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Firma (signature)*Miriam Staninchedda*.....

Index

Abstract.....	3
Introduction	3
Chapter 1: Tournament Theory	5
1.1 The forms of Incentive pay.....	5
1.2 Tournament Theory: Lazear and Rosen study	7
1.3 Rosen study on multistage tournaments in hierarchies.....	10
1.4 The Pros and Cons of Tournament Theory	12
Chapter 2: The CEO-to-worker pay ratio	13
2.1 Historical trends and growth from 1978 of CEO compensation about worker pay.....	13
2.2 Theoretical Frameworks and Justifications for the CEO pay disparity	17
2.3 The impact of CEO-to-worker pay ratio on businesses, employees, and society	19
2.4 What is the ideal CEO-to-worker ratio	23
Chapter 3: The Sustainability of the CEO-to-worker pay ratio in the long term	26
3.1 The long-term implications of a sustained pay gap for businesses, employees, and society	26
3.2 Factors that may contribute to the sustainability of the CEO-to-worker pay ratio.....	27
3.3 Policies implemented by countries to address the widening CEO-to-worker pay gap...	29
Conclusion.....	31
References.....	32

ABSTRACT

This paper discusses the phenomenon of the growing difference between CEO and worker wages in modern businesses and traces its origins to the Tournament Theory. The first chapter provides an in-depth analysis of the Tournament Theory, including its foundational principles and Rosen's study on multistage tournaments in hierarchies. The second chapter examines the history of the CEO-to-worker pay ratio, its justifications, and its impact on modern businesses. The chapter also explores the possibility of an ideal pay ratio. The third chapter focuses on the sustainability of the CEO-to-worker pay ratio in the long term, including its implications for businesses, employees, and society. The chapter also examines the factors that contribute to its sustainability and the policies implemented by countries to address the widening pay gap.

INTRODUCTION

The growing difference between CEOs' wages and workers' wages within the same company is a phenomenon often observed in modern businesses. The genesis of the CEO-to-worker pay ratio can be traced back to a series of tournaments aimed at encouraging, with an increasingly high salary, employees to optimize their commitment within the company. In other words, the Tournament Theory.

Developed in the 1981 paper "Rank-Order Tournaments as Optimum Labor Contracts" by Edward P. Lazear and Sherwin Rosen (Lazear, E.P., Rosen, S., 1981), the Tournament Theory considers the lifetime output of a worker at a company from a pay-for-performance perspective. Looking at the tournament in its simplest form, a two-player tournament, they defined the optimum prize spread between winner and loser: high enough to induce an investment yet not so low that the investment is prohibitively expensive for the worker was just the beginning of a whole series of studies focused on the field of Contest Theory, including some of Rosen's research on multi-stage tournaments in hierarchies, that will explain the marked concentration of rewards in the top ranks. It is therefore impossible not to notice how these theories emphasize the widening gap in pay levels between the top and bottom ranks.

There are mixed opinions on the efficient level of compensation for a CEO. Some suggest that overcompensation is attributed to the CEO's ability to capture the board of directors, but others argue that the compensation at the top of the firms is pushed beyond the efficient level. These considerations influence not only researchers, but also clients and aspiring workers, who negatively judge an excessive gap and, consequently, make different consumer and employment choices.

Therefore, this paper aims to consider how the CEO-to-worker pay ratio can be sustainable in the long term in a modern enterprise.

The first chapter proposes an in-depth analysis of the general theoretical context of the Tournament Theory. In this regard, it will examine the forms of incentive pay to then investigate the Tournament Theory and its foundational principles. It will then proceed to analyze Rosen's study on multistage tournaments in hierarchies to enhance the Tournament Theory's various strengths and weaknesses.

The second chapter of this report will delve into the matter of the CEO-to-worker pay ratio. It will provide a historical overview of the trend in this pay ratio from the 1978 to the present day. Additionally, it will explain how this pay gap is typically justified and why it is concentrated in the upper echelons of the corporate hierarchy. Furthermore, this chapter will examine the impact of the CEO-to-worker pay ratio on modern businesses and explore the possibility of an ideal pay ratio.

The third chapter will examine the sustainability of the CEO-to-worker pay ratio in the long term, including its implications for businesses, employees, and society, factors that contribute to its sustainability, and policies implemented by countries to address the widening pay gap.

CHAPTER 1: TOURNAMENT THEORY

1.1 The forms of Incentive pay

To fully comprehend the purpose of this paper it is crucial to examine the various forms of incentive compensation and the underlying reason for their existence.

It is widely accepted that compensation is a fundamental aspect of the work system, as it directly impacts the behavior and productivity of workers. Incentives have been studied extensively by economists, such as Edward Lazear (Lazear, E.P. 2018), which argues that they are a necessary tool for inducing workers to perform efficiently. This can be achieved not only through manipulating the pay structure but also through the hours of work and the output associated with it. It is clear that incentives play a crucial role in shaping workers' efforts, and economic research has made great strides in specifying how compensation and its various forms influence worker behavior.

However, it is important to note that compensation for incentives isn't always related to productivity. In reality, incentives are a feature of almost all payment systems. Lazear arranged the several incentive types into a two-by-three matrix to make this point clear. The rows describe the various payment

schemes, whereas the columns relate to pay on input and pay on output. As seen in the table below, this matrix aids in classifying the many types of incentives:

Taxonomy of Incentive Compensation

	<i>Payment on Input</i>	<i>Payment on Output</i>
Discrete	Pay per hour with a specified hours requirement	Fixed payment for completion of construction project
Continuous	Time-based pay that allows worker choice of labor units supplied	Piece rates
Relative	Promotion tournaments based on subjective relative effort evaluation	Promotion tournaments based on some metric of relative output

Table 1: Lazear, E.P. (2018) "Compensation and Incentives in the Workplace"

Different pay schemes can be found, as illustrated in the table. Many workers, for example, encounter input-based pay with a discrete pay scheme that employs time as a reference unit and gives workers no actual choice over the number of working hours. Another prominent input-based pay system, which is largely utilized in part-time positions, employs continual incentives to provide workers more flexibility over the amount of input they supply. Input-based contracts, on the other hand, may not appropriately motivate effort because they require workers to deliver

a certain amount of measurable input. As a result, time-based contracts generally include an implicit or explicit performance requirement that employees must satisfy to avoid termination.

Piece rates are unavoidable when discussing output-based payment with a continuous pay plan. In this example, some production measurements are set, and workers are paid based on the number of units produced, so remuneration is independent of the performance of other coworkers. For example, piece-rate workers in agriculture who are paid according to the amount of grain harvested, salespeople whose income is directly related to sales, taxi drivers who rent their cabs for a flat fee and keep 100% of the cash generated, or Uber and Lyft drivers.

Unlike input-based payment, this type of compensation plan accommodates worker preferences and stimulates both those who put in a high level of effort and those who put in a low amount of effort.

Discrete output-based incentives encourage employees to focus on a specific level of output. In other words, this payment plan provides money in exchange for task completion to incentivize the contractor to perform, but the incentives are focused on attaining the particular goal. They are referred to as "all-or-nothing" contracts.

A pure piece-rate structure, on the other hand, is vulnerable to variations in exogenous factors such as business conditions.

Lazear delves deeply into this topic, examining how greater piece rates do not always result in higher output, pay, and profit. Furthermore, even in settings favorable to piece rate, a piece rate set too high may increase the cost-per-unit of output. A pure piece rate system is uncommon.

