Executive Compensation: Practical Insights from Large-Scale Research

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At Wharton, Alex won 14 teaching awards in six years, served as Faculty Graduation Speaker to the MBA class of 2014, and was the highest-rated finance professor in the MBA program before his departure. At LBS, he won the MBA Class of 2016 teaching award for the highest-rated professor school-wide (voted by the first-year class) and the Best Teacher: MBA 2016 award (voted by the graduating class), and served as Faculty Orientation Speaker to the MBA classes of 2017 and 2018.
Link executive pay to wider societal benefits

FEBRUARY 16, 2017

The biggest way in which executives can take from society is not by paying themselves too much. It’s by coasting and failing to create value for wider society.

The level of pay attracts most public anger (http://next.ft.com/content/2f89be62f2be11e695eeef14e55513608). It is easy to understand why — the average FTSE 100 chief executive is paid £5m (http://highpaycentre.org/counter), 178 times more than the average UK worker. If CEOs didn’t take so much for themselves, the argument goes, their slice could be reallocated to others.

This fixed-pie mentality is wrong. CEO pay should ensure that businesses serve society, not just executives. But the best way to do this is to incentivise the CEO to grow the pie for all. The median FTSE 100 company size is £7bn. If a CEO creates 1 per cent extra value, that’s £70m, which swamps any savings from reducing his or her pay.

But does any of this increased value go to society? It does. Successful companies survive and grow, paying taxes, creating jobs, paying suppliers, and providing goods and services to customers — often for free. While the tech boom has created elites, it has also transformed everyone’s lives, giving us free access to search engines, mapping, online banking and shopping.

Executives must be held to account for errors of commission, such as unnecessary job cuts. Much less visible, but far more destructive, are errors of omission. If executives coast, and fail to create jobs or launch products, the losses can be substantial.

But the way that we vilify business encourages coasting. When taking any decision we should compare the costs with the benefits. Yet we often think about business only as a cost. The High Pay Centre (http://highpaycentre.org/counter) has a counter that shows CEO pay growing in real time as you browse the website. There is no counter for the amount that firms pay to workers or suppliers, or the value customers derive from their products — and little public punishment of companies that coast.
How do we reform pay to encourage innovation? By focusing on the structure, not the amount. Complex, opaque bonuses encourage myopic behaviour, such as cutting investment, to meet short-term financial targets. Instead, pay (http://next.ft.com/content/b5b62c88f2c711e687586876151821a6) should obey three principles: it should be simple, transparent, and long term. Long-horizon equity does just that; shares are easy to value and they depend on the long-term stock price. In the long run, the stock price captures value not just for shareholders but stakeholders as well.

Evidence in peer-reviewed journals shows the benefits of reforming pay structures. Granting CEOs longterm equity (http://alexedmans.com/longtermexecutiveincentivesimproveinnovationandcorporateresponsibility/), for example, means not only higher future profitability, but also innovation and stewardship of the environment, as well as customers, society and, in particular, employees. In contrast, short-term equity (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2270027) induces CEOs to cut investment to meet earnings targets.

Moreover, CEOs with high equity stakes outperform those without by 4.10 per cent a year — incentives work. Perhaps CEOs who know that their firm is going to do well will ask the board for stock (rather than cash) in the first place? The authors do further tests to show that it is causation, not just correlation — the effect is stronger where institutional ownership, governance, and product market competition are all weaker — settings in which coasting is a major concern.

The above studies change only the CEO’s contract and keep everything else constant, addressing concerns that the individual at the top matters little in companies’ overall success because he or she is only one employee. Other staff matter too, and should also share in success. One way to achieve this is to give equity (https://academic.oup.com/rfs/articleabstract/23/11/4148/1609512/IncentivesTargetingandFirmPerformanceAn?redirectedFrom=fulltext) to all employees, not just top executives.

Overall, we must shift the focus from pies-plitting to pie-enlarging, from pay levels to pay horizons. Great firms create value for all — let’s focus our reform efforts on creating great companies.

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ft.com
Why we need to stop obsessing over CEO pay ratios

FEBRUARY 23, 2017

The numbers are striking. In 2015 U.S. CEOs earned 335 times the pay of the average worker. In the U.K. they earn 129 times more; the High Pay Centre marked “Fat Cat Wednesday” (January 4, 2017) as the day by when a CEO has already earned more than an average worker earns in the entire year.

This ratio is the number one piece of evidence that executive pay is excessive and the number one statistic that advocates of pay reform argue should be fixed. Accordingly, the Dodd–Frank Act is forcing U.S. firms to disclose this ratio from this year; the U.K. is contemplating similar legislation. The world’s largest investor, BlackRock, wants to move beyond simply disclosing pay ratios, to capping the ratio of some forms of pay. It recently wrote to over 300 UK companies to say it would only approve salary increases for top executives if worker wages increased by a similar amount.

The idea is that a high pay ratio is unfair. It indicates that the CEO is being disproportionately rewarded, supposedly at the expense of other workers. Forcing disclosure will shame firms into lowering the ratio; investors, customers, and employees can boycott firms with overpaid bosses.

I strongly believe that executive pay should be reformed. My own research demonstrates the substantial benefits to firms of treating their workers fairly. However, disclosure of pay ratios may have unintended consequences that actually end up hurting workers. A CEO wishing to improve the ratio may outsource low-paid jobs, hire more part-time than full-time workers, or invest in automation rather than labor. She may also raise workers’ salaries but slash other benefits; importantly, pay is only one dimension of what a firm provides. Research shows that, after salary reaches a (relatively low) level, workers value nonpecuniary factors more highly, such as on-the-job training, flexible working conditions, and opportunities for advancement. Indeed, a high pay ratio can indicate promotion opportunities, which motivates rather than demotivates workers. A snapshot measure of a worker’s current pay is a poor substitute for their career pay within the firm.

The pay ratio is also a misleading statistic because CEOs and workers operate in very different markets, so there is no reason for their pay to be linked — just as a solo singer’s pay bears no relation to a bassist’s pay. This consideration explains why CEO pay has risen much more than worker pay. As an analogy, baseball player Alex Rodriguez was not clearly more talented than Babe Ruth, but he was paid far more because baseball had become a much bigger, more global industry by the time he was playing. Even if the best player is only slightly better than the next best player at that position, the slight difference can have a huge effect on the team’s fortunes and revenues.

Just as the baseball industry has gotten bigger, so have firms (also due to the global marketplace), and so it is worth paying top dollar for top talent. Average firm size in the Fortune 500 today is $20 billion. Thus, even if a CEO contributes only 1% more to firm value than the next-best alternative, this contribution is worth $200 million — much higher than the $10 million average salary. Gabaix and Landier show that the sixfold increase in CEO pay since 1980 can be explained by the sixfold increase in firm size.
The same argument does not apply to average workers. A CEO's actions are scalable. For example, if the CEO improves corporate culture, it can be rolled out firm-wide, and thus has a larger effect in a larger firm. One percent is $20 million in a $2 billion firm, but $200 million in a $20 billion firm. In contrast, most employees' actions are less scalable. An engineer who has the capacity to service 10 machines creates, say, $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 that scales with firm size and one that scales less.

In addition to creating misleading comparisons between firms of different size, the pay ratio is not comparable across different industries. It is lower in investment banks than supermarkets — but that’s because mid-level bankers are paid well rather than because banking executives are paid poorly. Even within an industry, average pay depends on which countries a firm operates in and its mix of capital and labor.

Thus, I fully share the aim behind pay ratios, which is to consider other stakeholders. But this aim is best achieved by encouraging CEOs to increase the pie for all, rather than shrinking CEOs' share of the pie. The best way to do this is to link pay to the long-run stock price. Research shows that improving employee satisfaction increases the stock price by 2%–3% per year in the long run — that's $400–$600 million in the average Fortune 500 firm, which is much greater than the amount that can be saved by reducing CEO pay.

Moreover, unlike the pay ratio, the long-run stock price takes into account other stakeholders, such as customers and the environment. Firms with greater stock-priced compensation beat their peers by 4%–10% per year, and implementing long-run stock compensation improves not only profitability and innovation but also the stewardship of customers, the environment, society, and, in particular, employees. Large-scale studies in both the U.S. and the UK have independently found that the pay ratio is positively correlated with long-term performance — pie expansion — due to either attracting talented managers or incentivizing them to grow the pie.

In addition, disclosing the pay ratio is costly. The SEC estimates a first-year implementation cost of $1.3 billion and ongoing annual costs that exceed $520 million. Foreign subsidiaries typically have a different payroll system, and transporting payroll data to the U.S. headquarters is expensive.

So, what kind of disclosures might actually help? One is focusing on a CEO’s hypothetical net pay, rather than their gross pay. This captures the effect that income tax already has in reducing inequality. Of course, the actual net pay will depend on the CEO’s own tax position, which we won’t know, but applying the federal tax rates gives a much better approximation than gross pay.

Another is the sensitivity of the CEO’s wealth to firm performance. There is a common misperception, promoted by many incorrect studies, that CEOs aren’t punished for poor performance because their salary and bonus don’t change much with performance. All of these studies incorrectly ignore the substantial incentives that come from a CEO’s equity holdings. If the stock price falls by 10%, the average Fortune 500 CEO loses millions of dollars. Firms should report the CEO’s gain or loss from her equity holdings. There will be large losses in underperforming firms, showing society that CEOs are punished for poor performance.

A third idea is to share an industry-adjusted dollar increase in firm value. If a firm beat its peers by 5%, that's $1 billion in a $20 billion firm. Of course, not all of that $1 billion will be due to the CEO. But this $1 billion provides a benchmark against which to compare the pay of $10 million, to decide whether it’s fair. If it’s plausible that the CEO is responsible for 1% of the value increase, then her pay is fair; otherwise, it’s not.

The fourth is the horizon of the CEO’s pay. Firms can disclose the vesting schedule of incentives. For example, a CEO with $1 million of equity vesting in one year and $10 million in five years is likely to have a longer-term outlook than one with the reverse. Such a disclosure will significantly increase transparency, making it clear how much and when the CEO is paid.

In sum, let's move away from the pie-splitting mentality of pay ratios, and toward the pie-enlarging mindset of value creation. Rather than bringing the CEO’s pay down, reform should incentivize the CEO to bring everyone else's up.

