

CEO PAY

MANAGERIAL CONTROL AND EXECUTIVE COMPENSATION

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## Abstract

This article analyzes the trajectory and causes of the explosion of American corporate CEOs' compensation relative to that of average workers between 1958 and 2017. The historical data are presented and analyzed in more detail for 2016 and 2017. Important biases in alternative data sets are explored. Alternative hypotheses for the dramatic changes over time are proposed but not resolved. Among other things, the paper investigates the role of tax and other government policy changes and regulation-induced innovations in the organization of executive pay determination..

# MANAGERIAL CONTROL AND EXECUTIVE COMPENSATION

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## I. Introduction

Since at least the appearance of an influential book by Adolf Berle and Gardiner Means (1932, Chapter VI), it has been recognized that in the modern corporation, managerial control of decision-making, ranging from day-to-day issues to long-term strategic investments, has been separated from the principal locus of ownership by stockholders. Indeed, the intellectual history goes much farther back. Characterizing joint stock companies such as the British South Sea Company that were beginning to emerge in the 18<sup>th</sup> Century, Adam Smith (1790, p. 700) wrote:

The directors of such companies, ... being the managers rather of other people's money than of their own, it cannot well be expected, that they should watch over it with the same anxious vigilance with which the partners in a private co-partnery frequently watch over their own. ...

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<sup>1</sup> The author is indebted to Wilson Powell for quantitative research assistance and to reference librarians at Harvard Business School and Harvard Law School for help in finding difficult sources.

Negligence and profusion, therefore, must always prevail, more or less, in the management of the affairs of such a company.

Early commentators on the “separation of ownership and control” (treated in some recent literature under a principal-agent rubric) speculated widely on how the behavior of managers with only a tiny ownership share in the companies they oversaw differed from the choices that would be made by knowledgeable owner-managers.<sup>2</sup> One possibility is that “hired” managers strive less vigorously to run a tight ship – i.e., to allow “managerial slack” – and to avoid risks that would jeopardize their individual positions. Or recognizing that power and prestige are more closely correlated with sales and assets than with profits, they might seek growth opportunities that yield less than a market rate of return. Or in their attempt to be good citizens, they may confer upon company employees compensation and fringe benefits that exceed those consistent with profit maximization. In this paper I focus on a narrower set of benefits: managerial salaries (i.e., pay to themselves) that exceed what is required to enlist their services and spur them to maximum effort.

My interest in this subject comes from a sense of cognitive dissonance. Six decades ago, I was one of roughly 1200 MBA students at the Harvard Business

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<sup>2</sup> For a survey of the literature, see Scherer and Ross (1990), pp. 44-46.

School. The common folk wisdom among my fellow students, supported by analytic work whose province was left unspecified, was that in the typical leading American corporation, the compensation of top managers – a position to which many of us aspired – was on average thirteen times the pay of ordinary company employees. Since then, I have read with interest reports that top manager salaries were at first one hundred times, and more recently something on the order of three hundred times, the pay of average corporate workers. Were these reports true? And if so, what changed to allow such strikingly rising inequality of pay for corporate work?

## II. The Evidence

Figure 1 (p.31) summarizes the results of research by Lawrence Mishel and Jessica Schneider (2017) of the U.S. Economic Policy Institute. It combines careful methodology with the longitudinal view needed to interpret how compensation tendencies have changed. The study focused on diverse years, selected in part for data availability and emphasizing cyclical peaks, for samples of the 350 largest publicly-traded corporations, ranked by sales, in the United States. Using an accumulation of company annual reports, an attempt was made to identify compensation of each company's chief executive officer in two ways: compensation including the estimated value of stock options granted in the relevant

year, and an alternative based on the value of options realized (i.e., granted mainly in earlier years).<sup>3</sup> CEO compensation was then related to annual average compensation data for private-sector production/nonsupervisory workers, derived from U.S. Bureau of Labor Statistics surveys. The ratio of sample average CEO pay, including the value of options granted, to average worker compensation was then calculated and is shown in Figure 1 (p.31).

The data reveal a strongly rising trend from 1965, the first year with data available, to 2000, after which a decline and then relative stabilization in the range of roughly 218 / 1 emerges. The 1965 ratio estimate of 18.4 / 1, the earliest systematic estimate shown, is roughly consistent with the 13 / 1 estimate from folk wisdom at the Harvard Business School in the late 1950s.

