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Putting Executive Pensions on the Radar Screen

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Abstract

Because public firms are not required to disclose the monetary value of executives' pension plans in their executive pay disclosures, financial economists and the media alike have generally analyzed executive pay using figures that do not include the value of such pension plans. This paper presents evidence that omitting the value of pension benefits significantly undermines the accuracy of existing estimates of executive pay, its variability, and its sensitivity to performance. We estimate the value of the pension plans of all CEOs of S&P 500 firms that left their positions during 2003 and the first half of 2004. For the set of companies whose executives had a pension plan (68% of companies), our findings are as follows:

- The executive's pension plan provided an annual payment with an average value of $1.1 million (ranging from $360,000 to $2.3 million) and had an average actuarial value of $15.1 million (ranging from $3.3 to $41.3 million).

- The pension value was on average nearly three times the total salary the executives earned during their tenure as CEO, and it was equal on average to 44% of the total compensation (including both equity and non-equity pay) the executives received during their service as CEO.

- Including pension values increased the fraction of compensation made of salary-like payments (salary during service as CEO and pension payments afterwards) from 16% to 39%, and reduced the fraction of pay that is equity-based from 57% to 42%.

We conclude that the standard omission of pension plan values by researchers and the media leads to:

(i) Significant underestimation of the magnitude of executive pay,
(ii) Severe distortion of comparisons among executive compensation packages, and
(iii) Significant overestimation of the extent to which executive pay is linked to performance and the fraction of compensation that is equity-based.

Keywords: Executive compensation, executive retirement benefits, executive pensions, stealth compensation, camouflage, pay for performance, nonperformance pay.
JEL Classification: D23, G32, G34, G38, J33, J44, K22, M14

I. INTRODUCTION

In December 2004, Fannie Mae CEO Franklin Raines was pushed out. Upon his departure he received an annual pension of $1.4 million for the rest of his life and the life of his surviving spouse. The actuarial value of this pension benefit, which was completely decoupled from Raines' performance in office, was about $24 million. This pension value constituted a significant component of Raines' total compensation at Fannie Mae, and it substantially weakened the link between Raines' total pay and his performance.[1] How unusual are pension plans, like Raines', that are so meaningful relative to total pay? How important are such payments to a complete assessment of the executive compensation landscape? These are the question that we investigate in this paper.

The reason why the answers to these questions are far from straightforward lies in existing disclosure rules, which do not require companies to place a monetary value on the pensions to which executives become entitled. *Pay without Performance*, a recent book co-authored by Jesse Fried and one of us, suggests that firms use retirement benefits to provide executives with substantial amounts of "stealth compensation"—compensation whose amount (and performance insensitivity) are neither salient nor transparent.[2] This "camouflage" role of retirement benefits might, in part, explain their heavy use. Whatever explains the use of pension plans and other retirement benefits, assessing their magnitude and distribution could be necessary for obtaining a complete picture of the executive pay landscape.

Prior research has not provided a systematic picture of the value of executives' pension plans. To be sure, various media stories have occasionally described particular executives' pensions and the opaqueness of such compensation.[3] Recently,

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[1] For a detailed analysis of Raines' retirement benefits, see Lucian Bebchuk and Jesse Fried, *Executive Compensation at Fannie Mae: A Case Study of Perverse Incentives, Nonperformance Pay, and Camouflage* (Draft Jan. 2005), *at* http://papers.ssrn.com/abstract=653125.

[2] Lucian Bebchuk and Jesse Fried, PAY WITHOUT PERFORMANCE: THE UNFULFILLED PROMISE OF EXECUTIVE COMPENSATION (2004).

[3] See, e.g., Evan Perez, *Delta Holders Approve Plan on Executive Pension Accounts*, WALL ST. J., Apr. 26, 2004, at B2; Joanne S. Lublin, *ITT Executives Get Severance – And Jobs*, WALL ST. J.,

for example, the media has discussed the pensions of Franklin Raines and Carly Fiorina.[4] But prior research, media coverage, and existing datasets do not provide systematic evidence about the level and variance of pension values in a representative sample of companies.

Standard datasets of executive pay—routinely relied upon by financial economists and the media—only include those components of executive pay for which a precise monetary value is disclosed in companies' public filings. Estimating the value of pension plan benefits requires additional research and financial analysis, and standard databases do not include compensation paid through pension plans. Such omission would not lead to significant distortions if (i) pension plan values were not significant relative to total executive pay, and (ii) pension plan values did not greatly vary among executives. In this paper, we examine whether these assumptions are valid—and thus whether the exclusion of pension values from analyses of executive compensation has undermined our understanding of the magnitude and nature of executive pay.

To do so, the paper provides evidence about the magnitude and distribution of executives' pension plan benefits. We study a sample composed of all of the CEOs of S&P 500 companies who left their position during 2003 and the first five months of 2004. Our findings are that pension plan values are on average quite substantial, that these values vary considerably among the executives in our sample, and that omitting them introduces significant inaccuracies in assessments of the magnitude and performance-sensitivity of total executive pay.

The remainder of the paper is organized as follows. Section II describes the relevant regulatory background. Section III provides our evidence and analysis of the magnitude of pension benefits. Section IV offers concluding discussion.

Feb. 15, 1998, at H1 (noting that $165 million was earmarked for executive severance and pension benefits in the event of a change of control).

