

Executive Compensation

CEO Equity Ownership and Firm Performance

"Many chief executives hold major equity stakes in their companies while turning them into powerhouses. Think of Jeff Bezos of Amazon.com, FedEx's Fred Smith and Steve Wynn of Wynn Resorts, to name a few high-profile examples."

— *The Wall Street Journal*, "When the CEO Is a Big Investor, Should You Buy Too?" Jan 9, 2015.

Tip

[Student activity]

A CEO owning 0% of his company's equity knows that, by purchasing a private jet with shareholders' money, he can enjoy 100% of the benefit but bear zero cost. Meanwhile, shareholders may not get to use the private jet. Will the CEO proceed to make the purchase? What is the effect on shareholders' wealth?

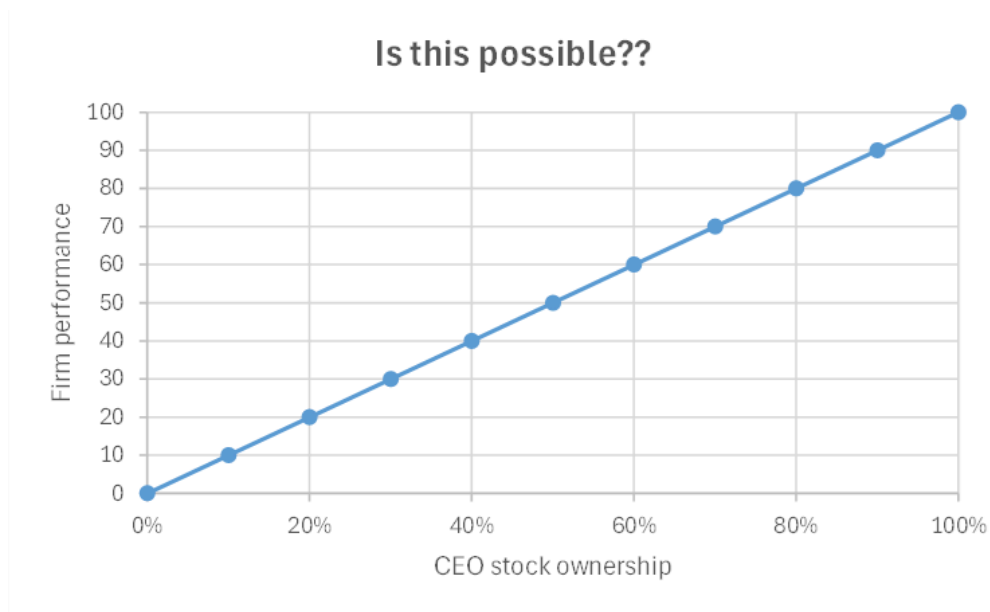
Agency theory (Jensen & Meckling, 1976) suggests that conflicts arise when agents (managers) do not bear the full consequences of their decisions ¹.

Therefore, to combat the agency problem, corporations have developed various executive compensation schemes to align the interests of managers, particularly CEOs, with those of shareholders. Since agency costs arise from the **separation of control and ownership**, one of the most direct solutions is to give managers **"skin in the game"** by making them partial owners of the firm. For example, if a CEO owns 1 million shares, they lose £1 million if the stock price drops by £1. In this way, equity holdings dissuade self-interested behaviour, in that any action the CEO takes that impairs firm value will inflict corresponding damage to the CEO's personal wealth (although not on a "pound-for-pound" basis, given that executives are also compensated in forms other than equity). As a result, equity ownership is an important tool that companies use to mitigate agency problems.

