultants. Further, they find that high market share of the compensation consultants has a significant and positive effect on CEO compensation. Georgios Voulgaris, Konstantinos Stathopoulos, and Martin Walker investigate the relation between CEO pay and compensation consultants in a sample of 500 U.K. firms in 2006.⁵⁸ Approximately one-third of these firms do not retain consultants. The use of a consultant is much more likely in larger, more complex firms. Consistent with other research, they find that CEO pay is positively correlated with the presence of a compensation consultant and that the ratio of equity pay to total pay is higher in firms using consultants. Interestingly, the proportion of salary in total pay is lower. This finding suggests that consultants not only raise the level of pay but also design contracts that contain more risk (equity pay) and less insurance (salary pay), consistent with shareholder goals. This study, together with that by Lisa Goh and Aditi Gupta, illustrates that consultants can affect both the level and structure of CEO pay.

In a separate study, Conyon, Peck, and Sadler investigate the role of compensation consultant networks in their sample of U.K. firms.⁵⁹ They find that CEO pay is positively correlated with CEO pay in peer firms that used the same consultant as the focal firm. They also find the level of CEO compensation in the focal firm is positively related to the number of board interlocks created by both a shared director and a shared compensation consultant. Overall, their study suggests that management social networks are important for executive pay outcomes and are facilitated by the presence of compensation consultants.

In contrast to the many multivariate statistical studies, Ruth Bender conducts an in-depth qualitative study of compensation

57. Rezaul Kabir and Marizah Minhat, *The Effect of Compensation Consultants on UK CEO Pay* 14 (May 31, 2010) (unpublished manuscript), available at <http://ssrn.com/abstract=1646926>.

58. Georgios Voulgaris et al., *Compensation Consultants and CEO Pay: UK Evidence*, 18 CORP. GOVERNANCE: INT'L REV. 511, 515 (2010).

59. Martin J. Conyon et al., *supra* note 46, at 29.

consultants.⁶⁰ She analyzes twelve U.K. companies selected from the FTSE 350. Thirty-five CEOs, remuneration committee chairs, and compensation consultants were interviewed between 2001 and 2003. The qualitative approach provides rich detail on the process of setting boardroom pay and in particular the role of the consultant. The findings are grouped into five substantive areas: (1) how companies choose their consultants; (2) the consultant as an expert; (3) the consultant as an intermediary between the board and other stakeholders; (4) the consultant as a legitimating device; and (5) conflicts of interest and the use of multiple consultants. A number of salient findings emerge. First, consultants act as experts providing data, advising on plan design, and acting as a liaison with institutional investors. Second, consultants provide legitimacy to the decisions made by the compensation committee. Consultants give credence to the compensation committee and human resources decisions about pay. Third, consultants are aware that their independence may be seen to be compromised and are taking steps to remedy this issue. For example, one potential option is that the remuneration committee retains its own separate compensation consultant. Bender also reports that U.K. policymakers are recommending that consultants adopt a code of “best practice” to mitigate conflicts of interest in the future.

C. Other Studies

A number of empirical studies examine the role of pay consultants before 2000. Typically, non-publicly available data were used. James Wade, Joseph Porac, and Timothy Pollock investigate the role of compensation consultants using proprietary U.S. data.⁶¹ They argue that firms use consultants to provide legitimacy for executive pay outcomes, and find that firms justify high CEO pay by discussing the use of a compensation consultant in the proxy statement. Henry Tosi and Luis Gomez-Mejia investigate the role of pay consultants using data from the United States.⁶² Unlike later studies, Tosi and Gomez-Mejia’s analysis is based on surveys administered directly to firms. They find that consultants were important actors in setting pay. Similarly, Tosi and Gomez-Mejia show elsewhere that consultants are

60. Ruth Bender, *Paying For Advice: The Role of the Remuneration Consultant in U.K. Listed Companies*, 64 VAND. L. REV. 361 (2011).

61. James B. Wade et al., *Worth, Words, and the Justification of Executive Pay*, 18 J. ORGANIZATIONAL BEHAV. 641, 648 (1997).

