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Diagnosing Market Inefficiency: The Impact of Consolidation in the Private Health
Insurance Market on Healthcare Costs in the United States

A Dissertation

Presented to the Faculty of the
Department of Public Policy and Administration
West Chester University
West Chester, Pennsylvania

In Partial Fulfillment of the Requirements
for the Degree of
Doctor of Public Administration

By

Zachary E. Ising

May 2024

Acknowledgements

I would like to thank my committee for their guidance and support during the research and writing process. Two of my classmates, Chika Egemba and Kristina Garlick, have picked me up during the height of the COVID-19 pandemic when I had fallen behind and faced unprecedented challenges associated with extended isolation.

I am deeply grateful to my late uncle, Harry Ising. His lessons in kindness, patience, and understanding have profoundly shaped who I am. He was more than family to me— a mentor and a source of light in the darkest times. My mother, Jacqueline Ising, deserves my heartfelt thanks. Facing life's challenges with incredible strength, she raised me as a single parent with endless love and dedication. I also owe a great deal to my brother, Matthew Ising. He has been an outstanding role model, providing me with relentless support and encouragement throughout my studies.

I attribute much of my success and achievement to my unwavering faith in Jesus Christ. God has provided me with so many blessings and a remarkably fulfilling life. I am honored to have taken part in the Doctor of Public Administration program at West Chester University.

Abstract

This study presents a critical analysis of the relationship between the market concentration of private health insurance companies and per capita healthcare costs in the United States. It explores the hypothesis that consolidation within the private health insurance sector, driven by frequent mergers and acquisitions, contributes to a dysfunctional healthcare system characterized by high consumer costs. The study investigates the degree of market concentration in the health insurance sector from 2017 to 2020, focusing on healthcare costs per capita as the dependent variable, and employing independent variables such as market data of health insurers, the Herfindahl-Hirschman Index (HHI), and the C-5 Concentration Ratio.

A significant finding is that the top five health insurance firms now account for 55% of the private market, indicating substantial market concentration. Moreover, the national health insurance market presents an HHI score of 639 out of 10,000, suggesting a seemingly competitive national landscape. This contrast between national and regional market dynamics raises concerns about the balance between insurers' fiduciary duties and healthcare delivery commitments, particularly in the context of Principal-Agent Theory.

The study also evaluates the macroeconomic impacts of these market conditions, such as increased healthcare costs and socio-economic disparities. It advocates for policy reforms, including transitioning to a single-payer system and deconsolidating private insurers, to better align healthcare provision with public welfare. This study contributes to the discourse on healthcare policy reform in the United States, offering insights into the complexities of the healthcare system and suggesting pathways for future policy development.

Table of Contents

Chapter 1 : Introduction 1

 Status of Healthcare in the United States..... 1

 Effects of Consolidation 4

 Previous Work 7

 Contributions of This Study..... 8

 Overview of This Study 9

Chapter 2 : Literature Review 11

 Introduction..... 11

 Theoretical Framework..... 13

 Relevance to Public Administration: Theoretical Insights 14

 Confluence of Historical Factors and Current Market Concentration 17

 Regulatory Inadequacy: The FTC's Role in Curbing Health Insurance Market
 Consolidation 18

 The Role of Market Concentration in Escalating Healthcare Costs and Undermining
 Consumer Choice..... 20

 Impediments to Market Competition: The Role of Mergers in Health Insurance Market
 Concentration..... 23

 The Feasibility of Single-Payer Healthcare as an Alternative Healthcare System..... 25

 Applying Principal-Agent Theory to Healthcare in the United States 31

 Integrating Principal-Agent Theory and New Public Management in Healthcare Policy
 34

 Implications of New Public Management Theory in the United States Health Insurance
 Market..... 35

 Conclusion of Literature Review 37

Chapter 3 : Methodology 40

 Hypotheses 41

 Theoretical Foundations in Public Administration and Economics 42

 Interpretation of Research Questions through New Public Management..... 43

 Relevance to the Study..... 44

 Variables and Their Operational Framework 45

 Limitations 47

 Ethical Guidelines and Conclusion..... 49

Chapter 4 : Data Analysis & Findings 50

Herfindahl-Hirschman Index (HHI), Market Dynamics, and Healthcare Costs Per Capita	52
The Link Between Health Insurance Market Consolidation and Rising Healthcare Costs in the U.S.....	55
Conclusion	62
Chapter 5 : Summary, Implications, and Discussion	64
Summary of Key Findings: An Intersection of Health Economics, Public Administration, and Macroeconomics	65
Limitations	67
Discussion of Validity.....	69
Suggestions for Future Research	70
References	75

List of Figures

Figure 2.1 OECD Health expenditure per capita, 2019 (or nearest year).....	21
Figure 2.2 Life expectancy at birth, 1970 and 2019 (or nearest year).....	29
Figure 3.1 Research Design: Insurance Market and U.S. Healthcare Costs.....	41
Figure 4.1 Private Insurance Companies' Market Share (2017-2020).....	51
Figure 4.2 Healthcare Costs in the United States (2011-2018).....	55
Figure 4.3 Herfindahl-Hirschman Index in the United States (2011-2018).....	57
Figure 4.4 Pearson's Test, Healthcare Expenditures and HHI (2011-2018).....	Error!

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Chapter 1 : Introduction

The United States healthcare system is characterized by a highly consolidated private insurance market, with a few dominant players significantly influencing healthcare costs (Squires & Anderson, 2015). This market structure has garnered the attention of scholars and practitioners in the field of public administration, who seek to understand the implications of such consolidation on access, affordability, and quality of care (Kovner et al., 2018). Drawing upon theories of public administration, such as new public management and principal-agent theory (Moe, 1984), the relationship between consolidated insurance markets and healthcare costs can be examined through the lens of information asymmetry and conflicting interests between stakeholders, including patients, providers, and insurers. As public administrators grapple with the challenges of a consolidated insurance market, the application of these theories may help identify potential strategies for reform, leading to a more equitable and efficient healthcare system.

Status of Healthcare in the United States

The United States healthcare system is in a state of disarray, with high prices and inadequate coverage for a large segment of the population (Berwick & Hackbarth, 2012). This study will explore the ways that consolidation within the US health insurance market has exacerbated these issues by driving up premiums and reducing consumer choice while also investigating possible solutions such as antitrust laws, consumer education initiatives, and monitoring practices that have been used to regulate insurer behavior and promote competition (Furukawa et al., 2011). By examining how consolidation has affected consumers negatively specifically through higher healthcare

costs per capita. This study explores potential remedies through regulatory interventions to gain a better understanding of how to address these problems so that all Americans can benefit from quality healthcare at reasonable prices.

Presently, around two-thirds of the United States population under the age of sixty-five years is enrolled in a comprehensive private health insurance plan (CMS, 2020). In public programs, private insurance is playing an increasingly essential role in supplying health insurance coverage to United States citizens, including Medicaid, which has gone through a rapid enrollment increase due to the Affordable Care Act (ACA). Lawmakers initially suggested that those who were ineligible for public coverage or uninsured are directed to buy private policies to comply with the individual mandate of ACA (Dafny, 2015). Although the federal individual mandate penalty was eliminated starting in 2019, multiple states have enacted their own individual mandate as an incentive for Americans to have health insurance policies.

