London Business School

Regent's Park
London NW1 4SA
United Kingdom

Tel +[redacted]
Fax [redacted]
www.london.edu

A Graduate School
of the University of London

Alex Edmans
Professor of Finance
[redacted]

August 25, 2017

Michael S. Piwowar, Acting Chairman
Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549-1090

Pay Ratio Final Rule, File No. S7-07-13

Dear Chairman Piwowar,

Thank you for reconsidering the implementation of the SEC pay ratio rule, and for inviting comments. While I now in the UK, I was formerly based in the US (as a tenured finance professor at Wharton) and have a strong interest in using rigorous research to guide policy, regardless of the country.

I specialize in corporate governance, executive compensation, and corporate social responsibility. I have published on these topics in all the top finance journals, plus the *Harvard Business Review*, *Wall Street Journal*, *World Economic Forum*, and *Financial Times*. I am Managing Editor of the *Review of Finance*, the #1 academic finance journal in Europe. Unusually for an economist, I am focused on the role of business in society – not just for shareholders. I serve on the Steering Group of The Purposeful Company, a major UK consortium that proposes policy reforms to encourage businesses to pursue long-term purpose rather than short-term profit. I testified in the UK Parliament's inquiry into corporate governance and have been heavily involved in the debate on pay ratios in the UK. Thus, these comments are grounded not only in academic research, but also numerous conversations with policymakers, executives, investors, and other stakeholders – particularly those who are concerned about business's role in society.

I have broken down my comments into numbered paragraphs below for ease of exposition. A shorter *Harvard Business Review* article that summarizes my main concerns on pay ratios is at https://hbr.org/2017/02/why-we-need-to-stop-obsessing-over-ceo-pay-ratios.

1.1 Public trust, perceptions of fairness, and concerns about income inequality are very important issues. I share the intent behind ratio disclosure, but it may actually do far more harm than good.

1.2 Pay ratios give the impression of being comparable across companies when they are not. The ratio will automatically vary across industries and so is not comparable. For example, it is lower in investment banks than supermarkets, but because mid-level bankers are well-paid, rather than because executives are not. Even within-industry comparisons are misleading:

1.2.i A hotel chain that operates a franchise model will have a much lower ratio than one that owns and manages its own hotels.

1.2.ii A firm that outsources its operations or moves them overseas will have a lower ratio (vs the US workforce) than a firm that has a strong domestic US workforce.

1.2.iii A firm that operates a high level of investment in training or superior working conditions, or offers low and/or flexible hours and generous holiday entitlements, will have a higher ratio than one that concentrates the employee value proposition around pay only.

1.2.iv A firm that chooses to replace low-paid jobs with automation will have a lower ratio than one that does not.

1.2.v High-growth firms naturally have higher pay ratios than mature firms – see Frydman and Papanikolaou (2017).

1.3 Pay ratios will inevitably be compared across companies, generally leading to misleading conclusions, which will not improve public or investor understanding of the dynamics of executive pay. More serious that being simply uninformative, pay ratios may drive unintended behaviour – i.e. not only will they *reflect* firm behaviour poorly, but they may *affect* firm behaviour perversely.

1.3.i CEOs below the median may increase the ratio to the median.

1.3.ii CEOs may be less willing to hire low-paid workers, instead to outsource or automate.

1.3.iii CEOs may compensate their workers with cash salary, rather than on-the-job training, superior working conditions etc. since only the former affects the pay ratio.

- I am not assuming that pay ratios will be used blindly and other measures will be ignored. Qualitative dimensions could be separately disclosed, but quantitative dimensions will always attract more attention – just as test scores substantially impact school choice, even though schools can disclose extra-curricular activities. Other quantitative dimensions of CEO pay (e.g. horizons) could also be disclosed. However, the pay ratio will likely get far more focus since it is emotive. Indeed, the current discussion of ratios typically excludes reference to non-financial worker pay, other stakeholders, or long-term value.
- A substantial literature (e.g. Maslow (1943), Herzberg (1956)) shows that, after their basic physical needs are met, employees are primarily motivated by qualitative dimensions such as opportunities for advancement, and meaningful work. Thus, a focus on pay ratios will encourage CEOs to pay workers in a form that they value less.

1.3.iv CEOs may focus exclusively on increasing worker salary, rather than other dimensions of social responsibility (such as customers, suppliers, and the environment).

1.3.v If the CEO has underperformed (and is paid less), this may be a pretext to reduce or not increase worker pay, to keep the ratio roughly constant. But, the CEO should be held much more accountable for poor performance than workers. Workers should be treated well regardless of the level of CEO pay. For example, former J.C. Penney CEO Ron Johnson's pay fell 97% in 2012 due to poor performance. Worker pay did not fall to maintain a ratio in even the same ballpark, nor should it have done. Ratio disclosure may make underperforming CEOs look good.

