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Public Interest Comment¹ on

The Securities and Exchange Commission's Proposed Rule:

Pay Ratio Disclosure

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The George Washington University Regulatory Studies Center strives to improve regulatory policy through research, education, and outreach. As part of its mission, the Center conducts careful and independent analyses to assess rulemaking proposals from the perspective of the public interest. This comment on the Securities and Exchange Commission's proposed rule requiring disclosure of CEO-employee pay ratios does not represent the views of any particular affected party or special interest, but is designed to evaluate the effect of the Commission's proposal on overall consumer welfare.

Introduction and Summary

The Securities and Exchange Commission ("SEC") is considering requiring companies to disclose a new pay ratio in their financial statements: the ratio of CEO compensation to the median compensation of all its employees. The Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act") required this disclosure, apparently to expose wage inequality within corporate America, and thereby constrain the pay of corporate executives. However, the proposed rule has little economic benefit. The reason: the employees of a corporation, including the CEO, operate in different labor markets. Compensation is determined

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by comparing an employee's productivity against his opportunities in his immediate labor market, not by comparing employee compensation against other employees engaged in vastly different functions within the organization. Because the premise of the SEC rule reflects a misunderstanding of the labor market environment in which wages are set, it is likely to impose excessive costs on firms, their employees, and their customers, with little foreseeable benefit. The costs of the rule are even larger for firms with low-wage workforces and those that operate in global markets.

Statutory Authority

The SEC derives its statutory authority for promulgating this proposed rule from Section 953(b) of the Dodd-Frank Act, which explicitly requires that the SEC to amend section 229.402 of title 17 of the Code of Federal Regulations to include disclosure of three types of pay information: (a) the median of the annual total compensation of all employees of the issuer (excepting the CEO or equivalent position); (b) the annual total compensation of the CEO or any equivalent position of the issuer; (c) and the "pay ratio" which equals (a)/(b).³ The definition of total compensation for this section refers to the dollar value of total compensation for the covered year and includes salary, bonus, stock awards, option awards, non-equity compensation, change in pension value, nonqualified deferred compensation earnings, and all other forms of compensation.⁴

To fulfill its statutory mandate to create these additional disclosure requirements, the SEC proposes to amend Item 402 in Regulation S-K, which currently governs the disclosure rules with regards to executive compensation. According to Section 953(b), each issuer will have to disclose the previously mentioned pay information in any of its filings that are described in 17 CFR 229.10(a), which includes various filings under the Securities Act of 1933, and the Securities and Exchange Act of 1934.⁵ The SEC proposes to require registrants to include this pay ratio disclosure in any filing "...described in Item 10(a) of Regulation S-K that requires executive compensation disclosure under Item 402 of Regulation S-K."⁶ This means the proposed pay ratio will be required in annual reports on Form 10-K, registration statements, and proxy and information statements, predicated that the requirements of these forms already require compliance with Item 402. This means the SEC interprets the statute as not requiring pay ratio disclosure in every filing (as some commenters suggested the statute requires) but, instead, only in filings for which the applicable form requires Item 402 disclosure.⁷ As a result, the SEC is excluding a few specific groups from the disclosure requirements under this rule, including

³ Dodd-Frank Wall Street Reform and Consumer Protection Act. Pub. L. 111-203, H.R. 4173; Section 953(b) <http://www.sec.gov/about/laws/wallstreetreform-cpa.pdf>

⁴ 17 CFR 229.402(c)(2)(x) <http://www.law.cornell.edu/cfr/text/17/229.402>

⁵ 17 CFR 229.10(a) <http://www.law.cornell.edu/cfr/text/17/229.10>

⁶ Proposed Rule p.14

⁷ Proposed Rule p. 15

emerging growth companies, smaller reporting companies, and foreign private issuers and MJDS Filers.⁸

Regulation S-K and Item 402

Regulation S-K is the main source for determining a publicly held company's disclosure obligations under the current federal securities laws. Its history arises from the SEC's desire to make disclosure as uniform as possible, given the 1933 Securities Act and 1934 Exchange Act.⁹ Regulation S-K is first applied when a company moves to register its securities offering with the SEC through a registration statement under the Securities Act of 1933. At this point, the regulation applies to ongoing reporting and disclosure requirements. This is often why companies will avoid registering their securities with the SEC (or "going public"); one of the disadvantages to becoming a public company is greater exposure.

Item 402 is the part of Regulation S-K that governs the disclosure rules with regard to executive compensation, and requires disclosure compensation that is awarded to, and earned by, executive officers¹⁰ and directors. Below is a list of the required summary compensation for the named executive officers for each of the registrant's last three completed fiscal years¹¹:

- Name and Principal Position
- Year
- Salary (\$)
- Bonus (\$)
- Stock awards (\$)
- Option awards (\$)
- Non-equity incentive plan compensation (\$)
- Non-qualified deferred compensation earnings (\$)
- All other compensation (\$)
- Total (\$)

Observe that median pay is not required in the existing disclosure. Rather, median pay is the new disclosure that the proposed rule considers. In addition to this chart, Item 402 requires more specific disclosure charts for items granted to executives in the last completed fiscal year. These include the grant of an award made to a named executive officer, unexercised options and stock not vested, equity incentive plan awards, exercise of stock options and vesting of stock, pension

⁸ Proposed Rule p. 16-18

⁹ Understanding Securities Law, p. 147, 156

¹⁰ Defined as: (a) PEO or equivalent position; (b) PFO or equivalent position; (c) registrant's three most highly compensated executive officers other than PEO or PFO, who were serving at the end of the last fiscal year; (d) up to two individuals who would have been included in part (c) had they not been serving as executive officers by the end of the last completed fiscal year <http://www.law.cornell.edu/cfr/text/17/229.402>

¹¹ 17 CFR 229.402(c) <http://www.law.cornell.edu/cfr/text/17/229.402>

benefits, defined contribution or deferred contribution plans, and golden parachute compensation.