[4] See, e.g., Geoffrey Colvin, *Outraged over CEO Exit Packages? You're Too Late*, FORTUNE, Mar. 7, 2005, at 62 (criticizing Fiorina's severance arrangements); David S. Hilzenrath, *Fannie Mae Begins Paying Benefits to Former Executives*, WASH. POST, Feb. 9, 2005, at E2; Jenny Wiggins, *Fund Files Suit Over Fannie Mae Executive Pay-Offs*, FINANCIAL TIMES, Jan. 20, 2005, at 20.

II. EXECUTIVE PENSIONS AND THEIR DISCLOSURE

Defined-pension benefits are an important feature of contemporary executive compensation.[5] The annual payments available under these plans are usually based on the number of years an executive has served with the company and the executive's pre-retirement cash compensation. In general, then, as an executive's salary and tenure increase, the executive's annual pension benefits increase correspondingly. Pension payments—like salary—are largely decoupled from firm performance.[6]

In their annual proxy filings, firms must publish a summary compensation table providing the dollar value of the various forms of compensation received by the current CEO and the four other highest-paid executives of the firm, as well as the monetary value of options granted to such executives. These figures are the most salient indicators of executive compensation in public firms. They are easily accessible by the media and others reading the public filings. Indeed, the standard databases of executive compensation—including ExecuComp, which is used both by financial economists and compensation consultants—are based on the highly-visible figures set forth in these tables.

If executive pensions were structured as defined contribution plans, companies' annual contributions to executive retirement accounts would be reported in these summary compensation tables. In contrast, under the pension plans currently used by public companies, the annual increase in the present value of an executive's defined benefit plan—due both to pay raises and additional years of service—is largely hidden from view: firms are not required to include this increase in value in the compensation tables. A person examining compensation tables alone

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[5] This section draws on the description of pension practices and disclosures in BEBCHUK & FRIED, *supra* note 2 ch. 9.

[6] In addition, it is not uncommon for firms to credit executives with additional years of service at the time of their retirement, ratcheting up the final payout under the plan's formula. In our sample, for example, such ratcheting up was done on behalf of the CEOs of Hercules and Delta.

would not detect the steady buildup in the value of an executive's pension plan.

Furthermore—and importantly—disclosure requirements obligate firms to include only amounts paid to *current* executives in their summary compensation tables. Because the executives are no longer employed by the firm when the pension payments begin, payments to these retired executives need not be included in the published tables. Thus, the value of an executive's defined-benefit pension plan does not appear—either when pension payments are promised or when they are delivered—in the disclosures from which the media and researchers collect most of their information about executive compensation.

Indeed, executive pension plans have sometimes been marketed specifically as ways to increase compensation "off the radar screen of shareholders."[7] According to media reports, some directors have voted to adopt such plans only after being reassured that the amounts involved do not have to be reported to the public.[8]

To be sure, although neither the increase in value of the pension plans before retirement nor the amount of payments after retirement appears in the compensation tables, the existence of pension plans, and the formulas under which payouts are made, must be disclosed in the firm's SEC filings. We use these filings in this study to obtain estimates of the pension plan values of CEOs in a sample of cases. But such estimates are not accessible to outsiders without analyzing various disclosures and making appropriate assumptions and calculations.

As a result, the monetary values of these pension plans have not been included in the standard databases used for research on executive compensation by

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[7] Liz Pulliam Weston, *Despite Recession, Perks for Top Executives Grow; Pay: Hidden Benefits Mushroom as Employees' Retirement Plans Shrink*, L.A. TIMES, Feb. 1, 2002, at A1 (quoting Cynthia Richson, director of corporate governance for the State of Wisconsin Investment Board).

[8] *See* Glenn Howatt, *HealthPartners Ex-CEO Reaped Board's Favors; Secret Deals Contributed to $5.5 Million Package*, STAR TRIB. (Minneapolis), Jan. 17, 2003, at 1A. According to this news story, the HealthPartners board adopted a defined-benefit pension plan for the CEO "after receiving assurances that the supplemental retirement plan wouldn't have to be reported to the public." *Id.*

financial economists. The ExecuComp dataset, for example, only includes the values of compensation components on which firms place a monetary valuation in their filings. Similarly, because the media also uses standard executive pay datasets, pension plan values have not been included in reports on CEO pay that media publications including Business Week and Fortune regularly publish.[9] To what extent has this omission distorted perceptions about the magnitude and makeup of executive pay? This is the question to which we now turn.

[9] See, e.g., Matthew Boyle, *2003 Executive Compensation Report*, FORTUNE, May 3, 2004, at 123 (examining climbing pay of Fortune 500 executives, but excluding pension values); Louis Lavelle, *Executive Pay*, BUSINESS WEEK, Apr. 19, 2004, at 106 (same).