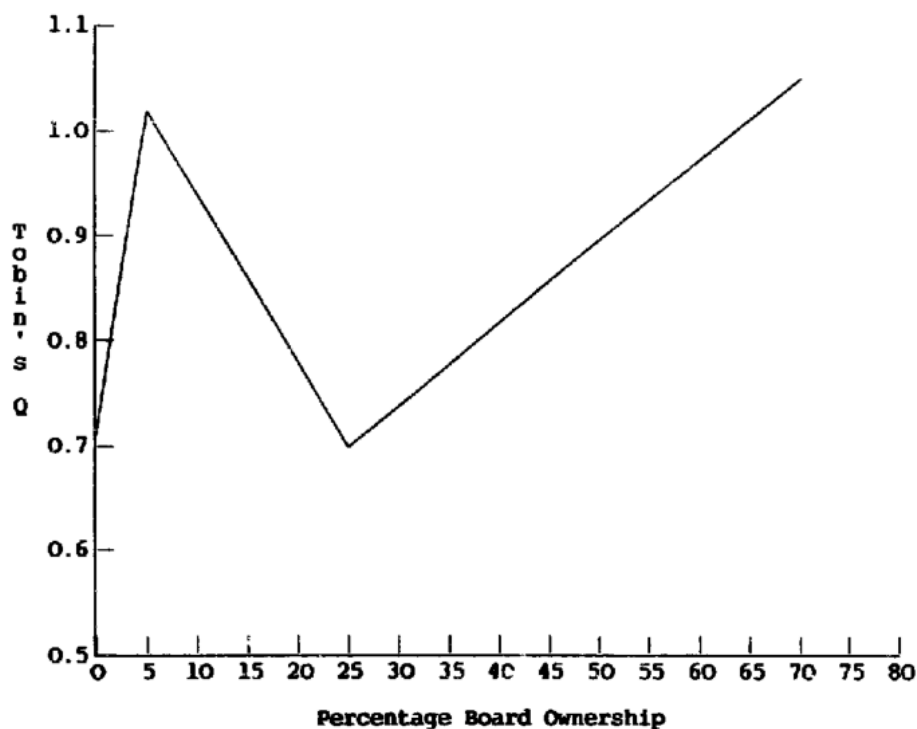
In both the UK and the US, CEOs are required to retain a minimum shareholding equivalent to a certain multiple of their base salaries.

Does owning company equity always make managers better decision-makers?

$$CEO \text{ Equity Ownership} = \text{Shares Owned by CEO} / \text{Total Shares Outstanding}$$



In their 1980 paper, using a cross-section of 371 Fortune 500 firms, **Morck et al. (1988)** found evidence of a significant nonmonotonic relationship between managerial ownership and firm performance². Firm performance is measured by Tobin's Q, the ratio of the firm's market value to the replacement cost of its physical assets. Tobin's Q is high when the firm has valuable intangible assets in addition to physical capital, such as monopoly power, goodwill, patents, or good managers.