62. Henry L. Tosi & Luis R. Gomez-Mejia, *The Decoupling of CEO Pay and Performance: An Agency Theory Perspective*, 34 ADMIN. SCI. Q. 169, 174 (1989).

important in the construction of their index of monitoring and alignment.⁶³ Nancy Thorley Hill and Kevin Stevens survey one hundred U.S. outside directors to investigate how CEOs are compensated. They find that retaining a compensation consultant is one method to effectively link CEO compensation to long-term rewards.⁶⁴

IV. CONSULTANTS AND CEO PAY: EMPIRICAL EVIDENCE

A. Consultants and U.K. CEO Pay

This Article presents further preliminary empirical results on the relation between CEO pay and compensation consultants using U.K. data. The data are derived from the sample used by Conyon, Peck, and Sadler.⁶⁵ A standard linear CEO pay equation is estimated. The dependent variable is the logarithm of CEO compensation. Total CEO compensation is measured as the sum of salary, bonus, benefits, stock options,⁶⁶ restricted stock, and other compensation. Three indicator variables (which can take the values of either zero or one) are used for the compensation consultant: (i) if the company uses a compensation consultant, (ii) if the consultant supplies any other business to the client firm, and (iii) if the compensation committee appoints the compensation consultant.

A set of control variables is also included in the regression model to control for other economics and governance determinants of CEO pay: the logarithm of firm sales is included as an indicator of firm complexity; the book to market variable (book value of assets divided by the market value of the company) controls for firm growth opportunities; firm performance is measured as shareholder returns (stock price appreciation plus dividends over three years); firm risk is the firm's stock price volatility (the annualized standard deviation in stock prices); and job tenure (measured in years) and CEO age control

63. Henry L. Tosi & Luis R. Gomez-Mejia, *CEO Compensation Monitoring and Firm Performance*, 37 ACAD. MGMT. J. 1002, 1008 tbl.1 (1994). They asked firms to state the level of agreement with the following propositions: “[i]t is in the interest of hired compensation consultants to recommend a high compensation package for the CEO,” and “[i]t is in the interest of hired compensation consultants to recommend a pay with a low downside risk for the CEO.” *Id.*

64. Nancy Thorley Hill & Kevin Stevens, *CEO Compensation and Corporate Performance*, 24 J. GEN. MGMT. 65, 65–67 (1995).

65. Conyon et al., *supra* note 38.

66. The value of the stock options is measured at the grant date using the modified Black-Scholes formula for stock paying dividends. See Fisher Black & Myron Scholes, *The Pricing of Options and Corporate Liabilities*, 81 J. POL. ECON. 637, 637–54 (1973).

for human capital. The regressions also contain industry dummy variables to allow for cross-industry variation in the demand for managerial talent.

Table 2 contains the findings from various linear regression models. Columns 1 to 4 present OLS estimates, with standard errors clustered on individual consultants. Columns 5 to 8 estimate the same pay equations using robust regression methods. This technique is used to weight potential outliers in the data.⁶⁷ Columns 1 and 2 demonstrate a positive correlation between CEO total pay and the presence of a consultant. CEO salary is also positively correlated with the presence of a consultant. The results control for other economic and governance determinants of CEO pay, and are in broad agreement with other recent research. As noted, the standard errors are adjusted based on clustering on the consulting firm because different consulting firms may offer different pay strategies and advice. In Column 1, total CEO pay is approximately twenty-six percent higher in firms using consultants.⁶⁸ Columns 3 and 4 show some evidence that CEO pay is higher in firms whose consultants supply other business to the client firm. CEO salary is estimated to be about seven percent higher in such firms, conditional on having retained a consultant. Columns 5 to 8 show that the results are not generally sensitive to the estimation method. The robust regression results confirm a positive correlation between CEO pay and consultants. However, there is some variation in the estimated effects of other business and compensation consultant on pay.