Lazear research has led to a thorough analysis of team-based incentives, which consider high-skill individuals who can also help others enhance their skills. The study concluded that if this type of profile is paid a flat rate based on individual output, the worker will have little incentive to help others. However, if the compensation is inadequate, the worker will be fully encouraged to support others.

These two opposing possibilities find their balance in a trade-off. So, if this kind of worker is assigned to a small team and paid partly based on the team output, the worker will face a trade-off between spending more time on personal work and spending time helping others.

Finally, relative performance can be used to motivate both input and output-based incentives. The most common and illustrative type of relative system is represented by tournaments in which the worker competes for first place, which in this case corresponds to promotion. This topic will be further analyzed in the next chapters.

1.2 Tournament Theory: Lazear and Rosen study

Before developing the Tournament Theory as it is now known, Edward P. Lazear and Sherwin Rosen in their paper “Rank Order Tournaments as Optimum Labor Contracts” (Lazear, E.P., Rosen, S., 1981), examined worker compensation based on their relative positions in the firm, producing incentive structures for the various risk-taking profiles.

The study expressly urges readers to consider a worker's lifetime output at a company. This output is determined by two variables: chance and acquired skills, as indicated by the equation:

$$q = u + e$$

In this case, u represents a player's effort or investment, whereas e is a random component (e.g. luck or noise). By investing in skills early in life, the worker can control his lifetime output; yet, some of his output will be dictated by chance.

Considering the tournament in its simplest form, a two-player tournament, where there is a fixed price for the winner W_1 and a fixed prize for the loser W_2 . As the disparity between the losing and winning prizes grows, so does the motivation to win. Thus, the worker's investment grows as the disparity between the winning and losing prizes rises. As a result, increasing the spread of awards is in the firm's best interests even though there is a drawback for them. Each player's actions have a cost $C(u)$ associated, consequently as the workers invest more their costs rise. Given that the likelihood that player a will win the first reward W_1 is positively connected to that player's action u_a and negatively related to the opponent player's action u_b , as well as the random component e , if P is the probability of winning, the contestant can earn the payout shown below.:

$$P[W_1 - C(ui)] + (1 - P)[W_2 - C(ui)] = P(W_1 - W_2) + W_2 - C(ui)$$

So, when player a chooses u_i to maximize his/her payoff the equation:

$$\frac{\partial P}{\partial u_i}(W_1 - W_2) - C'(u_i) = 0$$

Lazear and Rosen expanded their research by including Nash equilibrium, which occurs when both players maximize their payout while believing the other player's effort is fixed. At this point, the marginal cost of effort C' equals the marginal value of effort V , resulting in:

$$\frac{\partial P}{\partial u_i}(W_1 - W_2) = V$$

This means that an actor's level of effort grows proportionately to the difference between winning and losing and that only the difference between winning and losing counts to the two competitors, not the absolute quantity of their triumphs. (Chowdhury,S.M., Gürtler,O 2015).

Competing businesses might offer a smaller spread tournament and attract more workers since they would have to invest less. Therefore, corporations determine an ideal price spread that is high enough to drive investment but low enough that the investment is not excessively costly for the worker. Beginning with a thorough analysis of the piece rate scheme, which is the most widely used incentive scheme under conventional systems, the authors established the conditions for the existence of rank-order tournaments, in a hypothetical case where individual input or output is difficult to measure on a cardinal scale, for risk-neutral profiles. To begin, the output of each contestant must be observable and rankable and each contestant's performance must be evaluated and compared to that of other participants. Second, the cost of effort must increase as the contestant's level of effort rises. The relationship between effort and output is uncertain and follows a common probability distribution, meaning that the same degree of effort exerted by two different contestants could result in significantly different levels of output. To induce efficient levels of effort, the marginal cost of effort must likewise grow in the level of effort exerted by the contestant, this means that the same level of effort exerted by two different contestants could result in different levels of output. In other words, the additional cost of exerting one more unit of effort is higher when the contestant is already exerting a high level of effort than when the contestant is exerting a low level of effort.

In this way, a rank-order tournament is optimal because it induces contestants to exert effort that is proportional to the marginal benefit of effort. In other words, contestants will exert effort until the marginal cost of effort equals the marginal benefit of effort, which is equal to the expected marginal gain from moving up one rank in the tournament. This results in an efficient allocation of effort, as the best performers are rewarded with higher prizes, and the worst performers receive lower prizes.

Subsequently, the authors moved to the analysis of risk-averse profiles. Firstly, for a rank-order tournament to be efficient in risk-averse conditions, there has to be a large number of players or contestants as this ensures a competitive contest and that the winners have achieved a significant accomplishment. In addition, many contestants allow for a more significant prize spread, which is important to incentivize effort. Secondly, the output of each contestant has to be uncertain and depend on their effort or performance because if the output is entirely predictable, there is no need for a tournament. However, if the output is entirely random, the tournament will not be effective because participants may not be able to control their outcome.

Furthermore, the candidates are risk-averse, which means they would rather have a guaranteed lesser reward than a chance at a bigger payment, even if the expected value of both is the same. This is vital to consider when choosing a tournament's prize structure since the quantity of the prize must be significant enough to drive effort while not being so large that contestants will not want to participate in the event. In other words, the prize awarded to the winner should be large enough to motivate effort but not so large that it becomes prohibitively expensive for the employer. The size of the prize pool will be determined by the cost of effort and the risk aversion of the contestants.

The third and last analysis conducted by Lazear and Rosen was the case of risk-propensity. To begin, a large number of players or contestants are required to ensure that the tournament is competitive and that the winners have achieved a significant accomplishment. Secondly, the output of each contestant is uncertain and dependent on their effort or performance since the tournament should be designed to create a situation where contestants believe that their effort can influence their performance. Additionally, the prize awarded to the winner should be significant enough to incentivize effort, but not so high that it becomes prohibitively expensive to the employer. The optimal prize spread will depend on the cost of effort and the contestants' risk propensity.

In conclusion, the contestants are risk-prone, meaning they prefer a lottery with a higher expected value to a guaranteed payment with the same expected value. So they prefer a lottery with a higher expected value to a guaranteed payment with the same expected value. This means that the optimal prize structure should be designed to include a relatively large prize that is uncertain to motivate participants.

While the key conditions for a rank order tournament in a risk-prone setting are similar to those in a risk-averse setting, the difference is in the contestants' preferences for a guaranteed payment versus a lottery with a higher expected value.

Finally, as a conclusion, the research suggests an alternative to compensation in proportion to the marginal product. Furthermore, by rewarding workers based on their relative position in the organization, the new method ensures an allocation of resources equal to that obtained by the efficient piece rate. In comparison to the piece rate scheme, the new scheme result less costly considering that it's more expensive to observe each worker's output directly rather than observing the relative position.

As they continued their research, Lazear and Rosen began to develop a broader theory of tournaments that could be applied to a range of contexts beyond just employment. This theory

considers the strategic behavior of participants, the design of the tournament, and the resulting outcomes. It has been used to analyze everything from sports competitions to political campaigns, and it remains an important area of research in economics and other fields today.

1.3 Rosen study on multistage tournaments in hierarchies

Sherwin Rosen in “Prizes and Incentives in Elimination Tournaments” (Rosen, S. 1986) continued his studies in the field of Tournament Theory focusing on the incentive properties of prizes in elimination tournaments, where rewards increase with survival. In particular, Rosen observed how the reward structure of the tournament affected the performance and selection of contestants.