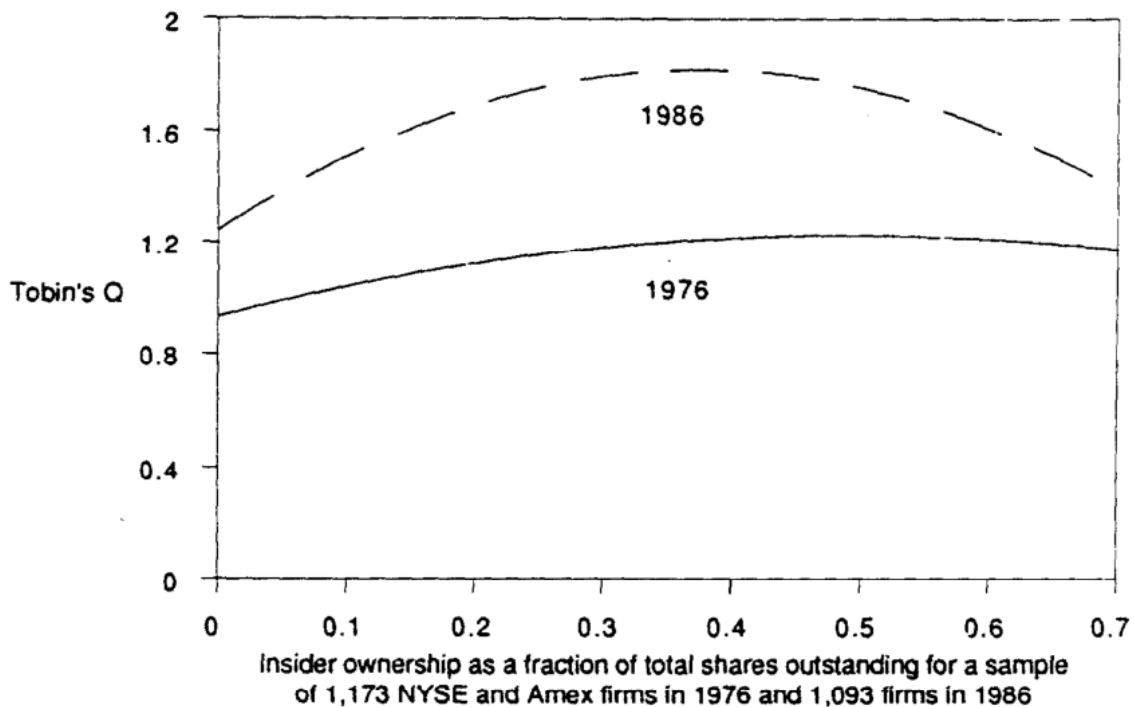


Clearly, from a low ownership level, Tobin's Q rises as executives increase equity ownership. This is a result of a better **interest alignment** between managers and shareholders. However, the relationship is reversed after ownership reaches a certain level (around 8%). Why?

The negative relationship can be explained by the **entrenchment hypothesis**. Morck et al (1988) wrote: "When a manager holds a significant portion of a company's shares, they may gain enough voting power or influence to secure their position and maintain a high salary. Research by Weston (1979) found that companies with insider ownership exceeding 30% were never successfully taken over in hostile bids. With this level of

control, managers might pursue actions that do not maximise shareholder value, though their financial stake in the firm could somewhat limit such behaviour. This idea, known as the entrenchment hypothesis, suggests that corporate assets may lose value when controlled by individuals who face little oversight."

McConnell and Servaes (1990) use a sample of 1,173 firms for 1976 and 1,093 firms for 1986 and find a significant curvilinear relation between Tobin's Q and executive equity ownership. The curve slopes upward until ownership reaches around 40% to 50% and then slopes slightly downward³.



The inverted U-shape relation is consistent with a number of prior studies. Such a relation can be expressed using the following formula:

$$\begin{aligned} \text{Tobin's } Q &= \alpha + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n \\ &+ \beta_a \text{Executive Ownership} + \beta_b \text{Executive Ownership}^2 \end{aligned}$$

More recent studies confirm the alignment effect of executive ownership on firm performance, providing greater insight into where this effect is most significant. For example, **Lilienfeld-Toal and Ruenzi (2014)** developed a trading strategy based on publicly available information about managerial ownership. This strategy generated annual abnormal returns of 4% to 10%, indicating a strong and positive correlation between CEO ownership and stock market performance.

The effect is strongest among firms with weak external governance, weak product market competition, and large managerial discretion, suggesting that CEO ownership can reverse the negative impact of weak governance⁴.

Tip

[Student activity]

Can you think of reasons why external governance and product market competition matter to CEO behaviour?

Overall, although the relationship between CEO equity ownership and firm performance is not a simple upward-sloping curve, there is strong evidence of a positive performance impact.

In Warren Buffett's model of corporate governance, managers are stewards of shareholder capital. The best managers think like owners in making business decisions. They have shareholder interests at heart.

The CEOs at Berkshire Hathaway, Warren Buffett's investment conglomerate, are given a simple set of commands: to run their business as if (1) they are its sole owner, (2) it is the only asset they hold, and (3) they can never sell or merge it for a hundred years. This enables Berkshire CEOs to manage with a long-term horizon ahead of them, something alien to the CEOs of public companies whose short-term oriented shareholders obsess with meeting the latest quarterly earnings estimate. Short-term results matter, of course, but the Berkshire approach avoids any pressure to achieve them at the expense of strengthening long-term competitive advantages.

--- Cunningham, L. A., & Buffett, W. E. (2013) ⁵.

Equity-Based Compensation: An Arm's-Length Contracting View

When researchers study how CEOs get paid, they often imagine it works like a negotiation between two sides:

1. **The CEO**, who wants the highest salary and best perks.
2. **The Board of Directors**, which represents shareholders and tries to keep costs fair.

The idea is that both sides bargain at "arm's length" (i.e. **arm's length contracting**)—meaning they're independent and trying to get the best deal for their side. This concept also shapes the laws about executive pay.

Apart from direct equity ownership, companies' boards also design equity-based compensation schemes that tie awards to conditions. **The key concept of equity-based compensation is that CEOs must be PAID FOR PERFORMANCE.** In other words, grants will not be made unless certain performance goals are met.