III. THE SIGNIFICANCE OF PENSIONS

A. Sample

Our sample was generated by searching ExecuComp's extensive database for issuers with Chief Executive Officers that departed their companies during 2003 and the first five months of 2004. We drew from the most recent cases available in ExecuComp's database in order to ensure that the data was broadly representative of the pension benefits generally available to executives contemplating retirement in the near term. Within this group, we focused on the forty-one executives that left companies belonging to the S&P 500 during that period. Among this group of executives, twenty-eight, or 68.3%, were members of a company-sponsored pension plan. Thus, the incidence of pension plans in our sample is similar to some recent estimates of the prevalence of such plans among public firms in general.[10]

Our sample of twenty-eight companies and their departing CEOs is set forth in Table 1 below. The CEOs in our sample have a mean age of approximately sixty-two years old. They served on average for seven years as CEOs prior to their departure. Because the group contains only S&P 500 issuers, the mean market capitalization of the companies in our sample is rather large, at more than $21.6 billion—although the sample includes a relatively diverse collection of companies, with values ranging from just over $1 billion to more than $250 billion.

[Insert Table 1 here]

[10] Clark Consulting estimated that approximately 70% of companies used defined-benefit pension plans in 2003. *See* Clark Consulting, *Executive Benefits: A Survey of Current Trends: 2003 Results*, *at* http://www.clarkconsulting.com/knowledgecenter/articles/benefits/10thannualsurvey.doc (last accessed Mar. 14, 2005).

B. Pension Values

After identifying the sample set, we estimated the annual pension benefit to which each executive will be entitled by reviewing the issuers' proxy materials, 8-Ks, and the executives' employment agreements. These materials often disclose the executives' annual benefit, which is usually based upon their length of service and selected categories of compensation during the executive's tenure, or at least the way in which it is calculated.[11] We also adjusted the annual value of the executives' pension benefits for "grossing-up" provisions that entitle participants to additional benefits equal to the tax liability generated by pension payments.[12] Our estimates of the annual payments also included additional grants of "service credit" by the issuers' Boards of Directors of, which in several cases increased the executives' retirement benefits considerably. For example, William H. Joyce was granted 15 years' service credit when he became CEO of Hercules, Inc., at an anticipated cost of nearly $5 million.[13]

Table 2 below displays the annual pension payment of the CEOs in our data set. As the table indicates, there is substantial variance with respect to the annual benefits to which the CEOs in our sample are entitled. The mean of these annual payments is more than $1.1 million, and they ranged from $360,000 to $2.27 million.

[Insert Table 2]

After identifying each executive's annual pension benefit, we calculated the value of these income streams by estimating the price of a comparable life annuity

[11] In those cases in which the exact amount of the executive's annual benefit was not disclosed, we assumed that the benefit would be calculated on the basis of the executive's compensation in the year of service preceding his retirement. In all of these cases, we calculated the executive's annual benefit based upon the categories of compensation that the issuer's pension plan includes when calculating benefits.

[12] In those cases that required "grossing up" of annual benefits, we conservatively assumed that the retiring CEOs are subject to a marginal tax rate of 35%.

[13] *See also supra* note 6.

instrument[14] purchased at age sixty-five providing an annual payment equal to the executive's benefit.[15] In a few cases in which the company's pension plan provided benefits to the executive's spouse on a joint survivor basis, we calculated the value of the pension by pricing an annuity providing for joint survivor benefits purchased when the executive reached sixty-five.[16]

All but one member of our sample set are entitled to pension benefits at the age of sixty-five.[17] Because most of the executives in our sample will not be entitled to receive the annual benefit until they reach the age of sixty-five, we discounted the value of the pension benefit to present-value dollars over the time period between 2003 and the year the executive will attain the retirement age.[18]

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[14] For simplicity, we did not deduct some small offsets from annual benefits required in some cases in our sample, but we do not expect that these offsets will be significant. Several of the pension plans in our sample require deductions for Social Security payments to which the executives will be entitled during their retirement. Because these benefits vary considerably across cases, are difficult to estimate, and are likely to be quite small relative to annual pension payments, we do not account for them in our analysis.

[15] These calculations were in many cases performed by using an Internet mechanism for providing annuity prices, and depended in part on the executive's gender and state of residence. *See* Instant Annuity Price Calculator, *at* http://www.immediateannuities.com (last accessed Mar. 20, 2005). For simplicity, we assumed that executives would reside or retire in the state in which the issuer maintains its headquarters.

[16] We used this methodology to calculate the value of the pension benefit in every case but one. In that case, Richard Bravman, former CEO of Symbol Technologies, was awarded a 15-year stream of payments rather than a life benefit. To estimate the value of that benefit, we simply calculated the value of a 15-year annuity in the amount of Mr. Bravman's benefit at a discount rate of 5%.

[17] In most cases in our sample, the issuer's proxy materials explicitly indicated that executives would not be entitled to pension benefits until they reached the age of sixty-five. In one case, however, Motorola CEO Christopher Galvin's pension plan called for payments beginning at the age of fifty-five, or shortly after his retirement. Payments in advance of the standard retirement age were also used in the much-publicized case of Franklin Raines, which was not included in our analysis because Raines's resignation took place outside our sample timeframe. *See* Bebchuk & Fried, *supra* note 1. Of course, because these arrangements increase the number of actuarially likely payments in the pensioner's income stream, they often increase the value of the pension asset substantially.