Below is a list of the summary compensation table that is required for directors for the registrant's last completed fiscal year¹²:

- Name
- Fees earned or paid in cash (\$)
- Stock awards (\$)
- Option awards (\$)
- Non-equity plan compensation (\$)
- Change in pension plan and non-qualified deferred compensation earnings (\$)
- All other compensation (\$)
- Total (\$)

Finally, the SEC imposes a smaller reporting burden on “small reporting companies”¹³; although subject to reporting the same information for both directors and executives in the summary compensation table, the definition of executives is slightly different (excludes Principal Financial Officer and must only report on the two most highly compensated officials). Also, smaller reporting companies have to provide only one additional table for executives, which is the one that details unexercised options, stock not vested, and equity incentive plan awards that are outstanding.

Administrative Guidance on Regulatory Impact Analysis (RIA)

As an independent regulatory commission, the SEC is not subject to many of the requirements executive agencies are, most notably the standards set forth by Executive Order 12866, which requires regulatory review by the Office of Information and Regulatory Affairs (OIRA). According to this executive order, regulations should address a compelling public need (such as market failure), be based on an assessment of all of the costs and benefits of regulatory alternatives (including the alternative of not regulating), and seek to maximize the net benefits to society (unless constrained by law). Executive Order 12866 also requires a Regulatory Impact Analysis (RIA) for all rules OIRA deems “economically significant.” In order for a rule to be considered “economically significant” it must meet one of the following definitions: “Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public

¹² 17 CFR 229.402(k) <http://www.law.cornell.edu/cfr/text/17/229.402>

¹³ Defined as: issuer that is not an investment company, asset-backed issuer, or majority-owned subsidiary of a parent that is not a smaller reporting company and, (a) a public float of less than \$75 million as of the last business day of the most recently completed second fiscal quarter, (b) in case of an initial registration statement had a public float of less than \$75 million as of 30 days of the date of filing of statement, (c) if the public float calculated in two previous years is zero, the company that had annual revenue of less than \$50 million during the most recently completed fiscal year http://www.law.cornell.edu/cfr/text/17/229.10#f_1

health or safety, or State, local, or tribal governments or communities.” OIRA issued guidance for executive agencies on how to conduct a proper RIA through Circular A-4, which set forth three basic elements: (a) statement of the need for the proposed action, (b) examination of alternative approaches, and (c) evaluation of the benefits and costs (both quantitative and qualitative) of the proposed action and the main alternatives identified by the analysis.¹⁴

Although not subject to these executive requirements for analysis, a number of standards under the Exchange Act demand economic analysis. Section 3(f) requires the SEC to consider whether the action is necessary or appropriate in the public interest, and whether the action will promote efficiency, competition, and capital formation. The SEC must also consider the effect rules adopted under the Exchange Act, might have on competition. Under this section, the SEC is prohibited from adopting any rule that would impose a burden on competition that is “...not necessary or appropriate.”¹⁵ Also, more recently the SEC has issued guidelines for economic analysis in rulemaking through a March 2012 memo (hereafter, “the memo”) that set forth four major requirements: (a) clearly identify the justification for the proposed rule, (b) define the baseline against which to measure the proposed rule’s economic impact, (c) identify and discuss reasonable alternatives to the proposed rule, and (d) analyze the economic consequences of the proposed rule and the principal regulatory alternatives.¹⁶

When clearly identifying the justification for the proposed rule, the memo notes the need for a discussion on regulatory action, and how the proposed rule will meet such a need. When defining the baseline, the memo notes that the economic analysis should describe the state of the world in the absence of the proposed rule. Further, in cases where a statute directs rulemaking, the SEC should “...consider the overall economic impacts, including those attributable to Congressional mandates and those that result from an exercise of the Commission’s discretion.”¹⁷ According to the memo, “reasonable alternatives” include possible options such as approaches that are more or less stringent than the preferred option, or different compliance dates and requirements for large and small firms. Finally, the memo sets forth four major steps that the SEC should follow when analyzing the economic consequences and regulatory alternatives of a proposed rule. The first step is to identify and describe the most likely economic benefits and costs of the proposed rule and alternatives. This discussion can include a variety of costs including compliance costs, direct costs, and indirect costs.¹⁸ Second, the memo directs the SEC to quantify the expected benefits and costs to the extent possible by working to monetize and quantify potential costs and benefits

¹⁴ Circular A-4, p. 2

¹⁵ “Capital, Margin, and Segregation Requirements for Security-Based Swap Dealers and Major Security-Based Swap Participants and Capital Requirements for Broker-Dealers, Part V (Notice).” Federal Register 77:226 (Nov. 23, 2012) p. 300-301. Available at: <http://www.sec.gov/rules/proposed/2012/34-68071.pdf>

¹⁶ “Current Guidance on Economic Analysis in SEC Rulemakings.” U.S. Securities and Exchange Commission. Memorandum: 3/16/2012. http://www.sec.gov/divisions/riskfin/rsfi_guidance_econ_analy_secrulemaking.pdf