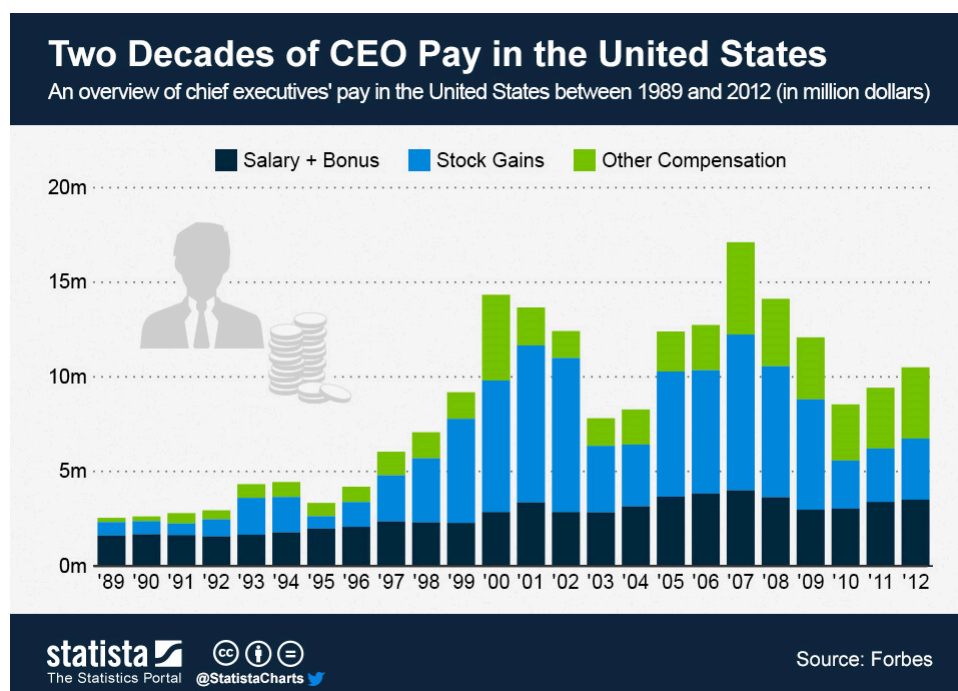
Examples of equity-based compensations	How it works	Incentives created
Stock Options	Grants the CEO the right to buy company stock at a fixed price ("exercise price") in the future.	Motivates CEOs to boost stock price <i>above</i> the option's exercise price.
Restricted Stock Units (RSUs)	Free shares given after time/performance milestones.	Encourages staying at the company (retention). Ties rewards to specific outcomes.
Performance Shares	Stock awards contingent on meeting financial/strategic goals (e.g., revenue growth, ESG targets).	Ties rewards to specific outcomes.
Long-Term Incentive Plans (LTIPs)	Shares awarded only if strict performance hurdles (e.g., EPS, TSR) are met over 3–5 years.	Encourages staying at the company (retention). Ties rewards to specific outcomes.

The equity-based compensation schemes above are designed to incentivise CEOs to work towards maximising shareholders' interest by depending their wealth on firm performance.

They are different from CEO equity ownership in several ways:

Factor	CEO Equity Ownership	Equity-Based Compensation
Source	Already-owned shares.	Future grants (options/RSUs).
Risk	CEO bears full downside risk.	Less risk (options can expire worthless).
Time Horizon	Encourages a very long-term focus.	Can encourage short-term boosts (e.g., hitting quarterly targets for options).
Performance Link	Only general stock price movement.	Often tied to specific goals (e.g. earnings).

There is a trend in the executive compensation structure where the proportion of gains from equity-based compensation increases relative to salary and bonus:



Based on a sample of the 3,000 largest publicly traded U.S. companies collected in 2017, the median CEO holds an equity position in his or her company with a value of \$16 million.