67. Implemented in Stata version 11.1 using the “rreg” command.

68. Calculated as $e^{0.23} - 1$.

Table 2. Consultants and CEO Pay in the United Kingdom

Columns	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Variables	<u>Ordinary Least Squares models</u>				<u>Robust regression models</u>			
	Log CEO Pay	Log Salary	Log CEO Pay	Log Salary	Log CEO Pay	Log Salary	Log CEO Pay	Log Salary
Consultant	0.23** (0.07)	0.08** (0.03)			0.36** (0.14)	0.10* (0.06)		
Other business Supplied			0.10 (0.09)	0.07* (0.03)			0.15* (0.09)	0.06 (0.04)
Committee appoints the consultant			0.08 (0.10)	0.05 (0.05)			0.09 (0.09)	0.03 (0.04)
Log sales	0.26*** (0.04)	0.18*** (0.01)	0.24*** (0.04)	0.18*** (0.02)	0.24*** (0.03)	0.18*** (0.01)	0.23*** (0.03)	0.17*** (0.01)
Book to market	-0.45** (0.13)	-0.27* (0.11)	-0.45** (0.13)	-0.30** (0.12)	-0.23 (0.19)	-0.18** (0.08)	-0.33* (0.19)	-0.19*** (0.08)
Shareholder returns	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Volatility	0.10 (0.18)	-0.09 (0.13)	-0.04 (0.08)	-0.15 (0.11)	0.03 (0.25)	-0.11 (0.11)	-0.04 (0.26)	-0.14 (0.11)
Tenure	-0.00** (0.00)	0.01* (0.00)	-0.00 (0.00)	0.00 (0.00)	-0.00 (0.01)	0.00 (0.00)	-0.00 (0.01)	0.00 (0.00)
CEO age	0.00 (0.01)	0.01* (0.00)	0.01 (0.00)	0.01** (0.00)	0.01 (0.01)	0.01*** (0.00)	0.01 (0.01)	0.01*** (0.00)
Constant	5.15*** (0.22)	4.31*** (0.26)	5.25*** (0.19)	4.28*** (0.28)	4.84*** (0.40)	4.33*** (0.18)	5.08*** (0.41)	4.34*** (0.18)
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	229	229	209	209	229	229	209	209
R-squared	0.325	0.501	0.318	0.520	0.321	0.561	0.318	0.583

The sample consists of 229 U.K. firms in 2003. CEO pay is the sum of salary, bonus, Black-Scholes value of stock option grants, restricted stock grants, and other pay. Equity pay mix is equity pay (the value of options and restricted stock) divided by CEO pay. "Consultant" is an indicator variable equal to one if the firm has a consultant and zero otherwise. "Consultant supplies other business," and "compensation committee appoints the consultant" are also indicator variables. "Consultant supplies other business" is an indicator variable equal to one if the consultant provides services other than remuneration advice to the focal firm. "Log sales" is the logarithm of firm sales revenues. "Book to market" is the book value of assets divided by the market value of the company. "Shareholder returns" are stock price appreciation plus dividends over three years. "Volatility" is the annualized standard deviation in stock prices. "Job tenure" is executive time in office (years). "CEO age" is the executive's age (years). Robust standard errors are in parentheses: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

B. Consultants and U.S. CEO Pay

The relation between U.S. CEO pay and consultants is investigated using panel data methods. The sample is based on the constituents of the S&P 500 index. Data on the identity of the consultant used by each firm was collected from 2006 to 2008, inclusive. This short panel of data has advantages over cross-section studies—it permits an investigation of the effect of a *change* in compensation consultant on the *change* in CEO pay. Namely, the within-firm CEO pay variation can be exploited by comparing firms that change consultants to those that do not. One prediction is that firms that change their consultant would lead to greater levels of CEO pay due to “opinion shopping,” as described by Goh and Gupta.⁶⁹ The dynamic panel data (“DPD”) method eliminates firm fixed effects that potentially contaminate OLS estimates of the relation between CEO pay and consultants. The fixed effects cater for any unobserved time-invariant missing variables. In the short run, managerial quality might be considered as such a variable. Consider the model:

$$y_{it} = \alpha_i + \lambda y_{i,t-1} + \beta x_{it} + \delta \text{consultant}_{it} + \eta_t + \varepsilon_{it}(1)$$

The term y_{it} is CEO compensation in firm i at time period t ; x_{it} is a set of variables that determine pay, such as firm performance and size; η_t are a vector of time-period effects; and ε_{it} is an error term. The equation contains a set of firm fixed effects (α_i) and a lagged dependent variable, $y_{i,t-1}$. The model is estimated by differencing the data between t and $t-1$ and using the Arellano and Bond generalized method of moments (“GMM”) DPD estimator.⁷⁰

Two CEO compensation measures are used. First, the logarithm of CEO total pay, where total pay is the sum of salary, bonus, other cash pay, restricted stock grants, and the Black-Scholes