As a result, the top ranks have a far larger concentration of prizes than would be the case in a piece rate system or contests with a fixed prize structure. This is due to the fact that an elimination design needs an additional reward for the overall winner to sustain performance incentives throughout the game (Rosen, S. 1986). This economic result derives from the survival aspect of the game, so at the final match, the difference in prize money between winning and losing must incorporate the equivalent of the survival option. In other words, “*the extra weight of rewards at the top is due to the no-tomorrow aspect of the final stage of the game*” (Sadler, G.V. 1999) extending the horizon of players surviving to those stages making the game appear as if there are always many steps left to attain.

Rosen considers a paired-comparison structure like the two-player tournament elaborated in his previous work with Edward Lazear (Lazear E.P., Rosen, S., 1979), that proceeds through N stages. Winners survive to the next round, where another pair is formed, and losers are eliminated from subsequent play. The author is mainly concerned with how, in a career game, prizes affect performance and selection, and the specific elements of the reward structure require to maintain incentives as the game proceeds. This framework must specifically function such that players put in at least as much, if not more effort in the latter phases of the game as they do in the earlier stages. For what concerns the strategies used, Rosen assumed risk neutrality and believed that a player’s amount of effort depended on benefit-cost analysis. This led the author to two considerations: first, the value of advancing in the tournament depended on how the player assesses future effort should eligibility be maintained; secondly, the current actions depend on the anticipated behavior of the current and all the future possible opponents.

Rosen finds a solution in the hypothesis of players that are all equally talented. In this way, each player is sure that an opponent of equal skill will be confronted at every stage. Additionally, to this condition, at each stage, the difference between winning and losing should be positive for the player to have an interest in maintaining eligibility in the next stage. Furthermore, the importance of preserving eligibility at any stage is the guaranteed prize that the player has secured by surviving that long, as well as the discounted sum of successive interrank rewards that may be obtained in future matches, defining the "option" value of an elimination tournament design (Rosen, S.1986).

Thus, the incentive-maintaining prize structure requires a constant interrank spread from second place down, however, to consider previous deductions, it also requires a largely interrank spread at the top.

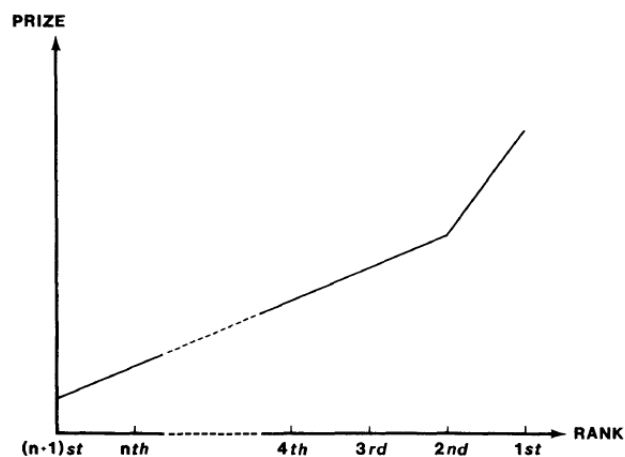


Figure 1: Rosen, S. (1986) "Prizes and Incentives in Elimination Tournaments"

While prizes rise linearly from rank N-1 to the second place, the first-place prize is distinctly higher than the other prizes interrupting the trend, as explained in Figure 1.

This is because the final-round spread must replace the earlier option value of obtaining probable better ranks at earlier rounds, changing the value of the difference between winning and losing at each stage into a perpetual value at all stages (Rosen, S. 1986).

In conclusion, Rosen's studies' supported the Tournament theory as an incentive scheme and a way of labor compensation when the output is difficult to quantify providing goals for workers and rewarding hard effort so that they may one day obtain one of the desired jobs at the top.

1.4 The Pros and Cons of Tournament Theory

As effective as it could be, the Tournament Theory has both benefits and flaws.

What concerns first, the Tournament Theory certainly provides a clear framework for understanding the effects of incentives on workers' behavior and productivity. Empirical research in economics and management has proven that a tournament-style incentive structure improves the individual performance of workers and managers in the workplace. In particular, the theory helps organizations design incentive systems that reward high performers and encourage competition among employees offering insights into how individuals may make strategic decisions based on their expectations of how others will behave.

As for the latter, the theory may lead to a focus on short-term performance rather than long-term growth and development of the worker since it creates a winner-takes-all-mentality and demotivates lower-performing employees.

Other than incentivizing selfish and unethical behavior, the theory tends to spur the increasing spread between the salary of the top and bottom ranks.

This paper will analyze how this trend impacts modern businesses and their way of working.

CHAPTER 2: THE CEO-TO-WORKER PAY RATIO

2.1 Historical trends and growth from 1978 of CEO compensation about worker pay

This section will look at the CEO-to-worker pay ratio, which compares CEO compensation to that of a typical employee. This ratio is assigned to a company by dividing the CEO's salary by the salary of the median employee.

CEOs of the largest corporations in the United States earn far more today than they did in the mid-1990s, and many times more than they did in the 1960s or 1970s.

According to the Economic Policy Institute in the article “CEO pay has skyrocketed 1,460% since 1978” (2022), the boards of directors of America's largest public companies are awarding top executives massive pay packages that have increased significantly faster than the stock market and typical worker, college graduate, and even top 0.1 percent pay. Adopting a "realized" definition of CEO compensation, which counts stock awards when they are vested and stock options when they are cashed in and ownership is obtained, it has been drawn, in 2021, that the CEO at one of the top 350 firms in the U.S.A was paid on average \$27.8 million. Thus, an 11.1% increase from 2020.

On the other hand, considering another measure of CEO pay that counts the value of stock awards and options when announced, the average CEO pay in 2021 was \$15.6 million. Meaning, 9.8% since 2020. This data communicates an alarming CEO-to-worker pay ratio that corresponds to 399-to-1 in 2021, compared to 366-to-1 in 2020. It is visible how there is an increasing trend of the growth of this disparity, especially if this data is compared to the 20-to-1 in 1965 and the 59-to-1 in 1989. In other words, CEO pay based on realized remuneration increased by 1,460 percent between 1978 and 2021, so this compensation grew 37% faster than the stock market growth.

Since 1965, the composition of CEO compensation has also changed as it is shifting away from stock options and toward stock awards. In fact, in 2021, vested stock awards and exercised stock options totaled \$21.9 million, accounting for 80.1 percent of the average realized CEO salary. Additionally, over the last three decades, CEO pay has increased significantly faster than that of other highly rewarded workers, particularly the top 0.1 percent, or those earning more than 99.9 percent of wage earners. In 2020, the average CEO remuneration was 6.88 times that of the top 0.1 percent of wage earners, 3.7 points more than the 3.18-to-1 average CEO-to-top-0.1 percent ratio from 1947 to 1979. The fact that CEO pay has risen far faster than the

compensation of the top 0.1 percent of wage earners suggests that CEO pay growth is more than just a competitive hunt for abilities that raises the value of highly paid professionals in general. Rather, the growing pay gap between CEOs and the top 0.1 percent of earnings demonstrates the establishment of large economic rents in CEO remuneration. It appears that CEO pay does not reflect greater executive productivity, but rather the unique capacity of CEOs to gain concessions—a power derived from the United States' broken corporate governance frameworks. Because there is so much of CEO compensation in economic rent, cutting or raising CEO pay would have little detrimental impact on productivity or employment.