Alternative estimates in the published literature reveal a wide range of values, depending inter alia upon the sampling methodology used. For one attempt to corroborate the newer estimates, I used a compendium by the Equilar (compensation consulting) firm of the compensation received by 200 chief executives of public companies with at least \$1 billion in annual revenues,

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<sup>3</sup> According to a representative of Equilar, a consulting firm specializing in executive compensation analysis, most company reports value stock options granted using some variant of the Black-Scholes method.

published in the New York Times.<sup>4</sup> The mean compensation in 2016 of the 200 executives listed, valuing stock options at the time of grant, was reported to be \$19.67 million per CEO; compensation for median executives in the sample was \$16.96 million. For a benchmark on the pay of non-executive workers, I used aggregates on the average hourly earnings of production and nonsupervisory employees, i.e., of \$21.52 per hour in June 2016, from Table B-15 of the January 2017 Economic Report of the (U.S.) President. Assuming, contrary to the 33.6 hour average reported, a 40-hour week and employment (including vacation at pay) 52 weeks of the year, this implies an estimate (on the generous side) of annual employee income at \$44,762. Dividing the Equilar sample median executive's total income estimate of \$16.96 million by my (generous) mean employee estimate, this implies an executive compensation / ordinary employee income ratio of 379 / 1 – i.e., larger than the 218/1 ratio implied in Figure 1 (p.31) and <sup>5</sup>closer to the 300/1 figure often presented without documentation in newspapers and

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4.. Matthew Goldenstein, “Executive Pay: Race to the Top,” New York Times, May 28, 2017, Sunday Business section. Equilar begin providing the survey to the Times in the mid-2000s. For 2017 data, see David Gellen, “Millions at Top, a Pittance Below,” New York Times, May 27, 2018, Sunday Business section.

magazines.

The Equilar survey permits among other things a breakdown of top executive compensation, company-by-company, among quite different categories of compensation. The 200-company means for the 2016 data used above and also for the 2017 reporting year were as follows:

	<u>2016 Sample</u>	<u>2017 Sample</u>
Base salary	\$1,382,822	\$1,350,217
Cash bonus	4,195,680	4,420,349
Perquisites etc.	480,247	676,271
Value of stock awards	10,306,530	11,532,609
Stock option awards	<u>3,308,849</u>	<u>3,844,008</u>
Total average compensation	\$19,674,127	\$21,823,453

Clearly, non-cash compensation dominates the CEO pay picture. There is reason to believe that stock option awards were more extensive during the first decade of the 21<sup>st</sup> century than in 2016 and 2017. According to a leading compensation consulting firm (Pay Governance, 2017, pp. 143-144), corporate America began using stock options extensively in executive pay packages in the 1950s, with their use peaking during the late 1990s bull stock market. But since then, emphasis has shifted to alternative long-term performance incentives, and in 2016, roughly

consistent with the estimates tabulated above, the value of stock options was said to amount to only 18 percent of total executive long-term compensation. See also Murphy (2012), pp. 69-73, who reports that in 1992, nearly half of CEO pay came in the form of stock options, rising from about 20 percent in 1980.<sup>6</sup>

Such estimates are highly sensitive to several compilation variables, including the number and selection of top companies for which executive compensation is measured. A serious bias in the Equilar data tabulated above is that the annual survey focuses on the 200 highest-paid CEOs among U.S. public corporations with sales of \$1 billion or more (from a potential universe of more than a thousand) and which had filed proxy statements by the end of April in the reporting year.

Obviously, this biases the compensation averages upward.

In a study adjusting work force compensation for likely skill levels and executive compensation for company performance variables, Ethan Rouen (2018) found for his much larger sample of 931 large corporations an unadjusted CEO/average employee compensation ratio of 138/1. The lower ratio is undoubtedly attributable to his larger and less-biased company sample size than that tapped by Equilar (200 best-paid CEOs). Or at the opposite extreme, American Enterprise Institute economist Mark J. Perry (2016) finds an average CEO-to-average worker pay ratio

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<sup>6</sup>See also Hall and Murphy (2003), pp. 51-52.

of 4.6 by taking as the numerator of the calculation data for 20,620 “chief executives” tallied by Bureau of Labor Statistics reports. But most of these 20,620 “chief executives” are likely to have led relatively small enterprises not experiencing the gap between ownership interests and managerial control emphasized in 1932 by Berle and Means.