69. Goh & Gupta, *supra* note 55 (manuscript at 11–12).

70. The estimator used is described in Manuel Arellano & Stephen Bond, *Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations*, 58 REV. ECON. STUD. 277, 277–97 (1991); *see also* Stephen J. Nickell, *Biases in Dynamic Models with Fixed Effects*, 49 ECONOMETRICA 1417, 1417–26 (1981) (discussing dynamic panel data models with fixed effects). The Arellano-Bond DPD estimator is suited to panels with few time series observations (short T) and relatively more frequent cross-section observations (large N). Independence across observations is assumed. Prior studies often impose the restriction that $\lambda = 0$, which is relaxed here. Since the first-difference procedure induces an MA(1) error term, the OLS estimates of λ on the lagged dependent variable are biased. Instead, the model is estimated using GMM instrumental variable (“IV”) techniques. The induced MA(1) structure implies that under the null of no serial correlation valid instruments are those dated at $t-2$ and earlier.

value of option grants.⁷¹ The second is the logarithm of CEO salary. The econometric models contain a one-period lag of the dependent variable. The independent variables are consistent with prior research on CEO compensation. The models include the logarithm of firm sales. Firm performance variables are included to measure the potential alignment of owner and manager interest. These are total returns to shareholders (share price appreciation plus dividends), the firm's return on assets, and the trading profit margin. This set of variables captures the firm's market and accounting performance.⁷²

Compensation consultant data were collected from the proxy statements of the constituents of the S&P 500 firms.⁷³ Firms report the name of the pay consultant for each of the years 2006 to 2008, inclusive. The consultant data is coded as zero for no change in status and one for change in status. For example, if a company that used Towers Perrin in 2007 and changed to Frederick Cook in 2008, it is coded as one. If Towers Perrin was used in both years, the variable is coded as zero. The number of recorded changes is actually relatively infrequent (and this should be borne in mind when interpreting the results). For the fiscal year 2008, we identified fourteen companies in the S&P 500 that changed consultants between 2007 and 2008. This was about three percent of the available observations. For the fiscal year 2007, there were twenty-two changes between 2006 and 2007, representing about 4.5 percent of the observations. Firms changing consultants in 2008 were not the same as firms changing consultants in 2007. In summary, turnover of consultants is infrequent.

The Hershey Company provides a concrete example of how a company might report the change of consultant in the proxy statement. It changed consultants from Towers Perrin in 2007 to Mercer in 2008, stating clearly in its proxy statement: "The Committee engaged Mercer to succeed Towers Perrin, an executive compensation consulting firm who had provided such services to the Committee in prior years."⁷⁴ The narrative in proxy statements was

71. This is item TDC1 in the Execucomp database.

72. This set of right-hand side variables is necessarily parsimonious, but sufficient given that the dynamic panel data fixed-effects model permits testing the effect of consultants on CEO pay.

73. Data were entered independently by different researchers and compared and checked for coding errors.

74. In this case, the proxy further states:

During 2008, the Committee engaged Mercer (US) Inc. ("Mercer"), an executive compensation consultant, to provide independent assistance to the Committee with respect to the Committee's development and refinement of our compensation policies and the Committee's assessment of whether our compensation programs support our business objectives, are market competitive and are cost efficient. The Committee engaged Mercer to succeed Towers Perrin, an executive compensation consulting firm

used to code the year-on-year change in consultant. The effect of any change in consultant on subsequent change in CEO pay was then determined.

Estimates from the DPD model are contained in Table 3. Columns 1 and 2 contain a parsimonious CEO pay equation estimated over the period 1992 to 2008 for the CEOs of the constituents of the S&P 500. This is the benchmark model. In Columns 3 and 4, the models are estimated over the period 2005 to 2008 and include the pay consultant variable. The hypothesis is that firms that change their consultant lead to higher levels of CEO pay at client firms.⁷⁵ There is little evidence in support of this hypothesis. After controlling for persistence in CEO pay, firm size, firm performance, macroeconomic shocks, as well as unobserved firm fixed effects, the coefficient estimate (δ) is insignificant in all specifications (Columns 3 and 4). This new evidence does not support the view that firms switch consultants as a mechanism to increase CEO pay.

who had provided such services to the Committee in prior years and did so during the first two months of 2008 when the Committee made decisions and took actions relating to 2008 director and executive officer compensation levels and awards.