¹⁷ SEC Guidance Memo, p. 8

¹⁸ SEC Guidance Memo, p. 10-12

where practical.¹⁹ Third, the SEC should identify the source or method of quantification and discuss any uncertainties underlying the estimates. Even in those cases without hard data, the memo notes that it may be possible to quantify the benefits and costs by making and explaining certain assumptions. If this option is unavailable, the SEC should at least present quantitative info, such as the size of the markets effect or the number and size of the market participants subject to the rule.²⁰ Finally, the memo notes that, for those elements that cannot be quantified, there needs to be an effort made in the analysis to explain why; this would include a qualitative analysis of the likely economic consequences of the proposed rule, and regulatory alternatives.²¹

Costs and Benefits of the Rule

The preamble to the proposed rule suggests that the SEC is struggling to identify “the need for regulatory action and how the proposed rule will meet that need,” as required by its own guidance. When discussing the costs and benefits of the proposed rule, the SEC first notes the apparent lack of a market failure. Normally regulation is created with the goal of addressing some sort of market failure, but the agency notes that they are not aware of a specific failure in this case. Due to this apparent lack of a market failure, the SEC has difficulty establishing the benefits that are associated with the regulation. They note that there is a limited legislative history to inform the intent of the statute or the specific benefits that this provision of the Dodd-Frank Act is attempting to secure.

Thus, the agency generally relies on the various commenters, whose input they seek when attempting to write to the rule. They note that some commenters have suggested that there is an information gap between registrants and investors with regard to internal pay parity at companies. Investors may lack access to information that would allow them to assess the level of a PEO’s compensation as it compares to employees at the company. According to these commenters, this would aid an investors’ ability to evaluate the PEO’s compensation in the context of the entire business.²² The SEC also notes that an argument has been made that this provision is intended to address a broader public policy problem relating to income inequality, which they argue is exacerbated by increasingly high levels of PEO compensation relative to other workers. Thus, by requiring mandatory disclosure of this information, the boards of public companies will have to consider the relationship between the PEO’s compensation and that of other employees, which will help curb excessive PEO compensation.²³

For all of these benefits, the SEC notes that the absence of an apparent market failure makes it difficult to quantify: “...the lack of a specific market failure identified as motivating the

¹⁹ SEC Guidance Memo, p. 12

²⁰ SEC Guidance Memo, p. 12-13

²¹ SEC Guidance Memo, p. 13-14

²² Proposed Rule, p. 90-91

²³ Proposed Rule, p. 95

enactment of this provision poses significant challenges in quantifying potential economic benefits, if any, from the pay ratio disclosure.”

Given the lack of identifiable benefits, the SEC should seek to minimize the rule’s costs, while implementing its statutory mandate. By following the SEC guidelines which suggest “extrapolating from analogous situations” in the absence of hard data, it would seem appropriate for the agency to consider extrapolating from these previous disclosure requirements, particularly those in Item 402 of Regulation S-K. This might allow the agency to substantially address alternative approaches that are “more or less stringent than the preferred option”; an option that is also suggested in its guidelines.²⁴ Rather than talking in broad terms about the possible benefits suggested by commenters, a more acceptable approach might be to include an economic analysis that discusses the effects of analogous disclosure situations. Using Item 402 of Regulation S-K as a guide, the SEC could give more quantifiable results of what would happen in this market and explain how it would expect a similar situation for the CEO pay ratio rule. This might help prevent the SEC from facing another situation where it is in danger of the judicial system overturning its proposed rule for being both “arbitrary and capricious” and for failing to adequately evaluate a rule’s economic impact.²⁵

The SEC notes in its discussion of costs that because the provision of Dodd-Frank (which mandates this disclosure) did not specify a specific objective, the appropriateness of the cost in relation to the statutory objective is not readily assessable.²⁶ Therefore, the SEC focuses instead on the direct compliance costs on registrants and any possible secondary effects that may occur on efficiency and competition. The major compliance costs are those related to calculating the annual total compensation for all employees. However, the SEC states that they are “unable to quantify with any precision the compliance costs at this time.”²⁷

Despite this assertion, the agency does make certain estimates regarding the hourly burden and cost burdens associated with this rule as required by the Paperwork Reduction Act of 1995. This would appear to be another case where the SEC, given its history of disclosure in this area, would be able to extrapolate certain cost estimates from similar situations. The more difficult costs to assess are the secondary effects of the regulation, specifically the competitive effects that this new disclosure could have on registrants. In addition to direct compliance costs, corporations may also incur indirect costs resulting from them having to reveal information about the cost structure of their workforce. This could potentially put them at a competitive disadvantage compared to those firms who are not covered by Section 953(b) and subsequently do not have to disclose this information. Despite not giving a quantitative estimate of the effect, the SEC does describe these costs as “potentially significant.”²⁸

²⁴ SEC Memorandum, p. 8-9

²⁵ SEC Memorandum, p. 3

²⁶ Proposed Rule p. 99-101

²⁷ Proposed Rule, p. 102

²⁸ Proposed Rule, p. 103

Academic Literature

Agency Theory

The dominant theory in the social science literature of economics, finance, and accounting on CEO pay is agency theory. It has developed over the last 30 years to shed light on the economics of information. According to this theory, a principal offers a contract to an agent. The principal cannot perform the work himself for various reasons and instead must hire an agent to exert unobservable effort to complete the task. Several studies have applied this to the setting of CEO pay, in which case the CEO is the agent, and the principal is the board of directors, shareholders, or the owner of the firm.