[18] We assumed a conservative discount rate of 5% in all cases. This rate is conservative because most executives' pension expectations feature virtually no risk: the benefits are typically funded by the issuer on an ongoing basis, and in any event the bankruptcy risk of the issuers in our set is very low. In addition, we assume that the executive's benefit will not increase between his departure and age sixty-five. This is a conservative assumption because several executives in our sample continued to accrue service-time credit increasing the value

Table 2 above sets forth the actuarial values of the pension benefits of the CEOs in our sample. The CEO pension values range from $3.3 million to more than $41.3 million, with a mean value of $15.1 million.[19] The twenty-eight executives in our survey were entitled to a series of pension benefits worth, in our conservative estimation, more than $423 million.

C. Relative Significance of Pension Values

Having observed the value of pension benefits in our sample in absolute terms, we turn now to examining how significant these values are in the context of executives' overall pay. Table 3 below presents a comparison between the pension benefits we valued and other components of executive compensation.

[Insert Table 3 here]

As Table 3 indicates, the pension plans in our sample represent a significant addition to the CEOs' existing sources of compensation. The first column in Table 3 compares the executives' pensions to the base salary the executives received

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of their pensions by serving as an outside consultant to the company or as a member of the company's board of directors. For example, G. Thomas Baker of International Game Technology became Chairman of that company's board after his resignation; Richard Bravman of Symbol Technologies remained a senior advisor to that company's new CEO at the time of his retirement. Although we expect that both employees would continue to accrue service credit as a result of this service, we have not increased their annual pension benefit as a consequence of these arrangements.

[19] In one case, Joseph Magliochetti of Dana Corporation, after the executive's death his spouse chose a lump-sum payment equal to the present value of the annual benefit to which Mr. Magliochetti was entitled. To calculate the comparable annual benefit in this situation, we simply calculated the future value of the lump sum payment in this case and then computed the actuarially necessary annual payments required to finance an annuity with this value. This approach is simply the converse of the analysis we used to calculate the total actuarial value of a stream of payments in cases in which the issuer disclosed the value of each payment in the stream rather than the value of the lump sum. *See supra* text accompanying notes 14-16.

throughout their tenure as CEO.[20] On average, the executives' pensions were worth more than 2.8 times the value of the base salary the executives received throughout their tenure as CEO, with a slightly lower median multiple of 2.2. This ratio varied substantially across our sample, from 0.7 to 9.2. Because some of the departing CEOs served as executives of their companies prior to their appointment as CEO, the second column in Table 3 provides our results for the ratio between the executive's pension and the salary he received during his entire tenure at the company. Even including the executives' service before their appointment as CEO, the value of their pensions commonly exceeded the total value of their salary at the company, with a mean ratio of 1.9 and a median of 1.6.

The third and fourth columns in Table 3 compare these pension values to the non-equity compensation the executives received from the issuers in our sample. The third column indicates that the executives' pensions were on average worth 113.1% of the value of the non-equity compensation the executives received during their CEO tenure, [21] with a median value of 83.5%. Pensions ranged from between 11.2% and 344.1% of the value of the non-equity compensation the executives received their tenure as CEO. Again, even when we compared the pension values to the value of the non-equity compensation the executives received throughout their career at the firm—rather than only during their tenure as CEO—the ratios remained significant.

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[20] We calculated the executives' base salary during their service as CEO using ExecuComp's base salary data for each executive between 1992 and 2003, and using the database's "CEO" field to determine whether the executive was CEO during a particular year. These ratios therefore exclude compensation the executives received before 1992. Each executive's compensation was adjusted to 2003 dollars using the Bureau of Labor Statistics' estimate of the annual growth in the Consumer Products Index between 1992 and 2003.

[21] We calculated the executives' non-equity compensation during their tenure as CEO using ExecuComp's data for the executive's total compensation including the value of options at the date they were granted and reducing that value by the Black-Scholes value of the options at the date of issuance and the value of any restricted stock grants. All values were translated into 2003 dollars using the Consumer Products Index. We determined whether an executive was CEO in a particular year using CompuStat's "CEO" field. In one case, to correct for a reporting error in ExecuComp's database we were required to use the executive's compensation based upon the exercise value, rather than the issuance value, of equity compensation. Because exercise value was typically less than issuance value in this executive's case, this too is a conservative assumption.

The mean pension was worth 78.4% of all non-equity compensation the executives received during their careers, with a median value of 61.0%. These values ranged from 9.2% to 237.2%.

Finally, we compared the value of the executives' pensions to the total compensation—including equity—that the executives received before their retirement.[22] Table 4 below presents the results of this analysis.

[Insert Table 4 here]

As the table indicates, in our sample pension values were equal on average to 44.4% of the value of all compensation the executives received during their tenure as CEO. Even when we included compensation the executive earned while they were not the company's CEO, the mean value remained significant, at 32.9%.

We conclude, then, that existing analysis of executive compensation substantially underestimates the magnitude of executive compensation. In our sample, executives' total compensation as CEO would be increased on average by more than 44.4% if one included the value of the CEO's pension plan as part of the executive's overall compensation.

Note also that the value of the pension plans as a percentage of total compensation varied significantly within our sample. This percentage ranged from 1.6% (for Sanford Weill of Citigroup) to 139.9% (for Kevin Dunnigan of Thomas & Betts), with a median value of 35.3%.