A distinctive feature of the healthcare infrastructure in the United States is the predominance of employer-based insurance (Blumenthal et al., 2019). This arrangement has raised concerns among policymakers, as consumers may suddenly lose their health insurance due to economic downturns or widespread layoffs (Sommers et al., 2014). A prime example of this vulnerability occurred in March 2020, when the COVID-19 pandemic initially affected global financial markets, leading to significant disruptions in the employment landscape (Nicola et al., 2020). Consequently, the three largest indices in the U.S., comprising the S&P 500, NASDAQ, and the Dow Jones Industrial Average, experienced steep declines, resulting in the evaporation of trillions of dollars within a short time frame (Crosby et al., 2020). Huge losses in U.S. equity markets prompted

American companies to respond by laying off millions of people to prepare for and mitigate the expected sharp declines in revenue (Islam et al., 2021). By July of 2020, the Bureau of Labor Statistics reported that 9.4 million Americans were unemployed or unable to work because of layoffs resulting from the COVID-19 pandemic (BLS, 2020). Although COVID-19 vaccines were free of charge for all Americans, the medical expenses resulting from hospitalized patients diagnosed with COVID-19 was not subsidized by the government. This presented dual financial difficulties for Americans who lost their employer-based health insurance coverage and subsequently contracted COVID-19.

It is imperative to identify the consequences of higher prices and healthcare costs, the burden of which falls on patients, not employers or insurers. Healthcare expenditures make up roughly 18.3% of the United States' gross domestic product (GDP) (CMS, 2021). Many consumers are under the impression they are receiving high quality care in return for the high price tag; however, the United States, on average, has reported worse healthcare outcomes when compared to other modern countries with lower healthcare spending (Papanicolas, Woskie, & Jha, 2018). Gaynor (2018), a distinguished professor of economics at Carnegie Mellon University, has conducted extensive research examining the relationship between market competitiveness and the cost of medical procedures. This association is typically analyzed in conjunction with the Herfindahl-Hirschman Index (HHI), a widely accepted measure of market concentration.

The Herfindahl-Hirschman Index (HHI) is a measure of market concentration which can be used to evaluate healthcare competition in the United States. It is calculated by summing the of market shares held by healthcare insurers, with higher values

representing more concentrated markets with less competition (U.S. Department of Justice, 2019). This index provides an easy way for consumers to compare different health insurance plans and make informed decisions about which company provides a better service. Further research of insurance HHI and costs of medical procedures use different data sources to evaluate different periods of time to establish increased healthcare costs in the areas where HHI levels are high, indicating that a greater market concentration of insurance is found in such areas.

Effects of Consolidation

Private insurance premiums and spending are expected to grow significantly as a result of consolidation in the industry. This upward trend is likely to have far-reaching implications for stakeholders across all sectors. Consolidation in the healthcare sphere has catalyzed significant shifts to a more premium-oriented model, with providers now receiving payment for value instead of volume. For instance, insurers pay providers, who organize and deliver care services. Mergers and acquisitions have enhanced the ability of the healthcare insurance market to develop and execute agreements related to new value-based payments, but there is no evidence yet that large insurers would implement care management or innovative payment systems (Gruber & Sommers 2020). Despite the possibility of diminishing market share, certain major insurers remain unfazed by competition from other companies. (Berenson et al., 2020).

In the 21st century, the United States healthcare industry has been characterized by the coalescence of insurance firms. Consolidation is defined in two forms: horizontal mergers which involve firms who sell similar or identical products and vertical mergers (different types of insurers, hospitals, pharmacies, and other healthcare entities

combining) which involves purchasing a company for its production capacity and use of intermediate goods. During the last three decades, mergers and acquisitions have changed the healthcare market structure cumulatively (U.S. Department of Health and Human Services, 2020). Mergers of physician practices, insurers, and hospitals have enabled the formation of sizeable, amalgamated health systems (Guardado & Kane, 2018).

The limited number of competitors in the United States insurance market has drawn concern from regulators and policymakers (Smith, 2020). This is because the extent of concentration in the market harms patients by increasing premiums and prices without any improvement witnessed in the quality of care. Studies on consolidation often focus on market-level outcomes, such as the impact on local healthcare costs when a smaller number of hospitals begin to control a larger portion of the market, a phenomenon known as increased hospital concentration. Yet, changes are also observed at the institutional level, including shifts in hospital pricing following mergers (Guardado and Kane, 2018). Insights provided by the individual community and existing large-scale case studies are drawn primarily from the institutional level data of the United States healthcare industry (Fulton, 2017). The results suggest that within healthcare systems, such as those for clinicians and administrators, there is a significant impact on the lives of individuals who exist beyond these confines. Notably, substantial health organizations can have an expansive influence which transcends their physical boundaries.

Research Questions

This research study is anchored in the principles of the New Public Management (NPM) theory, a paradigm that advocates for the adoption of private sector practices

within public sector organizations to increase efficiency and effectiveness (Hood, 1995). Central to NPM theory is the idea that market competition is a key driver of efficiency and cost control in the delivery of public services. It suggests that competitive forces compel organizations to innovate, optimize resources, and improve service quality to gain an advantage over their rivals. These improvements often lead to reduced costs, which can be passed on to consumers, hence benefiting the wider society. In this regard, Osborne and Gaebler's book *Reinventing Government* (1993) called for "steering rather than rowing" (p.25). This idea can be interpreted as an advocacy for the establishment of regulatory frameworks that focus more on guiding and regulating the market. Such frameworks aim to foster a competitive environment while simultaneously safeguarding consumer interests. The government's role is seen as that of a facilitator and regulator, ensuring fair play and competition, rather than being a direct provider of services.

In the context of the United States healthcare sector, an industry that blends public and private entities, this study aims to explore the application and implications of NPM principles, particularly focusing on the role of market competition. The health insurance market in the U.S. has seen increasing consolidation over the past few decades, with a small number of large firms dominating most markets. This study questions whether this trend towards greater market concentration, and thus reduced competition, is having an impact on healthcare costs per capita, a vital concern given the ever-rising expenses of healthcare in the United States.

Following these considerations, two research questions have been formulated:

1. *Is there a correlation between Herfindahl-Hirschman Index (HHI) values and healthcare costs per capita in the United States from 2011 to 2018?*
2. *How does the market share of the top five health insurance corporations—Aetna, Cigna, Kaiser Permanente, Anthem, and UnitedHealth Group—reflect market concentration within the U.S. health insurance sector from 2017 to 2020?*

Previous Work

There have been few studies addressing the anti-competitive behavior of insurance firms. This current study works to fill this gap by shedding light on the understanding of such behavior by investigating HHI, interdependence, ratios of concentration, and financial disclosure forms among firms. Previous investigations show that variables like health insurance premium increases are associated with firms' increased concentration in the private market of health insurance (O'Hanlon, 2020). An in-depth study of out-of-market medical costs has revealed a correlation between the country's consolidated health insurance market and higher expenses (Dafny, 2010). Further research is necessary to unlock the full potential this discovery holds for healthcare improvement (Grim & Jilani, 2018).

Prior research has shown that variables such as the increase in health insurance premiums are correlated with the increasing concentration of firms in the private health insurance market (Clemens & Gotlieb, 2018). However, there appears to be a limited number of studies that link high medical expenses to the consolidated health insurance market (Rivers & Glover, 2008)

Contributions of This Study

This study responds to this gap by analyzing and evaluating various academic journals following a systematic review, associating the oligopoly by health insurance firms and their anticompetitive behavior through high administrative costs, limited provider networks, and strict prior authorization requirements (Dafny, 2015). This study also aims to expand our understanding of the anticompetitive behavior of health insurance companies by examining the HHI, forms of financial disclosure, concentration ratios, and interconnectedness among companies (Rosenthal, 2017). This study finds the outcome of this oligopolistic behavior is higher healthcare costs per person, often leading to unaffordable healthcare services in the United States. The study also examines the five largest private health insurance firms, as these companies have a significant presence in the market and hold a large portion of the market share. This will help researchers to understand the evolution of the health insurance industry in the United States. The study aims to understand the consequences of consolidation in the private health insurance sector on healthcare costs in the United States. This study also investigates how healthcare costs are influenced by health insurance and the anti-competitive behavior of health insurance companies. Examining the relationship between increased healthcare costs and market concentration in the United States is crucial to prescribe policy solutions and cures to a historically plagued and problematic healthcare infrastructure. Lastly, this study will explore the absence of competition and the failure to protect consumers and promote innovation and quality in the market by regulators.