Another significant problem with such CEO/average worker pay ratios is that the compensation of employees is typically skew-distributed, with the high salaries of a relatively few top employees exerting a disproportionate upward effect on overall company means. Focusing on *median* employee pay rather than mean pay might present a more balanced picture of the degree of inequality. However, ascertaining median employee pay for statistical purposes has been difficult, at least historically. In 2010 the U.S. Dodd-Frank Act, which, with implementation guidelines issued in 2015 by the Securities and Exchange Commission, attempted to remedy the data conundrum, required that publicly listed companies begin disclosing in annual reports beginning for their 2017 fiscal years the compensation of their median employee, excluding the CEO, and the ratio of chief executive officer compensation to median employee compensation. The data became available for the Equilar 2017 survey. For the 200-company (biased) Equilar sample, the mean CEO/employee compensation ratio was 495/1; the median ratio

was 275/1.

Here too, one must be wary of biases attributable both to sample selection and skewness. The S.E.C. reporting guidelines require that median employee compensation be disclosed for all employees, both domestic and in overseas subsidiaries, and for all job categories, managerial, technical, and routine. Some companies have extensive overseas operations taking advantage of low local wages, and others even domestically exhibit sharp differences between wage levels – e.g., with unusually low wages in companies with extensive retail operations emphasizing low-skilled staff and unusually high wages in biotechnology and other high-technology companies retaining a preponderance of highly-skilled scientists and engineers (e.g., the numerous small biotech firms based in Cambridge, MA). In an exploration of these variables, Kay and Martin (2018) studied the new compensation ratio data disclosed for 2017 by 389 companies included in the Standard & Poors 500-corporation compilation. They found that for their full sample, the median CEO pay level was 173 to one. However, the ratios varied widely: for the top 10 percent of companies, the CEO/all–employee ratio was 747/1; for the bottom 10 percent, 55/1. Median employee pay was found to be a more powerful driver of that ratio than variations in CEO pay.

Even when these complications are taken into account, it seems clear that

there has been a substantial increase in the degree of inequality between the pay of top corporate executives and that of the workers under their span of control.

Although our focus here has been on chief executive officers, high pay for CEOs undoubtedly spreads through at least corporate executive suites, if not to a wider managerial cohort, aggravating the overall increase in the inequality of U.S.

income distribution. This conclusion was generalized in the important book by Thomas Piketty, *Capital in the Twenty-First Century* (2014), pp. 302-303:

Recent research ... allows me to state that the vast majority (60 to 70 percent) of the income hierarchy in 2000-2010 consists of top managers. By comparison, athletes, actors, and artists of all kinds make up less than 5 percent of this group. In this sense, the new US inequality has much more to do with the advent of “supermanagers” than with that of “superstars.”

Another source (Pay Governance, 2017, p. 27) is more skeptical, suggesting that public company executives among the top 0.1 percent of U.S. taxpayers by income comprised only 20 percent of the top taxpayer cohort (numbering approximately 150,000) in 2005, down from 28 percent in 1993. Private company executives in the same elite 0.1 percent – that is, individuals less likely to be subject to the Berle and Means separation of ownership and control hypothesis – accounted for 21 percent. Finance professionals were said to occupy 18 percent of that top cohort.

### III. Market Forces vs. Managerial Power

These statistics suggest a broader question: Is the pronounced relative rise in reported chief executive compensation the result of market forces – e.g., because of tougher competition for talent – or are top executives exercising self-aggrandizing power (in other words, rent-seeking) in the sense implied *inter alia* by Berle and Means? The private-public comparison in the preceding paragraph suggests that corporate managers' rising pay may simply be the result of vigorous competition for a limited supply of top talent, in parallel with the high compensation realized by acclaimed movie stars, sports heroes, leading attorneys, and similar persons of extraordinary ability. Skepticism is suggested by my personal experience as a one-time MBA student. In 1958, when top managers were paid a much lower multiple of American corporate employee averages, the number of new masters' degrees in business subjects, including accounting as well as standard MBAs, was 4,041. And to repeat, many of my MBA classmates were eager eventually to win CEO positions in Fortune 500 companies. See Scherer (2006, p. 336), drawing upon U.S. *Statistical Abstract* data. By 2000, in contrast, the number of business-specialty masters' degrees rose to 112,258 – a growth rate

of 7.92 percent per year, almost surely exceeding the growth in the number of top public corporation CEO positions. Can such rapidly rising supply be reconciled with more slowly growing demand? Or has the marginal product of superior management risen sharply? A puzzle is posed that cannot be resolved here.