*Harvard Business Review*
Stop making CEO pay a political issue

JULY 18, 2016

Presidential candidates once campaigned on taxes, government spending, and foreign policy. But more recently, executive compensation has suddenly become a hot topic for winning the public’s approval. In the U.S., Donald Trump has called high CEO pay “a total and complete joke” and “disgraceful,” arguing that CEOs stack boards with their buddies who rubber-stamp excessive pay. Hillary Clinton has lamented that “There’s something wrong when the average American CEO makes 300 times more than the typical American worker.” And in the UK, Theresa May launched her ultimately successful campaign to become Prime Minister with a speech that proposed to curb executive pay.

Politicians typically make two suggestions for pay reform. First, to cap, or at least force the disclosure of, the ratio of CEO pay to median employee pay. Second, to put pay packages to an employee vote, or as May suggests, put workers on boards.

While I agree that a) in many companies, pay is far from perfect and ought to be reformed, and b) that political leaders are right to be concerned about how wealth is distributed in society, there are a number of problems with the proposed approaches.

It is shareholders who bear the costs of paying the CEO, and so it is unclear whether the government should intervene. A common argument is that high pay has indirect costs — in particular, it incents CEOs to take actions that hurt society. However, there is no evidence that the level of pay indeed has these effects. While it’s the level of pay that captures politicians’ (and the public’s) attention, it’s the structure of pay which matters more for firm value — for example, whether it vests in the short-term or long-term. Vivian Fang, Katharina Lewellen, and I find that, in quarters in which significant equity vests, CEOs cut R&D and capital expenditure in quarters in which significant equity vests. The electorate will be more impressed by a politician who proposes a headline-grabbing law to halve a CEO’s salary than a politician who extends the vesting horizon from three years to seven years, even though the latter will have a far greater impact on long-term value creation. Moreover, even if shareholders didn’t take into account the effect of poorly-designed contracts on CEO actions, it’s not clear why the government should regulate pay rather than these actions themselves – surely the most direct route to curtailing them.

A second motivation to lower pay is to reduce inequality. However, attempts to curtail pay through regulation may backfire. Kevin J. Murphy describes how the entire history of executive compensation regulation is filled with unintended
consequences. For example, the forced disclosure of perks in 1978 increased perks as CEOs could see what their peers were receiving; the 1984 law on golden parachutes – a response to a single contract at one firm — catalyzed the adoption of golden parachutes by alerting CEOs without them to their existence; and President Bill Clinton’s $1 million salary cap led to CEOs below the cap raising their salaries to above it, and those above merely reclassified salary as bonus.

Thus, while the motivation to reduce inequality is sound, a focus on pay ratios may have similar unintended consequences – and could even increase inequality. A CEO might reduce his company’s pay ratio by firing low-paid workers, converting them to part-time status, or increasing their cash salary but reducing their non-financial compensation (such as on-the-job training and superior working conditions). A cap could also lead boards to focus on the “optics” of pay (e.g. a low ratio) and ignore more important dimensions, such as performance targets being long-term rather than short-term.

So if capping the pay ratio wouldn’t work, what about putting workers on boards, or submitting CEO pay packages to an employee vote? There are reasons to be skeptical here as well. An employment contract is an extremely complex issue and cannot be whittled down to a simple number such as a pay ratio, which the vote might focus on. It covers topics such as the optimal vesting schedule, the appropriate mix of stock vs. options vs. salary vs. pensions vs. bonuses, whether industry performance be filtered out and, if so, how (indexed options? indexed stock? options on indexed stock? Stock with indexed performance vesting thresholds?) Confused? Well, so might employees be, should CEO pay contracts be put up for a vote. Companies already have natural incentives to treat employees as valued partners to the business – one of my own studies showed that firms with high employee satisfaction beat their peers by 2-3%/year. Even if boards only cared about maximizing shareholder value, they should be consulting with employees and looking for ways to keep them happy. But there’s a big difference between consulting employees and putting them on the board. Firms do market research consulting customers, but don’t put them on the board. Indeed, Gary Gorton and Frank Schmid found that worker representation on German boards is associated with lower profitability and firm value.

Is the message to do nothing? Far from it. It’s to leave the decisions to major shareholders, who have the expertise and incentives to get these decisions right. After all, high CEO pay comes straight out of shareholder returns, and if the contract causes the CEO to take bad decisions – or demoralizes employees and customers – shareholders suffer the consequences. Unlike regulation, which is one-size-fits-all, shareholders can decide what the optimal pay package is for that particular firm.

And things are being done. We’ve indeed seen a substantial increase in shareholder power. 11 countries have passed say-on-pay legislation since 2002; Ricardo Correa and Uger Lel show in a forthcoming paper in the *Journal of Financial Economics* that such legislation has led to a significant reduction in pay and an increase in pay-performance sensitivity. We have also seen innovation in other dimensions of pay that are more important than ratios – for example, the lengthening of vesting horizons (to encourage the CEO to think for the long term) and paying executives with debt rather than just equity (to dissuade excessive risk-taking).

Moreover, when pay is inefficient, it is often a symptom of a more underlying corporate governance problem, brought on by conflicted boards and dispersed shareholders. Addressing pay via regulation will solve only these symptoms; encouraging independent boards and large shareholders will solve the underlying problem. That will improve not only pay, but other governance issues.

What about equality? Steven N. Kaplan and Joshua Rauh showed that high CEO pay has actually not been a major cause of the rise in inequality – it’s risen much more slowly than pay in law, hedge funds, private equity, and venture capital. If inequality is truly the concern, it may be better addressed by a high rate of income tax and closing loopholes that tax investments at a lower rate. This will address inequality resulting from all occupations (including sports, entertainment, and trust funds); it’s not clear why CEOs should be singled out.

The bottom line is that, to the extent pay is a problem, it should be shareholders, not politicians or employees, who fix it. **Alex Edmans is a Professor of Finance at London Business School, where he specializes in corporate finance, behavioral finance, and corporate social responsibility. He earned his BA from Oxford University and his PhD from MIT, where he was a Fulbright scholar.**

*Harvard Business Review*
Performance-based pay for executives still works

FEBRUARY 23, 2016

Performance-based pay has come under fire since the global financial crisis. And indeed, the evidence does suggest that incentive-based pay can be damaging in many settings. This research is summarized in a recent article from Dan Cable and Freek Vermeulen of London Business School. However, very little of the research they cite was actually conducted on business executives. The research that has been conducted on business leaders suggests that financial incentives can work... and quite often do.

And while it’s true, as they write, that “large bonuses and stock options have been held responsible for overly risky behavior and short-term strategies,” I know of no peer-reviewed evidence that the crisis was actually due to poor incentives, and their article cites none.

Cable and Vermeulen do present evidence that performance measures often only capture one element of a worker’s job, and thus have a distorting effect on their work. For example, paying teachers according to student test scores may induce them to “teach to the test.” Financial incentives only work in jobs where there’s some kind of comprehensive performance measure that weights all the different dimensions appropriately. Clearly, for lots of jobs, no such measure exists.

But, for executives, you do have such a measure – the long-run stock price. In the long run, every executive decision will eventually show up in the stock price. The stock price captures not just current profits, but expected future profits, growth opportunities, balance sheet strength, corporate culture, customer satisfaction, relations with stakeholders, and so on, and weights them by their relative importance for firm value. Although critics have often called the stock price reductive, research shows it’s more comprehensive than the caricature. For example, research I’ve conducted has shown that, if executives treat workers responsibly, this eventually boosts the stock price – the 100 Best Companies to Work For in America outperform their peers by 2-3% per year. Others have found similar results for other intangibles, such as customer satisfaction, environmental stewardship, and patent citations.

Of course, the key words are “in the long run.” Cable and Vermeulen are correct that executives may “cook the books” in the short-run – but the effects of such transgressions will be felt in the long-run. For example, earnings restatements lead to a -9% return. Given the current levels of equity compensation, this would cost the average CEO $4.5 million – but it would cost zero if he had been given a flat salary. The flipside of rewards for good performance is they allow punishment for poor performance – but a CEO with a fixed salary gets off scot-free even when shareholders are suffering (particularly if performance is not bad enough to lead to firing). For example, JC Penney’s CEO, Ron Johnson, suffered a 97% pay cut in 2012 due to poor performance. Jimmy Cayne of Bear Stearns lost over $900 million from the collapse of Bear Stearns.

Thus, while poorly designed incentives (e.g. those with short vesting periods, or paying according to quarterly earnings) can backfire, to completely scrap equity will throw the baby out with the bathwater. The solution is simple – to extend the vesting period to the long-term. And, this is another difference between executives and other workers. You can’t pay regular workers according to performance in 5 to 10 years’ time, because they need money now to live on. Executives are so highly paid that they’re not hurt by having a significant proportion of their income deferred.

And not only do we have a comprehensive way to measure CEO performance, there is also evidence that suggests performance-based pay for CEOs does have benefits.

A paper in the Journal of Finance found that firms that give CEOs high equity incentives outperform those with low equity incentives by 4-10%/year. Moreover, the outperformance is over the long-term, not due to short-term tricks, and is most apparent in firms where it would be easiest for managers to coast (due to factors like weak governance, weak competition, or high managerial discretion).

Cable and Vermuelen argue that executives are intrinsically motivated, and that extrinsic motivators like performance-based pay will only crowd out these intrinsic motivators. But the evidence suggests that un incentivized executives may simply pursue the “quiet life” and allow the status quo to persist, avoiding hard tasks like major reorganizations, hard negotiations, or unpopular decisions. Indeed, a study in the Journal of Political Economy showed that CEOs with few incentives (in this
case, due to takeover protection) did fail to close down old plants or create new plants – they just coasted, and productivity and profitability suffered.

In addition to motivating the executive once she arrives, incentives are useful in attracting motivated executives to begin with. Offering a contract that guarantees that your pay will never fall, no matter how bad your performance is, will attract “coasters” who desire the quiet life. A study showed that the introduction of incentive pay boosted productivity by 44%. While half of the increase stems greater effort by existing workers, the remaining half stems from coasters leaving and more motivated employees replacing them.

But, rewards are not only instrumental – to incentivize performance – but also to signal what is important to the organization. Consider the Nobel Prize, which comes with a $1.5 million award. The incentive effect of the cash is likely zero – the prize would have the same prestige without it. Moreover, why have a prize at all? It’s highly unlikely that any researcher would work less hard without it. And, that’s the same for best paper awards, all of which come with cash sums. These prizes are not to incentivize, but to show what the academic profession values, and thus shape the behavior of the broader research community.

Moreover, knowing that the CEO’s fortunes are tied to the firm’s success is a positive signal to workers, investors, customers, and suppliers. You’d prefer to be associated with a firm where the CEO is invested – quite literally – in its success.