This study is advantageous for a variety of reasons. The effects of consolidation on patients and healthcare providers can be disclosed to consumers in the United States. The study can uncover the primary factors underlying a rise in healthcare costs for

Americans along with possible solutions to these challenges. Also, there are some recommendations that would suggest some ways to control consolidation effects to control healthcare costs for the average American consumer.

This study further examines how the complete elimination of private insurance would affect per capita healthcare costs, life expectancy, medical insolvencies, and healthcare outcomes. To this end, the study examines how a unified healthcare system would function as an alternative. New Public Management (NPM) theory is used to explore how a small number of large private insurers came to dominate a \$4.1 trillion industry and how they should be confronted and further regulated to promote a more equitable healthcare system (CMS, 2021).

This study addresses the research gaps noted by systematically analyzing previously published academic journals and linking anticompetitive behavior and health insurance oligopoly to a nationwide increase in per capita healthcare costs and a decline in affordability. Understanding how the health insurance industry has evolved requires examining the history and emergence of today's health insurance giants. Researchers at Stanford Medical School noted, "The very idea of health insurance is in some ways the original sin that catalyzed the development of today's medical-industrial complex" (Rosenthal, 2017, p. 13).

Overview of This Study

The next chapter, Chapter 2, provides a review of relevant literature investigating the topic, including background on the United States healthcare system, its current challenges, policies, and regulations attempted, a look into a single-payer insurance system, and more. Chapter 3 details the methodology used in this study, which was a new

secondary data analysis that used published financial data to determine C-5 concentration, HHI. These results were used to inform conclusions about the impact of consolidation on the United States healthcare system. Chapter 4 describes results and findings based on the 5 largest health insurance providers in the United States. Finally, Chapter 5 provides a summary and overview of suggestions for future research, as well as discusses limitations of this study.

Chapter 2 : Literature Review

Introduction

This literature review aims to provide a comprehensive overview of the historical development of health insurance in the United States, with particular emphasis on how this evolution has impacted consumers' ability to access quality healthcare coverage at reasonable prices. The healthcare landscape in the United States is marked by a complex interplay of factors, including market concentration, healthcare costs, and access to care. Scholars and policymakers have long debated the implications of the current system dominated by private insurance companies, particularly in relation to healthcare costs and outcomes. Despite extensive discussions on this subject, there remains a notable gap in research that comprehensively examines the correlation between the concentration of the health insurance market and per capita healthcare costs in the United States.

As previous studies have indicated, the dynamics of the health insurance market significantly influence healthcare costs and access to care (Fulton, 2017). However, the existing body of research falls short in providing a holistic analysis of the extent to which market concentration contributes to the escalating healthcare costs experienced by the American population.

Navigating through the multifaceted U.S. healthcare environment, this study examines the interplay of market concentration, healthcare spending, and access to care. Despite significant discussion on these issues, there remains a clear gap in the comprehensive analysis of the link between health insurance market concentration and per capita healthcare costs. This gap calls for a thorough investigation into how market concentration affects healthcare costs and what this means for consumer welfare,

particularly at a time when access, affordability, and quality are critical concerns (Fulton, 2017).

This study seeks to bridge the existing research gap by offering a broader analysis that extends beyond conventional economic evaluation. It incorporates foundational principles from public administration, especially New Public Management (NPM) and Principal-Agent Theory (Osborne & Gaebler, 1992; Denhardt & Denhardt, 2015). The fusion of these theoretical frameworks with the economics of healthcare provides a unique vantage point to dissect the behavior of private insurance firms and their impact on consumer welfare, facilitating a well-rounded critique of the current challenges in the healthcare system and the development of targeted policy recommendations.

As the healthcare landscape continues to evolve, this study undertakes a critical examination of the connections between market concentration, healthcare costs, and consumer welfare. By integrating healthcare economics with insights from public administration literature, the aim is to inform policy decisions that could significantly reform healthcare delivery, improve consumer experiences, and promote the overall health of the American populace.

In addition, this literature review evaluates the historical and current state of private health insurance companies through the prism of public administration theories, assessing the potential for policy shifts such as adopting a single-payer system and the anticipated challenges of such transformative changes (McGuire & Barreiro-Hurlé, 2020; Himmelstein & Woolhandler, 2018; Chua, 2005). It also compares healthcare costs and life expectancies in the United States with those of other nations to pinpoint discrepancies and assess the impact of public policies (Aspril, 2019). Ultimately, this chapter seeks to

place these analyses within the context of public administration, applying its theories to the ongoing debate about healthcare reform.

Theoretical Framework

The theoretical framework of this dissertation employs a multidisciplinary approach to investigate the complex interplay between market concentration, as quantified by Herfindahl-Hirschman Index (HHI) values, and healthcare costs per capita in the United States from 2011 to 2018. This inquiry rests upon theoretical foundations from four major disciplines: Health Economics, Industrial Organization, Public Policy, and Public Administration theories. Health Economics provides critical perspectives on resource allocation and consumption within healthcare markets, underlining the roles of moral hazard and information asymmetry (Arrow, 1963; Pauly, 1968). Industrial Organization theories contribute an understanding of market structures, competitive dynamics, and firm behavior (Schmalensee & Willig, 1989). In particular, the Herfindahl-Hirschman Index (HHI) is emphasized as an empirical gauge of market concentration, as recognized by the U.S. Department of Justice (2020).

The Public Policy framework offers context for healthcare market dynamics, particularly the influence of landmark policies like the Affordable Care Act (ACA) (Kingdon, 1995; Sabatier & Weible, 2014). Furthermore, this theoretical edifice incorporates two seminal theories from Public Administration: Principal-Agent Theory and New Public Management (NPM). Principal-Agent Theory outlines the convoluted relationships between principals (regulators) and agents (healthcare providers or insurers), adding layers of complexity to the framework (Eisenhardt, 1989; Moe, 1984). Meanwhile, NPM offers an efficiency- and effectiveness-focused lens that is pertinent,

given the health insurance sector's regulated nature (Hood, 1991; Osborne & Gaebler, 1992).

Two central research questions emerge from this multifaceted theoretical tapestry: (1) the correlation between the Herfindahl-Hirschman Index (HHI) values and healthcare costs per capita in the United States from 2011 to 2018, and (2) the representation of market concentration through the market share of the top five health insurance corporations, including Aetna, Cigna, Humana, Anthem, and United Health Group. The integrative nature of this theoretical framework is intended to facilitate a nuanced exploration of these research questions by synthesizing various disciplinary perspectives, thereby setting the stage for a methodologically rigorous examination in subsequent chapters.

The Herfindahl-Hirschman Index (HHI) and the C-5 Concentration Ratio serve as key metrics for evaluating market concentration in the health insurance sector. In accordance with previous studies, these indices have a considerable impact on healthcare costs and access to care (Fulton, 2017; OECD, 2019). Nevertheless, existing research often lacks a comprehensive analysis that articulates how these measures correlate with the rising healthcare costs that burden the American population. This dissertation seeks to fill this gap by providing a rigorous examination that integrates these metrics to explore the nexus between market concentration, healthcare costs, and health outcomes.

Relevance to Public Administration: Theoretical Insights

Incorporating principles from public administration theories offers a unique dimension to the study. New Public Management (NPM), a theory advocating for the application of private sector management practices in public services, offers avenues for

understanding market dynamics and efficiencies in healthcare. Meanwhile, the Principal-Agent Theory serves as a framework to analyze the relationship between healthcare consumers and insurance providers, elucidating the intricacies that often result in misalignment of incentives between these parties (Osborne & Gaebler, 1992; Denhardt & Denhardt, 2015).