Pension values vary considerably from case to case; for some executives, pensions are a substantial source of additional compensation, and for others pensions represent a small component of their overall pay. As a result, the exclusion of pension benefits is also likely to lead to inaccurate comparisons of compensation

[22] To calculate the CEO's total compensation, we used ExecuComp's total compensation data including the value of stock options and restricted stock at the issuance date and adjusted each value to 2003 dollars using the Consumer Price Index.

among executives, because such comparisons will not include pension amounts that may be significant in some cases but minor in others.

IV. PENSIONS AND THE LINK BETWEEN PAY AND PERFORMANCE

The value of pension benefits is largely unrelated to the performance of the firm during the executive's tenure. The annual pension amount depends—to a significant extent, and sometimes exclusively—on the base salary that the CEO received in the years preceding his or her departure. Some benefit formulas are also based on bonus compensation, but even in such cases the pension benefit is frequently based on the executive's *target* bonus rather than the actual bonus paid, decoupling the benefit from the executive's performance.

Thus, excluding the substantial compensation provided via pensions from analysis of executive pay results in a systematic underestimation of the extent to which pay is based on salary-like payments—that is, payments of salary during the executive's service as CEO and pension payments afterwards. To get a sense of the magnitude of this underestimation, we compared the composition of the executives' pay when their pension values were included in the analysis to the makeup of the executives' compensation when their pension values were excluded. The results of these comparisons are presented in Table 5 below.

[Insert Table 5 here]

As Table 5 shows, pensions greatly increase the fraction of total compensation that is paid through salary-like payments. The first column in Table 5 provides the ratio of salary paid to the executives in our sample during their tenure as CEO—the pay they received without respect to their performance—to the total compensation they received while serving as CEO. The average CEO in our sample received 16.2% of their total compensation in base salary; the sample had a slightly lower median value of 15.6%.

When one adds the value of the executives' pensions, however, the proportion of executive compensation that is paid through salary-like payments increases substantially. The second column of Table 5 shows that, on average, executives in our sample received 38.9% of their total compensation in salary or pension benefits, with a median value of 39.1%. Table 5 indicates, then, that excluding pensions leads to a substantial underestimation of the fraction of total compensation that executives got through salary-like payments.

Similarly, excluding pensions leads to overestimation of the extent to which executive pay is equity-based. The third column in Table 5 compares the non-equity-based compensation these executives received during their tenure as CEO to the total compensation they received during that period, and indicates that on average 42% of the executives' pay was not equity-based.

Including the value of the executives' pensions in this analysis, however, significantly increases the fraction of non-equity-based pay in our sample. Including pensions as an element of non-equity-based pay increases the proportion of non-equity-based compensation to total compensation, on average, from 42.0% to 57.2%. In our sample, then, excluding pensions leads to substantial overestimation of the fraction of total executive pay that is equity-based.

V. CONCLUSIONS

The evidence presented in this paper suggests that the omission of pension values from standard datasets—as well as compensation figures generally used by financial economists and the media—significantly undermines the accuracy of existing estimates of executive pay. There are three important ways in which this omission has clouded our understanding of executive compensation.

(i) *Underestimation of Total Executive Pay*: It has often been argued that existing analysis overestimates the value of executive compensation because the Black-Scholes approach to option valuation overestimates the value of options to risk-

averse, undiversified executives.[23] However, this paper suggests that, for executives who benefit from pension plans, existing estimates might *underestimate* the total value that executives obtain from their pay packages. In our sample of S&P 500 companies, the value of executives' pension plans added more than 40% to total pay during the executive's service as CEO.

(ii) *Distorted Comparisons among Executives*: Because pension values are often quite substantial, and because their size varies significantly among executives, the omission of pension values yields substantial inaccuracies in comparisons of pay among executives. Including pension values could significantly alter existing rankings of executives in terms of compensation.

Similarly, excluding pension values might have distorted the findings of research seeking to identify how executive pay is correlated with various characteristics of the firm, or its executives and directors.[24] Such distortions are particularly likely if pension values are not distributed randomly but rather are significantly correlated with various attributes of the company and its executives and directors. How pension values are related to such attributes is an important question that would be worth studying in subsequent research.

(iii) *Overestimation of the Pay-Performance Correlation*: The omission of pension values has also led to overestimation of the extent to which total executive pay is correlated with performance.

First, note that omission of pension values has led to substantial misperceptions regarding the magnitude of CEO pay that is salary-like. It is widely thought that most executive compensation is linked in some way to performance because base salary comprises a relatively small part of total executive compensation.[25] In our sample, salary comprises on average only 16% of the total

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[23] See, e.g., Brian Hall & Kevin J. Murphy, *Stock Options for Undiversified Executives* 11 (U.S.C. Marshall School of Business, Working Paper No. 01-16, 2001); Lisa K. Meulbroek, *The Efficiency of Equity-Linked Compensation: Understanding the Full Cost of Awarding Executive Stock Options*, 30 FIN. MGMT. 5, 8 (2001).

[24] For a survey of such studies, *see* BEBCHUK & FRIED, *supra* note 2 ch.6.

[25] *See, e.g.*, Adam Bryant, *How Companies Make the Boss Buy Stock*, N.Y. TIMES, Feb. 1, 1998, at A1.

compensation paid to the departing executive during his service as CEO. However, once we take into account pension values, the picture changes significantly. In our sample, when pension is included, 39% of the average executive's total compensation during and after his service as CEO was given in the form of salary-like payments, i.e., salary and pension.