Hershey Co., Official Notification to Shareholders of Matters to Be Brought to a Vote 16 (Form DEF 14A) (Mar. 16, 2009).

75. It is expected that $\delta > 0$.

Table 3. Consultants and CEO Pay in the United States

	$y_{it} = \log$ CEO total pay Period: 1992 to 2008	$y_{it} = \log$ CEO salary Period: 1992 to 2008	$y_{it} = \log$ CEO total pay Period: 2005 to 2008	$y_{it} = \log$ CEO salary Period: 2005 to 2008
Lagged dep. var. ($y_{i,t-1}$)	0.36*** (0.08)	0.65*** (0.08)	0.18*** (0.06)	0.55*** (0.05)
Log firm sales	0.24*** (0.06)	0.16*** (0.05)	0.30** (0.13)	0.09** (0.04)
Stock returns	0.03*** (0.00)	0.01*** (0.00)	0.03*** (0.00)	0.02*** (0.00)
Profit margin	0.29* (0.16)	0.49 (0.38)	0.26*** (0.08)	0.70* (0.40)
Return on assets	-0.01* (0.00)	-0.01 (0.01)	-0.01* (0.00)	-0.01 (0.01)
Pay consultant			0.11 (0.11)	-0.03 (0.04)
Constant	2.83*** (0.88)	1.02 (0.64)	4.42*** (1.18)	2.22*** (0.43)
Observations	5602	5605	1796	1793
Number of firms	473	474	473	472
Time effects	Yes	Yes	Yes	Yes
S1	-4.56	-2.87	-4.45	-1.88
S2	0.61	1.93	1.49	0.04

The sample consists of constituents of the S&P 500 between 1992 and 2008. Compensation data derived from Execucomp. The dependent variable (y_{it}) is logarithm of total CEO pay (Columns 1 and 3) and CEO salary (Columns 2 and 4). Total pay is the sum of salary, bonus, other cash pay, restricted stock grants, and the Black-Scholes value of option grants. Log of “firms sales” are company revenues during the year. “Stock returns” are measured as capital appreciated plus dividends reinvested. “Profit margin” is net income divided by company sales; “return on assets” is measured as profit to total assets during the year. “Pay consultant” is the presence (identity) of the pay consultant (for example, Mercer, Towers Perrin, etc.) S1 and S2 are t-tests of first and second order serial correlation, respectively. Heteroskedastic consistent standard errors are reported in parenthesis. These are one-step Arellano-Bond measures: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Other features of the dynamic pay equations are worth stressing. First, the lagged dependent variable in all pay equations is positive and significant—previous levels of CEO pay are important for determining current CEO pay. The significance of this variable warrants further studies on CEO wage dynamics. Second, CEO salaries appear much more persistent than total pay. This is intuitive: salaries are “fixed” and contain inertia, whereas total pay contains variable pay such as bonuses and options and are more discretionary. Third, because of persistence in CEO pay, the long-run effect of company size is different from the short-run effect. In Column 1, the short-run size elasticity is 0.24 and the long-run size elasticity is

about 0.37. In Column 2, the short-run size elasticity is 0.16 and the long-run size elasticity is about 0.46.⁷⁶

C. Discussion

Prior studies have documented a positive correlation between CEO pay and compensation consultants. The preliminary new results in this Article agree. Generally, it is possible to identify a positive cross-sectional association between CEO pay and the presence of a consultant, especially in the U.K. data. In addition, there is some evidence that CEO pay is greater in firms where consultants are potentially conflicted. Specifically, CEO pay is higher in firms where the consultant supplies other business services, or where management is involved in the selection of the compensation consultant. On the other hand, there is little evidence that firms switching consultants are associated with higher CEO pay in the U.S. data. However, the panel data models were estimated with only a small number of observed changes in consultants, which may affect the results.

It is important to stress some limitations, especially when thinking about using the cross-section data to identify consultant effect on CEO pay. In particular, the retention of the consultant is endogenous, and missing explanatory variables may plague model estimation. For example, firms requiring more talented managers—who would be more highly paid—may have a greater propensity to use consultants. Alternatively, larger firms with more complex jobs—who would also have more highly paid executives—may be more likely to retain consultants. Such examples suggest that the estimated relation between CEO pay and consultants may be biased due to important omitted variables from the analysis (for example, managerial quality).⁷⁷

76. The model diagnostics show positive first-order serial correlation (as expected and required) from the first difference fixed-effect DPD model. Importantly, there is no second-order correlation.