1.4 Pay ratios establish the idea that lower ratios are good and higher ratios are bad, but the rigorous evidence is that high pay ratios are actually linked to superior long-term performance:

1.4.i Mueller, Ouimet, and Simintzi (2017) show that, in the UK, high pay ratios are associated with higher long-term profitability and firm value.

1.4.ii Faleye, Reis, and Venkateswaran (2013) study US data and summarize their results as follows:

- "We find that employees do not perceive higher pay ratios as an inequitable outcome.
- We do not find a negative relation between relative pay and employee productivity.
- We find that firm value and operating performance both increase with relative pay."

1.5 There are several potential reasons for this positive link

1.5.i High executive pay attracts and incentivizes top talent, increasing the size of the pie for all.

1.5.ii High executive pay is due to strong long-term firm performance, again increasing the pie.

1.5.iii High executive pay motivates employees to stay at the firm, work hard and get promoted. Indeed, promotion prospects mean that entry-level employees willingly work for low pay. <u>We should consider the trajectory of worker pay across a career, not just at a point in time</u>.

1.6 The first two reasons highlight a major concern with pay ratios: they are about splitting a fixed pie. The assumption is that, by reducing the CEO's share of the pie, there is more for employees. Instead, <u>the focus should be on incentivising CEOs to grow the pie for the benefit of all</u>. Median CEO pay in the S&P 500 is $10m. Median firm size in the S&P 500 is over $20b. Thus, paying to attract a CEO that adds just 1% more to firm value is 4 times (200/5) as effective than halving the CEO's pay.

1.6.i Indeed, <u>while critics typically focus on errors of *commission* (bad actions such as allegedly excessive CEO pay), much more detrimental for society is errors of *omission* (failure to take good actions, such as innovation)</u>. Those losses can be substantial. For example, if Google had not developed such an efficient search engine or mapping device, or banks not developed an online system so quickly, ordinary people's lives would be much more difficult.

1.6.ii This perspective changes the view that only the elites have benefited in recent years. While average incomes have risen more slowly than top incomes (see paragraph 1.8 for reasons), ordinary people have benefited in many non-financial ways, such as access to online banking, shopping, and customer reviews. These innovations have transformed their lives, often at zero cost. <u>The focus should be on incentivizing executives not to coast but to increase the pie for all, rather than holding down their share to the detriment of the overall pie.</u>

1.7 Arguments against high pay ratios are typically based on fairness and equality. Both notions are important, but both must be critically discussed.

1.7.i Fairness does not mean equality, but that the reward is commensurate with contribution. A fair grade on a test does not mean that everybody receives the same grade.

- Excessive executive pay can indeed demoralize workers. However, "excessive" pay is pay unmerited by performance. Pay should depend upon performance, not average pay. An executive cannot excuse poor performance (and thus demand high pay) by claiming that workers are still well-paid. <u>While fairness must indeed be improved, the best way of doing so is to tie pay to long-term value creation rather than short-term profit</u>. The public typically does not begrudge high pay (in any profession) if it is seen to be merited.
- Improvements in disclosure, e.g. on net pay and the link between wealth and performance (discussed later in paragraph 1.11.i), will help alleviate any demoralizing effect.

1.7.ii Pay ratios aim to achieve equality by bringing the CEO down. Instead, <u>equality is best achieved by incentivizing the CEO to bring everyone else up</u>. By tying the CEO's pay to the long-run stock price, the CEO has incentives to treat workers well. Equality is not best solved by making everyone equally poor.

1.8 <u>CEO and workers compete in very different markets, and so there is no reason for their pay to be linked</u> – just a solo singer's pay bears no relation to a bassist's pay, or an athlete's to a physiotherapist's.

1.8.i Gabaix and Landier (2008), one of the most influential finance papers of the millennium, shows that the rise in pay ratios can be fully justified as efficient. To illustrate their argument with an analogy, Justin Verlander is not clearly more talented than Babe Ruth, but is paid far more because baseball is now a multi-billion dollar industry, due to a global marketplace. Even if Verlander is only slightly better than the next best striker, this can have a huge effect on the Detroit Tigers' profits.

1.8.ii Just as the baseball industry has got much bigger, so have firms. Firms also now compete in a global marketplace, and so it is worth paying top dollar for top talent. Average firm size in the S&P 500 is $20b. Thus, even if a CEO contributes only 1% more to firm value than the next-best alternative, this contribution is worth $200m – much higher than the $10m average salary.

1.8.iii The Gabaix-Landier hypothesis is not just an abstract theory, but can be tested. They show that the increase in pay between 1980 and 2003 can be fully explained by the rise in firm size over that time. An update studying 2004-11 shows that subsequent changes were also linked to firm size – in 2007-9, firm size fell by 17%, and CEO pay by 28%.