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Harvard Business Review
28 years of stock market data shows a link between employee satisfaction and long-term value

MARCH 24, 2016

Does employee satisfaction improve firm value? The answer to this question is not obvious. While it seems natural that satisfaction will facilitate worker recruitment, retention, and motivation, investing it is costly. So the question is, do the benefits outweigh the costs?

The answer is a resounding yes. In a paper in the Academy of Management Perspectives, summarized in a TEDx talk, I studied 28 years of data and found that firms with high employee satisfaction outperform their peers by 2.3% to 3.8% per year in long-run stock returns – 89% to 184% cumulative – even after controlling for other factors that drive returns. Moreover, the results suggest that it’s employee satisfaction that causes good performance, rather than good performance allowing a firm to invest in employee satisfaction.

I measured employee satisfaction using the list of the 100 Best Companies to Work For in America. This list has two advantages. First, it has been around since 1984, so I have tons of data and can ensure that any relationship holds generally, rather than being specific to a particular time period. Second, the list is particularly thorough. Some prior studies measure employee satisfaction by asking managers how much they care about their workers, which is prone to manipulation. Instead, this list is compiled independently by the Great Place To Work Institute, which selects 250 workers at random and asks them 57 questions, spanning credibility, respect, fairness, pride, and camaraderie. As a result of its thoroughness and independence, the measure is extremely well respected by both managers and employees alike.

The second question is how to measure performance. Prior research typically looks at profits. However, this leads to the aforementioned causality issue – does satisfaction improve profits, or do profits lead to satisfaction? Looking at future profits doesn’t solve the issue, because profits are persistent. For example, if I found that satisfaction in 2015 was associated with high profits in 2016, it could be that high profits in 2015 led to both high satisfaction in 2015 and also high profits in 2016. The same issue arises when studying firm value (e.g. P/E or M/B ratios) rather than profits; firm value is similarly persistent. I thus decided to tackle the causality issue by measuring performance using long-run stock returns. After controlling for momentum, stock returns aren’t persistent; for example, if high stock returns in 2014 lead to high satisfaction at the start of 2015, these high stock returns don’t necessarily persist in 2015 – a stock that has done well in 2014 should be equally likely to outperform as underperform in 2015. Separately, studying long-run stock returns addresses any issue with the stock market being myopic, i.e. taking time to incorporate the benefits of employee satisfaction. To isolate the effect of employee satisfaction, I control for the industry that the firm is in, firm size, recent performance, dividend yield, growth opportunities, risk, and several other factors. (These other factors and controls are explained in more detail in the paper.) After doing so, I end up with my 2.3% to 3.8% annual outperformance.

The results have implications for both managers and investors. For managers, they imply that companies that treat their workers better, do better. While seemingly simple, this result contradicts conventional wisdom, which uses cost control as a measure of efficiency. For example, Costco is known for paying its workers significantly above the industry average, and gives them healthcare benefits after a significantly shorter period of service. An equity analyst was quoted in Businessweek as saying that “[Costco’s] management is focused on ... employees to the detriment of shareholders. To me, why would I want to buy a stock like that?” Indeed, prior research found consistent support for the conventional view. A study in the prestigious American Economic Review found that announcements of pay increases reduce market valuations dollar-for-dollar, consistent with the zero-sum view that a dollar paid to workers as a dollar taken away from shareholders. Another study on German co-determination found that greater employee involvement reduces profitability and valuation.

In contrast, I find that the benefits of employee satisfaction outweigh the costs. These different results may stem from using a superior and more comprehensive measure of employee satisfaction, which consists of more than just pay and involvement. One might think that there is a finite optimal level of employee satisfaction – that firms at the very top of the list may be overinvesting and underperform. However, I find no evidence of this. This may be because firms generally underinvest in
employee satisfaction – perhaps because of the traditional view that doing so is simply wasteful expenditure – and so even the top firms have not crossed the optimal level.

So what are the implications for investors? Just because managers should invest in employee satisfaction doesn’t necessarily mean that investors should also. If a characteristic is good for firm value, but the market recognizes that it’s good, then it should already be in the stock price – just like how investors shouldn’t automatically invest in the market leader in an industry, since the stock price will already take this into account.

The Best Companies is public information, and so their stock prices should immediately jump upon list publication – particularly since the Best Companies are large firms and so followed by most investors. However, I find that it takes the market four to five years before it fully incorporates this information. While the market is good at valuing tangible assets, such as profits and dividends, it is very slow at valuing intangibles such as employee satisfaction – perhaps because it wrongly thinks that employee-friendly companies are distracted from the bottom line and doesn’t view satisfaction as a desirable characteristic. This result potentially extends beyond employee satisfaction and towards other dimensions of corporate social responsibility (CSR), since they’ll also be ignored by investors who doubt their benefit for firm value. As a result, even a traditional investor who targets purely financial returns may wish to pay attention to CSR characteristics.

Moving back to managers, the market’s slow reaction to employee satisfaction implies a double-edged sword. While investing in employee satisfaction does pay off, it takes the market a long time to recognize its benefits. Thus, a CEO who is concerned with meeting quarterly earnings targets may choose not to invest in employee morale – and in so choosing, hurt her company’s long-term performance. Both investors and directors can take actions to mitigate this. Investors should look beyond quarterly reports. Indeed, Unilever’s CEO Paul Polman stopped reporting quarterly earnings to allow the company (and its investors) to focus on long-term value. Similarly, boards of directors should give managers equity with long vesting periods, rather than deciding their bonuses or whether to retain or fire them based on short-term profit. The problem of short-termism is systemic – managers will only think long-term when the directors and investors who evaluate them do so also.

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*Harvard Business Review*
House of Commons Report on Corporate Governance

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Today the House of Commons Select Committee on Business, Energy, and Industrial Strategy (BEIS) published its report on corporate governance, after extensive consultation of oral and written testimony from a wide range of stakeholders. I applaud the Select Committee for such an extensive, thorough job with an issue of national importance, and am personally grateful to them for publishing my initial and supplementary written testimonies as well as inviting me to testify orally in Parliament. I endorse the vast majority of the recommendations and believe that they will help “make Britain a country that works for everyone”, in Prime Minister May’s words. This post aims to summarize the 81 page report into a few simple bullet points, and link them to the evidence.

Executive Pay

- LTIPs (bonuses based on hitting financial targets) to be scrapped from 2018; no existing LTIPs to be renewed.
- Instead, give executives equity that they are required to hold for the long term (at least 5 years). The equity must not vest (= become saleable) all in one go
  - See here for the arguments for replacing LTIPs with equity, and here for evidence that CEOs cut investment when their equity vests
  - These ideas are also advocated by The Purposeful Company, a leading consortium of leading executives, investors, consultants, and academics (full report here, short summary here)
  - LTIPs are almost ubiquitous, but used because “we’ve always done it that way” rather than because they are effective. Given this common usage, the proposal is a radical one – but a highly desirable one – and I greatly applaud the Committee for its boldness
- Where bonuses are used, they should be on wider performance criteria (e.g. qualitative factors) and must be stretching
- Shareholders’ “say-on-pay” vote will remain advisory, rather than being changed to binding (as initially mooted).
  - However, if an advisory vote has < 75% support, there should be a binding vote the next year and the Remuneration Committee (RemCo) chair should be encouraged to resign
- Firms should not be forced to put workers on RemCos, but worker representation to be on a comply-or-explain basis
- Firms, public sector, and large third-sector organisations to publish pay ratios between the CEO and senior management, and the CEO and all UK employees. The ratio must be on a consistent basis each year
  - The actual advocacy of pay ratios was lukewarm, with little justification given. See my Harvard Business Review article for the potential unintended consequences of such disclosure (including for workers themselves).

Directors’ Duties and Reporting

- More specific and accurate reporting on directors’ duties to other stakeholders, including long-term consequences of decisions
- Reporting to contain fewer boiler-plate statements. Companies to be more imaginative and agile in communicating directly with stakeholders
- The report recognises that UK corporate governance is very well regarded internationally. Thus, it strongly supports maintaining
  - The unitary board, where all directors share the same responsibilities
  - The statement of directors’ duties in Section 172 of the Companies Act (that directors “promote the success of the company for the benefit of its members” (i.e. shareholders) while having regard for other stakeholders)
  - “Comply or explain” guidelines (firms do not need to comply with certain guidelines, permitting flexibility – but if they do not, they must explain why not)
- I particularly applaud the report’s caution against overreacting to the scandals at BHS and Sports Direct. These scandals are tragic, but do not mean that all companies should have to suffer.
• The Report writes (paragraph 24): “Corporate governance in the UK is still strong and remains an asset to the country’s reputation for doing business. We are conscious that a small number of highly damaging examples of corporate governance failure should not lead to a hasty and disproportionate response. We do not believe that there is a case for a radical overhaul of corporate governance in the UK”

Expanded Role for the Financial Reporting Council (FRC)
• FRC to introduce a new tiering system (Red, Yellow, Green) for corporate governance
• FRC to engage and hold directors to account
  • If engagement unsuccessful, report failings to shareholders
  • If still no response, take legal action
• FRC to be renamed and resourced, to match this expanded role

Private Companies
• New governance Code for the largest private companies to be developed
  • Compliance to be examined by an expanded FRC, funded by a small levy on businesses

Shareholder Engagement
• Paragraphs 13-16 recognise the importance of blockholders (large shareholders) and the dangers of the ownerless corporation
  • However, this point is not subsequently picked up. Encouraging large shareholders to form, and helping shareholders to engage with companies, could further help the Government’s mission. See Chapter 4 of The Purposeful Company Policy Report.
• Investor Forum to facilitate better engagement between boards and shareholders, particularly if rated Yellow or Red by new FRC tiering system
• Shareholders encouraged to engage more in pay

Stakeholder Representation
• Companies to be encouraged to consider a Stakeholder Advisory panel, to consult stakeholders other than shareholders
• Annual Report to contain a section on how firms engage with shareholders
• Workers on boards should not be mandated, but report highlights that there is nothing in the law to prevent it. Would like it to become the norm by opening up new director positions to all.
  • Worker directors will not be a delegate of the workforce as a whole but act in their own capacity, and have the same rights and responsibilities as other directors

Board Diversity
• 2020 target for half of new appointments to senior and executive management to be women. Companies should explain why they have failed to meet the target and the steps taken to address it
• Every existing FRC reference to gender diversity should also add a reference to ethnic diversity

Other
• Firms to report on their people policy in the Annual Report, i.e. approach to investing in people and how they ensure that their pay and working conditions are reasonable
• Investors to disclose voting records; FRC to name those who don’t vote
• Firms to provide full information on advisors engaged in transactions

A Note on the Use of Evidence
• The Report writes “The TUC states that “There is clear academic evidence that high wage disparities within companies harm productivity and company performance”. This statement is actually false. The TUC (potentially inadvertently) quoted an unpublished 2010 paper by which found that high pay ratios are negatively correlated with firm performance.
However, the final version of the paper was published in 2013 (i.e. 4 years ago). After going through peer review, it found the opposite result. In the authors’ own words, “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.”