It is also widely believed that executive compensation has over the past decade shifted significantly towards equity-based compensation,[26] which is regarded as more closely linked to performance than other types of compensation.[27] Once pension value is included in an analysis of the total compensation paid to executives, however, equity-based compensation no longer represents the principal component of executive pay (although it remains a substantial component of total compensation). For the executives in our sample, equity-based compensation provides on average only 43% of total compensation when pensions are included (compared with 58% of total compensation when pensions are omitted).

Our findings highlight the potential importance of adopting disclosure requirements that would compel public firms to disclose an annual estimate of the actuarial value of the pension benefits to which an executive became entitled during that year. We discuss such proposals in detail elsewhere.[28] Because the value of an executive's pension benefit pension commonly depends on the length of his tenure, the amount of his current compensation, and the amount of time that will lapse before pension payments commence, the actuarial value of an executive's pension plan is likely to increase during each year of the executive's service. Firms could be required to add a column in the summary compensation table to report, for each of the firm's highest-paid executives, the amount by which the actuarial value of the executive's retirement plan increased in that year. Making these figures accessible

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[26] *See, e.g.*, Michael C. Jensen & Kevin J. Murphy, *CEO Pay… and How to Pay for It,*.

[27] It is worth noting that, under existing practices, equity-based compensation is less tightly linked to performance than is commonly appreciated. See Bebchuk and Fried, supra note 1, chapters 11-14.

[28] *See* Lucian Arye Bebchuk & Jesse M. Fried, *Stealth Compensation via Retirement Benefits*, Berkeley Business Law Journal (2004) (describing such proposals in detail); *see also* BEBCHUK & FRIED, *supra* note 2 ch. 15.

would likely lead to the inclusion of pension values in standard datasets, media coverage of pay, and research on executive compensation. This inclusion would in turn provide researchers, the media, and investors with a more accurate picture of the absolute and relative magnitude of executives' compensation as well as the extent to which it is linked to performance.

Finally, we should stress an important reason why our findings might systematically *underestimate* the inaccuracies introduced by the current omission of retirement benefits from standard estimates of executive pay. This paper has focused on one important type of retirement benefit: defined-benefit pension plans. But executives receive other types of retirement benefits that are currently not included in the datasets used by researchers and the media to analyze executive pay. Many executives receive substantial post-retirement perks, including payments for consulting services that may well represent compensation for services rendered before their retirement. More importantly, executives may also derive large gains from deferred compensation arrangements that enable them to pass the tax costs of investment gains to their firms.[29] Because firms do not have to disclose the amounts invested by executives in such programs, it is difficult for outsiders even to estimate the gains made by executives from such plans. Examining such benefits is another important issue for future research. Without more information about benefits from deferred compensation arrangements, we would not be able to put executives' retirement benefits fully on the radar screen.

[29] *See* BEBCHUK & FRIED, *supra* note 28, at 16-22.

Table 1: Departing S&P 500 Executives With Pension Plans

Issuer Name	Market Value	Executive	Age	Date of Departure	Length of Service (Years)
Allegheny Technologies Inc	1,066,854,000	Murdy	65	9/30/2003	2.28
Ambac Financial Gp	7,414,668,000	Lassiter	60	1/27/2004	12.93
Ameren Corp	7,470,446,000	Mueller	65	12/31/2003	10.14
Anadarko Petroleum Corp	12,798,307,000	Allison, Jr.	65	1/1/2002	15.48
Bard (C.R.) Inc	4,213,625,000	Longfield	65	8/1/2003	9.30
Boeing Co	33,721,102,000	Condit	63	12/1/2003	7.70
Caterpillar Inc	28,661,824,000	Barton	65	1/31/2004	5.07
Clorox Co/De	9,243,705,000	Sullivan	65	7/1/2003	11.33
Citigroup Inc	250,402,188,000	Weill	70	10/1/2003	5.83
Coca-Cola Enterprises	9,948,707,000	Kline	64	1/1/2004	2.76
Dana Corp	2,727,122,000	Magliochetti	60	9/22/2003	4.69
Delta Air Lines Inc	1,458,535,000	Mullin	61	1/1/2004	6.48
Duke Energy Corp	18,977,189,000	Priory	57	11/1/2003	6.51
Firstenergy Corp	11,462,387,000	Burg	56	12/22/2003	4.72
Freeprt Mcmor Cop&Gld -Cl B	7,226,601,000	Moffett	65	12/1/2003	19.61
Hercules Inc	1,352,809,000	Joyce	69	11/25/2003	2.59
Intl Paper Co	20,712,932,000	Dillon	66	10/31/2003	7.69
Jefferson-Pilot Corp	7,144,436,000	Stonecipher	63	2/29/2004	11.16
MBNA Corp	31,750,148,000	Cawley	64	12/30/2003	1.18
Moodys Corp	9,009,840,000	Rutherfurd, Jr.	65	10/1/2003	3.04
Motorola Inc	33,500,770,000	Galvin	54	1/5/2004	7.11
New York Times Co -Cl A	7,118,277,000	Lewis	56	12/31/2004	7.31
Progress Energy Inc	11,091,642,000	Cavanaugh III	65	2/29/2004	7.52
Rockwell Automation	4,851,026,000	Davis, Jr.	65	2/4/2004	6.44
Symbol Technologies	3,905,069,000	Bravman	47	12/30/2003	1.43
Texas Instruments Inc	50,845,762,000	Engibous	51	5/1/2004	7.98
Thomas & Betts Corp	1,338,287,000	Dunnigan	66	1/16/2004	3.49
Waste Management Inc	17,240,904,000	Myers	63	3/1/2004	4.37
Mean Values	21,666,255,786		62		7.00
Median Values	9,126,772,500		65		6.49