It is easy to see why agency theory applies to CEO pay. As the main form of firm organization in the United States, the corporation displays a separation of ownership and control. Managers control the operations of the firm, but shareholders own the output of the firm. Shareholders can induce managers to behave appropriately with a compensation contract. In this view, the manager rarely does what is best for the firm; rather, he is an opportunistic creature, who seeks to maximize his own benefits, ahead of firm value. This is precisely why the firm must induce appropriate behavior through a well-designed compensation contract.

Though managerial effort is unobservable, that is not the only reason for the misalignment of interest between the firm/owner and the manager. The manager may have a taste for private benefits, such as a fancy corporate jet, or may want to build an empire to boost his own reputation. Michael Jensen of Harvard Business School posited the “free cash flow” hypothesis, in which the amount of excess cash in a firm signals severe agency problems. In such a firm, rather than paying out the cash to shareholders, such cash can be diverted by an opportunistic CEO, who will use it for his own private benefits.

One consequence of this theory is that, without a proper contract to properly align incentives, CEO pay is excessive, precisely because there is an agency problem within the firm. Executives are effectively stealing from shareholders. While this is the view that has achieved the most attention, there is an important undercurrent to this argument. The firm must induce appropriate effort through a compensation contract. This contract is based on output rather than input. Output based pay relies on stock options, restricted stock, and other forms of firm value. They are designed precisely to align the interest of the manager and the shareholders. CEO compensation has changed over time in a manner that reflects this logic. In 1980, CEO annual compensation was mainly cash, salary, and bonuses, with only 30% of CEO’s receiving new option grants. Mean salary and bonus were \$655,000, compared with \$155,000 from new option grants. By

1994, 70% of CEOs were receiving new option grants amounting to \$1.2 million, almost equal to the \$1.3 million in cash pay.²⁹

One consequence of output-based pay is it imposes risk on the manager. I will discuss risk at length later in this comment, but I mention it here to highlight how stock-based pay is a direct response to the agency theory's insight that unless firm value and manager compensation are aligned, managers can be expected to behave in ways counter to the owners' interests. This point is often lost in the public discussion of excessive CEO pay, which instead focuses on the level rather than the form of compensation.

Regardless, the dominant view of agency theory posits an opportunistic CEO, who is tempted to divert corporate resources into his own pocketbook. The separation of ownership and control, combined with the private motivations of the CEO, suggests that excessive CEO is common, and comes at the expense of shareholders. While the SEC doesn't explicitly reference agency theory, I believe it forms the intellectual basis for the statutory requirement for the pay-ratio rule. If agency problems are severe in the firm, then CEO pay is excessive and must be constrained through disclosure. For a long and full study of agency theory and how it applies to executive pay, see the papers by Core, Guay and Larcker (2003) and Jensen and Murphy (1990).

Labor Market View

An alternative, and somewhat more compelling, view of compensation is that it is set in a labor market. Like all markets, labor markets have both buyers and sellers. Buyers are firms and sellers are employees. This more economic approach examines how compensation is set when workers and managers compete in a market for talent.

Sherwin Rosen of the University of Chicago conducted the pioneering academic work in this area. In his paper, "The Economics of Superstars," published in the *American Economic Review* (Rosen, 1981), he postulated that markets are excellent at matching diverse buyers and sellers. While this has been long known in capital markets, Rosen was the first who argued that wages serve this function in labor markets.

In this view, firms offer the wage necessary to attract the worker to the firm. In competitive markets, there is free mobility of labor and capital and easy entry into new firms. As such, the competition in labor supply will force downward pressure on wages, since corporations will be able to lower their wages when faced with a large supply of workers. Conversely, in a competitive market for firms, the large demand for labor will put upward pressure on wages. With many firms competing for each worker, the firms must offer high wages in order to differentiate themselves from their competitors. The market equilibrium emerges from the

²⁹ Hall, Brian J., and Kevin J. Murphy. "Stock options for undiversified executives." *Journal of Accounting and Economics* 33.1 (2002): 3-42.

balance of these twin effects. Competition on the supply and demand side will lead to an equilibrium wage set in the labor market. This was the key insight that Rosen offered, and he went on to explain how some industries observed superstars, who commanded large premiums and captured large market share. Thus, an observed high wage was not a sinister phenomenon, but rather the result of a market equilibrium in which the supply of labor is small, the returns to skill are large, and technology enables the discernment of variations in quality.

Other work by Gabaix and Landier (2008) extends the early work of Rosen to provide a coherent and sensible explanation for existing facts in executive compensation. This paper explicitly built a microeconomic model of a labor market, where firms and workers are heterogeneous. In such a market, there is competition from both sides, but now each firm will offer a wage in the market and each worker will select one such firm. As a result, there is not just a single equilibrium wage, but many. The wage schedule in the marketplace reflects the diversity of both sides of the market.

The equilibrium in this model is that the best firms will offer the highest wages to attract the best workers. The logic is simple. Suppose all firms offer the same wage to the market attracting all of the same workers to each firm. Everyone wants a better worker, but the value of that skilled worker rises in the quality of the firm. This is a key assumption of complementarity between labor and capital: the best workers are the most productive at the best firms. This is not to say that the average worker is not productive, but that the better firms receive more economic value from the better workers, than do the worse firms.