77. Ideally, to test the causal effect of consultants on CEO pay, one would randomly assign the compensation consultants to organizations. CEO pay in firms with consultants (the treatment group) could then be compared to those without (the control group). Randomization would identify the causal effect of the pay consultants. In reality, though, the assignment of consultants to client firms is not random, so there will be significant differences in the characteristics of organizations using consultants—such as size, performance, capabilities, and personnel. And these differences (a) preclude causal interpretation of the data presented and (b) suggest the presence of potential statistical biases.

One potential solution is to perform a propensity score matching analysis,⁷⁸ as in the studies by Armstrong, Ittner, and Larcker and Murphy and Sandino.⁷⁹ It can alleviate selection biases arising from the nonrandom assignment of data. It does so by optimally matching firms that use consultants (the treatment condition) to firms that do not use consultants (the control condition).⁸⁰ To further investigate the correlation between CEO pay and consultants, I performed a propensity score analysis, using a nearest neighbor algorithm.⁸¹ I found that the difference between CEO pay in the treatment group “firms using consultants” was insignificantly different from those firms in the matched control group “firms not using consultants.” In addition, I found that CEO pay in the treatment group “consultants supplied other business to the firm” was insignificantly different from those firms in the matched control group of “firms that did not supply other business.” This is despite the fact that a positive correlation could be established in the simple linear regression models. These additional findings suggest that establishing a statistical relationship between CEO pay and consultants may indeed be sensitive to the type of method used. However, similar to Murphy and Sandino, I found the first-stage propensity score models were often poorly determined, calling into question the efficacy of the procedure in this particular context.

More generally, the results in this Article, as well as findings from other contemporary studies, are hampered by the availability of

78. DONALD B. RUBIN, MATCHED SAMPLING FOR CAUSAL EFFECTS 305–07 (2006); James J. Heckman et al., *Matching as an Econometric Evaluation Estimator*, 65 REV. ECON. STUD. 261, 261–94 (1998); James J. Heckman et al., *Matching as an Econometric Evaluation Estimator: Evidence from a Job Training Programme*, 64 REV. ECON. STUD. 605, 605–54 (1997); Paul R. Rosenbaum & Donald B. Rubin, *The Central Role of the Propensity Score in Observational Studies for Causal Effects*, 70 BIOMETRIKA 41, 41–55 (1983).

79. Armstrong et al., *supra* note 50; Murphy & Sandino, *supra* note 30.

80. In our case, the propensity matching determines the causal effect of a consultant on pay from the non-random data. $T_{it} \in [0, 1]$ is the treatment indicator variable for firm i at time t . $T = 1$ if a consultant is used and $T = 0$ if the consultant is not used. Define $Y_{it}(1)$ as CEO pay if a consultant is used and $Y_{it}(0)$ if not. The causal effect of the consultant on CEO pay is: $Y_{it}(1) - Y_{it}(0)$. The fundamental problem of causal inference is that the quantity $Y_{it}(0)$ is not observable; if a firm used a consultant then the outcome is not observable in the counterfactual state. The average treatment effect of a consultant on CEO pay can be expressed as:

$$E[Y_{it}(1) - Y_{it}(0) | T_{it} = 1] = E[Y_{it}(1) | T_{it} = 1] - E[Y_{it}(0) | T_{it} = 1].$$

The counterfactual is then estimated by the average outcome value for firms that did not use consultants ($E[Y_{it}(0) | T_{it} = 0]$ using a logit propensity score model). See the Heckman papers *supra* note 78.

81. Edwin Leuven & Barbara Sianesi, *PSMATCH2: Stata Module to Perform Full Mahalanobis and Propensity Score Matching, Common Support Graphing, and Covariate Imbalance Testing*, IDEAS DATABASE (Boston Coll. Dept of Econ., Apr. 17, 2003), <http://ideas.repec.org/c/boc/bocode/s432001.html> (last visited Jan. 23, 2011).

data on compensation consultants. Some of the measures of “consultant independence” are perhaps less than ideal. However, as the implementation of the Dodd-Frank Act becomes widespread, more fine-grained measures will become available to researchers, including information on the fees received by consultants for their various services. This is likely to facilitate a much better understanding of the effects of consultants.