Table 2: The Value of Pension Plans

Issuer Name	Executive	Annual Pension	Actuarial Value of Pension
Allegheny Technologies Inc	Murdy	818,983	10,433,234
Ambac Financial Gp	Lassiter	1,950,000	19,463,885
Ameren Corp	Mueller	360,000	4,586,104
Anadarko Petroleum Corp	Allison, Jr.	1,634,200	20,818,314
Bard (C.R.) Inc	Longfield	1,174,428	18,075,353
Boeing Co	Condit	1,419,600	16,403,208
Caterpillar Inc	Barton	1,312,500	16,720,171
Clorox Co/De	Sullivan	1,760,000	22,960,578
Citigroup Inc	Weill	1,061,226	11,838,822
Coca-Cola Enterprises	Kline	480,000	5,823,624
Dana Corp	Magliochetti	1,132,488	11,303,863
Delta Air Lines Inc	Mullin	480,000	6,751,188
Duke Energy Corp	Priory	544,552	4,695,298
Firstenergy Corp	Burg	558,055	8,663,537
Freeprt Mcmor Cop&Gld -Cl B	Moffett	1,400,000	25,234,900
Hercules Inc	Joyce	477,390	5,470,710
Intl Paper Co	Dillon	1,489,554	18,365,143
Jefferson-Pilot Corp	Stonecipher	2,272,143	26,254,146
MBNA Corp	Cawley	2,274,000	27,589,420
Moodys Corp	Rutherfurd, Jr.	950,000	12,102,270
Motorola Inc	Galvin	1,507,692	41,283,263
New York Times Co -Cl A	Lewis	750,000	6,158,841
Progress Energy Inc	Cavanaugh III	1,045,168	13,314,530
Rockwell Automation	Davis, Jr.	1,165,879	15,002,428
Symbol Technologies	Bravman	600,000	3,302,733
Texas Instruments Inc	Engibous	742,306	4,776,122
Thomas & Betts Corp	Dunnigan	1,807,500	26,185,101
Waste Management Inc	Myers	923,077	19,808,226
Mean Values		1,146,098	15,120,893
Median Values		1,096,857	14,158,479

Table 3: Significance Relative to Non-Equity Compensation

Issuer Name	Executive	Pension/CEO Career Salary	Pension/ Career Salary	Pension/CEO Career Non-Equity	Pension/Career Non-Equity
Allegheny Technologies Inc	Murdy	650.4%	256.2%	166.9%	66.0%
Ambac Financial Gp	Lassiter	381.4%	307.9%	146.0%	134.5%
Ameren Corp	Mueller	73.5%	67.6%	47.0%	43.8%
Anadarko Petroleum Corp	Allison, Jr.	185.1%	154.8%	46.2%	42.2%
Bard (C.R.) Inc	Longfield	228.3%	201.2%	53.5%	50.4%
Boeing Co	Condit	158.9%	129.8%	49.5%	43.4%
Caterpillar Inc	Barton	297.5%	184.7%	139.3%	86.4%
Clorox Co/De	Sullivan	231.2%	231.2%	76.0%	76.0%
Citigroup Inc	Weill	115.3%	86.0%	11.2%	9.2%
Coca-Cola Enterprises	Kline	214.4%	122.7%	101.4%	61.4%
Dana Corp	Magliochetti	260.1%	144.5%	171.2%	82.5%
Delta Air Lines Inc	Mullin	144.1%	144.1%	48.1%	48.1%
Duke Energy Corp	Priory	65.0%	49.8%	21.6%	18.7%
Firstenergy Corp	Burg	194.5%	127.2%	108.3%	60.5%
Freeprt Mcmor Cop&Gld -Cl B	Moffett	182.9%	182.9%	41.0%	41.0%
Hercules Inc	Joyce	208.9%	208.9%	78.8%	78.8%
Intl Paper Co	Dillon	208.8%	168.6%	53.6%	47.6%
Jefferson-Pilot Corp	Stonecipher	227.7%	221.6%	88.3%	88.3%
MBNA Corp	Cawley	919.6%	119.1%	344.1%	42.6%
Moodys Corp	Rutherfurd, Jr.	359.4%	323.5%	107.1%	107.1%
Motorola Inc	Galvin	446.0%	311.4%	229.9%	132.3%
New York Times Co -Cl A	Lewis	113.6%	95.1%	49.1%	41.2%
Progress Energy Inc	Cavanaugh III	198.2%	147.0%	64.7%	53.4%
Rockwell Automation	Davis, Jr.	273.8%	167.3%	131.9%	73.3%
Symbol Technologies	Bravman	440.4%	162.2%	250.7%	172.6%
Texas Instruments Inc	Engibous	74.9%	63.7%	27.3%	23.3%
Thomas & Betts Corp	Dunnigan	515.5%	416.9%	255.3%	237.2%
Waste Management Inc	Myers	529.3%	510.7%	260.0%	233.2%
Mean Values		282.1%	189.5%	113.1%	78.4%
Median Values		221.0%	164.8%	83.5%	61.0%