Thus, the highest quality firms are able to generate the most economic value from the best workers, and they will rationally pay the highest wages in order to attract those workers. These wages are paid out of the economic value generated by the match between the worker and the firm (what economists called the total surplus). Lower quality firms also like the best managers, but the best managers will never choose those firms. In this sense, the market clears from the top down: the best workers match with the best firms, since their pay is higher at better firms, the second best with the next best firms, and so on. In equilibrium, every worker is uniquely matched to a unique firm and no worker can be made better off without making another worse off.

This same paper goes on to test its theoretical model with real data and finds strong empirical support. In this case, the measure of quality is the size of the firm, and the measure of the worker is an executive's experience and prior performance. The study shows that, in a sample of US data, the top managers work for the largest firms. One consequence of this is that the large levels of executive pay observed are not a result of nefarious theories of extracting rents at the cost of shareholders, but rather simply an outcome of equilibrium matching. Executives are paid more because firms are larger and their value to those large firms has grown over time. Thus, we should expect some steady rise in compensation, commensurate with the rise in economic growth.

and firm size over the last half decade. In the United States, the average firm market value of the largest 500 firms increased in real terms by 500% between 1980 and 2003. This is one reason that CEO pay has indeed risen, to match the growth of firms, especially when CEO pay is linked to stock and option holdings.³⁰ Competition in a market would ensure that some of the surplus generated by economic and corporate growth will transfer directly to workers and managers. This seems to be the case with CEO pay, since the average CEO compensation (including cash salary, bonuses, and the value of stock option exercised), has increased 12.7% since 2011, and 37.4% since 2009 to \$14.1 million in 2012.³¹

Unintended Consequences of Proposed Rule

As the SEC recognizes, the proposed disclosure of the ratio of CEO to employee pay is not based on any evidence of a failure of private markets to establish appropriate compensation or to inform shareholders. However, it is likely to have several unintended consequences that can do serious economic damage. The main problem is that the capital markets may penalize firms with high ratios. Indeed, this may be the legislative goal in requiring the disclosure; if these firms are seen to be paying their executives much more than their workers, and this is perceived as unfair, the disclosure may shame them into changing their compensation plans. Unfortunately, this capital market punishment can move firms away from economic efficiency and into suboptimal outcomes that can harm the firm itself, its stakeholders, shareholders, and the economy as a whole.

First, observe that, as a general principle, disclosure is a good thing. Disclosure of financial information provides transparency to corporations, essential information to investors, comparability across different sectors, and allows the firm to draw from pools of capital that were not previously available. There is an enormous amount of research that shows more reliable accounting rules, and more disclosure, generally lead to more liquid capital markets and lower cost of capital for the firms.

That said, selective disclosure could be problematic. Disclosing too much information to the marketplace can reveal proprietary information on the firm's internal cost structure that competitors can then use to their commercial advantage. Knowing this will happen, firms withhold information on valuable investments for fear that the fruits of this investment will simply dissipate to the marketplace. For firms to maintain their incentives to innovate, there must be some form of protection of their property rights. The patent system is one way, but a more uniform approach that applies to all firms is to limit the disclosure of sensitive information.

³⁰ Gabaix, Xavier. "Why has CEO pay increased so much?". *The Quarterly Journal of Economics*. (02/01/2008), 123 (1), p. 49.

³¹ Mishel, Lawrence, and Natalie Sabadish. "CEO Pay in 2012 Was Extraordinarily High Relative to Typical Workers and Other High Earners." *Economic Policy Institute*. 26 June 2013.

As argued above, compensation is a vital component determining the productivity of the firm. This does not occur because compensation directly affects wage expenses (and, therefore, income and earnings) in an accounting sense, rather compensation provides incentives for all workers in the firm. When employees face different compensation structures, they will adjust their effort accordingly. Indeed, the voluminous agency literature on contracting and incentives has made clear how profound this effect can be both theoretically and empirically.

Regulators must exert great care when disclosing compensation. It is easy to see that there can be harmful consequences from a casual treatment of this important issue. In particular, I predict that there are a handful of unintended consequences from the pay ratio rule that would harm corporate performance, economic growth, and social welfare. I will discuss these effects in turn.

Lack of Demonstrated Market Failure

The SEC's internal guidance emphasizes that "Rule releases must include a discussion of the need for regulatory action and how the proposed rule will meet that need," noting that "frequently, the proposed rule will be a response to a market failure that market participants cannot solve because of collective action problems." In this case the SEC has not showed how the pay ratio disclosure solves any market failure. In fact, there is really no discussion of the market failure to which pay ratio is a solution. Because of this, at a high level, the regulation has little intellectual coherence and the SEC should transparently state that it is issuing the rule to comply with a Dodd-Frank Act mandate, but explicitly recognize that the disclosure requirement will no doubt be costly to enforce and, with no clear benefit, will only drain resources from firms and society.³²

Market failures arise when there are externalities from consumption or production, severe asymmetric information among different parties, or unfair barriers to entry, erected by law, regulation or from prior monopoly power. There is no strong evidence that this is the case in the market for executive pay, which is a fairly competitive and large market both in the US and abroad. Labor is internationally mobile, especially at the CEO level, and the tournament structure within and across firms ensures ample competition for the top job. The existing disclosure of CEO pay in corporate annual reports and proxy statements provides a clear signal of the level of pay to both the market and future CEOs. There is no reason to believe that pay levels are opaque or distorted from market equilibrium.