It is also possible that the increase in CEO pay differentials is explained by superior performance interacting with compensation schemes that more assiduously reward such performance. Or alternatively but less plausibly, high CEO salaries might motivate rank-and-file personnel more strongly in their struggle to achieve a top management slot. Several quantitative analyses have addressed the relationship between top executive compensation and the economic performance of the corporations they lead. In an early study, Jensen and Murphy (1990-2, p. 261) found the correlation weak. On average, a \$1,000 change in the value of company shareholder equity was linked to a change of roughly two cents in current- and next-year salary plus cash bonus and 30 cents in the present value of the CEO's expected compensation-linked wealth. Or, taking into account in addition the probability-weighted risk of outright future dismissal, a \$1,000 shareholder wealth loss led on average to a 5 cent income-related wealth loss for CEOs of large firms and \$2.25 for small firms. Larger links, of \$3.25 for a \$1,000 shareholder wealth change, were found to stem from an average CEO's existing

holdings of company common stock, undergirding the authors' suggestion (1990-1, pp. 139-141) that boards of directors require CEOs to become substantial owners of their firms' common stock. Summarizing another quantitative analysis, compensation consultant Graef Crystal testified in 1992 that on average over a five-year period, changes in total company shareholder returns explained only about 0.8 percent of 200 CEOs' total compensation, including bonuses and stock options. U.S. Senate (1992). The relationship was statistically insignificant.

In a more recent and complex analysis, Ethan Rouen (2018) found for 931 U.S. corporations that variations in company performance were positively correlated with differences in CEO pay that might have been linked to a battery of plausible pay-determining variables – i.e., that positive incentive mechanisms were working. However, a negative relationship emerged for pay disparities without the performance and industry condition controls analyzed by Rouen. By far the strongest variable explaining CEO compensation was the value of company assets, with a t-ratio of 64.9. CEO pay was positively related to company profit returns as a percent of assets ( $t = 4.66$ ), CEO tenure in office ( $t = 6.03$ ), whether the CEO was recruited from outside the firm ( $t = 2.90$ ) (which could in a competitive talent market require higher compensation), and the variability of the company's return on assets ( $t = 5.14$ ). The last of these relationships is presumably explained by the

fact that greater profit variability increases the value of stock options under the Black-Scholes (1973) option pricing model, all else equal. One implication is that the size of a CEO's employer is far more important to compensation than diverse performance-linked variables. One possible market-based rationalization is that the challenges facing CEOs of large corporations are more formidable than those in smaller entities.

An alternative reading of the published evidence is that CEO compensation results more from a rent-seeking process – i.e., taking privileged advantage of companies' ability to pay substantial salaries – than from a response to competitive market incentives and as a means for rewarding superior performance. See e.g. the survey by Murphy (2012, pp. 138-139). To add perspective on this hypothesis, the Equifax data for 2016 were tapped.<sup>7</sup> Among the 200 chief executives surveyed by Equifax, 147 could be linked to those included among the Fortune 500 corporations (Fortune , June 15, 2017) for the 2016 reporting year. Among the 134 of those 147 whose employers reported positive profits for 2016, average total executive compensation was 1.79 percent of profits, with a median of 0.79 percent and a maximum of 31.9 percent (the latter for XPO Logistics)<sup>8</sup>. Thus,

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<sup>7</sup>New York Times, May 28, 2017, pp. 6-7.

<sup>8</sup>The minimum percentages (0.09 percent) were, surprisingly, for two banks: Bank of

compensation of the top executive alone comprised a relatively modest fraction of the average large corporation's profits, which provides a minimum estimate (not counting income tax and waste) of corporations' rent-paying potential.

#### IV. Forces Leading to the Change in Compensation Patterns

Two strands of public debate converged to affect the executive compensation changes observed in this paper.