CEO equity wealth and sensitivity to change in equity price (median values) in 2017:

Firms (Grouped by Size)	Median Market Cap (\$ mil)	Median Total Expected CEO Pay (\$)	Total CEO Wealth (\$)	Change in Wealth (For 1% Change in equity Price)	
Top 100	\$111,394	\$17,209,000	\$87,337,000	1.45%	\$1,270,000
101 to 500	\$21,819	\$11,125,000	\$45,807,000	1.45%	\$665,000
501 to 1000	\$6,017	\$7,212,000	\$29,058,000	1.20%	\$349,000
1,001 to 2,000	\$1,789	\$4,022,000	\$15,649,000	1.06%	\$166,000

Firms (Grouped by Size)	Median Market Cap (\$ mil)	Median Total Expected CEO Pay (\$)	Total CEO Wealth (\$)	Change in Wealth (For 1% Change in equity Price)	
2,001 to 3,000	\$378	\$1,849,000	\$5,520,000	1.32%	\$73,000
1 to 3,000	\$1,789	\$4,098,000	\$16,223,000	1.10%	\$178,000

Source: Equilar, proprietary compensation and equity ownership data information for fiscal years ending January through Fiscal Year End, December 2017.

Note

Total CEO compensation and total CEO wealth are rounded to the nearest thousand dollars. Total CEO compensation is the sum of salary, annual bonus, expected value of stock options granted, expected value of restricted stock granted, value of performance plan earned, and other annual compensation. Calculations for compensation exclude changes in pension.

As the above table shows, **the average value of CEO equity wealth is significantly larger than the average value of annual compensation.** This means that for a typical executive, the incentives provided by the equity holdings are at least as important and often dominate the incentives provided by annual compensation. As a result, **a typical executive considers how decisions potentially affect total wealth and not just one year's pay.**

The Limitations of the Arm's-Length Contracting View

Bebchuck and Fried (2004) argue that, "economists have long believed that efficient compensation contracts should link pay with performance to provide executives with desirable incentives. Indeed, according to the standard view, the compensation arrangement is an important mechanism for reducing agency costs. And the significance of the agency problem makes it crucial to use this instrument effectively." ⁶

Directors have neither the time nor the information necessary to monitor all managerial actions to ensure that they benefit shareholders. Given the considerable discretion inherent in a CEO's position, inducing the CEO to focus on shareholder interests and avoid self-serving choices is therefore important. The board can influence the CEO to behave in this manner by designing a compensation arrangement that provides the CEO with an incentive to increase shareholder value. Thus, it is argued, a well-designed compensation scheme can make up for the fact that directors cannot directly monitor or evaluate many of their top executives' decisions. Such a well-designed scheme can substantially reduce agency costs, improve performance, and increase shareholder value.

However, evidence shows that managers have been able to obtain a larger amount of compensation than they would receive under arm's-length bargaining. Perhaps more important, managers have used their power to secure pay without performance—arrangements that weaken the link between compensation and performance and that sometimes even create counterproductive incentives.

Examples of Decoupling Pay from Performance	Details	Problem
Golden Hellos	A large initial payment on top of the annual compensation package. Although golden hellos often include some equity, almost all of them contain a substantial cash component.	The cash component of a golden hello is completely detached from managerial performance, because a manager gets the full benefit even if performance in the new job is mediocre.
Soft Landing	In the unusual cases where executives are asked to leave because of poor performance, boards often provide large, gratuitous goodbye payments. These payments, however, come on top of the already substantial severance payments that executives' contracts generally provide.	The large amounts paid to fired executives considerably reduce the cost of failure
Freedom to Unwind Equity Incentives	Managers enjoy broad freedom to unload their options and shares.	Such unloading either weakens managers' incentives or forces the firm to provide additional options or shares to restore incentives. Shareholders, therefore, either get weaker incentives for a given level of compensation or must pay more for a given level of incentives.

So, what is happening?

Tip

[Student activity]

Read *Pay Without Performance: The Unfulfilled Promise Of Executive Compensation* by Bebchuk and Fried (chapter 2) and find out how managerial power can influence the pay-setting process.

- Directors' desire to be reelected to the board
- CEO's power to benefit directors
- Friendship and loyalty to the CEO
- CEO's Authority
- The small cost of favouring executives
- Insufficient time and information
- etc.

Is High CEO Compensation Always Against the Public Interest?

Tip

[Student activity]

Having read *Pay Without Performance* (Bebchuk & Fried, 2004), what is your view about (very) high CEO compensation?