• This highlights the potential issue of “confirmation bias”. You can always find some academic paper to support any viewpoint (some studies support vaccination, others oppose it). So, just having “evidence” to support a viewpoint means little – what matters is the quality of evidence. One cannot just hand-pick an unpublished draft that shows what you would like it to show, particularly when the published version shows the opposite.

• Claiming to be unaware of the published paper is not an acceptable defense. It is incumbent upon a witness, who chooses to quote an unpublished paper, to check whether it has since been published. Confirmation bias is not only misinterpreting evidence once you have received it, but the failure to search for new evidence. One cannot just stop at finding a half-finished paper because it shows what one would like it to show, and not bother to see if there is a finished version

• I highlighted in my supplementary testimony that the result was overturned (and the US evidence was independently confirmed using UK data in a paper forthcoming in a top journal). Thus, while the bulk of the Report is balanced and well evidenced, it is surprising that it contains a statement known to be wrong. The Oxford Dictionaries word of 2016 is “post-truth”, which has led to a widespread, and very welcome, acknowledgment of the importance of correcting untruths. Thus, when such corrections are made, they should not be ignored.

• As stated in my supplementary testimony, “The goal of the above is absolutely not to discredit the TUC, which is an organisation I respect, and whose goal of encouraging ethical treatment of workers I very much share. [Indeed, I expect that we both share strong support for the Committee’s recommendation for firms to disclose their people policy.] This is simply intended to be one example of how important it is to be critical with evidence.”

• Moreover, that the paper finds that pay ratios are positively correlated with future performance is far from the final word. Academic evidence is only one input into a decision. My concern is only that, when evidence is quoted, it should be quoted accurately.
Simplicity, transparency, and sustainability: a new model for CEO pay

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How did BP CEO Bob Dudley get paid £14m in 2015, despite the stock price falling by over 15%? Because of a complex, opaque pay scheme known as a Long-Term Incentive Plan (“LTIP”).

A LTIP pays the executive according to multiple performance measures – for example, stock price, profitability, and sales growth – at the end of an evaluation period (say 3 years). For each measure, there’s a lower threshold (say a stock price of £4) that the executive must beat for the LTIP to pay off. The value of the LTIP rises with further increases above £4, before maxing out at a higher threshold (say £8).

The philosophy behind LTIPs is sound – to link pay to performance. But, it does so in a needlessly complicated way, that allows for gaming and fudging.

Let’s start with gaming. Despite the name, evidence shows that “long-term” incentive plans lead to short-termism as the end of the evaluation period approaches. If the stock price is just below £4, the CEO may cut R&D, to boost earnings and get the short-term stock price over the hurdle. The CEO might also gamble. If the gamble fails, the stock price falls to £3, but the LTIP wouldn’t have paid off anyway, so the downside is limited. If the gamble succeeds, the stock price rises to £5, and the CEO cashes in. Effectively, the LTIP gives a one-way bet. And the problems aren’t limited to the bottom end. If the stock price is just above £8, there is no further upside. Rather than innovating, the executive may coast and be excessively conservative.

These thresholds are crazy. Society loses if firm performance is disastrous (£3) rather than bad (£4). And society gains if firm performance is great (£9) rather than good (£8). But, for the LTIP, there’s no difference between disastrous and bad, or between great and good.

Turning to fudging, there is a huge amount of ambiguity on how to design the LTIP:

1. **What performance metrics should be used?** Should there be non-financial measures, e.g. treatment of workers? But if so, any measure will be incomplete, and encourage focus only on the measure being rewarded. For example, measuring worker pay won’t capture working conditions.
2. **How do we weight the measures?** Should it be 52% on the stock price, 27% on profitability, and 21% on sales growth? Dudley received £14m, despite the stock price fall, due to heavy weighting on the safety and profit targets. Even worse, the weightings sometimes change after the fact, to overweight the dimension that the executive performs best on.

3. **How do we choose the thresholds?** There’s no clear reason for £4, £8 or any number. In practice, the lower threshold is often easy to hit, leading to perceptions of unfairness – why should executives get a bonus for average performance, when ordinary workers don’t? Moreover, the thresholds are sometimes lowered if there’s a bad external shock (in BP’s case, an oil price decline) – but not increased upon good luck – again leading to a one-way bet.

What’s the solution? Cut LTIPs and other bonuses, and move towards paying the CEO in cash and shares (with a long holding period). This satisfies three principles:

1. **Simplicity.** It’s simple. You don’t need to choose particular measures, weightings, or thresholds, and so the CEO doesn’t divert attention to gaming the system. It’s simpler than the alternative of giving executives cash and making them buy shares (even though it reaches the same outcome) as CEOs can game when they buy the shares (e.g. by releasing bad news to depress the stock price just before buying)

2. **Transparency.** While it’s very difficult to value an LTIP, the value of stock is unambiguous. We know how much the CEO gets paid, and under what circumstances – according to the long-term stock price.

3. **Sustainability.** It leads to sustainable performance. There’s significant evidence that, while the short-term stock price can be manipulated, the long-run stock price captures stakeholder value as well as shareholder value. Indeed, granting long-term equity has a positive causal effect on future profitability, innovation, and CSR (in particular, employee well-being)

A very important advantage of shares is that they can be given to all employees as well. This will help address fairness concerns. If the firm succeeds, why should only executives benefit? Employees contributed to the firm’s success as well. If they are given shares, they will benefit too. CEOs can’t gain without employees gaining also. But, if CEOs get LTIPs and workers get shares, the LTIP might pay off even if the stock price falls, leading to concerns of “one rule for them, another rule for us”. Indeed, evidence shows that broad-based equity plans improve performance, perhaps due to a team mentality.

Giving shares to all employees will allow them all to – quite literally – share in the firm’s success that they all helped create.

**Frequently Asked Questions**

**Q1: Is this just a hypothetical idea? Will it be implemented in practice?**

**A1:** The idea of de-emphasising LTIPs and increasing long-vesting equity is also proposed by The Purposeful Company Executive Remuneration Report and has been implemented by Kingfisher. It is also a proposal for comment in the UK Government’s Green Paper on Corporate Governance Reform (see 1.61-1.65).

**Q2: Won’t this lead to CEOs focusing entirely on shareholders and ignoring other stakeholders?**

**A2:** No. There’s indeed a trade-off between shareholders and stakeholders in the short-term, but not the long-term. CEOs can cut wages to increase shareholder value at the expense of workers, but in the long-term this erodes shareholder value, as workers leave. See the “Sustainability” point above, and p26-33 of The Purposeful Company Interim Report for a summary of the evidence that purposeful behaviour – serving customers, employees, the environment, and society – boosts the long-term stock price.

**Q3: Doesn’t even the long-term stock price depend on factors outside the CEO’s control, e.g. stock market upswings, leading to “windfalls”?**

**A3:** This is true. But, if the CEO is given a straight cash salary (as some advocate), she will likely invest most of it in the stock market (indeed, as the government encourages the public to do). It’s much better if she invests it in her own firm, whose value is mostly (although not entirely) under her control, than other firms, whose value is almost entirely out of her control. Stakeholder trust is improved if the executive is invested, quite literally, in her firm’s success. Note that the CEO would also suffer losses from stock market downturns outside her control, sharing the losses alongside ordinary people who have invested for retirement.

**Q4: Shouldn’t we use non-financial measures of performance (e.g. employee satisfaction) rather than a purely financial one?**

**A4:** Any measure of performance will be incomplete and lead to the CEO ignoring factors not captured in the measure – just as teachers evaluated according to students’ test scores will “teach to the test” and not focus on instilling a love of learning.
See the concerns under “Turning to fudging” above. The stock price is not a “purely financial” measure, as it is affected by very many non-financial dimensions (see A2 above).

Q5: Won’t this just lead to greed? CEOs just work hard only because it makes them rich – shouldn’t you want a CEO to be intrinsically motivated?

A5: We absolutely don’t want CEOs who work just to make themselves money. We want CEOs who are intrinsically passionate about making products that transform customers’ lives for the better, that provide employees with a healthy and enriching place to work, and preserve the environment for future generations. Profits are a by-product of purposeful behaviour, not the end goal. As stated in my TEDx talk, The Social Responsibility of Business, this long-term congruence gives “managers the freedom to simply engage in responsible behaviour, without a calculation, without expecting anything in return. To do things for intrinsic, not instrumental value. Because even though financial rewards are not the motivation for responsibility, they typically follow anyway.”

It’s not unfair to reward CEOs who act purposefully and improve the long-term stock price as a result. Similarly, we should punish CEOs who don’t act purposefully and reduce the long-term stock price as a result. Indeed, due to a CEO’s equity holdings, a 10% fall in the stock price leads to a pre-tax pay cut of £1.5m – a significant punishment.

As a thought experiment, if your future longevity and long-term health were not affected by how much you exercised, ate, drank, and smoked today, would your behaviour change?

Q6: Isn’t an advantage of LTIPs that it’s clear what the CEO should do to get paid – e.g. hit the target? The long-term stock price is so far off, the CEO doesn’t know how to hit it, so it has little motivating effect?

A6: There’s indeed no unambiguous way to boost the long-term stock price. And that’s precisely the point. It’s clear how to hit short-term targets, which is why they encourage manipulation (e.g. cutting R&D). It’s very hard to improve the long-term stock price in instrumental ways. Instead, the CEO does so by focusing intrinsically on serving investors, employees, customers, suppliers, and society. Doing so improves the stock price as a by-product.

Q7: Doesn’t the removal of performance thresholds make pay even less sensitive to performance? Even if the CEO fails, she still keeps her shares.

A7: While the number of CEO shares doesn’t depend on performance, their value does, and this dependence can be substantial (see A5). Creating an extra sudden drop if the CEO misses a threshold simply gives short-term incentives to hit the threshold. Moreover, since there is less risk of forfeiture, the CEO should be willing to accept fewer shares.