On one hand, following inter alia the writing of Berle and Means, it was recognized that corporate managers had substantial discretion among the goals they pursued. Even in business-oriented schools and other organizations, some argued that managers should exercise "corporate responsibility," i.e., attempting to serve their customers well, among other things, through reasonable prices and R&D policies, and providing fair compensation to their employees. An influential exponent of this view was Wallace Donham, dean of the Harvard Business School between 1919-42. He asserted inter alia that "The social responsibility of the business man ... is inescapable." McDonald (2017, p. 59). One of my most enduring memories from HBS was of Professor Georges Doriot, whose second-year course in "Manufacturing" was one of the most heavily enrolled options,

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America and Citigroup. Compare Scherer (2016), p. 290. Biotech superstar Gilead Sciences was third-lowest at 0.10 percent.

telling us in 1957-58 that every evening, we should stand before the mirror and ask ourselves, “What have you done today for the benefit of society?” In 1981, the U.S. Business Roundtable issued a statement urging that the business corporation “rises from above the bottom line to consider the impact of its action on all, from shareholders to the society at large.” Clifford (2017, p. 60).

Against this view Milton Friedman fired a powerful shot in a 1970 New York Times Magazine article subtitled, “The Social Responsibility of Business Is To Increase Its Profits,” arguing that corporate managers’ prime task was to maximize shareholder wealth. Building inter alia upon pioneering work published with William Meckling (1976), Michael Jensen joined the faculty of the Harvard Business School and created a new course that emphasized the agency problems of corporate management and advocating shareholder value maximization. See McDonald (2017), Chapter 42. Jensen and his co-authors (e.g., Jensen and Murphy, 1990-1 and 2) argued in a duet of influential articles that corporate executives should be motivated more strongly toward profit maximization by requiring increased common stock ownership and the conferring of performance-based pay in the form of explicit incentive schemes and stock options.

It is difficult to disentangle cause and effect, but incentive-based pay did increase in the period following World War II along with a general increase in

CEO compensation. A governmental intervention responding to these trends may paradoxically have amplified them. In 1992, a U.S. Senate subcommittee convened hearings on executive compensation. In his opening remarks, chairman David Boren stated inter alia:<sup>9</sup>

Ten years ago, the [median] CEO made 35 times more than the average worker did. Today that ratio has jumped to approximately 100 times....The [tax] law does not currently define what is reasonable compensation. This proposal ... would consider all compensation over \$1 million to be unreasonable.

After extensive testimony and analysis, the subcommittee and then narrowly-divided Congressional majorities added in 1993 a new Section 162(m) to the U.S. tax law.<sup>10</sup> Instead of outlawing executive compensation above \$1 million, it made compensation paid to the CEO and other highest-paid corporate executives deductible by the corporation against federal income taxes only if the compensation was part of a performance incentive scheme, requiring in addition that the performance arrangements be approved by an independent committee of

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<sup>9</sup>U.S. Senate (1992), pp. 1-3.

<sup>10</sup>The incentive requirements were eliminated as part of the major corporate income tax law revision enacted in 2017, effective in 2018. For speculation on the effects of the change, see

the corporate board of directors, the so-called compensation committee, and that the terms of the compensation scheme be approved at least every five years by the majority of company shareholders (later called “say for pay.”) Without tax deductibility, the impact of above-\$1 million non-incentivized compensation would have come as a full decrease in a company’s reported after-tax profits, rather than being shared with Uncle Sam.

After enactment of Section 162(m), the ratio of CEO compensation to average worker pay soared, as Figure 1 (p.31) shows, and most of the increase seen in the 2016 tabular breakdown from Equifax reports, involved compensation other than “base salary.” Whether one can link causation to the 1993 tax law changes remains debated. Bebchuk and Fried (2004, pp. 72-73) argue that corporate executives took advantage of the Section 162(m) enthusiasm, using their influence over directors “to obtain substantial additional options without having to bear a corresponding downward adjustment in compensation.” This author concurs, although a more benign inference is favored by Rose and Wolfram (2002). What remains clear is that dramatic increases in the CEO / worker pay ratio occurred in the 1990s, mitigated in the first decades of the 21<sup>st</sup> century by stock price slumps, one beginning in 2000 and one following the 2008 financial-market crisis, which in

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Lerner and Sinkular (2018).

turn affected the value of both stock options and outright stock grants. The availability of better data on CEO/ median worker pay ratios should support analyses (not attempted here) providing superior insight into the chain of causation.