Distortion of CEO Pay Contract

A uniform principle across both the agency theory and the labor market theory is that executive pay should be based on performance. In agency theory, it is necessary to pay for performance in

³² The SEC Memo states that "Congressional direction to adopt a rule is, itself, an independent justification for rulemaking."

order to induce the manager to make the right decisions, the decisions that build firm value. The greater the pay for performance, the stronger the alignment of incentives between the manager and the firm. In the labor market view, pay for performance is necessary to attract the best manager to the firm (Jensen and Murphy, 1990, and Gabaix and Landier, 2008).

Unfortunately, the pay ratio disclosure can penalize firms from offering this optimal contract. Pay for performance does exactly what it says. It pays executives more when they perform in ways that enhance firm value. Thus, when the executive is making good decisions for the firm and increasing firm value, his pay will be high and when his decisions are poor, his pay will be low. This is as it should be (Hall and Murphy, 2002).

How will this look to the market? Since CEO pay has a much higher sensitivity to stock price and firm value, his pay will increase much larger than the median pay in times of firm success, and will decrease more than median pay in times of firm failure. As such, his own pay, as well as the pay ratio, will be sensitive to firm value, and this high pay will be apparent to the public through this disclosure. The various stakeholders of the firm (customers, suppliers, interest groups concerned with pay equality, and other political actors) can then exert public pressure on the firm to change its pay practices. But if the initial contract was optimal, then this will move the firm away from an optimal contract. Thus, the firm that offers a high performance pay contract can receive a market penalty when, in fact, a performance pay contract is exactly what is necessary to attract and incentivize a CEO. This is a problematic feature of the disclosure rule, since it ultimately gives firms an incentive to move away from pay for performance.

It is not outrageous to believe that there could be legitimate public pressure placed on the firm to change its compensation because of the pay ratio disclosure. Given that the steering assumption is that executive pay is too high and the disclosure would be one way to constrain this, there is a reasonable argument that the firm will face undue political pressure and public outcry after disclosing a high ratio. This can generate negative publicity and induce the firm to change a compensation structure and ultimately the future productivity of the firm. Even though shareholders may not directly penalize a firm for a high penalty, the indirect penalty arises from the lost productivity that emerges from an inefficient contract

This market penalty associated with a high pay ratio is the base assumption in the rule itself. The implicit justification for pay ratio disclosure is to shame the firms that offer high pay ratios. A market devaluation can result from several actions. Shareholders can sell the stock, activists can take aggressive positions on the board and divert attention and resources from strategic decisions, or shareholders can create public outcry that evicts a well-performing (but highly paid) CEO, causing distress throughout the company. The precise implementation of the penalty is too detailed to discuss here, but it is more important to realize that such a penalty can be real and disruptive for companies.

Distortion of Labor Choices

The pay ratio disclosure can provide a disincentive for firms to hire low-wage workers. Large firms, by definition, have large work forces, and large firms employ the majority of workers today. This is especially true in certain industries like food services and retail, which require a high volume of low-wage workers. The majority, 66%, of low-wage workers are not employed by small businesses, but rather by large corporations with over 100 employees. The top low wage industries are food services (57.2%), accommodation (40%), retail trade (36.5%), arts, entertainment and recreation (34.2%), and administrative services (33.2%).³³

Firms that employ large pools of low-wage workers may face a market penalty through the pay ratio disclosure. As the firm hires more low-wage workers, the median wage will decrease. The median wage, by definition, is the wage at which 50% of the workers have wages below this level and 50% have wages above this level. As more low-wage workers join the staff, the median wage will sink and this will lift the pay ratio.

As argued above, there is a strong reason to believe that firms will be penalized for disclosing high ratios. One consequence is that this will hurt firms that employ low-wage workers because their disclosed pay ratio will be higher. This then provides a direct disincentive to hire low-wage workers for wages below the median wage. This would be an unfortunate consequence as one of the primary benefits of large corporations is that they provide employment and jobs to many people. This adverse effect can harm not just the firm itself, but also prospective workers and the economy as a whole. There is no reason to discourage firms from hiring low-wage workers, but rather, as good policy, we should promote economic growth and employment.

Comparability in a Global Marketplace

Over the last quarter century, there has been a clear shift toward more global firms. U.S. companies employed a total of 22,932,700 employees abroad in 2009 and 22,819,800 in 2010.³⁴ They have operations abroad and employ workers domestically as well; yet, a global workforce makes comparability of pay ratios difficult and, in fact, the interpretation of the ratio itself can become meaningless.

To see this, there are several accounting issues, which themselves become confounding. First is the currency conversion across different countries. Currencies fluctuate daily and the pay ratio can simply reflect currency movements rather than true underlying economic productivity. In 2012, the exchange rate for the Indian rupee has ranged from 53.23 to 66.29, with such frequent

³³ "Big Business, Corporate Profits, and the Minimum Wage." *Www.nelp.org*. National Employment Law Project, July 2012. Web.

³⁴ "U.S. Direct Investment Abroad." *Bureau of Economic Analysis*. N.p., 31 July 2013. Web. <http://www.bea.gov/iTable/index_MNC.cfm>.

changes similar in all currencies.³⁵ To see how this can confuse the pay ratio, consider a simple example. Suppose a firm can hire workers in India or the US, and suppose that the dollar is strong against the rupee. In this sense, hiring more Indian workers raises the cost in rupees, but because of the strong dollar, this leads to a small increase in cost in dollars. This can actually decrease the median wage simply because the workers are paid in rupees and the rupee is weak against the dollar. This will then increase the pay ratio. If there is a market penalty for firms with high pay ratios, then this discourages firms from hiring those workers in India. Indeed, the pay ratio confounds currency fluctuations with true economic productivity and, therefore, can bias a company's optimal labor choice simply because of the current currency rates.