Furthermore, the stock-related components of CEO compensation have grown significantly over the past few years, making up a large and increasing portion of total compensation. In 2016, realized stock awards and stock options accounted for 73.3% of total CEO compensation, while in 2021, they made up 82.0%. This growth in stock-related components explains over 93% of the total growth in CEO compensation from 2016 to 2021. Stock awards are becoming a larger share of compensation packages, while the share of stock options has decreased over time. With stock options, CEOs have nothing to lose but potentially a lot to gain, which may lead them to take excessive risks to boost the stock price in the short term. Stock awards promote better alignment of the CEO's goals with those of shareholders as they have a value when given or vested and can increase or decrease in value as the firm's stock price changes. If the award has a lengthy vesting period, the CEO has an interest in lifting the stock price over that period while avoiding any implosion in the stock price to maintain the value of the award.

(“CEO compensation has grown 940% since 1978 - Economic Policy Institute”)

The table above reports both the realized and the granted CEO compensation, for what concern

CEO compensation, CEO-to-worker compensation ratio, and stock prices (2021\$), selected years, 1965–2021

Year(s)	CEO annual compensation (thousands)		Private-sector production/nonsupervisory workers annual compensation		Stock market (indexed to 2021\$)		CEO-to-worker compensation ratio	
	Realized	Granted	All private-sector workers	Workers in the firms' industries*	S&P 500	Dow Jones	Realized	Granted
1965	\$995	\$758	\$45.2	NA	664	6,856	20.4	14.9
1973	\$1,300	\$990	\$53.1	NA	587	5,051	22.7	16.6
1978	\$1,781	\$1,356	\$54.3	NA	367	3,138	30.3	22.3
1989	\$3,317	\$2,526	\$51.7	NA	683	5,311	59.3	43.6
1995	\$6,435	\$7,149	\$51.7	\$57.1	959	7,968	118.8	131.6
2000	\$23,219	\$23,242	\$54.6	\$59.8	2,252	16,919	371.7	392.9
2007	\$20,696	\$15,459	\$56.8	\$63.2	1,935	17,262	334.6	246.0
2009	\$10,995	\$11,367	\$59.0	\$65.1	1,200	11,248	178.3	176.6
2020	\$25,008	\$14,195	\$63.8	\$70.4	3,368	28,146	365.6	208.6
Projected 2021	\$27,780	\$15,592	\$64.1	\$70.4	4,273	34,055	398.8	236.0
2020 FH	\$24,620	\$14,602	\$63.8	\$71.6	3,368	28,146	354.0	207.2
2021 FH	\$27,349	\$16,039	\$64.1	\$70.4	4,273	34,055	387.2	234.6
Percent change								
1965–1978	78.9%	78.9%	20.0%	NA	-44.6%	-54.2%	10.0	7.3
1978–2000	1,204.0%	1,614.5%	0.6%	NA	513.0%	439.1%	341.3	370.6
2000–2007	-10.9%	-33.5%	4.1%	5.5%	-14.1%	2.0%	-37.0	-146.8
2007–2009	-46.9%	-26.5%	3.9%	3.1%	-38.0%	-34.8%	-156.4	-69.5
2009–2021	152.7%	37.2%	8.6%	8.1%	256.1%	202.8%	220.5	59.4
2007–2021	34.2%	0.9%	12.8%	11.5%	120.8%	97.3%	64.2	-10.0
1978–2021	1,460.2%	1,050.2%	18.1%	NA	1,063.4%	985.2%	368.5	213.7
2020–2021	11.1%	9.8%	0.4%	0.0%	26.9%	21.0%	33.2	27.4
Change in ratio								

* Average annual compensation of the workers in the key industry of the firms in the sample.

Notes: Average annual compensation for CEOs at the top 350 U.S. firms ranked by sales is measured in two ways. Both include salary, bonus, and long-term incentive payouts, but the “granted” measure includes the value of stock options and stock awards when they were granted, whereas the “realized” measure captures the value of stock-related components that accrues after options or stock awards are granted by including “stock options exercised” and “vested stock awards.” FH = First half. CEO-to-worker compensation ratios are based on averaging specific firm ratios in samples and not the ratio of averages of CEO and worker compensation. Ratios prior to 1992 are constructed as described in the CEO pay series [methodology](#) (Sabadish and Mishel 2013).

Source: Authors' analysis of data from Compustat's ExecuComp database, the Federal Reserve Economic Data (FRED) database from the Federal Reserve Bank of St. Louis, the Bureau of Labor Statistics' Current Employment Statistics data series, and the Bureau of Economic Analysis NIPA tables.

Economic Policy Institute

Table 2: Economic Policy Institute (October 4, 2022) "CEO pay has skyrocketed 1,460% since 1978"

first it increased by 11,1% from 2020 to 2021. An overwhelming growth due to the value of

vested stock awards. On the other hand, for what concerns the other, the value of the stock option granted in 2021 has grown by 9.8%. The table also shows the average annual compensation of private-sector production/nonsupervisory workers to compare them to the CEO compensation. Additionally, the table displays inflation-adjusted stock market movements as judged by the Dow Jones Industrial Average and the S&P 500 Index.

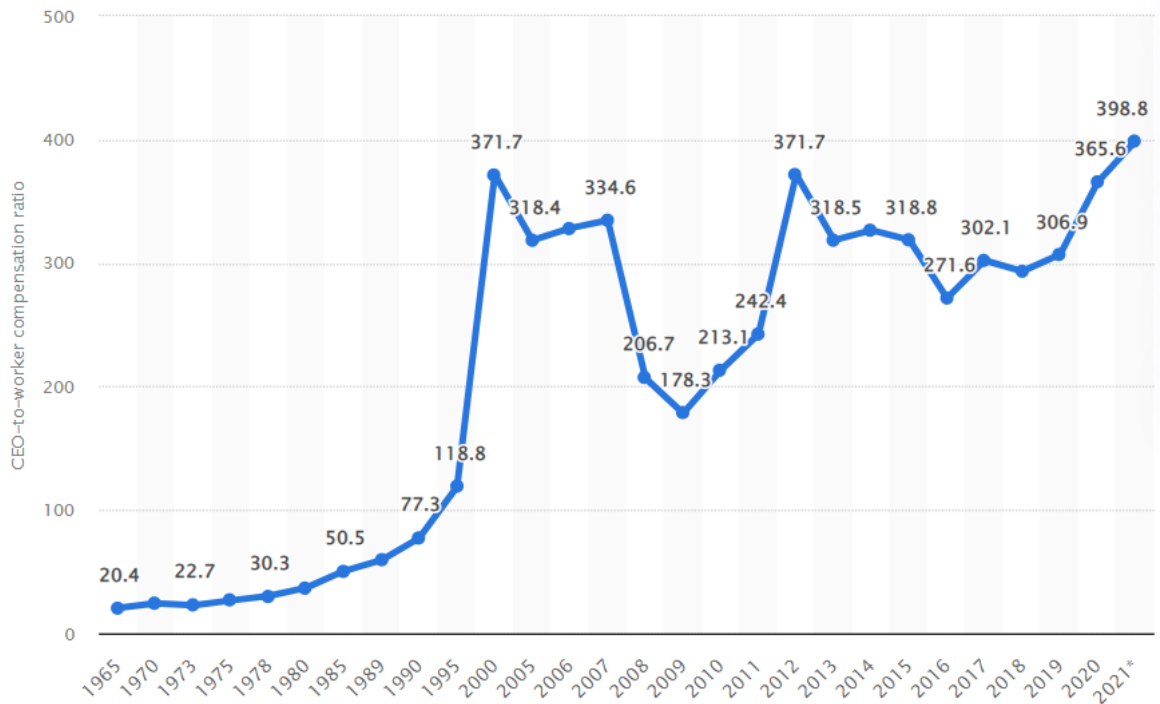


Figure 2: Statista Research Department (2022)

CEO compensation has generally risen and fallen along with the S&P 500 Index in the past fifty years, which means that the time frame between 1965 and 1978 is an exception considering how at that time the stock market fell by roughly half even though the CEO compensation grew by 78.9%. Typical worker compensation grew quite strongly throughout that period—strong relative to later times, not in relation to CEO compensation or other executives' salaries top earners: From 1965 to 1978, annual worker compensation increased by 20.0 percent, almost one-fourth as rapidly as CEO salary increases.