1.8.iv What we see with executive pay is seen throughout society – executives are not anomalous. Small differences in performance lead to large differences in reward among athletes, musicians, and actors. Kaplan and Rauh (2010) show that high CEO pay has not been a major cause of the rise in inequality – it has risen much more slowly than pay in law, hedge funds, and PE/VC. <u>CEOs are only a small subset of elites in general. While inequality is a critical social issue, it is much better addressed by broader measures, e.g. a high income tax for incomes above $1 million. It is not clear why CEOs should be targeted more than other high earners.</u>

1.8.v The same argument does not apply to employees. <u>A CEO's actions are typically scalable</u> (see Edmans, Gabaix, and Landier (2009) for evidence). For example, if the CEO implements a new production technology, or improves corporate culture, this can be rolled out firm-wide, and thus has a larger effect in a larger firm. 1% is $10m in a $1b firm, but $200m in a $20b firm. In contrast, <u>most employees' actions are less scalable</u>. An engineer who has the capacity to service 10 machines creates $50,000 of value regardless of whether the firm has 100 or 1,000 machines. In short, CEOs and employees compete in very different markets, one which scales with firm size and the other which scales less so. Thus, the pay ratio is a misleading number.

1.8.vi The above assumes that a CEO is important to firm value. One criticism is that she is only one of many employees. However, there is abundant evidence supporting the importance of CEOs. For example, increasing the CEO's equity stake (and not changing anything else) improves firm value by 4-10% per year (von Lilienfeld-Toal and Ruenzi (2014)).

1.9 There are several other concerns with disclosing pay ratios (see also Murphy (2012)):

1.9.i A focus on <u>the ratio may lead to a decoupling of pay from performance</u>. A CEO might be able to justify high pay, despite poor performance, if workers are overpaid.

- It is critically important to separate two issues: the quantum of pay, and its relationship with performance. As Jensen and Murphy (1990) wrote in a famous *Harvard Business Review* piece, entitled "CEO Incentives – It's Not How Much You Pay, But How", "*The critics have it wrong. There are serious problems with CEO compensation, but "excessive" pay is not the biggest issue. The relentless focus on how much CEOs are paid diverts public attention from the real problem – how CEOs are paid*." Fair pay is critically important to win the public's trust, but fairness is pay that is not linked to performance, rather than being high *per se*. The focus should be on linking pay to performance (see Section 1), rather than attempting to address the quantum in isolation via ratio disclosure.

1.9.ii <u>The level of CEO pay has a very small effect on firm value (0.05%). Far more important is the horizon of pay</u>. For example, Edmans, Fang, and Lewellen (2017) show that, when equity vests, the CEO typically sells it (to diversify). To ensure that she can sell at a high price, the CEO cuts R&D and capex, and just meets analysts' earnings targets - i.e. cuts investment to focus on earnings. Flammer and Bansal (2017) show that long-term incentives improve profitability, innovation, and the stewardship of environment, customers, society and, in particular, employees. Boards, investors, and society could focus excessively on this ratio, while ignoring the other (more important) dimensions. Indeed, lengthening the CEO's horizon (e.g. by locking up her equity for 7 years rather than 3 years) would lead to an increase in her pay, to compensate for the greater risk, and make the ratio look worse. Conversely, the pay ratio can be easily reduced by reducing such lock-ups, but the effect on long-term value creation is potentially very negative.

- Shareholders typically do not see pay as excessive. The common argument is that high pay results from dispersed shareholders. Private equity shareholders are engaged and reform many things in a company, even firing the CEO. However, they rarely cut pay. Instead, they tie pay more closely to performance. Since this change improves performance, the level of pay actually increases (Cronqvist and Fahlenbrach (2013)).

Thus, engaged shareholders do not reform the pay ratio but other, more important dimensions.

1.9.iii Where the level of CEO pay is an issue, it is a symptom of a more general corporate governance problem (e.g. of dispersed shareholders). Focusing on the pay ratio may allow a firm to put a sticking-plaster over the more general problem by fixing the ratio.

1.10 Ratio disclosure is costly to implement. The SEC estimated a first-year cost of $1.3bn and ongoing annual costs exceeding $520m. There is often no centralized payroll system; in a global firm, employees are hired and paid locally, and the employment regulations are local. Transmitting this information to a US HQ is expensive, particular given the recent EU Data Protection Directive that tightens rules on data transfers outside the EU.

1.11 However, disclosure can be improved along several other dimensions. All cost little to implement:

1.11.i Firms should disclose not only the executive's pay over the last year(s), but also the change in her wealth. Disclosing this change in wealth may substantially increase the public's perception of fairness. For example, contrary to the belief that Bear Stearns CEO Jimmy Cayne got off scot-free from his firm's collapse, his wealth fell by $950m.