The literature reveals that public administration perspectives have been applied in various scholarly works, including those by McGuire and Barreiro-Hurlé (2020) and Himmelstein and Woolhandler (2018). These studies have explored potential policy alternatives to the existing system, including a shift to a single-payer system (Chua, 2005). Such an approach enriches the existing discourse, thereby providing a comprehensive assessment of the challenges in the current healthcare system while informing future policy directions.

With this foundation, the literature review will proceed to delve deeper into the relationship between market concentration and healthcare costs, examining a host of variables including consumer welfare, healthcare access, and policy alternatives.

Market Concentration and its Historical Underpinnings in the U.S. Private Health Insurance Sector

The genesis of the American health insurance system resides in a mosaic of initiatives, largely private but also public, aimed at mitigating healthcare costs. Exploring this history through the lens of market concentration provides valuable context for understanding present-day challenges concerning healthcare costs per capita in the United States (Sered, 2017; Grossman & Gifford, 2006).

Emergence and Maturation of Employer-Sponsored Plans

The American health insurance system initially found its footing in employer-sponsored group plans. These plans began to surface in the late 19th century, with over 600 different types of group plans offered by a plethora of insurers by the 1920s (Lakdawalla & Robinson, 2013; Grossman & Gifford, 2006). These rudimentary plans often provided limited coverage and were generally aimed at workers in larger industrial settings or those employed in hazardous occupations. This sets the historical precedent for the concentration we observe today, as larger employers and insurers had significant market leverage from the outset (Grossman & Gifford, 2006).

Shift Towards Individual Market Policies and Managed Care

While employer-sponsored plans provided the initial framework, the subsequent emergence of individual market policies and managed care organizations like Health Maintenance Organizations (HMOs) and Preferred Provider Organizations (PPOs) served to increase competition and reduce costs (Gruber, 2000; Lakdawalla & Robinson, 2013). States began adopting community rating laws that allowed insurers to charge premiums based on demographic characteristics, adding another layer of complexity to the market (Lakdawalla & Robinson, 2013). The managed care model emphasized cost-control strategies such as preventive care, network discounts, and utilization management techniques, making it an attractive alternative to traditional indemnity policies (Gruber, 2000).

Legislative Milestones and Market Regulation

Federal legislation has played a considerable role in shaping the industry. Starting with the Employee Retirement Income Security Act (ERISA) in 1974, federal policies have aimed at both consumer protections and market regulations (Lakdawalla & Robinson, 2013; Greaney, 2020). These regulatory frameworks set the stage for the Affordable Care Act (ACA) of 2010, which ushered in a comprehensive overhaul of the U.S. healthcare system, specifically targeting increased competition among private insurers and consumer protections (Depew & Bailey, 2015; Sommers et al., 2014).

Confluence of Historical Factors and Current Market Concentration

The history of private health insurance in the U.S. has been shaped by a confluence of market developments, legislative milestones, and shifts in healthcare delivery models. From its early stages within employer-sponsored contexts to the current highly regulated environment under the ACA, these factors have collectively contributed to the present state of market concentration (Sered, 2017; Sommers et al., 2014).

This section places the evolution of market concentration in the U.S. health insurance industry in a broader historical and legislative context. The history is not merely a chronology but serves as a critical basis for understanding how past developments have influenced contemporary challenges. This focus allows us to bridge historical context with the core issue of this dissertation, that is, exploring the correlation between an increasingly concentrated private health insurance market and healthcare costs per capita in the United States. Therefore, the following sections will delve into empirical studies and theoretical frameworks that examine this relationship in more depth, informed by the historical overview presented here.

Regulatory Inadequacy: The FTC's Role in Curbing Health Insurance Market Consolidation

The Federal Trade Commission (FTC) serves as a sentinel to protect consumers from anticompetitive behavior across sectors, including healthcare (Greaney, 2020). However, scholars have consistently pointed to the Commission's ineffectiveness in mitigating the impact of market concentration in the private health insurance sector. Applying theories from public administration, particularly "principal-agent theory," may shed light on these regulatory gaps.

In principal-agent theory, the FTC acts as an extension of the U.S. government or agent accountable to the public, the principal, in upholding market competition laws (Waterman & Meier, 1998). In this role, the FTC is expected to regulate and enforce fair competition and consumer protection laws rigorously. Studies by Klein (2017) and Simon (2019) present strong empirical evidence that the Commission has not adequately fulfilled this responsibility. Their findings indicate not only a lack of action against consolidation in the health insurance industry but also failure to address the significant market power held by large insurance firms, which they leverage to negotiate higher reimbursement rates with healthcare providers. These activities, in turn, contribute to inflated healthcare costs for consumers.

The FTC's efforts, or the lack thereof, in promoting competition can have broad consequences on the healthcare market. For instance, Daffny (2021) argues that effective enforcement can facilitate consumer choice, increase efficiency, and lead to better healthcare outcomes. The Commission has attempted to achieve these goals through several means, such as inhibiting mergers between large insurance companies and

challenging anticompetitive agreements under antitrust law. However, the extant literature posits that these actions are insufficient (Christianson et al., 2014).

The scrutiny does not stop at the FTC; it extends to the larger public administration mechanism, including the Department of Justice (DOJ). Both are agencies theoretically tasked with protecting the American consumer. However, the current state of market concentration suggests a systemic failure rooted possibly in bureaucratic inertia, lack of resources, or gaps in policy interpretation and enforcement (Goodsell, 2004). This observation correlates with the "bureaucratic drift" theory, which explains the divergence between legislative intent and bureaucratic execution (McCubbins et al., 1989).

While public administration theories point out structural and operational inefficiencies, the ethical dimensions of the market also demand attention. Executive compensation within the insurance industry has become a subject of intense scrutiny. According to a report by Minemyer (2019), annual compensation for CEOs of the five largest private health insurers totaled \$143 million in 2018, presenting a glaring income disparity with mid-level employees. From the perspective of public value management theory, the dissonance between high executive compensation and the quality of service provided to consumers indicates a failure to create public value (Moore, 1995).

Another pivotal aspect of this discourse is the emergence and consolidation of for-profit entities in the health insurance market. The initial mission of these organizations, designed to provide low-cost medical services to the sick, has metamorphosed into a capitalist endeavor marked by perverse financial incentives and opaque pricing models (Rosenthal, 2017). This transformation can be understood through the lens of

"organizational isomorphism," (DiMaggio & Powell, 1983, p. 26) wherein organizations evolve to resemble others in the same field over time. Such a pattern may explain the homogenization of business strategies among leading health insurance companies.