V. CONCLUSIONS

Executive compensation is a controversial issue. Popular opinion, and some academic studies, suggests CEO pay is excessive and often unrelated to performance.⁸² This Article has focused on compensation consultants since critics argue they are not sufficiently independent when making CEO pay recommendations and may lead to higher pay. The recent Dodd-Frank Act aims to redress some of these concerns.

This Article surveys some of the more recent evidence linking CEO pay and compensation consultants. These studies are based on existing high disclosure regimes, especially the United States, Canada, and the United Kingdom. What can be concluded from the extant research? First, there appears to be a positive correlation between CEO pay and the presence of compensation consultants. However, it is often difficult to interpret this finding because of selection effects, concerns about missing explanatory variables, and reverse causation. In addition, consultants often bring benefits to the firm, such as expert advice. As a result, it is not clear that shareholder interests are adversely affected. Second, there is some support for the idea that conflicted compensation consultants are associated with higher CEO pay at client firms. However, the evidence from various studies is somewhat mixed, suggesting that further research is warranted. Some studies find that CEO pay is higher when the consultant supplies other business services to the client firm. Some research finds higher CEO pay when management is involved in choosing the compensation consultant, and other research does not.

82. This perspective on CEO pay has been challenged. Core and Guay show that CEO wealth is strongly linked to the stock market performance of their firms. Core & Guay, *supra* note 4; see also Martin J. Conyon & Kevin J. Murphy, *The Prince and the Pauper? CEO Pay in the United States and United Kingdom*, 110 *ECON. J.* 640, 640–71 (2000); John E. Core et al., *Is U.S. CEO Compensation Inefficient Pay Without Performance?*, 103 *MICH. L. REV.* 1142, 1142–85 (2005); Conyon et al., *supra* note 53; Kaplan, *supra* note 5. On the optimal provision of benefits in organizations, see Todd M. Henderson & James C. Spindler, *Corporate Heroin: A Defense of Perks, Executive Loans, and Conspicuous Consumption*, 93 *GEO. L.J.* 1835, 1840–44 (2005).

However, as noted, various studies show that these findings may be sensitive to the type of estimation methods and techniques used.

This Article provides new evidence on the relation between CEO pay and consultants. Cross-section data from the United Kingdom show a positive correlation between CEO pay and the presence of a compensation consultant. There was less evidence, though, that CEO pay was higher in firms whose consultants supply other non-executive compensation advice to their clients. Moreover, there was insignificant evidence that CEO pay was higher if management appointed the pay consultant. Statistical concerns make identification of a causal consultant effect on CEO pay particularly difficult. Also, the evidence showed that switching consultants was not associated with significantly higher CEO pay. The DPD models, which cater for unobserved firm fixed effects, failed to identify a robust positive correlation between *changes* in compensation consultants and *changes* in CEO pay.

It is customary to highlight a few limitations and to suggest some avenues for further research. First, the empirical evidence presented here is made possible by the enhanced disclosure requirements about compensation consultants in the United States and the United Kingdom. The results should be considered preliminary because when new data become available, and researchers can use more advanced statistical methods such as panel data techniques, richer hypothesis testing will be possible. Second, the inability to perform randomized tests in the current study means that the causal effect of consultants on CEO pay cannot be identified. At present, most studies are observational and report only statistical associations. This is a challenge for future research. Finally, the market for executive compensation consultant services is evolving. The merger between Towers Perrin and Watson Wyatt in early 2010 created a major new presence in the market for compensation consulting services. An important avenue for future studies is to understand how this merger and the changing market structure affect U.S. CEO compensation practices.

Overall, the extant research appears to show a range of findings on the relation between CEO pay and compensation consultants. It is difficult to unambiguously conclude, therefore, that pay consultants simply promote executive interests at the expense of shareholders, or that pay outcomes and contracts are not optimal. Indeed, consultants seem to provide valuable expertise and information to firms. In the future, as the Dodd-Frank Act leads to greater information for investors and researchers alike, the effects of consultants on CEO pay will become better known and clearer.

In summary, this Article has provided some initial steps in stimulating the debate about the role of compensation consultants as one of the central actors in the executive pay-setting process.