Realized CEO salaries rose steadily during the 1980s before skyrocketing in the 1990s. It peaked at over \$23.2 million after the stock market boom in 2000, a 261 percent gain over only five years earlier in 1995, and a 1,204 percent rise over 1978. This latter surge outpaced even the rising stock market's growth. Between 1978 and 2000, the S&P 500 gained 513 percent and the Dow gained 439 percent. In sharp contrast to the stock market and CEO pay, private-sector worker remuneration climbed by just 0.6 percent between 1978 and 2000. When the early-

2000s stock market bubble burst, CEO remuneration was significantly reduced. However, by 2007, when the stock market had completely recovered, realized CEO compensation had reached \$20.7 million, just \$2.5 million less than in 2000. However, awarded CEO salary remained flat in 2007, at \$15.5 million, a \$7.8 million decrease from the previous year. As it happened in the early 2000s, the stock market downturn during the 2008 financial crisis drove CEO remuneration plunging, as realized CEO compensation decreased 46.9 percent from 2007 to 2009. After 2009, realized CEO compensation began an upward trend, increasing 152.7 percent from 2009 to 2021, surpassing its prior high from 2007 by 34.2 percent. Indeed, the rapid rise in CEO salary (together with a pick-up in the rate of inflation) in 2021 drove CEO pay to more than \$4.5 million greater than the previous record level in 2000, during the height of the stock market bubble.

It is better to measure growth since 1978 to examine the influence of CEO remuneration in the overall increase in income and wage disparity over the previous four decades. From 1978 to 2021, realized CEO salary climbed 1,460.2 percent, which was more than 37 percent higher than stock market expansion (depending on the market index used) and significantly faster than the modest 18.1 percent growth in ordinary worker compensation. During this time, the CEO's salary increased by 1,050.2 percent.

Some observers believe that excessive CEO pay is primarily a symbolic problem with no implications for the vast majority of workers. However, the rise in CEO salary, and executive compensation in general, has spurred the rise in incomes of the top 1% and 0.1 percent, resulting in widespread inequality. High CEO compensation reflects economic rents, concessions CEOs may pull from the economy based on their position of power rather than their contribution to economic productivity. Clifford (2017) outlines how every company wants to believe that its CEO is above average and hence deserves to be compensated accordingly. However, CEO remuneration could be decreased across the board, and the economy would suffer no ill effects from production loss.

2.2 Theoretical Frameworks and Justifications for the CEO pay disparity

When debating the theoretical frameworks and explanations for CEO pay disparities, it is critical to analyze the numerous viewpoints and arguments advanced by economists, academicians, and proponents of various theories. This paragraph examines few significant

theoretical frameworks and arguments that are frequently used in talks about CEO pay disparities:

One commonly cited perspective is the market-based justification, which contends that CEO pay disparity is a result of market forces at play. According to this view, CEOs possess unique skills, expertise, and experience that are in high demand. As a result, their compensation reflects their market value, with their salaries determined through negotiations and contractual agreements. The competitive nature of the labor market, combined with the scarcity of individuals with the necessary qualifications, drives up CEO salaries. Another theoretical framework frequently invoked is agency theory, which focuses on the relationship between shareholders and CEOs. Proponents of this theory argue that CEO pay disparity serves to match CEOs' interests with those of shareholders. The idea is that higher CEO salaries incentivize executives to act in ways that maximize shareholder value. By offering significant financial incentives, CEOs are motivated to make strategic decisions and take risks that can benefit the company's long-term performance. The human capital theory provides another perspective, emphasizing the exceptional skills and knowledge that CEOs bring to organizations. According to this framework, CEO pay disparity is justified based on the notion that these individuals possess valuable human capital acquired over their careers. Their expertise contributes significantly to the success and profitability of their organizations, warranting higher compensation to attract and retain top talent capable of effectively leading and driving organizational growth. The Tournament Theory, deeply analyzed in the previous chapter, offers an alternative explanation, suggesting that CEO pay disparity arises from a "winner-takes-all" competition within the corporate world. The limited number of top executive positions creates intense competition, and only a select few can occupy these coveted roles. As a result, the high compensation offered to CEOs reflects the scarcity and prestige associated with these positions. In this view, CEO pay serves as an incentive to motivate executives to fiercely compete for these high-level roles. Critics of CEO pay disparity often highlight power dynamics and rent extraction as key factors. They argue that CEOs, with their significant influence over corporate governance structures, can manipulate their pay to extract rents or excessive financial rewards beyond what can be justified by their performance. This perspective focuses on issues of corporate governance and suggests that CEO pay disparity is a symptom of a flawed system where executives can exert undue influence and shape compensation structures to their advantage.

Different stakeholders have differing perspectives on the issue, and the appropriateness of CEO remuneration remains a matter of debate and continuing research in the domains of economics and corporate governance.

2.3 The impact of CEO-to-worker pay ratio on businesses, employees, and society

According to Kiatpongsan and Norton (2014), even though the real average CEO-to-worker compensation ratio at the time was 354:1, the majority of Americans thought it to be 30:1 and suggested a lower ideal ratio of 7:1. The substantial difference between the actual and the ideal pay disparity implies that the public revelation of CEO-to-worker pay ratio information may have an impact on staff and customer impressions of organizations.

Several lines of research investigated the possible influence of large CEO-to-worker pay ratios on employee attitudes. Among these, research on the consequences of macro-level income inequality suggests unfavorable employee outcomes to the extent that high ratios go hand in hand with income disparity. For example, high levels of state income inequality have been linked to lower employee satisfaction (Ahn et al., 2016), high levels of societal income inequality predict increased hours worked (Bowles & Park, 2005), and workers report more absences in countries with higher income inequality (Muckenhuber, Burkert, Großschädl, & Freidl, 2014). Furthermore, disparities in income have been demonstrated to reduce social incentives in terms of production, pride, and engagement. Such negative consequences of economic inequality imply that large CEO-to-worker ratios may be harmful. For what concerns the impact of this income disparity on consumers, a recent cluster of studies by Mohan, Norton, & Deshpandé, 2015 found that when customers realize that a firm has a low CEO-to-worker compensation ratio compared to a high ratio or when they do not know the company ratio, they are more likely to pay or pay more, for a range of its items. Furthermore, they hypothesized that this effect was mediated by perceived wage fairness within the firm, with a high CEO ratio leading to views of low wage fairness and, as a result, a lower willingness to pay for a product. They also discovered that organizations with low ratios were evaluated by customers as having greater warmth and competence than companies with high ratios. From a consumer standpoint, this may translate to more or less favorable global "reviews" of firms on rating systems such as Yelp. From the perspective of employees, organizations that are perceived positively overall are more likely to be perceived as more appealing employers and are more likely to retain employees (Bhattacharya, Sen, & Korschun, 2008; Hausknecht, Rodda, & Howard, 2009). Many people would prefer that corporations cut their CEO-to-worker ratios to improve parity,

however, this may not be the case since companies may try to justify their high ratios by emphasizing how hard their CEOs work. The idea of meritocracy, in particular, is a prominent American worldview (Kluegel, J. R., Smith E.R. 1986), which holds that position is determined by individual hard effort and merit. Such meritocracy views contribute to the justification of the status quo by legitimizing status inequalities between people (Jost & Banaji, 1994; Sidanius & Pratto, 1999). According to research, when people believe in meritocracy, they favor members of higher-status groups and excuse status differences.