Q8: Isn’t there evidence that CEOs excessively discount future payouts, so a long-term incentive has little effect?

A8: This “evidence” is principally interviews of CEOs, where they claim they would discount future payouts. It’s not surprising they would say this, as some would prefer short-term rewards. The actual evidence is that long-term incentives have a positive causal effect on future profitability, innovation, and CSR.

The above argument confuses the value attached by the CEO to these payouts with their incentive effect. I agree that an undiversified CEO may value £1m of stock, with a 5-year vesting period, at less than £1m, and so she might only be willing to give up £900,000 of guaranteed salary to receive this £1m. Similar to the cost of a risk management system, this £100,000 difference is worth paying to ensure correct decisions. Average FTSE 100 firm size is £8bn, so if short-term incentives cause myopic actions that reduce firm value by 5%, this is worth £400m.

However, this does not mean the incentive effect fails. Assume that, by taking long-term actions, the CEO adds 5% to the 5-year equity return. The “baseline” value of the equity could be +20% or -20% due to factors outside her control – equity is indeed risky. But, long-term actions increase the future value of equity by 5%, regardless of market conditions. If there is a downturn, long-term actions boost the stock return from -20% to -15%. If there is an upturn, they boost it from +20% to +25%. Either way, long-horizon equity provides effort incentives.
Five evidence-based proposals to make sure executive pay benefits society

NOVEMBER 29, 2016
Alex Edmans | CityAM

Theresa May is absolutely right that executive pay needs reform as part of creating “a country that works for everyone”. Today, her government is expected to release a Green Paper outlining measures to ensure that chief executive contracts benefit society, not just the executives themselves.

At The Purposeful Company, we applaud and share this mission. Established by the Big Innovation Centre in 2015, our project aims to devise policies to encourage firms to pursue long-run purpose, rather than short-run profit.

Our approach is based on large-scale academic evidence on how various practices work in reality that distinguishes causation from correlation, supplemented by practitioner expertise from companies, investors, consultants, think tanks, and policymakers.

In May we released an Interim Report on the benefits of a purposeful approach to business and proposed several policy reforms. Detailed reports on most of the proposals – such as promoting large and engaged shareholders, reporting intangible assets, and purpose certification – will be released early next year.

However, since the government has correctly highlighted executive pay as an issue to be fast-tracked, the Steering Committee released its Interim Executive Remuneration Report on Friday, which we hope will help inform how the government’s policy intent can be achieved. It contains several proposals.

First, to grant executives long-term equity. Evidence shows that, when a chief executive’s equity vests, on average she cuts R&D to pump up the short-term stock price. Long-term equity will deter such myopic actions. Indeed, studies show that chief executives with high equity holdings outperform their low-equity peers by 4 to 10 per cent per year. The effect of such grants is to tie the executive’s wealth to the long-term stock price.

Our Interim Report presented substantial evidence that the long-term stock price takes into account not only profits, but stewardship of employees, customers, and the environment – unlike the short-term price which can be manipulated. Indeed, evidence shows that long-term incentives cause firms to be more innovative and socially responsible. While there is no one-size-fits-all solution, an optimal release period might be five to seven years (longer in firms where investment is particularly important). Critically, the release period should extend beyond the executive’s retirement, to encourage succession planning and investments whose payoff extends beyond her tenure.

Second, to substantially de-emphasise long-term incentive plans or bonuses based on financial targets. Evidence shows that such plans can induce executives to take short-term actions to hit these targets. Moreover, the actual targets the executive needs to hit are not always transparent to the public. Executives can underperform and yet still be handsomely rewarded, sometimes because they influence how performance is measured after the fact.

Third, to grant executives long-term debt-like claims (such as deferred cash compensation), the value of which is eroded in bankruptcy. Evidence shows that debt-like pay leads to lower bond yields and looser covenants – ultimately benefiting shareholders – as bondholders recognise that a debt-aligned executive is unlikely to take unnecessary risk.

The sum total of these first three measures is that pay will be simple – salary, equity, and debt – unlike the complicated formula-driven bonuses that abound nowadays. These components are also easy to value, and so it is transparent to the public how much the executive will get paid, and under what conditions.

Fourth, to launch a Fair Pay Charter describing how worker pay is determined – how it is linked to broader market conditions, how workers have benefited from long-term increases in company performance, and the relative movement of worker and chief executive pay. Moreover, companies should be required to consult workers on the Charter.
Creating this broader comparison and accountability is more effective than publishing a snapshot pay ratio, which may lead to misleading comparisons between companies (being lower in investment banks than retailers).

Workers should be paid fairly regardless of whether the chief executive is well-paid; a fall in chief executive pay should not lead to a fall in worker pay. Such a ratio may decouple pay from performance – the chief executive should only be paid if she has created long-term value, and keeping worker pay high is not an excuse for failing to do so.

Finally, to trigger a binding vote when a company fails to achieve 75 per cent support in its advisory vote two years in a row, as well as when a vote is lost in any year. This will ensure that the advisory vote has teeth.

We believe this is the best way to create stronger accountability through more binding votes because evidence suggests that, in nearly all cases, the advisory vote works. Companies receiving less than 80 per cent support improve their next-year vote by 17 per cent rather than ignoring it. Targeting additional binding vote requirements on repeat offenders will ensure that new regulation is focused on the cases that matter.

In an emotive area such as executive pay, basing policy on evidence is vital. The obvious answers aren’t always the right ones. The Purposeful Company Interim Executive Remuneration Report provides an evidence-based approach on how to reform pay to serve society.

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Pay bosses in debt – not just equity – to deter future crisis

APRIL 24, 2014

Alex Edmans | CityAM

THE FINANCIAL crisis saw chief executives undertake risky actions that cost society billions. Examples included irresponsible subprime lending and over-expansion through excessive leverage. Moreover, this problem has extended beyond financial institutions. Punch Taverns, for example, accumulated £2.3bn of debt through an expansion spree before the crisis, which has long been causing the business difficulties.

Why? Chief executives have incentives to take excessive risk because they are compensated primarily with equity-like instruments, such as stock and options. The value of equity rises if a risky project pays off, but it is protected by limited liability if things go wrong – thus, equity gives them a one-way bet.

Of course, executives are incentivised not only by their equity, but the threat of being fired and reputational damage. However, the risk of being fired mainly depends on the incidence of bankruptcy and not the severity of bankruptcy. For simplicity, assume that the chief executive is fired upon any level of bankruptcy. Then, regardless of whether debtholders recover 90p per £1 (a mild bankruptcy) or 10p per £1 (a severe bankruptcy), the chief executive will be fired and his or her equity will be worthless. Thus, if a firm is teetering towards liquidation, rather than optimally accepting a mild bankruptcy, the chief executive may “gamble for resurrection”. If the gamble fails, the bankruptcy will be severe, costing debtholders (and society) billions. But since the chief executive is no worse off than in a mild bankruptcy, he or she might as well gamble.

This problem of “risk-shifting” has long been known, but is difficult to solve. One remedy is for bondholders to impose covenants that cap a firm’s investment. But covenants can only restrict the level of investment – they cannot distinguish between good and bad investment. Thus covenants may unduly prevent good investment. A second remedy is to cap executives’ equity ownership – but this has the side-effect of reducing their incentives to engage in productive effort.

My paper in the May 2011 issue of the Review of Finance, Inside Debt, shows that the optimal solution to risk-shifting involves incentivising managers through debt as well as equity. By aligning the manager with debtholders as well as
equityholders, this causes them to internalise the costs to debtholders of undertaking risky actions. But why should compensation committees – which are elected by shareholders – care about debtholders? Because if potential lenders expect the chief executive to risk-shift, they will demand a high interest rate and covenants, ultimately costing shareholders.

Surprisingly, I find that the optimal pay package does not involve giving the chief executive the same debt-equity ratio as the firm. If the firm is financed with 60 per cent equity and 40 per cent debt, it may be best to give the chief executive 80 per cent equity and 20 per cent debt. The optimal debt ratio for the chief executive is usually lower than the firm’s, because equity is typically more effective at inducing effort. But the optimal debt ratio is still not zero – the chief executive should be given some debt.

Academics love proposing pet solutions to real-world problems, but many solutions are truly “academic” and it is hard to see whether they will actually work in the real world. For example, widely-advocated bonus “clawbacks” have never been tried before, and their implementability is in doubt.

But here, we have significant evidence to guide us. Many chief executives already receive debt-like securities in the form of defined benefit pensions and deferred compensation. In the US, these instruments have equal priority with unsecured creditors in bankruptcy and so are effectively debt. Moreover, since 2006, detailed data on debt-like compensation has been disclosed in the US, allowing us to study its effects. Studies have shown that debt-like compensation is associated with looser covenants and lower bond yields, suggesting that debtholders are indeed reassured by the chief executive’s lower incentives to risk-shift. It is also associated with lower stock return volatility, lower financial leverage, and higher asset liquidity.

Indeed, the idea of debt-based pay has started to catch on in Europe. The November 2011 Liikanen Commission recommended bonuses be partly based on “bail-inable” debt. Indeed, UBS and Credit Suisse have started to pay bonuses in the form of contingent convertible (CoCo) bonds. These are positive moves to deter risk-shifting and prevent future crises.

Of course, as with any solution, debt-based compensation will not be appropriate for every firm, and the optimal level will differ. But the standard instruments of stock, options, and long-term incentive programmes have proven not to be fully effective, and so it is worth giving serious consideration to another tool in the box.
Why has CEO pay risen so much faster than worker pay?

Arguably the most convincing “smoking gun” evidence that CEO pay is excessive is how it’s risen much faster than median worker pay. In the U.S., CEO pay was $10 million, 350 times that of the average worker in 2013, compared to 40 times in 1980. This seems to debunk any argument that CEOs deserve their high pay because of their talent. CEOs in 2013 were not suddenly any more talented (compared to the average worker) than in 1980, so why is the multiple nearly 9 times higher? Instead, the argument is that the CEO has the board in his pocket, and so dictates an outrageous level of pay to the board.

One of the most influential finance papers written this millennium answers this question. It’s by Professors Xavier Gabaix and Augustin Landier, then at NYU Stern, now at Harvard and Toulouse respectively. It was published in the 2008 Quarterly Journal of Economics; while I typically write about new papers, this paper is extremely relevant to the current debate on pay ratios yet seems to be largely absent from it. The one advantage of writing about an older paper is that we can see that it’s stood the test of time – it has 1,400 Google scholar citations (one measure of impact), and was cited as a major reason for Xavier winning the Fischer Black award for the person under 40 who has contributed most to finance (similar to the Fields Medal in maths).