## V. How Top Managers Influence the Pay System

An expectation accompanying the 1993 U.S. tax reform was that, by penalizing pay without performance incentives and delegating to compensation committees (already in existence on many corporate boards) the power to set incentive targets and formulas, tendencies toward excessive compensation without appropriate effort would be severely lessened. For several reasons, this view proved to be optimistic.<sup>11</sup>

For one, passage in 1993 of Internal Revenue Code Section 162(m) strengthened the role of corporate board compensation committees in setting top management compensation. Companies that lacked such committees established them. But initiative in making board appointments is typically exercised by the chief executive officer. It is only human nature for the CEO to pick board members, and to designate compensation committee members, who are in general

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<sup>11</sup>For an early book-length analysis of the problems, see Bebchuk and Fried (2004). See also Clifford (2017).

friendly to top management and do not rock the boat. See Mace (1971, pp. 43-71 and 94-101) and Scherer and Ross (1990, p. 43). And board members have a reciprocal incentive to be cooperative. In 2015, the average compensation (cash plus stock grants) for a Standard & Poors 500 corporation board member was \$260,000 – a definite attraction to serving. On average, being a member of the compensation committee added a retainer of \$10,000. Pay Governance p. 158.

One function of compensation committee members is to establish in advance performance incentive goals (such as a target accounting return on investment, or a rate of sales growth, or the amount of market share growth in key markets), achievement and over-achievement of which trigger cash or stock bonuses. In setting such goals, board members are necessarily reliant upon top managers to determine what is desirable and attainable. Needless to say, good CEO - board member relationships bias this goal-setting process in favor of management.

Another widespread mechanism is for the compensation committee to identify (to be sure, with management assistance, and often with the advice of outside compensation consultants) to link the amount of management bonuses to how well the subject company has performed (e.g., in return on stockholders' equity) relative to peer companies. Both the selection of peers and the analysis of subject company performance relative to peers are crucial here. Two biases

intrude. First, the peer group may include firms with known inferior performance, which is easily surpassed. Kevin Murphy (1995, p. 736) found that, because they chose peer groups strategically, “two- thirds of the largest 1000 corporations reported beating the performance of their industry peers over the last five fiscal years.” Second, when peer managers’ compensation is targeted, there is a tendency for the subject company’s compensation committee to view its own managers as at least as deserving as the peer group and set their pay “at or above the fiftieth percentile of the peer group.” Bebchuk and Fried (2004, p. 71). This practice leads to what is known as the Lake Wobegon effect, after Garrison Keillor’s mythical village where “all of the kids are above average.”<sup>12</sup> If every manager receives pay on average exceeding the average of a more or less representative industry peer group, industry averages will rise systematically! This tendency may help explain the rise over time in CEO/worker pay ratios.

Company shareholders do become peripherally involved in management pay issues under so-called “say on pay” rules applicable in many countries, including the United States. But they appear to exert little control on pay levels. When management compensation recommendations are included for stockholder votes in

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<sup>12</sup>Although the metaphor is obvious, Bebchuk and Fried (2004, p. 71) attribute it to a former Harvard Business School dean , (economist) Kim Clark.

proxy queries, they are apparently approved most of the time – indeed, in 98 percent of the cases, according to a tabulation of 13,758 Russell 3000 companies over six years reported by Pay Governance (2017, p. 32).

It is also possible that corporate managers “game” their companies’ actual conduct to take advantage of incentives embodied in compensation formulae. For example, when bonuses are known to be linked to the improvement of earnings from a base year, managers may choose to incur one-time costs that reduce reported earnings in the base year so that their pay is related to the earnings improvement in subsequent years. Or when it is expected that stock options will be a significant component of compensation, managers may increase financial leverage (i.e. the ratio of debt to equity) or spread costs over multi-year periods in a way that amplifies earnings fluctuations, expecting that fluctuating earnings are likely to induce larger variations in corporate stock values, and that (under the Black-Scholes model) greater stock price variability increases the value of the options (which will be exercised at a time of relatively high prices). Shue and Townsend (2017) found that a 10 percent increase in the CEO’s option award was associated with a 2.8 to 4.2 percent rise in the company’s stock price volatility. Or, for a more benign explanation, managers may have been simply lucky to be able to gain advantage through stock and stock option grants, given a general (but

cyclical) rise in stock prices.