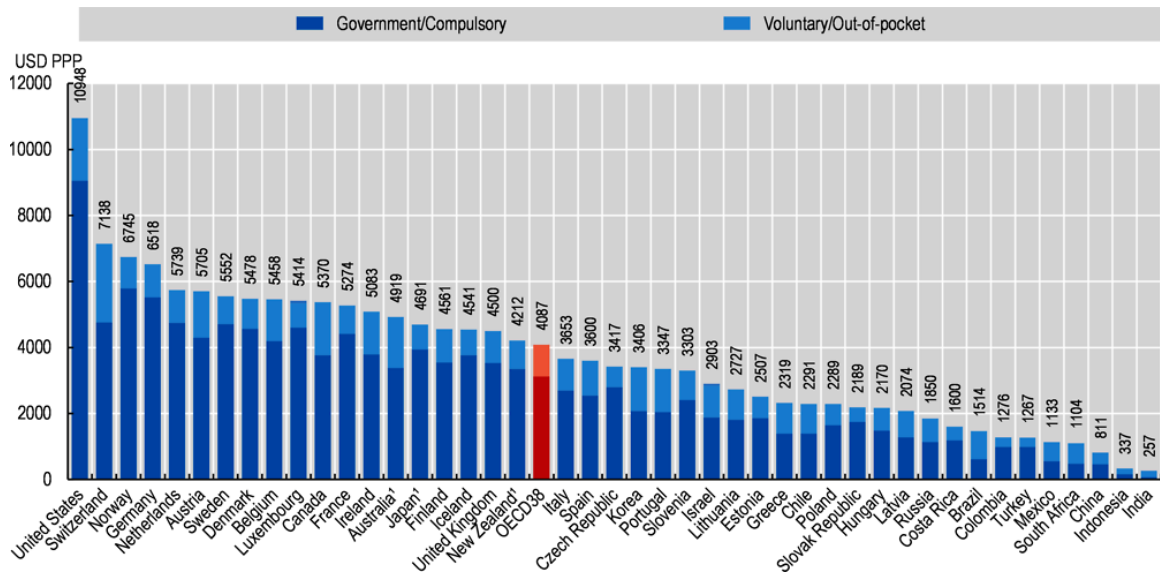
The FTC's regulatory inadequacy in maintaining competitive balance in the health insurance sector is a multifaceted issue that can be dissected through various public administration theories. Although the Commission has taken some steps to enforce antitrust laws, evidence suggests that these have been insufficient in achieving the desired levels of market competition and consumer protection. This regulatory shortfall implicates not just the FTC but extends to the broader public administration system, signaling the need for comprehensive policy reassessment and organizational reform.

The Role of Market Concentration in Escalating Healthcare Costs and Undermining Consumer Choice

By 2021, the United States' Gross Domestic Product (GDP) reached an unprecedented \$22.99 trillion, with an estimated 18.3% (\$4.3 trillion) earmarked for healthcare expenditures (CMS, 2021). Contrary to the conventional wisdom that increased healthcare spending would translate into better health outcomes, evidence suggests that the United States, despite its significant healthcare investment, lags behind other high-income nations in key health indicators such as life expectancy (Blahous, 2018). High healthcare costs burden the American population in several ways, including prescription drugs, administrative overheads, and inflated medical service costs (Galvani et al., 2020). The cost per capita for healthcare in the United States is 145% higher than the Organisation for Economic Cooperation and Development (OECD) average of \$4,033 (Aspril, 2019).

Figure 2.1

OECD Health Expenditure per capita, 2019 (or nearest year)



Note. Obtained from: OECD Health Statistics 2021, WHO Global Health Expenditure Database. Copyright 2021 by Organisation for Economic Co-operation and Development.

As healthcare costs continue to skyrocket, private insurance companies have not shied away from leveraging the situation. These entities have raised premiums, co-payments, and deductibles, further burdening American consumers (Minemyer, 2019). Regulatory authorities have been sluggish in initiating antitrust action against the industry's anticompetitive behavior, largely demonstrated through a wave of mergers and acquisitions (Simon, 2019; Klein, 2017). Reports from the American Medical Association (AMA) reveal that the health insurance markets are increasingly concentrated, with a 55% uptick in market consolidation over five years, thereby limiting consumer choice and competition (Guardado & Kane, 2018).

In support of the alarming statistics, scholars note that 56% of health insurance markets have become more concentrated in the past five years, negatively affecting consumers, and inhibiting choice (Guardado & Kane, 2018). The Herfindahl-Hirschman Index (HHI), a commonly used measure of market concentration, has also seen an increase, further indicating the extent of the problem (Guardado & Kane, 2018). These trends have invited scrutiny, yet, paradoxically, antitrust action against insurance behemoths remains conspicuously absent (Guardado & Kane, 2018).

Private insurers exploit their quasi-monopolistic status to maximize profits, especially given the lack of competitive alternatives for Americans who do not qualify for Medicaid or Medicare (Bauchner & Fontanarosa, 2020). America's Health Insurance Plans (AHIP) confirms that higher prices do not necessarily correlate with better quality, citing vertical consolidation as a contributing factor to declining care quality and increased costs (Murphy, 2019). There is a dearth of consumer protection mechanisms, particularly for individuals bound to employer-based insurance plans.

Federal agencies, such as the Federal Trade Commission and the Department of Justice, have come under fire for their lackadaisical approach to enforcing competition and consumer protection laws in the health insurance sector. Legal recommendations to mitigate anticompetitive practices include the cessation of all mergers and acquisitions and the imposition of price caps on premiums (Murphy, 2019).

The interplay between rising healthcare costs and increasingly concentrated insurance markets has significant implications for policy and regulation. In view of the theories of public administration, the gaps in oversight can be seen as a manifestation of bureaucratic drift and inertia (Goodsell, 2004; McCubbins et al., 1989). The data

underline the necessity for systemic reforms and renewed commitment from federal agencies to uphold the principles of fair competition and consumer welfare.

Impediments to Market Competition: The Role of Mergers in Health Insurance Market Concentration

The high barriers to entry in the health insurance market constitute a formidable challenge to market competition. Evidence suggests a prevailing trend among dominant health insurance firms toward the acquisition of smaller, emerging competitors (Guardado & Kane, 2021, p. 6). Such actions are emblematic of the industry's concentrated nature, as leading firms, including Aetna, Cigna, Humana, Anthem, and UnitedHealth Group, systematically eliminate potential competition. Enforcing existing antitrust laws becomes particularly challenging in this landscape, as they necessitate a high burden of proof that undermines the judicial mechanisms designed to counteract predatory mergers and acquisitions.

UnitedHealth Group stands as a striking example, possessing a 14.4% market share and being the fifth-largest company on the Fortune 500 list with a market capitalization of \$394 billion (Feinel, 2017; UnitedHealth Group Incorporated, 2020). Similarly, Humana's market share of 8.9% reinforces the issue of limited choices for consumers in the health insurance market (Japsen, 2021). The behavior of these oligopolistic companies commonly leads to price controls and elevated premiums, thereby exacerbating the financial burden on consumers.

Classical economic theory posits that mergers can produce efficiencies through economies of scale and scope, potentially yielding cost benefits for consumers (Ravenscraft & Scherer, 1987). However, such efficiencies need to be juxtaposed with

the market power theory, which stipulates that horizontal mergers could furnish companies with the capacity to unilaterally raise costs (Baldwin, 1987, p. 21). The net outcome of a merger, therefore, represents a precarious balance between welfare gains from efficiencies and welfare losses from increased market power. The Department of Justice (DOJ) employs this calculus to decide the merit of legal challenges against proposed mergers (Weiss, 1992, p. 7).

The hospital industry is a significant stakeholder in this context, accounting for nearly half of the U.S. medical care expenditures (Folland et al., 1997). Here again, the effects of mergers are nuanced. On the one hand, they can lead to operational efficiencies; on the other hand, they can significantly raise healthcare costs by augmenting market concentration (Jaspen, 1998). Previous scholarly investigations have generally explored this duality by examining cross-sectional relationships between costs and market concentration, often utilizing metrics such as the Herfindahl-Hirschman Index (HHI) (Dranove et al., 1993). These studies largely concur that reduced competition in healthcare markets is associated with increased costs.

In agreement with these findings, the America's Health Insurance Plans (AHIP) and the American Medical Association (AMA) both assert that reduced competition leads to fewer options and higher prices for consumers (Murphy, 2019; Guardado & Kane, 2018). In oligopolistic markets, the paucity of competition often translates to elevated healthcare costs as companies are more likely to cooperate than compete, thereby affecting both the quality and cost of services (Gillespie, 2018).