Table 4: Significance Relative to Total Compensation

Issuer Name	Executive	Pension/CEO Career Total Comp.	Pension/Career Total Comp.
Allegheny Technologies Inc	Murdy	131.3%	51.8%
Ambac Financial Gp	Lassiter	44.4%	40.6%
Ameren Corp	Mueller	34.5%	32.8%
Anadarko Petroleum Corp	Allison, Jr.	23.9%	22.6%
Bard (C.R.) Inc	Longfield	34.7%	32.8%
Boeing Co	Condit	35.8%	30.3%
Caterpillar Inc	Barton	59.3%	41.8%
Clorox Co/De	Sullivan	26.2%	26.2%
Citigroup Inc	Weill	1.6%	1.1%
Coca-Cola Enterprises	Kline	25.7%	17.1%
Dana Corp	Magliochetti	65.8%	40.1%
Delta Air Lines Inc	Mullin	9.4%	9.4%
Duke Energy Corp	Priory	11.0%	10.2%
Firstenergy Corp	Burg	45.2%	37.8%
Freeprt Mcmor Cop&Gld -Cl B	Moffett	18.0%	18.0%
Hercules Inc	Joyce	28.5%	28.5%
Intl Paper Co	Dillon	28.4%	24.7%
Jefferson-Pilot Corp	Stonecipher	44.1%	44.1%
MBNA Corp	Cawley	59.1%	9.9%
Moodys Corp	Rutherfurd, Jr.	57.8%	57.8%
Motorola Inc	Galvin	47.4%	38.1%
New York Times Co-Cl A	Lewis	20.7%	18.1%
Progress Energy Inc	Cavanaugh III	31.4%	28.3%
Rockwell Automation	Davis, Jr.	45.8%	31.1%
Symbol Technologies	Bravman	88.8%	42.5%
Texas Instruments Inc	Engibous	4.0%	3.9%
Thomas & Betts Corp	Dunnigan	139.9%	114.7%
Waste Management Inc	Myers	81.2%	66.5%
Mean Values		44.4%	32.9%
Median Values		35.3%	30.7%

Table 5: Effect on Composition of Total Compensation

Issuer Name	Executive	CEO Salary/ Total CEO Comp.	CEO Salary and Pension/ Total CEO Comp.	CEO Non-Equity Comp./ Total CEO Comp.	CEO Non-Equity Comp. and Pension/CEO Comp.
Allegheny Technologies Inc	Murdy	20.2%	65.5%	78.7%	90.8%
Ambac Financial Gp	Lassiter	11.6%	38.8%	30.4%	51.8%
Ameren Corp	Mueller	47.0%	60.6%	73.4%	80.2%
Anadarko Petroleum Corp	Allison, Jr.	12.9%	29.7%	51.6%	61.0%
Bard (C.R.) Inc	Longfield	15.2%	37.1%	64.9%	73.9%
Boeing Co	Condit	22.5%	43.0%	72.4%	79.7%
Caterpillar Inc	Barton	19.9%	49.7%	42.6%	63.9%
Clorox Co/De	Sullivan	11.3%	29.8%	34.5%	48.1%
Citigroup Inc	Weill	1.4%	3.0%	14.5%	15.8%
Coca-Cola Enterprises	Kline	12.0%	30.0%	25.3%	40.6%
Dana Corp	Magliochetti	25.3%	55.0%	38.4%	62.9%
Delta Air Lines Inc	Mullin	6.5%	14.5%	19.4%	26.3%
Duke Energy Corp	Priory	17.0%	25.2%	51.1%	56.0%
Firstenergy Corp	Burg	23.3%	47.2%	41.8%	59.9%
Freeprt Mcmor Cop&Gld -Cl B	Moffett	9.8%	23.6%	43.9%	52.4%
Hercules Inc	Joyce	13.6%	32.8%	36.1%	50.3%
Intl Paper Co	Dillon	13.6%	32.7%	53.1%	63.5%
Jefferson-Pilot Corp	Stonecipher	19.4%	44.0%	49.9%	65.3%
MBNA Corp	Cawley	6.4%	41.2%	17.2%	47.9%
Moodys Corp	Rutherfurd, Jr.	16.1%	46.8%	53.9%	70.8%
Motorola Inc	Galvin	10.6%	39.4%	20.6%	46.1%
New York Times Co -Cl A	Lewis	18.3%	32.3%	42.3%	52.2%
Progress Energy Inc	Cavanaugh III	15.8%	36.0%	48.6%	60.8%
Rockwell Automation	Davis, Jr.	16.7%	42.9%	34.7%	55.2%
Symbol Technologies	Bravman	20.2%	57.7%	35.4%	65.8%
Texas Instruments Inc	Engibous	5.4%	9.0%	14.7%	18.0%
Thomas & Betts Corp	Dunnigan	27.1%	69.6%	54.8%	81.2%
Waste Management Inc	Myers	15.3%	53.3%	31.2%	62.1%
Mean Values		16.2%	38.9%	42.0%	57.2%
Median Values		15.6%	39.1%	42.0%	60.4%