In April 2010, Bart Becht became the UK's public enemy number one. Not because of any fraud, customer harm or worker mistreatment he'd committed as CEO of Reckitt Benckiser. His crime was, in many people's eyes, far worse. News broke out that, last year, he'd been paid £92 million – shattering British records for executive pay. Bart's pay was linked to banker bonuses that allegedly caused the 2007 financial crisis. Bart loathed every ounce of shame. A year later, on 14 April 2011, he resigned without warning.

Tip

[Student activity]

1. What is your initial feeling towards Bart Becht's £92 million pay?
2. Find out the following:
 - The media reaction upon Bar Becht's departure (e.g. [Reckitt Benckiser shares plunge on surprise news of Bart Becht's departure](#) | [Reckitt Benckiser](#) | [The Guardian](#))
 - Investec Securities downgraded Reckitt's stock to "sell" from "hold".
 - Shares in the group fell 7.5 per cent to £31.15 at Thursday's close, wiping almost £2bn (\$3.3bn) from the value of the group's shares.
 - What is the composition of Becht's £92 million pay? (Check Reckitt-Benckiser's 2010 annual report, director's remuneration)

Since 1999, Reckitt's shares had soared from £7 to over £36 on the day his payout was announced. This represented £22 billion of **value created to investors**, even excluding dividends, and made Reckitt the fourth-best-performing company in the FTSE 100 over the past decade.

Customers benefited. Reckitt became widely recognised for innovation. It won The Economist's Innovation Award in 2009 and is the subject of Harvard and INSEAD case studies on innovation.

Employees benefited. Becht created an entrepreneurial culture and flat hierarchy, empowering employees. As employees told the Financial Times, "it's like running your own company".

The environment benefited. Reckitt launched the Vanish Eco Pack in 2008, which reduced plastic packaging by 70% by moving from a round tub to a resealable pouch. Between 2000 and 2011, Reckitt planted 5.4 million trees in Canada, reduced its greenhouse gas emissions by 48% and lowered energy use per unit of production by 43%. During Bart's leadership, Reckitt headed the UK's Business in the Community Corporate Responsibility Index and was awarded top status in the US Environmental Protection Agency's Safer Detergents Stewardship Initiative.

Warning

This shows that we should never view the world through a single lens. From a social perspective, high CEO pay is justified if the CEO grows the pie for all stakeholders, including shareholders, or most of them.

Important

A CEO can create value for both shareholders and the rest of society. To some extent, a good pay structure design (e.g. the use of equity-based compensation) can curb the agency problem by tying CEO wealth to shareholders' wealth. However, it is equally important that the corporate leaders keep all stakeholders in mind and care for their well-being. Since companies cannot succeed without the support of and resources from the rest of the society, in order to help themselves, it is logical to help the society too.

Reviewing Milton Friedman's shareholder primacy theory, we can say that the only way an enterprise can make a profit, at least in the long term, is if it serves society. Hence, contrary to common understanding, profit maximisation is socially desirable as it leads companies to invest in their stakeholders. As Friedman stressed in his article: "It may well be in the long-run interest of a corporation that is a major employer in a small community to devote resources to providing amenities to that community or to improving its government. That may make it easier to attract desirable employees".

This leads us to the next topic, where we examine corporate governance from an ethical perspective - Confucian Governance.

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1. Meckling, W. H., & Jensen, M. C. (1976). Theory of the Firm. *Managerial behavior, agency costs and ownership structure*, 3(4), 305-360. [↵](#)
 2. Morck, R., Shleifer, A., & Vishny, R. W. (1988). Management ownership and market valuation: An empirical analysis. *Journal of financial economics*, 20, 293-315. [↵](#)
 3. McConnell, J. J., & Servaes, H. (1990). Additional evidence on equity ownership and corporate value. *Journal of Financial Economics*, 27(2), 595-612. [↵](#)
 4. Lilienfeld-Toal, U. V., & Ruenzi, S. (2014). CEO ownership, stock market performance, and managerial discretion. *Journal of Finance*, 69(3), 1013-1050. [↵](#)
 5. Cunningham, L. A., & Buffett, W. E. (2013). *The essays of Warren Buffett: lessons for corporate America*. Carolina Academic Press [↵](#)
 6. Bebchuk, L., & Fried, J. (2004). *Pay without performance* (Vol. 29). Cambridge, MA: Harvard University Press. [↵](#)