1.11.ii Firms should disclose not only the percentage change in the firm's stock price over the last year(s), but the *dollar* change in firm value, perhaps benchmarked to a peer group. For example, if the stock price rose by 5% in a $20b firm, this is a rise of $1b. Since CEO pay is a *dollar* number, this allows for an apples-to-apples comparison.

- Of course, the $1bn increase cannot be entirely attributed to the CEO; it may stem from other employees. However, with this number, the public can back out what the CEO's contribution must be for pay to be fair. If the CEO's pay is $10m, then if it is plausible that she is responsible for 1% of the value increase, then her pay is fair.
- Such a measure also helps balance out the cost of the CEO with her potential value creation, i.e. highlights pie-enlarging rather than just pie-splitting.

1.11.iii Firms should disclose *hypothetical net* executive pay as well as gross. This will improve perceptions of fairness by taking into account something that the government is already using to reduce inequality – income tax.

- We will not know the exact net pay, since this will depend on the executive's tax status. However, firms can disclose a hypothetical net pay based on income tax rates. While not perfect, this is a much closer measure of how much the executive actually takes home.

1.11.iv Firms should disclose the vesting schedule of equity. A CEO with $100k of equity vesting in 1 year and $1m in 5 years will likely have a longer horizon than one with $1m vesting in 5 years and $100k in 1 year. This leads to transparency of how much the CEO is paid and when.

In sum, I strongly caution against pay ratio disclosure, and do not believe that any modification will avoid the unintended consequences of such disclosure. However, I do support the disclosure of (i) The change in the executive's wealth; (ii) The (peer-adjusted) pound sterling change in firm value; (iii) The hypothetical net pay to the executive; (iv) The horizon of her entire equity portfolio. I believe such disclosures will achieve the SEC's objective of fairer pay more effectively, and with fewer unintended consequences.

Sincerely,

Professor Alex Edmans

References

Some of the papers I have summarized on my blog, Access To Finance (www.alexedmans.com/blog) which explains technical academic papers in plain English. Links are provided where available.

Edmans, Alex, Vivian W. Fang, and Katharina A. Lewellen (2017): "Equity Vesting and Investment." *Review of Financial Studies* 30, 2229-2271. Summarized at http://alexedmans.com/ceos-cut-investment-to-sell-their-own-shares-at-high-prices/.

Edmans, Alex, Xavier Gabaix, and Augustin Landier (2009): "A Multiplicative Model of Optimal CEO Incentives in Market Equilibrium." *Review of Financial Studies* 22, 4881-4917.

Faleye, Olubunmi, Ebru Reis, and Anand Venkateswaran (2013): "The Determinants and Effects of CEO-Employee Pay Ratios." *Journal of Banking and Finance* 37, 489-510.

Flammer, Caroline and Pratima Bansal (2017): "Does Long-Term Orientation Create Value? Evidence from a Regression Discontinuity." *Strategic Management Journal* 38, 1827-1847. Summarized at http://alexedmans.com/long-term-executive-incentives-improve-innovation-and-corporate-responsibility/

Frydman, Carola and Dimitris Papanikolaou (2017): In Search of Ideas: Technological Innovation and Executive Pay Inequality. *Journal of Financial Economics*, forthcoming.

Gabaix, Xavier and Augustin Landier (2008): "Why has CEO Pay Increased So Much?" *Quarterly Journal of Economics* 123, 49-100. Summarized at http://alexedmans.com/why-has-ceo-pay-risen-so-much-faster-than-worker-pay/

Hertzberg, Frederick (1959): *The Motivation to Work*. New York: John Wiley & Sons.

Jensen, Michael C. and Kevin J. Murphy (1990): "CEO Incentives – It's Not How Much You Pay, But How." *Harvard Business Review*, May-June 1990.

Kaplan, Steven N. and Joshua D. Rauh (2010): "Wall Street and Main Street: What Contributes to the Rise in the Highest Incomes?" *Review of Financial Studies* 23, 1004-1050.

Maslow, Abraham H. (1943): "A Theory of Human Motivation." *Psychological Review* 50, 370–396.

Mueller, Holger, Paige P. Ouimet, and Elena Simintzi (2017): "Within-Firm Pay Inequality." *Review of Financial Studies*, forthcoming.

Murphy, Kevin J. (2012): "The Politics of Pay: A Legislative History of Executive Compensation." *Research Handbook on Executive Pay*. Summarized at http://alexedmans.com/how-virtually-every-pay-regulation-has-backfired/.

Von Lilienfeld-Toal, Ulf and Stefan Ruenzi (2014): "CEO Ownership, Stock Market Performance, and Managerial Discretion', *Journal of Finance* 69, 1013-1050. Summarized at http://alexedmans.com/higher-stock-returns-when-ceos-own-more-shares/.