Kiatpongsan, S. & Norton I.M. (2014), who were interested in how employees and consumers rated companies with lower CEO-to-worker pay ratios versus higher pay ratios, pursued five different studies to analyze different questions.

The first and second studies focused on customers' perceptions and evaluations as outside observers, while the remaining studies analyzed the employees' points of view. In the first study, they presented a mock description of a clothing company to a sample of survey participants and manipulated information about the company's CEO-to-worker compensation ratio to be either relatively high or low (Benedetti, A. H. & Chen, S., 2018).

A ratio of 350:1 reflects the national average, while a ratio of about 25:1 has been argued to be the maximum before a ratio might cause employee resentment (Drucker Institute, 2011). After that, the participants rated how well a list of adjectives described the company and its employees. Then they assessed a global impression of the company, their likelihood of purchasing a product, their interest in working for the company, and how much they would be willing to invest in the company, as shown in the table below:

Company/employee adjective composites in each study.

Composite	Variable	Included in studies
Employee orientedness	Caring	1, 2, 3a, 4
	Collaborative	1, 2, 3a, 4
	Diverse	1, 2, 3a, 4
	Equal opportunity	1, 2, 3a, 4
	Family-friendly	1, 2, 3a, 4
	Trustworthy	1, 2, 3a, 4
	Worker-friendly	1, 2, 3a, 4
Company innovation	Innovative	1, 2
	Cutting-edge	1, 2
	Visionary	1, 2
Employee well-being	Achieving a work-life balance	1, 2, 3a, 3b, 4
	Fairly compensated	1, 2, 3a, 3b, 4
	Happy	1, 2, 3a, 4
	Stressed (r)	1, 2, 3a, 4
	Under pressure (r)	1, 2, 3a, 4
	Growing	1, 2
	Thriving	1, 2
	Satisfied with my job	3a, 4
	Enjoy working for the company	3a, 4
Other	Successful	1, 2
	Inspiring	1, 2

Table 3: Benedetti, A. H. & Chen, S. (2018), "High CEO-to-worker pay ratios negatively impact consumer and employee perceptions of companies", in *Journal of Experimental Social Psychology*

In the end, the first study found that customers were more likely to purchase a good from a low-ratio company than a high-ratio one. This finding suggests that customers are also more interested in working for a low-ratio company than a high-ratio one and have more positive overall impressions of the business. Also, while consumers believed the company treated employees better and that employees had higher well-being when CEO ratios were lower, they did not perceive any differences in the company's innovation or success, meaning that low-ratio companies are perceived to be both warmer and more competent than high-ratio companies.

Regarding the second study, companies may be concerned that disclosing any ratio information will have negative repercussions given that SEC rules mandate that companies discharge their reports on remuneration policies. Thus, the second study aimed to find if the perceived wage fairness of a company mediates the relationship between the CEO-to-worker pay ratio and willingness to purchase a product from the company. (Benedetti, A. H. & Chen, S., 2018) For this study, the sample of people was interviewed online and participants rated the same

employee adjectives as in the first study, listed in Table 3. The deepening on this matter yielded results fitting the notion that perceived fairness of the CEO ratio itself mediates the relationship between the ratio and all of the variables that differed between the high- and low-ratio conditions. That is, when a company ratio is low versus high, consumers believe the ratio itself is fairer, and these fairness perceptions may drive judgments of the company as having more employees oriented, its employees as higher in well-being, and so forth.

From an employee's standpoint, the fourth study concerns the effect of CEO-to-worker pay ratios on employee perceptions and attitudes. The results revealed that employees who perceived their CEO's compensation as disproportionately high compared to their own felt a sense of injustice and inequity within the organization. This perception led to decreased job satisfaction, reduced motivation, and lower levels of organizational commitment among employees.

The fifth study explored the impact of CEO-to-worker pay ratios on employee behavior and performance. The research indicated that when employees perceived large pay disparities within their organization, they were more likely to engage in counterproductive work behaviors, such as withholding effort, engaging in unethical conduct, or even seeking alternative employment opportunities. These negative behavioral outcomes were attributed to the sense of unfairness and demotivation resulting from perceived pay inequality.

These studies collectively suggest that high CEO-to-worker pay ratios can have detrimental effects on both consumer and employee perceptions of companies. Consumers may view such pay disparities as indicative of ethical concerns or unfair business practices, leading to a potential decline in support and trust. Employees, on the other hand, may experience feelings of injustice and inequity, leading to decreased job satisfaction and motivation, as well as negative behavioral outcomes within the organization.

2.4 What is the ideal CEO-to-worker ratio

ACTUAL, ESTIMATED, AND IDEAL PAY RATIOS OF CEOS TO UNSKILLED WORKERS
According to respondents in 16 different countries.



SOURCE SORAPOP KIATPONGSAN AND MICHAEL I. NORTON, "HOW MUCH (MORE) SHOULD CEOS MAKE?"

HBR.ORG

Figure 3: Gretchen G. (2015) "The Factors That Lead to High CEO Pay"

The late Peter F. Drucker, a well-known management consultant and author who published several books on management subjects, including executive compensation, advocated for a maximum pay ratio of 25 to 1 in 1977. He did, however, scale it back slightly in 2011 to a 20-to-1 ratio. "I have often warned managers that a 20-to-1 wage ratio is a limit beyond which they cannot go if they do not want animosity and decreasing morale to affect their company," Drucker said at the time (Corporate Rebels 2021). The advice wasn't followed by many, According to data, the wage disparity ratio between CEO and employee has expanded from 20-to-1 in 1996 to 202-to-1 in 2018.