Their argument is as follows. High pay is justified, not because CEOs have become more talented, but because talent has become more important. It’s helpful to start with an analogy from football (soccer). Most people would agree that Wayne Rooney is not more talented than Pele. Yet, Rooney gets paid far more than Pele ever did, even adjusting for inflation. This high pay is clearly not due to Rooney having Sir Alex Ferguson (who signed him) in his pocket. Instead, it’s because talent has become more important. Football is now a multi-billion dollar industry, due to TV advertising and a global marketplace, unlike in Pele’s time. Even if Rooney is only a tiny bit better than the next-best striker (and, most ordinary people couldn’t tell the difference in a training session), these tiny differences in talent can have a huge effect on Man United’s profits. If Rooney’s goals get Man United into the Champions League, that’s worth many millions. So, it’s worth it paying top dollar for top talent.

Now, let’s translate this from the football pitch to the boardroom. Just as the football industry has got much bigger, so have firms. Firms also now compete in a global marketplace, and technology changes so rapidly that the inability to change with the times can render firms virtually extinct (compare Blackberry with Apple). Thus, just like in football, it’s worth paying top dollar for top talent. Average firm size in the Fortune 500 is $20 billion. Thus, even if a CEO is only a tiny bit more talented than the next best alternative, and contributes only 1% more to firm value, that’s $200 million. Suddenly, his $10 million salary doesn’t seem so outrageous. Moreover, the Gabaix-Landier hypothesis isn’t just an abstract theory; you can test it. Unlike many models that are qualitative, they make quantitative predictions for how much pay should rise when firm size rises. 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%.

But, why doesn’t this argument apply to employees? Because the CEO typically has a multiplicative effect on firm value. Their actions are scalable. 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 $20 million in a $2 billion firm, but $200 million in a $20 billion firm. In contrast, most employees have an additive effect on firm value. Their actions are less scalable. 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 totally different markets, one which scales with firm size and the other which scales less so. “Fair” CEO pay is determined by comparing a CEO to other CEOs, just like a manager decides how much to pay an international footballer by comparing to another international footballer, not a reserve-team player at the same club (due to notions of “fairness”), or even to the CEO of Man United, as they compete in different markets.
Of course, this all assumes that CEOs actually create value in the first place. We can see Rooney score goals, and how the Man United team is weaker when he's injured. He's one of only two strikers. But, the CEO is one of thousands of employees; surely he has only a tiny impact on firm value? But, this can be studied as well. I already wrote here and here how the CEO's contract has significant effects on firm value, suggesting that the CEO matters. Various papers (e.g. here, here, and here) have shown that CEO departures and deaths have a significantly negative effect on firm value and performance, and that the effect is stronger for well-paid CEOs, suggesting that pay is indeed reward for talent. You might be skeptical, because correlation doesn't imply causation. Perhaps the firm was going to do badly anyway, and that's why the CEO left (he deserted a sinking ship) or died (due to the stress). So, another paper looks at the effect of CEO family deaths, which are likely not caused by expectations of firm performance. If the CEO's spouse, parents, children, or siblings die, this distracts the CEO. If the CEO didn't matter (since there are so many other executives), this bereavement would be unimportant. But, they show that it has significant negative effects on profitability. The exception is that, if the CEO's mother-in-law dies, profits go up (although the effect is statistically insignificant).

In short, looking at pay ratios is misleading, as CEOs and workers compete in different markets. What matters is welfare rather than equality. However, constraining CEO pay can drive top talent to other countries (or to private firms, or to other professions such as hedge funds), reducing firm performance and hurting everyone. Welfare is best achieved not by bringing the CEO down, but hiring a talented CEO who can bring everyone else up (and good CEOs do, as shown here). Good CEOs increase the size of the pie; they will naturally capture a large slice of the increase, due to the scalability of their talent, but other employees and society still get a larger slice than if the CEO were not hired, or not incentivized. Bad CEOs shrink the pie for everyone; this increases equality, but only by making everyone equally poor.
Executive compensation is fixed and needs reform. But, most of the calls for reform focus on the wrong dimensions. They focus on the level of pay, or the ratio of executive pay to median worker pay – even though the evidence suggests that low ratios are linked to lower future performance. As I have argued in the Wall Street Journal and World Economic Forum, the most important dimension is the horizon of pay – whether it depends on the short-term or long-term.

We certainly want executives to act in the interest of society, and for a more equal society. But, the way to increase equality is not to bring CEOs down, but to induce them to bring others up. Treating stakeholders (workers, customers, suppliers, the environment) well is costly in the short-term, but the evidence shows that it pays off in the long-term. So the best way to encourage purposeful behavior is not to scrap equity incentives (thus decoupling pay from performance), but extend the horizon to the long-term.

The trouble is that it’s hard to find causal evidence of the effects of long-term compensation. This is because long-term compensation is not randomly assigned. If long-term compensation were correlated with superior long-term performance, it could be that incentives caused good performance – or that executives who knew that long-term prospects were good were willing to accept long-term incentives to begin with. An excellent paper shows that total stock ownership is associated with superior future performance, and the relationship is likely causal, but they do not look specifically at vested stock ownership, not restricted stock ownership which the CEO is forced to hold for the long-term.

An insightful new paper by Professors Caroline Flammer (Boston University’s Questrom School of Business) and Pratima Bansal (University of Western Ontario’s Ivey School of Business) addresses this causality issue. It studies shareholder proposals that not only are on executive compensation, but specifically advocate the use long-term incentives (rather than advocating, say, cutting pay) – restricted stock, restricted options, or long-term incentive plans. However, simply looking at all proposals wouldn’t get round the causality issue. It could be that shareholder proposals arise due to a large engaged blockholder, and it could be the blockholder – not long-term compensation – that improve future performance. So, Caroline and Tima use a “Regression Discontinuity Design”. They compare proposals that narrowly pass (with 51% of the vote) to those that narrowly fail (with 49% of the vote). Whether you narrowly pass or narrowly fail is essentially random, and uncorrelated with other factors such as the presence of blockholders – if there were large blockholders, they would likely increase the vote from 49% to (say) 80%, not 51%.

They find that proposals to increase long-term compensation improve long-term operating performance, regardless of whether you measure it using return on assets, net profit margin, or sales growth. Interestingly, operating performance decreases slightly in the short-run, highlighting the fact that long-term orientation requires short-run sacrifices. But, the long-run benefits outweigh the short-term costs – firm value rises overall.

What’s the mechanism by which this happens? Skeptics might think that long-term CEOs might fire their workers – this is costly in the short-term (due to severance pay) but saves wages in the long-term. This is not the case. There are two channels, both of which are beneficial to society – so the rise in firm value is also socially optimal:

- Innovation improves. Firms increase R&D. Moreover, they are not simply spending money blindly – this higher R&D expenditure leads to
  - More patents
  - Higher-quality patents (measured by citations per patent)
  - More innovative patents (measured by the distance from firms’ existing patents)
• Corporate responsibility improves. Firms’ CSR ratings improve significantly, as measured by KLD ratings of a firm’s stewardship of four stakeholder groups: employees, the environment, customers, and society at large. The effects are strongest for employees; one of my own papers shows that employee satisfaction in turn improves firm value.

The goal of any pay reform should be to act in the long-term interests of society. Leading compensation expert Kevin Murphy forcefully argues that politicians’ desire to cut the level of pay is not driven by social considerations (given there is no evidence that cutting pay levels improve behavior), but jealousy and envy, or the desire to appear tough. Ironically, despite emphasizing the importance of thinking long-term, politicians’ proposals to regulate the level of pay are incredibly short-term. There will be an immediate gain in public approval from appearing tough, but the long-term benefits of instead making compensation more long-term are much more important.

As an aside, Caroline previously used Regression Discontinuity in an excellent paper, published in Management Science, which shows that CSR proposals (again, those that pass by a small margin) significantly increase shareholder value and profits. This is a powerful result, since many naysayers argue that CSR is at the expense of shareholder value. Instead, businesses and society are in partnership with each other, not in conflict. As I argued in my TEDx talk, “to reach the land of profit, follow the road of purpose”.

MSCI have released an impactful study entitled “Are CEOs Paid for Performance? Evaluating the Effectiveness of Equity Incentives”, purporting to show that equity incentives lead to poor long-term performance. In simple language, they just don’t work. This study has been highly influential and seized upon by the Wall Street Journal, CNN, and Fortune as “smoking gun” evidence that incentives backfire. It’s also central to UK MP Chris Philp’s proposal for pay reform that was recently presented in Parliament.

I applaud MSCI for taking an evidence-based approach to CEO pay. Rather than proposing reform, they first start by looking at the evidence. In addition, the paper (in many parts) is written objectively and modestly, just describing the results without making any policy proposals; it is others who have since over-extrapolated from it. However, it does not actually show what it purports to show. Given the importance of CEO pay to society, and given the impact that this report has had on leading thinking, I thought it would be useful to clarify what they actually find.

The “punchline” graph, quoted in Philp’s report, is given below, which shows a (weakly) negative link between CEO pay and long-term shareholder returns:

![Graph showing the relationship between CEO pay and long-term shareholder returns.](image)

The authors argue that it shows that “Companies that awarded their CEOs higher equity incentives had below-median returns”. This conclusion is unwarranted, for the following reasons:

1. **They study Total Summary Pay, not Equity Incentives**
   
   As can be seen in the above graph, the y-axis is “Total Summary Pay”. This includes newly-granted stock and options, but also many other components, such as salaries and bonuses. Thus, it is very inaccurate to describe the results as being about “equity incentives”. Equity incentives are certainly one component of pay, but there are many other components as well. Higher summary pay does not mean higher equity incentives. Similarly, you would never say that, because “Total Shareholder Return” (TSR) was low, dividends must be low. Dividends are an important element of TSR, but not the only element (capital gains are also important).

2. **Even the Equity Incentives they do capture miss almost all the action**

   Total Summary Pay does include newly-granted stock and options. But, as I wrote previously in “Eight Common Myths About CEO Pay”, the vast majority of a CEO’s incentives come from previously-granted stock and options. As shown by Jensen and Murphy (1990), the most-cited study on CEO incentives in history, incentives from previously-granted equity...
are several orders of magnitude higher than new equity grants. (As a simple example, Steve Jobs was famously paid $1 a year at Apple, and so no new equity in some years. Does this mean he didn’t care about performance? Clearly not, because he had hundreds of millions of previously-granted equity.)