## VI. Conclusion

It seems clear that top managers' salaries during the past half century have increased at a rate vastly exceeding the rate at which the pay of average American workers has risen. Economists tend to shun value judgments on such matters, but most, I suspect, find this aggravation of income inequality problematic. The cause of the changes appears to lie in the separation of ownership and control identified long ago by Berle and Means and the tendency for managers to manipulate recently-evolving pay determination institutions to their individual benefit. The U.S. Congress tried to implement a remedy in the tax law revision of 1993, but failed. It is possible the situation will self-correct, but this seems unlikely.

Attention, as Linda Loman exclaimed in Arthur Miller's classic drama, Death of a Salesman, must be paid.

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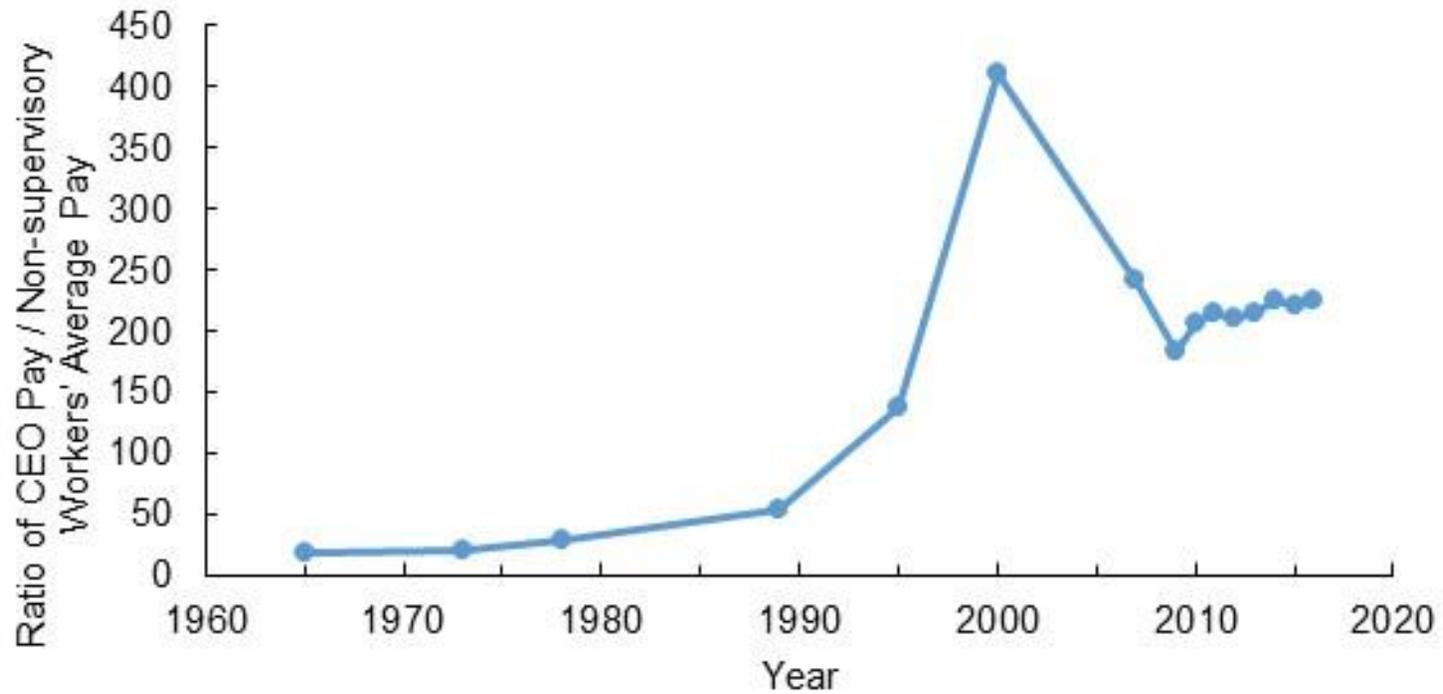
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Figure 1  
Trends in CEO/Worker Compensation: 1965–2016



Source: Economic Policy Institute, 2017