The existing scholarly discourse elucidates a complex interplay between market competition, mergers, and healthcare costs. These elements collectively shape a

healthcare system that is heavily influenced by a few dominant private insurance companies, thereby raising critical questions about market fairness and consumer welfare.

The Feasibility of Single-Payer Healthcare as an Alternative Healthcare System

Healthcare expenditures are undeniably significant in the U.S. economy, accounting for nearly one-fifth of the country's Gross Domestic Product (CMS, 2020). Notably, Himmelstein et al. (2009) reported that 62.1% of personal bankruptcies in the United States are attributable to medical bills, and public health scholars have posited that this proportion has likely escalated since the publication of the study. Within this context, Senator Elizabeth Warren, an expert in bankruptcy law and consumer protection, has been probing the detrimental impact of medical bills on the financial stability of working-class Americans.

In the policy landscape, Senator Bernie Sanders initiated legislative action to transition the U.S. healthcare system towards a single-payer model through his Medicare for All Act in 2017. The bill laid out an ambitious plan for progressive universal coverage by incrementally lowering the eligibility age for Medicare, intending to encompass all citizens by the fourth year (Sanders, 2017).

However, the transition towards a single-payer system has met considerable resistance from conservative lawmakers such as Senate Minority Leader Mitch McConnell and Senator John Barrasso. Their arguments encompass concerns regarding the logistical and financial feasibility of implementing a centralized healthcare system in a populous country like the United States (Blahous, 2018; McConnell, 2017). These critiques posit that the immense costs associated with universal coverage could severely

strain the federal budget and necessitate unprecedented tax increases (Blahous, 2018; Barrasso, 2017).

To clarify the financial implications, the Mercatus Center conducted a study aimed at discrediting the feasibility of Sanders' Medicare for All Act. According to their estimates, the program would increase federal budget commitments by approximately \$32.6 trillion within its first decade, thereby aggravating the healthcare cost dilemma (Blahous, 2018). Importantly, the study cautioned that even if federal income tax collections were doubled, they would still fall short of covering the enormous financial burden and requirements of the proposed system.

In a rebuttal to these financial estimates, Himmelstein and Woolhandler (2018) argued that the Mercatus Center had overstated the administrative costs by a significant \$8.3 trillion. They insisted that a more accurate cost for the Medicare for All Act would be around \$24.3 trillion over a decade. This assertion was followed by another critique from Grim and Jilani (2018), who scrutinized the assumptions used by the Mercatus Center. They argued that concerns about overwhelming the healthcare system were unfounded, citing that the healthcare system did not experience overutilization following the implementation of Medicare.

Moreover, the Physicians for a National Health Program (PNHP) examined the utilization of healthcare services before and after the implementation of Medicare and found no significant difference in physician visits between 1964 and 1966. Their study emphasized that an increase in care provision to sick individuals did not result in waiting lists but led to a reduction in unneeded elective care by wealthier patients (Himmelstein & Woolhandler, 2018).

To address financial sustainability, Sanders' Medicare for All Act proposes a 7.5% payroll tax on employers, particularly targeting large corporations that have benefited immensely from tax cuts and subsidies (Sanders, 2017). Economic analysts such as Pollin et al. (2018) and Baker (2017) suggest that such a plan could not only offset healthcare costs but may also catalyze other economic activities. They argue that reduced healthcare expenses might result in increased consumer spending in other sectors and relieve employers from the responsibility of providing health insurance, thereby allowing them to invest in other areas such as wage increases or research and development.

The discourse around the feasibility of a single-payer healthcare system in the United States is laden with contrasting perspectives and methodological debates. While critics underscore the financial and logistical challenges, proponents argue that a single-payer system offers an equitable and potentially more cost-effective approach to healthcare. Notably, these debates frequently involve the interpretation of complex economic models and the utilization of competing data sets, highlighting the necessity for further rigorous, empirical research.

In a rigorous examination of the American healthcare system, a multitude of studies scrutinize both the structural and economic aspects of healthcare delivery and finance. A salient report from Yale researchers posits that a single-payer healthcare system, under a framework like Medicare for All, could result in substantial fiscal savings—approximately 13% of national healthcare spending or over \$450 billion annually—while ameliorating healthcare accessibility for marginalized groups (Galvani et al., 2020, p.3). This research provides a counter-narrative to the conventional

discourse, which often questions the fiscal feasibility of such a massive systemic overhaul.

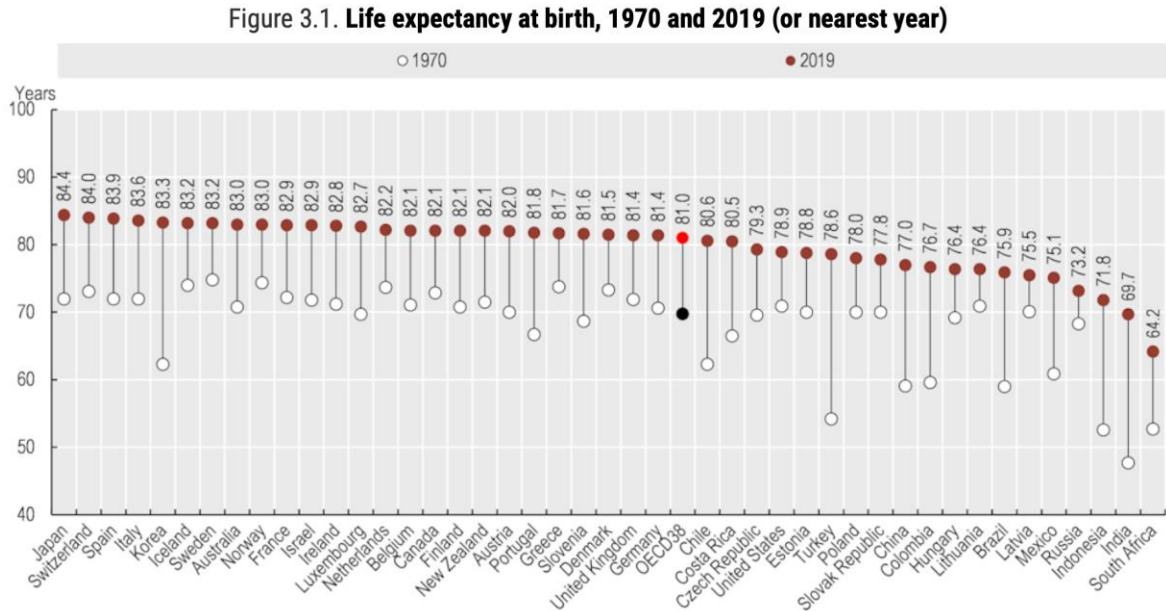
Contrastingly, an investigation conducted by the American Medical Association (AMA) elucidates systemic inefficiencies that persist even in the wake of reforms like the Affordable Care Act (ACA). Despite the ACA's ambitious goals to improve affordability and reduce uninsured rates, Weisbart (2012) contends that these objectives remain elusive. The study further delineates that the U.S. outlays per capita on healthcare are substantially higher than those in other developed nations, yet clinical outcomes do not reflect a commensurate benefit (Weisbart, 2012, p.12).

The ACA itself—a landmark legislation aimed at remediating healthcare inefficiencies—has received scrutinizing evaluations. For instance, Depew and Bailey (2015) found that individual health plans saw a premium increase of 2.5 to 2.8 percent subsequent to the ACA's implementation. Moreover, the mandate requiring insurance, one of the ACA's cornerstone provisions, stirred political discord and remains a divisive issue (U.S. Department of Health and Human Services, 2020).