The second problem is the variation in benefits across countries. Different countries have very different benefit packages and legal environments, which ultimately affects their wages. Observe how, in the United States, the wage and price controls of World War II are what induce firms to pay healthcare through employers. Federal law prohibited raising the wage, so firms paid employees through non-monetary compensation, such as benefits. In this case, the benefit package is a large component of total compensation and the monetary component understates the total compensation. In a country like the UAE, which pays little benefits to workers, all of the compensation expended is monetary. As such, a pay ratio that only considers monetary compensation, and not the total compensation that values benefits, will distort the optimal choice of labor. Firms that hire US workers where the monetary compensation is less than total compensation are likely to drive down the median wage and increase the pay ratio, thereby discouraging the hiring of US workers. Conversely, hiring workers in countries where there are no benefit packages, and monetary compensation equals total compensation, is more likely to increase median wage and decrease the pay ratio, encouraging companies to hire from these markets. Simply because there is no universal way to value benefits across countries, this itself will provide a distortion in the optimal labor choice.

Full Time Versus Part-Time Issues

We are living in a world with an increasingly flexible labor market, where employees work from home and often work part time. This is especially true with the changing demographics of the workforce, with more women participating in the labor market and firms offering more work-life balance and flexible schedules. Firms must decide how to trade off the benefit of employee flexibility against the cost to the firm of this flexibility. Unfortunately, the pay ratio disclosure can bias this choice away from the firm and employees' optimal choice, which can therefore harm economic activity.

To see this, consider the simple example that part time work often pays less per hour and usually has no benefits. Employees are willing to accept this in exchange for lighter requirements on

³⁵ "Currency Converter Historical Exchange Rates." OANDA, n.d. Web.
<<http://www.oanda.com/currency/historical-rates/>>.

commuting and more flexibility with their schedules. Often, this is profitable for the firm if the firm does not require the full-time resources from the employee, as this would cause it to bear excessive cost.

But replacing full-time workers with a part-time workers will decrease the median wage. Recall that the median is computed as the level at which 50% of the workforce is below this level and 50% above. As the firm increases the number of part-time workers whose wages may be below the median, this will increase the lower tail of the distribution and drive down the median. Consequently, the pay ratio will rise. If there is a market penalty for firms with high pay ratios, this will discourage firms from hiring part-time workers. This can have negative economic consequences if it forces firms to hire full-time employees when both the firm and the workers prefer part-time options.

Cost of Compliance

Collecting median wage information will be expensive, and the SEC does attempt to estimate the number of hours that will be incurred to do so. Firms do not naturally tabulate median worker expenses, as this is not required within any of the existing financial disclosures. While it is true that the firms disclose accrued compensation figure on the balance sheet, and stock compensation on the statement of cash flows, these are total levels, not medians. Calculating the median is much more complex since firms must consider the entire wage distribution. As argued above, this is a nontrivial process when there are differences across workers and benefits, pay levels, currency, hours worked, duration of employment, part time versus full time, and so on. These statistical and logistical issues are first order, so much so that they render the pay ratio number meaningless. The SEC seems to recognize this, with its chief economists observing at a conference recently that accurately estimating median pay “is an incredibly complicated and difficult to do.”³⁶ In such a case, the cost of simply complying with the disclosure will exceed any benefit if investors cannot make any sense of the numbers, or if they draw the wrong conclusions because the disclosed number does not accurately portray the true economics of the firm’s labor force.

Response to Specific Questions

This section addresses the SEC’s request for comment on a number of specific questions. I focus my responses on those where I have something meaningful to say.

3. Should the pay ratio disclosure requirements, as proposed, apply only to those registrants that are required to provide summary compensation table disclosure

³⁶ Craig Lewis quoted in the Wall Street Journal. <http://blogs.wsj.com/cfo/2013/11/12/sec-skeptical-on-pay-ratio-disclosure/>

pursuant to Item 402(c)? If not, to which registrants should pay ratio disclosure requirements apply?

Current small firms are exempted from the disclosure rule, and given the limited value of the information for any size firm, this probably makes sense. However, while it is generally true that compliance is excessively costly for smaller firms, in this case I believe the disclosure rule does more damage to the large firms. Large firms have huge workforces, where computing the median wage is very costly and they also are more likely to employ low-wage workers and therefore have high pay ratios.

7. For example, would it be consistent with the statute to permit registrants to exclude non-U.S. employees from the calculation of the median?

While including non-US employees in the calculation of the median will cause distortions as noted above, excluding them would cause a different kind of distortion. There are just too many firms that hire non-US employees, whose ratios would not be comparable to those that do hire US employees. Of note, this would affect 35 large U.S.-based multinational companies, which added jobs faster than other U.S. employers from 2010 to 2012, with nearly three-fourths of those jobs overseas. However, sixteen of these companies added jobs in both the U.S. and abroad.³⁷

14. Is it likely that registrants would alter their corporate structure or employment arrangements to reduce the number of employees covered by the proposed requirements?

Absolutely, companies will alter their corporate structure and employment arrangements as a result of disclosing the pay ratio. See my discussion above for the various unintended consequences of disclosure.