Kiatpongsan, S. & Norton I.M. (2014), following an accurate survey about pay-determining factors, reported data from 40 different countries as shown in the table below:

Demographics	CEOs versus unskilled workers		Cabinet ministers versus unskilled workers	
	Estimated	Ideal	Estimated	Ideal
Age (%)				
< 35 (28)	8.9	4.0	8.3	3.3
35–54 (37)	10.0	4.6	8.3	3.6
55 and above (34)	12.5	5.0	8.3	4.0
Education (%)				
No formal education (5)	10.0	5.0	10.0	5.0
Lowest formal education (16)	10.0	4.0	9.3	3.8
Above lowest formal education (20)	10.0	4.0	8.6	3.3
Secondary school (27)	10.0	4.5	9.0	3.6
Above secondary school (15)	11.5	5.0	7.5	3.3
University degree (17)	12.5	5.0	7.1	4.0
Socioeconomic status (self-assessment) (%)				
Bottom 20% (10)	11.4	4.3	11.1	3.8
Second 20% (26)	11.9	5.0	10.0	3.8
Middle 20% (44)	10.0	4.7	8.0	3.7
Fourth 20% (17)	9.6	4.7	6.7	3.6
Top 20% (2)	10.0	5.0	6.3	3.8
Political affiliation (%)				
Far left (3)	10.0	3.4	7.5	3.0
Left (17)	10.0	4.0	6.7	3.2
Central (15)	12.5	5.6	10.0	4.2
Right (13)	10.0	5.0	6.0	3.3
Far right (2)	9.2	4.0	8.0	3.2
"Differences in income in <country> are too large." (%)				
Strongly agree (45)	12.5	4.7	10.0	3.6
Agree (38)	10.0	4.8	7.5	3.8
Neither agree nor disagree (8)	7.1	4.2	5.8	3.4
Disagree (5)	7.5	5.0	5.5	3.8
Strongly disagree (1)	6.7	4.8	6.0	4.0
"You earn <...> than you deserve." (%)				
Much less (16)	11.7	4.2	10.0	3.3
Less (36)	10.0	4.3	8.0	3.3
What I deserve (34)	10.0	5.0	7.5	4.0
More (2)	10.0	5.0	6.8	4.0
Much more (1)	12.5	5.6	10.0	4.0
"How much responsibility goes with the job – how important do you think that ought to be in deciding pay?" (%)				
Essential (27)	11.7	5.0	9.0	4.0
Very important (51)	10.0	4.8	8.0	3.8
Fairly important (18)	10.0	4.0	7.8	3.3
Not very important (2)	10.0	4.4	8.3	3.3
Not important at all (<1)	10.0	4.2	10.0	3.1
"How well he or she does the job – how important should that be in deciding pay?" (%)				
Essential (30)	10.0	5.0	8.6	3.8
Very important (49)	10.0	5.0	8.0	3.8
Fairly important (15)	10.0	4.0	7.5	3.3
Not very important (2)	8.0	3.5	6.7	3.3
Not important at all (<1)	8.8	4.2	7.7	3.3
"How hard he or she works at the job – how important should that be in deciding pay?" (%)				
Essential (28)	10.0	4.8	9.4	3.8
Very important (49)	10.0	5.0	8.1	3.8
Fairly important (19)	10.0	4.4	7.5	3.3
Not very important (3)	10.0	4.6	6.7	3.3
Not important at all (1)	11.7	5.0	7.5	3.5

Table 4: Kiatpongsan, S. & Norton I.M. (2014) “How Much (More) Should CEOs Make? A Universal Desire for More Equal Pay”

In each subgroup with differing beliefs in factors determining pay, there were significant pairwise differences between the estimated and ideal pay ratios of CEOs to unskilled workers and the estimated and ideal pay ratios of cabinet ministers to unskilled workers.

The authors also asked the respondents about their ideal CEO-to-worker pay ratio. They estimated that the pay ratios of a CEO and a cabinet minister to an unskilled worker were 10.0 and 8.3, respectively, however, optimum ratios should be more equal (4.6 and 3.6). The disparities between these two ratio sets reveal the magnitude and direction of preferences for ideal pay ratios. Importantly, respondents believed, through their ideal ratios, that skilled workers should be paid more. Indeed, present CEO and cabinet minister wages reflect a strong demand for and a limited supply of highly qualified professionals. Nonetheless, the data show that people worldwide feel that skilled employees should be paid more than unskilled workers. Additionally, they also believed that the ideal wage gap should be smaller than they believe.

These findings show a strikingly consistent belief that income disparities between skilled and unskilled employees should be narrower than most people imagine and much smaller than these disparities are. The consensus among all subgroups of respondents, regardless of age, education, socioeconomic status, political affiliation, or views on inequality and pay, is that wage disparities between skilled and unskilled employees be narrowed. These findings suggest that contrary to popular belief, people from all walks of life, including the poor and members of left-wing political parties, would prefer smaller pay disparities between rich and poor.

CHAPTER 3: THE SUSTAINABILITY OF THE CEO-TO-WORKER PAY RATIO IN THE LONG TERM

3.1 The long-term implications of a sustained pay gap for businesses, employees, and society

A sustained CEO-to-worker pay ratio entails different consequences, including a decrease in productivity, a negative trend for what regards job satisfaction and morale, the widening of income inequality, and so on. The consequences can be divided into implications for businesses, implications for employees, and implications for society.

Concerning the first, a persistent CEO-to-worker pay gap can lead to decreased motivation and lower productivity among employees, particularly those who feel undervalued or unfairly compensated. On this matter, Wojciech Przychodzen and Fernando Gómez-Bezares (2021), examined the interaction between the increasing CEO–employee pay differential and a firm’s productivity, using data from 751 members of the S&P 1500 index from 1992 to 2016. They discovered a cubic link between the two. An increasing pay difference, in particular, adversely affects productivity, principally when it is both too low as well as too high. (Przychodzen, 2021)

Even though high pay differentials between successive levels of hierarchy enable the company to recruit more talented employees (Przychodzen, 2021), a significant pay gap may deter talented individuals from seeking employment at a company, as well as result in higher turnover rates if employees feel they can find better opportunities elsewhere. When wage disparities become excessively large, it may harm productivity, even among workers who are positively motivated by large pay disparities. For example, they may begin to promote self-serving efforts over necessary cooperation (Henderson and Fredrickson 2001).

Also, companies with a reputation for pay disparities may face negative public perception, which can impact their brand image and customer loyalty other than being more frequently focused on shareholder action aimed at considerable reductions in executive compensation (Przychodzen, 2021).

Regarding the implications for the employees, a sustained pay gap can perpetuate income inequality, leading to financial challenges for individuals and their families, including difficulty meeting basic needs, saving for the future, or accumulating wealth. In particular, employees who perceive pay inequities within their organization may experience lower job satisfaction and reduced morale, which can affect their overall engagement and performance. Pay disparities

can contribute to feelings of injustice, discrimination, and decreased self-worth among employees, leading to increased stress, anxiety, and decreased overall well-being.

As regards the implications for society, a sustained pay gap can exacerbate income inequality within society, as it perpetuates disparities in wealth distribution and social mobility. In particular, it can strain social cohesion, potentially leading to social unrest, dissatisfaction, and a sense of injustice among affected individuals or marginalized communities. In other words, this growing discontent could potentially result in social tensions and conflicts. The widening economic inequality and mounting criticism of salary disparities may spark a public outcry, pressuring businesses and governments to take action and address the issue. Moreover, such disparities can have repercussions on employee motivation and productivity. When employees perceive their efforts as inadequately rewarded, their motivation and commitment to the company may diminish.

Critiques regarding the efficiency of the labor market may also surface. Excessive growth in CEO pay raises questions about the functioning of the labor market and its fairness. Public scrutiny may challenge whether executive compensation truly reflects their value-added contributions and whether the compensation determination process is transparent and equitable. The combination of escalating CEO pay and growing discontent could prompt increased regulation and government intervention. Policy measures may be introduced to impose stricter regulations or limitations on executive remuneration, such as implementing maximum compensation limits or enhancing transparency in disclosing executive pay.

Overall, the persistent rise in CEO pay amidst increasing inflation and discontent can have far-reaching implications, impacting economic inequality, social cohesion, employee motivation, and the perception of fairness in the labor market.