The report under scrutiny here takes a critical look at the ACA's aftermath, particularly its attempt to establish a competitive marketplace for healthcare plans. However, data suggests that the ACA's goals were not fully actualized, with Weisbart (2012) pointing out its inefficacy in cost containment. Drawing parallels with Massachusetts' healthcare reform, colloquially known as *Romneycare*. Weisbart (2012) asserts that both systems failed to halt the upward trajectory of healthcare costs. This observation stands corroborated by recent figures that indicate exorbitant individual and family premiums (El-Sayed, 2021).

Figure 2.2

Life expectancy at birth, 1970 and 2019 (or nearest year)



Note. Obtained from: OECD Health Statistics 2021.

Considering the larger healthcare ecosystem, empirical data presents a sobering picture. When juxtaposed with other Organisation for Economic Co-operation and Development (OECD) nations, the United States manifests subpar performance in key healthcare metrics. Notably, even though the U.S. commits substantial financial resources to healthcare, the return on investment—as measured by life expectancy—is not proportionate (OECD, 2019; Aspril, 2019; The World Bank, 2018). According to Figure 2.2, the United States reported a life expectancy from birth of 78.9 years while Japan boasted a life expectancy from birth of 84.4 years (OECD, 2019).

Although the United States and Japan are both modern developed countries with comparatively high incomes, the data on life expectancy from birth signals another symptom of inefficacy in America’s healthcare infrastructure. In 2019, life expectancy at

birth was 81 years on average across OECD countries – over 10 years higher than it was in 1970 (OECD, 2019, p. 2). In another comparison, the average Canadian citizen spent \$5,873.23 annually on healthcare in 2019, while the average American spent almost double (\$11,582). Despite higher spending in the United States, life expectancy remains similar at 78.6 years in the United States and 82.5 years in Canada (Aspril, 2019). Spending is not proportional to health or life and requires major reform in order to reflect this discrepancy.

The urgency for reform became even more palpable during the COVID-19 pandemic. The economic repercussions of the pandemic led to loss of employment and consequently healthcare coverage for many Americans, exacerbating the country's healthcare crisis (Islam, 2021). Despite these challenges, the current administration under President Joe Biden has shown reservations about adopting a single-payer system, citing fiscal concerns among other reasons (Kapur, 2020). Yet, Galvani et al. (2020) counter that these concerns may be unfounded, thereby contesting the prevailing administration's stance on the financial viability of single-payer healthcare.

In light of these considerations, the discursive space surrounding American healthcare remains fraught with complexity and challenges. Proposals for radical structural changes—such as eliminating private insurance companies—are met with a myriad of logistical, economic, and ethical concerns (Sered, 2017; Weisbart, 2012). Ultimately, a comprehensive reform would necessitate a multi-stakeholder approach that includes policymakers, healthcare providers, and government agencies, orchestrated under the paradigms of collaborative governance and principal-agent theory (Weisbart, 2012, p. 8). Given the exigency of the issues at hand, it becomes imperative to explore

innovative solutions and policy alternatives that are both socially just and economically sustainable.

Applying Principal-Agent Theory to Healthcare in the United States

Principal-agent theory (Denhardt & Denhardt, 2015) provides an important lens through which to view the dynamics of the healthcare industry in the United States. Principal-Agent Theory, a foundational concept in public administration, provides a nuanced lens through which to examine the dynamics in the U.S. healthcare system, especially in the context of the Affordable Care Act (ACA). This theory is particularly useful in dissecting two key relationships within the healthcare sector.

Firstly, the relationship between the federal government and private insurance companies under the ACA epitomizes a principal-agent dynamic. In this scenario, the federal government, as the principal, established the ACA with the intention of making healthcare more affordable and accessible. Private insurance companies, serving as agents in this context, were tasked with implementing these plans in the marketplace. However, the subsequent rise in premiums may suggest a divergence between the government's objectives and the insurance companies' actions. This increase in costs could reflect a principal-agent problem where the agents prioritize their own financial interests over the principal's goal of providing affordable healthcare. The theory thus aids in understanding how and why these divergences in goals and actions occur, highlighting the need for more effective mechanisms to ensure that agents' (insurance companies') actions align more closely with the principal's (government's) policy objectives.

Secondly, the theory applies to the relationship between insurance companies (or employers in the case of employer-based insurance plans) and consumers or patients.

Here, the insurance companies or employers act as principals, while the consumers or patients are the agents. This relationship is complex, as it involves a myriad of choices and behaviors from both parties. The principals aim to provide health coverage while managing costs, and the agents seek to maximize the benefits from their coverage. However, a common issue in this dynamic is the asymmetry of information. Consumers often lack comprehensive knowledge about their insurance plans, which can lead to suboptimal healthcare decisions, affecting both the utilization and cost-effectiveness of healthcare services. This misalignment may result in either overutilization (leading to unnecessary healthcare spending) or underutilization (potentially compromising health outcomes) of healthcare services.

By applying Principal-Agent Theory to these two distinct relationships within the U.S. healthcare system, we gain deeper insights into the inherent challenges and potential conflicts. It underscores the importance of designing and implementing policies and administrative measures that can effectively bridge the gap between the goals of principals (government and insurance companies) and the actions of agents (insurance companies and consumers). Such strategic alignment is crucial to ensure that the healthcare system operates efficiently and achieves its primary objectives of accessibility, affordability, and quality healthcare provision.

Unfortunately, the current regulatory environment in the US does not provide enough protection against unethical tactics used by large insurers aimed at increasing their profits from Employer-Sponsored Plans (EBPs). Though existing laws like antitrust do provide some recourse for competition issues, enforcement is weak due to lack of resources or political will. Furthermore, many states lack strong rate review processes

and other consumer protections which could help protect citizens from exploitation in the health insurance market. The need for stronger regulations is especially evident when examining how consolidation within the US health insurance market has negatively impacted customers with increased premiums and reduced options when selecting plans. Principal-agent theory posits that principals use incentives to influence agents' behavior in order to optimize outcomes for themselves rather than their agents; thus, it is likely that large insurers employ various tactics specifically designed to reduce competition and increase profits at consumers' expense. To combat this phenomenon, enhanced regulatory intervention should be coupled with robust legislation and enforcement mechanisms so that customers are adequately protected from these predatory practices.

By applying principles derived from the principal-agent theory, as extensively discussed and analyzed by Denhardt and Denhardt, we can gain a deeper understanding of the dynamics in the U.S. healthcare costs. This approach helps in elucidating how competition is stifled by large insurers, leading to increased profits at the expense of consumers. Since competition drives down prices while also providing more choices - it plays a major role in ensuring that citizens across America are able to benefit from quality healthcare at reasonable prices without fear of exploitation from big players operating in the industry. Therefore, stronger legislation and enforcement mechanisms should be put into place along with robust regulatory interventions so that all Americans can access quality care without fear of being taken advantage of.

Integrating Principal-Agent Theory and New Public Management in Healthcare Policy

This analysis applies Principal-Agent Theory and New Public Management (NPM) to the specific challenges of market concentration and escalating healthcare costs within the U.S. insurance sector. According to Principal-Agent Theory, the government, as the principal, faces challenges in effectively regulating insurance companies, the agents, in a concentrated market (Eisenhardt, 1989). These insurers may prioritize profit over public welfare, suggesting a need for more robust regulatory measures. This theory underscores the necessity for the government to establish oversight mechanisms and align insurer incentives with public health goals (Moe, 1984).

Complementing this, NPM emphasizes the importance of a responsive, agile government that works collaboratively with stakeholders (Denhardt & Denhardt, 2015). In contrast to traditional public administration, NPM suggests that effective market de-concentration requires not just regulation but collaborative efforts to enhance competition and transparency. Policies should, therefore, encourage stakeholder dialogues and innovative approaches to increase consumer choice and market competitiveness (Kovner, Knickman, & Jonas, 2018).