15. Does the proposed inclusion of all employees raise competition concerns? If so, are there some industries or types of registrants that would be more affected than others?

Yes, it does raise competition concerns. The disclosure will hurt companies with large low-wage or seasonal work forces, for example food services and retail. There are also currency issues and part-time versus full-time workforce issues that I discuss above. All of these will distort the firm's behavior and ultimately change the competitive landscape since it will move the firm away from its optimal choice.

24. Should we allow cost-of-living adjustments for non-U.S. employees as recommended by some commenters? If so in either case, please explain why. In particular, please address

³⁷ Thurm, Scott. "U.S. Firms Add Jobs, but Mostly Overseas." Wall Street Journal, 27 Apr. 2012. Web.

the potential concern that these kinds of adjustments could cause the ratio to be less accurate reflection of actual workforce compensation.

It is not necessary to allow for cost-of-living adjustments. This will only make the pay ratio more subjective. Since cost of living adjustments themselves add subjectivity. Simply include the wages that are contracted with the employees, which should themselves include some kind of a cost-of-living adjustment embedded into the wage.

31. Could a registrant's competitors infer proprietary or sensitive information about a company's business operations, strategy or labor cost-structure from the disclosure of the median of the annual total compensation of all employees?

Yes, there is a strong proprietary cost of disclosing this kind of information, especially for small firms. With small firms, the median wage can be very informative about the company's wage structure and level, which is a source of competitive advantage for many firms. Disclosing this amount could be harmful to workers, especially if firms then compete with each other and lower their wages. They will be able to do this since they know the median wages of other firms.

38. Should we require registrants to disclose information about the methodology and material assumptions, adjustments or estimates used in identifying the median or calculating annual total compensation for employees, as proposed? Why or why not?

Yes, disclosing information on methodology and material assumptions would be a good idea if you allow for statistical sampling.

40. Should we require registrants to disclose additional narrative information about the pay ratio or its components, or factors that give context for the median, such as employment policies, use of part-time workers, use of seasonal workers, outsourcing and off-shoring strategies? Please be specific as to how this information would assist investors in understanding the pay ratio or in using the pay ratio disclosure.

Disclosing narrative information would not be necessary. Simply disclosing the statistical method and sampling would be sufficient. Firms should be permitted to provide narrative information as they deem necessary to explain their ratios. Unfortunately, the amount of disclosure from firms has exploited exponentially, leaving investors confused in a sea of information.

41. Should we require registrants to disclose additional metrics about the total compensation of all employees (or of the statistical sample if one is used), such as the mean and the standard deviation, as a supplement to the required disclosure? Would additional metrics be useful to investors? We assume that these metrics could be

provided without additional costs or at a low cost once the median has been identified. Is this assumption correct?

If you are going to allow firms to disclose the disclosure of the median, go ahead and require the mean and standard deviation. The incremental cost of that disclosure is not large. I believe you would be able to add those additional metrics with little cost.

Conclusion

The SEC struggled to justify a compelling public need for its proposed rule. The Dodd-Frank Act required firms to disclose pay ratio, however, and I suspect the main rationale was to limit what many people see as excessive CEO pay. As I have documented above, there is no question that CEO pay has increased over time; however, as I also documented above, there is strong evidence that this has occurred only since firms and economies have grown over time.

The only argument I can foresee to disclose pay ratio is to provide some kind of public embarrassment to firms that have high ratios of CEO pay to median employee pay. Executive pay is one of the most visible parts of a firm's financial statements; there is no question that the media would focus on the pay ratios, just as they have on other disclosures of CEO pay. Presumably, the objective of the statutory requirement is to shame firms with high pay ratios into lowering their top managers' pay.

My own research examines compensation within the context of a labor market. In my paper, "Sorting Effects of Performance Pay," forthcoming in the journal *Management Science*, I assumed that the firm must compete for managerial talent in a labor market. The corporation does not know the ability of the firm, but must bring the best manager to the firm through an appropriately designed compensation contract. My theoretical model supports many of the empirical findings in the CEO pay literature, namely, the existing levels of pay performance sensitivity (PPS). For further detail, I refer you to my paper. The main insight for the SEC is that CEO pay is set by supply and demand in a labor market. Doing so is productive, useful, and consistent with empirical observations about executive pay. My paper explicitly details these links to the empirical facts. Compensation is not set exclusively within the firm, but, rather, in a labor market where workers of similar quality compete for the same job. This applies to all workers, including executives.

The proposed requirement to disclose pay ratio implicitly assumes high ratios are inefficient, and the result of a principal-agent problem inherent in modern corporations. As argued above, the labor market view shows that there is nothing wrong with high levels of CEO pay and often this is an efficient outcome, since managerial pay is determined by supply and demand in a labor market.

As the SEC recognizes, efforts to disclose the pay ratio are costly for firms and can lead to penalties from the market. This will ultimately distort firm choices, and move firms away from economic efficiency and ultimately harm producer and consumer welfare. If the SEC feels statutorily compelled to disclose the pay ratio, then it is vital that the costs of compliance be as minimal as possible, allowing sampling or assurance that the pay ratio is only an estimate. Other solutions are to provide statistical confidence intervals along with the pay ratio, to help the market understand that the ratio is a statistical estimate and like all estimates, is fraught with uncertainty. The less faith that the market places in a single measure, the less the harmful impact on firms, workers, and the economy.

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