Willis Towers Watson, the leading compensation consultant, give a separate critique of the MSCI incentive measure in their article “The media and the MSCI study: A textbook case of missing the boat?”

3. They miss out many important control variables

The headline result, in the above graph, does not control for firm size. This is a serious omission since it is well-known that small firms pay less, and small stocks typically outperform. (See my earlier post, “Size Matters, If You Control Your Junk”). They do control in a robustness test, but this should be in their main specification.

Moreover, even the robustness test omits obvious controls, such as risk. It’s well established that riskier firms pay more, and also deliver lower stock returns, which could be driving the results.

4. The results do not show a causal effect of CEO pay

Even if there were a strong negative link between CEO pay (or incentives) and future stock returns, they do not show a causal relationship. To be fair, MSCI don’t make causal inferences, but media outlets do, e.g. the Wall Street Journal state the MSCI study asks if “high CEO pay helps drive better results”. It could be that future stock returns cause current pay. A firm that has bleak future prospects will have to pay a CEO more to attract her in the first place.

So, what does a correctly-done study show? As I wrote in “Higher Stock Returns When CEOs Own More Shares”, von Lilienfeld-Toal and Ruenzi show in an excellent Journal of Finance paper that firms with higher CEO stock ownership – considering all ownership, not just newly-granted shares – outperform low-ownership firms by 4-10% per year over the long-run.

Is this study also subject to the correlation/causation critique? Perhaps CEOs who know that their firm will do well in the future will be more willing to accept stock (rather than cash) in the first place. So, to suggest that the effect is causal – high equity causes the CEO to take better decisions – the authors show that the effect is stronger in settings in which the CEO has greater discretion. These are firms in which:

• Sales growth is high, which gives the manager resources (e.g. free cash) that she could waste, as well as power (the board is less likely to interfere if the CEO has delivered high sales growth)

• Low institutional ownership and weak external governance – when investors are not monitoring the CEO, she has greater discretion

• Weak product market competition. If the product market is competitive, the CEO has to maximize value (even if she had weak equity incentives) to stay in business; if there’s little competition, she can slack off

• The CEO is the founder, also correlated with power

Pay certainly should be reformed. I have argued for such reform vigorously in the Wall Street Journal and World Economic Forum. But, just like a doctor needs to make an accurate diagnosis before prescribing the remedy, before proposing any reform, we need to start with the facts – what are the areas in most serious need of remedy, and what are the ones that are working well? This is the role of academic research. To be published in the Journal of Finance, von Lilienfeld-Toal and Ruenzi show in an excellent paper that firms with higher CEO stock ownership – considering all ownership, not just newly-granted shares – outperform low-ownership firms by 4-10% per year over the long-run.

MSCI should absolutely be credited for their evidence-based approach, and I again reiterate that many of the causal claims are made by the media, rather than them. However, one statement does cause concern: they write that “While we have not completed a full statistical evaluation of this relationship, we believe the findings are sufficiently compelling to serve as a basis for further review and discussion regarding this widely debated aspect of corporate governance.”

Thus, even they recognize that their findings are half-baked. But, you would never report the results of a medical study (e.g. a clinical trial on a drug), until it was complete. Doing so would be completely irresponsible. Unfortunately, it is also irresponsible in an economic context, where it may lead to laws being passed or decisions being taken based on inaccurate evidence (see the recent Brexit referendum). While academic studies are released in “working paper” form, before eventual publication, this is typically after presenting it and sending to peers first – the authors have taken it as far as they can and are now soliciting outside suggestions. Here, the authors know that they have not taken it as far as they can and the evidence is incomplete, yet MSCI has been taking out full-page adverts in newspapers and magazines parading this study. CEO pay is such an important for society that we must ensure that any evidence we use to suggest policy reform is solid, rather than half-baked.
How virtually every pay regulation has backfired

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Few topics make the public as angry as CEO pay. In the UK, the average FTSE 100 CEO earned £5.4m in 2015, 148 times the median worker. For US S&P 500 CEOs, these figures are even more extreme: $12.4m and 335 times.

This pressures politicians to do something about CEO pay. Indeed, regulating pay might nowadays be an even better way of winning the public’s approval than tax cuts and spending increases. In the US, both Donald Trump and Hillary Clinton have been unusually united in blasting the high levels of CEO pay. The UK’s new Prime Minister, Theresa May, has proposed putting workers on boards, making say-on-pay votes binding rather than advisory, and forcing firms to disclose the ratio of CEO pay to median worker pay.

But, let’s take a step back. First, it’s not actually clear that CEO pay is a problem to begin with. In an earlier post, I explained that many accusations are based on myths, which simply don’t hold up when you look at the evidence. Second, even if it were, regulation may not be the best way to fix it.

In an excellent article, “The Politics of Pay”, Kevin J. Murphy of the University of Southern California (one of the world’s leading experts in executive pay) argues that the entire history of U.S. compensation legislation is littered with unintended consequences. Simply put, 80 years of evidence shows that regulating pay doesn’t work.

How can politicians keep getting it so wrong? Because their motivation for regulating isn’t to increase social welfare or curb inequality, but to appear tough. When a pay scandal breaks out— even if it’s a single isolated incident – the public demands that politicians do something. For a politician, taking a bad action is better than taking no action. Here are three examples:

1. **Golden Parachutes**

   In 1982, William Agee, the CEO of Bendix, was given a $4.1 million golden parachute after his firm was taken over. The public was outraged, and demanded that Congress do something about it. It responded in 1984 by imposing severe tax penalties on golden parachutes that exceeded 3x salary. Sounds reasonable – surely taxes would deter such excessive payments? But in fact, it encouraged them.

   - **Companies Introduced Golden Parachutes.** Back in 1982, golden parachutes were fairly rare. But, the new law alerted CEOs to this attractive clause. So, many CEOs who previously hadn’t heard of golden parachutes now demanded them. By 1987, 41% of the largest 1,000 firms had golden parachutes, which rose to 70% by 1999.

   - **Companies Increased Golden Parachutes.** The “3x salary” cap implicitly suggested that a golden parachute is OK as long as it doesn’t exceed 3x salary. So firms who had modest golden parachutes prior to 1982 suddenly increased them to 3x salary. By 1991, 47.5% of golden parachutes were at this level; by 1999, this was 71%.

   - **Companies Introduced Tax Gross-Ups.** Some in-demand CEOs got the company to pay the tax themselves. And, even though these tax gross-ups were introduced in response to taxes on golden parachutes, they subsequently spread to company cars, club memberships, and corporate jets. Congress unleashed a monster.

2. **The Clinton $1 million cap**

   In his 1992 election campaign, Bill Clinton (foreshadowing his wife 14 years later) lambasted CEO pay as being excessive. A year after his election, Congress changed the tax code to prevent companies enjoying tax deductions on salaries exceeding $1 million – unless they were performance-based. This again backfired:

   - **Companies Increased Salaries to $1m.** The new code implicitly suggested that a high salary is OK as long as it doesn’t exceed $1m. Sound familiar? Clinton could have learned from history and seen what had happened with golden parachutes. But, his incentives were not to create social value; instead to appear tough.
• **Companies Paid Bonuses For Mediocre Performance.** Let’s say a firm needs to pay a CEO $1.5 million to attract her, because she’s uniquely qualified. How can it do so without suffering tax penalties? It pays her $1 million, and reclassifies the other $0.5 million as a bonuses with a easy-to-meet target, so it’s effectively guaranteed. This defeats the whole point of bonuses – they should only be given for good performance.

• **Stock Options Increased.** Since stock options are performance-based, their use started to significantly increase. Murphy points out other tax and accounting rules that also led to the explosion of stock options. So, if people complain about excessive stock options, it’s regulators they should be complaining about.

3. The EU Banker Bonus Cap

The problem isn’t confined to the US. A separate Murphy article, “Regulating Banking Bonuses in the European Union: A Case Study in Unintended Consequences”, addresses the European Union’s cap limiting banker bonuses to two times salary. There are several problems:

• **Increased Salaries.** To remain competitive (with non-EU banks), a fall in bonuses must be accompanied by an increase in base salaries. Thus, if the bank fails and the banker gets no bonus, he gets a higher salary (for non-performance) than he would have before.

• **Increased Bankruptcy Risk.** The advantage of bonuses is that banks can cut them when times are hard, and so remain solvent. You can’t cut salaries. This increases the risk that banks go bankrupt – ironic since the main driver for regulation was the financial crisis.

• **Reduced Incentives.** The reduction in bonuses decouples the banker’s pay-for-performance. This reduces his incentive to manage risk as, even if the bank performs poorly, he still receives a high salary. It also reduces his incentive to create value by innovating, as he captures less of the upside. Just following the status quo is enough to be well-compensated.

Perhaps you might think – there’s nothing wrong with regulation, but it’s sneaky firms responding to regulation (e.g. by reclassifying salaries as bonuses). This argument is false on two grounds. First, responding to regulation may not be devious. It may well be that the firm truly needs to pay $1.5m to attract the CEO, and so get around the regulation legally. This is little different to a restaurant getting around liquor license laws by allowing diners to bring their own alcohol. Second, even if the response is devious, it’s how firms and CEOs actually behave. You might say – in an ideal world, CEOs shouldn’t demand perks when they find out about their peers’ perks. But, we don’t live in the ideal world, we live in the real world. A textbook solution only works in textbooks; any real-world solution should take into account how people behave in the real world.

So, what is the solution? To do nothing? Far from it. But, to leave the decisions to major shareholders, who have the incentive to get these decisions right. High CEO pay comes straight out of shareholder returns, and if the contract causes the CEO to take bad decisions – or demoralizes employees – shareholders suffer the consequences. And, things are being done. 11 countries have passed say-on-pay legislation since 2002; Correa and Lei (2016) show that it reduces pay and increases pay-performance sensitivity. Interestingly, advisory votes are more effective than binding votes – in contrast to politicians’ desire to take the toughest possible action. We have also seen innovation in other dimensions of pay – lengthening vesting horizons (to encourage the CEO to think long-term) and paying with debt rather than just equity (to dissuade excessive risk-taking).

Moreover, when pay is inefficient, it is often a symptom of a more underlying governance problem, brought on by conflicted boards and dispersed shareholders. Addressing pay via regulation will solve the symptoms; encouraging independent boards and large shareholders will solve the problem. That will improve not only pay, but other governance issues.