3.2 Factors that may contribute to the sustainability of the CEO-to-worker pay ratio

In the United States, the median value of the CEO's total direct remuneration to the median total direct compensation of all other workers is 5.4. In other words, the average CEO's total direct remuneration is five to six times that of all other workers in their organization's median total direct salary. However, various factors contribute to the proportion.

According to W. Leigh Culpepper and Eric Hurst (Leigh Culpepper, W. Hurst, E., 2010), the size of the company should be taken into account first, as the multiple of CEO compensation to employee compensation rises with company size. This is in line with the idea that the main determinant of executive compensation is typically the size of the company.

Another factor to consider is the location. While company size is a major factor in determining compensation for executive jobs, location is a major factor in determining compensation for the majority of non-executive jobs. According to this analysis, companies with a majority of their employees in high-cost labor areas (such as San Francisco and New York) had lower CEO-to-employee pay ratios than those in areas with lower labor costs (such as Salt Lake City and Indianapolis).

It's also important to note the industry sector/job mix, however, the analysis didn't find any appreciable distinctions between the technology and life science industries. It was discovered, however, that many businesses in other sectors had higher CEO-to-employee pay ratios. This is primarily due to the higher percentage of skilled professionals employed by technology and life science companies, who earn higher average salaries.

Organizations with a greater proportion of low-wage employees, for example, often have higher CEO-to-employee pay ratios than companies with a bigger proportion of high-wage jobs.

Another significant study conducted by Ourso College of Business professor Thomas Greckhamer for the Strategic Management Journal looked at the combinations of factors that either enlarge or shrink the wage gap between CEOs and workers on a country-by-country basis (Gavett, G. 2015).

For instance, in one scenario, key indicators included highly developed equity markets, a robust welfare system, and a high power distance, all of which were supported by a few additional factors and lacked foreign capital penetration. Generally speaking, however, two fundamental and complementary elements that are frequently present in nations with high CEO pay are a lack of collective labor rights and a significant power distance. "This suggests that a combination of high cultural acceptance of hierarchical power structures and a lack of institutions empowering labor are vital institutional conditions for highly compensated CEOs" Greckhamer adds. (see Greckhamer, T. 2015).

As a result, even while some predictions imply that a shortage of candidates leads to increased CEO compensation (which makes sense given how market circumstances function), there are certain exceptions. In some locations that are lucrative for top brass, there are numerous senior

managers to choose from (Gavett, G. 2015). Places with a competitive labor market, a willingness to accept hierarchy, and lax labor laws, in Greckhamer's words, essentially serve as *"tournaments among an abundant cadre of senior managers and with relatively high prizes for the winners."* (see Greckhamer, T. 2015)

3.3 Policies implemented by countries to address the widening CEO-to-worker pay gap

There are different policies against the widening of the CEO-to-worker pay ratio. An example could be the "Say on Pay Votes", a periodic process required by law in which the shareholders of a firm can vote on the payment or remuneration of executives and general compensation policies ("Say on Pay Rights - Explained - The Business Professor, LLC"). To ensure that board members uphold their fiduciary duty, supporters of "Say on Pay" reforms contend that the relationship between the board of directors and shareholders is strengthened. While detractors of the policy contend that "say on pay" is reactive rather than proactive because it does not immediately affect the Board of Directors, and that it does not comprehensively or effectively monitor compensation. Some claim that it is ineffective because it reduces the Board of Directors power. 'Say on Pay' initiatives may have a binding or non-binding effect, depending on the regulations that apply or the internal corporate policy that is decided by proxy votes. This solution was adopted by numerous corporations, including Vodafone, whose shareholders', in July 2001, voted against Chris Gent receiving 13 million shares. Niall Fitzgerald, the former chairman of Unilever, is another example., which received 1.2 million dollars after sales fell off in 2005, but shareholders decided to vote against him in April 2005.

Another measure taken against the CEO-to-worker pay ratio is in the U.S. thanks to the Disclosure and the Transparency Requirements established by the Section 953(b) of the Dodd-Frank Act which requires that the ratio of the CEO's total compensation to the median total compensation received by the rest of the company's employees must be disclosed by public companies.

It is also important to note the various binding pay ratio legislations, taking for instance Switzerland. There have been various efforts to address executive pay and income inequality through legislation and corporate governance measures. One notable development is the "Ordinance Against Excessive Compensation" (also known as Minder Initiative) that came into effect on January 1, 2014. This ordinance was the result of a public referendum held in 2013,

where Swiss citizens voted in favor of introducing stricter regulations on executive compensation.

The Ordinance Against Excessive Compensation in Switzerland includes several key provisions:

1. **Binding Shareholder Vote:** Shareholders of Swiss companies have the right to vote on the total compensation of the board of directors and executive management. This vote is binding, meaning that if a majority of shareholders reject the proposed compensation, the company must revise the compensation packages accordingly.
2. **Prohibition of Golden Handshakes and Golden Parachutes:** The ordinance prohibits certain forms of severance payments and signing bonuses, aiming to prevent excessive payouts to executives in the event of termination or appointment.
3. **Transparency and Disclosure:** The legislation requires companies to provide greater transparency and disclosure on executive compensation. This includes disclosing the individual compensation of directors and executives, as well as the overall pay ratio between top executives and average employees.

It is also important to note the incentive alignment in Australia, which refers to the practices and mechanisms put in place to align the interests and incentives of individuals, particularly employees, and executives, with the goals and objectives of their organizations. The aim is to create a framework where individuals are motivated to work toward the success and long-term sustainability of the company.

In Australia, incentive alignment is commonly addressed through various approaches, including:

1. **Executive Compensation:**
 - **Performance-Based Pay:** Many companies in Australia use performance-based pay structures for executives. This may include various components such as bonuses, stock options, or equity grants that are tied to achieving predetermined performance targets or key performance indicators (KPIs).
 - **Long-Term Incentives (LTIs):** LTIs are designed to align executive interests with long-term organizational performance. They often involve granting equity-based incentives that vest over a specified period, incentivizing executives to focus on sustainable growth and shareholder value creation.
2. **Employee Share Ownership:**

- **Employee Share Schemes:** Australian companies may implement employee share schemes (ESS) to provide employees with an opportunity to acquire shares in their organization. This ownership can create a sense of shared ownership and align the interests of employees with the company's performance and long-term success.
 - **Employee Stock Purchase Plans (ESPPs):** ESPPs allow employees to purchase company shares at a discounted price, typically through regular payroll deductions. (“Long Term Incentive Plans (LTIPs) | HRM Handbook”) (“Long Term Incentive Plans (LTIPs) | HRM Handbook”) This encourages employee investment in the company's growth and fosters alignment of interests.
3. **Performance-Based Incentives:**
- **Performance Bonuses:** Australian organizations often utilize performance-based bonuses for employees at various levels. These bonuses are typically tied to individual, team, or company-wide performance goals, encouraging employees to strive for higher levels of performance.
 - **Recognition and Rewards:** Companies may establish recognition and rewards programs to acknowledge outstanding employee performance. These can include non-monetary incentives such as public recognition, awards, additional paid time off, or career development opportunities.

CONCLUSION

The thesis has been carried out starting from the description of the forms of incentive pay to that of the Tournament Theory. The paper then deepened the thesis by describing the Historical trends and growth from 1978 of CEO compensation to worker pay. In conclusion, it can be said that the gap between the CEO and Workers is appropriate in terms of the efficiency and effectiveness of the company, but it must be encumbered within precise rules of engagement that make convenient and attractive its hierarchical and strategic structure.

¹ Words: 9250

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