The bottom line is that, to the extent pay is a problem, it should be shareholders, not politicians, who fix it. Leaving it to shareholders is like a doctor choosing self-cure rather than amputating a limb. The amputation is the most dramatic action, but may not be the most effective. The goal of policy shouldn’t be to write headlines, but to create long-term value for society.
Eight common myths about CEO pay

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Few business topics capture the public’s interest – and ire – as CEO pay. Indeed, a major reason why executives carried little weight in the Brexit referendum was the belief that they are overpaid crooks.

But, does perception actually match reality? The public’s view is largely shaped by what the media reports. And, the media has the incentive to report the most egregious cases – of CEOs being paid millions despite poor performance – because they make for good stories. There might be thousands of cases where pay is fair, which never get reported. This is similar to how views on immigration (another topic misunderstood in the referendum) may be skewed by newspapers only reporting stories of benefit-scrounging immigrants, when there may be millions of others who work hard and pay taxes.

Note that I’m not saying that CEO pay is perfect and should be untouched. I’ve argued on multiple occasions, e.g. in the Wall Street Journal and World Economic Forum, that pay should be reformed. But, just like a doctor needs to make an accurate diagnosis before prescribing the remedy, before proposing any reform, we need to start with the facts – what are the areas in most serious need of remedy, and what are the ones that are working well? We want to avoid amputating a limb that’s actually healthy. And the facts highlight that many myths about CEO pay are simply untrue.

1. CEO wealth is not sensitive to performance

This myth is based on the view that salaries and bonuses are relatively insensitive to performance. But, changes in salaries and bonuses are only a very small part of the CEO’s overall incentives. The biggest component is her stock and option holdings. Some studies take into account stock and options granted this year, but we must also take into account all stock and options granted in all previous years. What matters is wealth-performance sensitivity, not pay-performance sensitivity – i.e. the sensitivity of the CEO’s entire wealth to performance.

As a simple example, Steve Jobs was famously paid $1 a year at Apple, regardless of performance. Does this mean he didn’t care about performance? Clearly not, because he had hundreds of millions of his own wealth invested in the company’s stock. Taking this into account, the median S&P 500 CEO loses $480,000 when the stock price falls by just 1%. Moving to the UK, data from PwC shows that this figure is £85,000 for the median FTSE 100 CEO. It’s smaller, but still substantial, and if anything the comparison might suggest that UK CEOs need more equity compensation, not less as many politicians claim.

Sir Vince Cable, the former UK Secretary of State for Business, Innovation, and Skills, has frequently quoted studies claiming that CEOs are not punished for poor performance. But, these studies simply do not measure incentives properly. They only study salaries and bonuses and ignore the CEO’s shareholdings.

2. CEOs are overpaid because shareholders are powerless

The myth is that pay is designed by directors who are in the CEO’s pocket, and rubber-stamp egregious packages. Shareholders are too small for directors to listen to them.

So, what happens when shareholders can run the show? Evidence shows that, when private equity firms and hedge funds take large stakes in firms, they’re not afraid to make major changes. They improve operating performance, increase innovation, and even fire the CEO in many cases. But they very rarely cut the CEO’s pay. While large investors see many things to fix in a firm, the level of pay doesn’t seem to be one.

3. High equity incentives causes poor performance

The myth is based on a well-cited recent study by MSCI which finds that CEOs paid below the median underperform those who pay above the median. Quite apart from correlation not implying causality, the study does not measure equity incentives properly. I describe these issues in further detail here.
4. Incentive pay doesn’t work

There are many studies that show that incentives don’t work for many jobs. This is because performance measures only capture one dimension of performance. For example, paying teachers for test results may encourage them to teach-to-the-test. But, none of these studies are on CEOs. For CEOs, there is an all-encompassing performance measure – the stock price. In the long-run (an important caveat), the stock price all CEO actions, including employee satisfaction, customer satisfaction, environmental stewardship, and patent citations.

Indeed, a comprehensive study finds that CEOs with high stock ownership outperform those with low share ownership by 4-10% per year. Moreover, further tests suggest that it’s share ownership that causes outperformance, rather than CEOs who predict that their stock will outperform being more willing to accept shares in the first place.

5. The level of pay is the most important dimension

Virtually all the debate on CEO pay concerns the level of pay – for example, calls to regulate or disclose the level of CEO pay relative to the level of employee pay. But, this level has very little effect on firm value. Average CEO pay in the US is $10 million, compared to average firm size of $20 trillion. That’s only 0.05% of firm value. Far more important is the horizon of pay – e.g. whether equity vests in the long-run or short-run. For example, high employee satisfaction improves firm value by 2-3%/year, but takes 4-5 years to fully show up in the stock price. Extending the vesting horizon from 3 years to 6 years will encourage CEOs to invest in employee satisfaction. It is better to focus on reforms that create 2-3% of firm value, not 0.05%. (And, employees benefit more from the former also).

Indeed, this excellent study shows that lengthening the horizon of equity incentives has a positive causal effect on both firm value and operating performance. The channel is that it leads CEOs to increase both innovation and stakeholder relations. This makes total sense – such investments take a long time to pay off, so only far-sighted CEOs will undertake them. Thus, if we want companies to be more innovative and purposeful, lengthening horizons is much more effective than cutting pay. Rather than bringing CEOs down (by reducing their pay), we want to encourage them to build others up (by increasing their horizon).

6. High pay inequality causes poor performance

Even if pay levels have little direct effect, perhaps they have an important indirect effect through affecting morale? But a recent study finds that firms with higher within-firm pay inequality exhibit higher operating performance and higher long-run shareholder returns. While the authors are careful not to claim causality, their correlation clearly does not support concerns that “high pay disparities inside a company … have a negative impact on a company’s overall performance”

7. Binding say on pay is better than advisory say-on-pay

UK Prime Minister Theresa May advocates moving from advisory say-on-pay to binding say-on-pay. It just sounds tougher. But, a careful study of 11 countries that has found that advisory say-on-pay has proven more effective than binding say-on-pay in both decreasing the level of pay and increasing its sensitivity to performance.

8. Putting employees on boards improves performance

Theresa May also suggests putting worker representatives on director boards. But, this has been tried in Germany. Companies with greater representation on employees on the board have significantly lower value.

There are clearly many dimensions of the pay debate for which facts don’t apply. For example, whether should be driven by efficiency or equality is a subjective topic about which reasonable people can disagree. And, even given a set of facts, reasonable people can disagree on how to interpret them. But, we should at least start the discussion with facts, rather than myths and hunches. Companies cannot launch a new drug without providing evidence that it’s safe and effective. In contrast, politicians and policymakers feel they can make calls for reform without even attempting it to back it up with evidence. Just as evidence-based medicine has led to vastly superior medical decisions, evidence-based policy can ensure that any reforms we do make benefit society as a whole.
Executive compensation is a controversial topic. US CEOs earn 373 times the average worker, and so it takes them less than a day to earn the same as an average worker does in a whole year. But, despite attracting most attention and ire, the level of pay is actually not so important for firm value. Average pay in a top-500 firm is $13.5 million – huge in anyone’s eyes. But, the average size of a top-500 firm is $10 billion, so the salary is only 0.135%. That’s not to say that the level of pay doesn’t matter – a firm can’t be blase about $13.5 million (else you could justify every wasteful expenditure saying that it’s small compared to firm value) – but other dimensions of pay may be more important.

In particular, much more important than the level of pay is the sensitivity of pay – how it varies with performance. But, this dimension is also controversial, in particular the use of bonuses. Bonuses are often awarded for “on-target” performance (whereas many rank-and-file employees simply get their salary for “on-target” performance; the performance targets can be too easy; and the CEO can game the system, focusing on one target to the exclusion of others. For example, a bonus based on sales or earnings growth may cause the CEO to ignore corporate culture. In addition, while an even higher bonus is paid for good (rather than on-target) performance, the bonus is sometimes barely reduced for poor performance – it’s an asymmetric “heads I win, tails I don’t lose” scenario.

Equity compensation – giving the CEO shares – solves many of these issues. In the long-run, the stock price captures all the channels through which the CEO can improve firm value – if he pollutes the environment, invests in his workers, engages in a restructuring, all of these actions eventually affect firm value. (Of course, the key words are “in the long-run”, so the stock should come with a long vesting period). There is no ambiguity as to which measure to reward (sales growth or earnings growth?) or what target to set (2% or 5%?), nor asymmetry – the value of the CEO’s shares rises with good performance and falls with bad performance.

But, where’s the evidence? In an excellent paper in the 2014 Journal of Finance, Ulf von Lilienfeld-Toal and Stefan Ruenzi find that a strategy of buying shares in which the CEO has a high level of stock ownership, and shorting shares in which he has low ownership, earns 4-10%/year (depending on the definition of “high” and “low”). This result suggests not only that CEO incentives “matter”, but also that the market doesn’t recognize that they matter. Even though CEO ownership is public information, the market doesn’t take it into account (perhaps because, like the media, it’s focused on the level of pay) – and so investors can earn superior returns by trading on it.

Of course, correlation doesn’t imply causation. The positive relationship could be because CEOs have inside information on firm value, and are more willing to accept stock (rather than cash) when they expect future stock returns to be high. So, to suggest that the effect is causal – high equity causes the CEO to take better decisions – they show that the effect is stronger in settings in which the CEO has greater discretion. These are firms in which:

- Sales growth is high, which gives the manager resources (e.g. free cash) that he could waste, as well as power (the board is less likely to interfere if the CEO has delivered high sales growth)
- Low institutional ownership and weak external governance – when investors are not monitoring the CEO, he has greater discretion
- Weak product market competition. If the product market is competitive, the CEO has to maximize value (even if he had weak equity incentives) to stay in business; if there’s little competition, he can slack off
- The CEO is the founder, also correlated with power

Like any paper, there are a few unanswered questions. The authors only include stock that the CEO voluntarily holds (i.e. has vested but the CEO has not sold). They don’t include unvested stock, nor options. Both unvested stock and options also provide the CEO with incentives to maximize value, so I would be interested to know whether the results hold when including these dimensions also (and any investor wishing to use this as a trading strategy might want to back-test the strategy including all incentives – vested stock, unvested stock, and options). Regardless, the paper makes a very important contribution highlighting the dimensions of CEO compensation that investors, the media, and the public should focus on – the sensitivity rather than level of pay, and suggesting that equity ownership may have a causal effect on firm performance rather than simply reflecting the CEO’s private information.