By synthesizing the insights from Principal-Agent Theory and NPM, the focus shifts to developing strategic, actionable policies. This approach proposes a balanced blend of regulatory and collaborative measures, aiming to create a healthcare system that is competitive and efficient while being adapted to public needs (Porter & Teisberg, 2004; Robinson, 2004). Such a policy framework, informed by both Principal-Agent

Theory and NPM, presents a comprehensive strategy for tackling the complex challenges of the U.S. healthcare insurance market.

Implications of New Public Management Theory in the United States Health Insurance Market

The New Public Management (NPM) theory, which serves as part of the theoretical foundation for this research, advocates for the application of private sector practices within public organizations to enhance operational efficiency and effectiveness. A core principle of the NPM theory is the belief that market competition is a crucial catalyst for efficiency and cost control in the provision of public services. The NPM theory, a prevailing perspective in the field of public administration, proposes the adoption of private sector principles into public entities, resulting in heightened efficiency and effectiveness (Dunleavy et al., 2006). The essence of NPM theory, as Denhardt and Denhardt (2000) suggest, is the belief that market competition compels organizations to maximize resource use, innovate, and enhance the service quality. Consequently, these operational improvements can lead to cost reductions that may benefit consumers and society as a whole.

Applying the NPM theory to the context of the United States health insurance market—a sector comprising both public and private entities—this research aims to investigate the implications of market competition and its role in shaping healthcare costs. Over the years, the health insurance market in the U.S. has become increasingly consolidated, with a small number of large firms dominating most markets. Given the emphasis on competition in the NPM theory, this trend toward greater market consolidation could be seen as indicative of a less competitive environment. This less

competitive market, as per NPM principles, could negatively impact efficiency and lead to an increase in healthcare costs per capita.

The focus of this research revolves around the question of whether the trend of increasing market concentration and the resulting potential reduction in competition have led to a rise in per capita healthcare costs. This concern is particularly pressing given the continuously rising healthcare expenses in the United States. By applying NPM theory to this situation, the research aims to shed light on whether market competition—or the lack thereof—in the U.S. health insurance sector is influencing healthcare costs, and whether governmental intervention might be necessary to promote competition and mitigate escalating costs.

Osborne and Gaebler's *Reinventing Government* (1993), advocates for the transformation of the public sector from a bureaucratic system to an entrepreneurial one. The authors encourage governments to be more flexible, innovative, and responsive, like their counterparts in the private sector. The central tenet is that by adopting competition, governments can improve the delivery and effectiveness of public services.

In the context of the healthcare market, it's possible to argue that the intended *reinvention* has not been fully realized or, conversely, has taken an unintended turn. While private health insurance companies exhibit characteristics of an entrepreneurial government - such as competing for policyholders and innovating in terms of policy offerings - they also present traits that are contradictory to Osborne and Gaebler's vision.

Osborne and Gaebler stress the importance of focusing on outcomes, putting the customer first, and empowering communities. However, the previous discussion regarding the private health insurance companies indicates a disconnection between the

insurers (producers) and policyholders (consumers). Instead of addressing consumers' needs and delivering high-quality services at reasonable prices, some companies have arguably prioritized profit maximization, thus approving or denying claims based on financial considerations rather than medical necessity. This behavior has not only distanced the companies from their customer base but also created a power imbalance, undermining the sense of community and shared risk, integral to insurance.

Applying Osborne and Gaebler's concepts, one might suggest that the healthcare market could benefit from a realignment of priorities, with an increased focus on policyholders as customers and a decreased emphasis on profit. Governments could play a significant role in this process, by implementing regulations to ensure transparency and fairness in claims approval, incentivizing competition to keep prices low and quality high, and encouraging or enforcing corporate social responsibility.

Conclusion of Literature Review

In closing this literature review, a few key observations merit specific attention, as they collectively set the stage for the subsequent exploration in Chapter 3: Methodology. The United States healthcare system, as delineated by numerous studies (Galvani et al., 2020; Weisbart, 2012; Depew & Bailey, 2015; El-Sayed, 2021), presents a dichotomy. On one hand, it is a system built upon an ethos of free-market competition, ostensibly designed to drive down costs and improve quality. On the other, it is one that often leads to inefficient resource allocation, high costs, and unimpressive health outcomes compared to other OECD countries (OECD, 2017; The World Bank, 2018; Aspril, 2019).

Significant initiatives, such as the Affordable Care Act (ACA), aimed to tackle some of these issues but did not fundamentally resolve the problems surrounding

healthcare costs or market concentration (U.S. Department of Health and Human Services, 2020; Depew & Bailey, 2015). Notably, even after ACA's implementation, the AMA observed persistent structural flaws that continue to make healthcare financing ineffective and unsustainable (Weisbart, 2012). In contrast, proponents of a single-payer system argue that it would provide a more equitable, efficient, and financially sustainable pathway, as posited by Galvani et al. (2020). However, the political landscape resists such a drastic change, with figures like President Biden opposing the transition to a single-payer system due to perceived financial and logistical burdens (Kapur, 2020).

These conflicting viewpoints are especially relevant considering the current landscape of healthcare in the United States. Even amidst a global health crisis like the COVID-19 pandemic, the U.S. healthcare system's inefficiencies were laid bare, from an unprecedented drop in life expectancy to the existing challenges in healthcare accessibility exacerbated by unemployment (OECD, 2021; Islam, 2021).

While some might argue that healthcare is not a constitutional right but rather a privilege, the ethical dimensions of this argument come into sharp focus when life and death are at stake. Furthermore, as the research has indicated, the ramifications of a single-payer system would extend beyond healthcare costs to save lives, as quantified by Galvani et al. (2020).

Thus, the implications for future research are manifold. As we transition into the Methodology section in the next chapter, this study will seek to explore the correlation between the concentration in the private health insurance market and healthcare costs per capita in the United States. Such an inquiry is timely and critical, especially in the wake of debates around policy alternatives and healthcare reform. Existing literature suggests a

complex interplay of policy, economics, and public health, yet gaps remain in how these components interact to shape healthcare costs. These gaps necessitate a rigorous, multi-dimensional exploration to not only contribute to academic discourse but also to offer actionable insights for policy deliberation and healthcare reform.

Therefore, the methodology will be designed to rigorously test hypotheses and contribute to filling these research gaps, employing suitable data sets, statistical tests, and interpretative frameworks. These methods aim to illuminate whether a concentrated insurance market exacerbates the issues discussed herein or if other structural factors play a more dominant role. Only by comprehensively understanding these intricate dynamics can we begin to consider effective and sustainable solutions to the problems plaguing the U.S. healthcare system.

Chapter 3 : Methodology

Introduction

The purpose of this study is to investigate the complex relationship between market concentration in the U.S. health insurance sector, as measured by the Herfindahl-Hirschman Index (HHI), and healthcare costs per capita. While Chapter 2 provided a comprehensive review of the literature and identified gaps in the existing body of knowledge, this chapter explicates the techniques, tools, and metrics that will be employed to bridge these gaps. This chapter also delineates the research design, sampling methods, data collection procedures, and statistical analysis techniques employed to answer the following research questions:

- 1. Is there a correlation between HHI values and healthcare costs per capita in the United States from 2011 to 2018?*
- 2. How does the market share of the top five health insurance corporations, namely Aetna, Cigna, Humana, Anthem, and UnitedHealth Group, reflect market concentration within the U.S. health insurance sector from 2017 to 2020?*

Hypotheses

Research Question 1

Null Hypothesis (H₀): No statistically significant correlation exists between HHI values and healthcare costs per capita in the United States from 2011 to 2018.

Alternative Hypothesis (H₁): A statistically significant correlation exists between HHI values and healthcare costs per capita in the United States from 2011 to 2018.

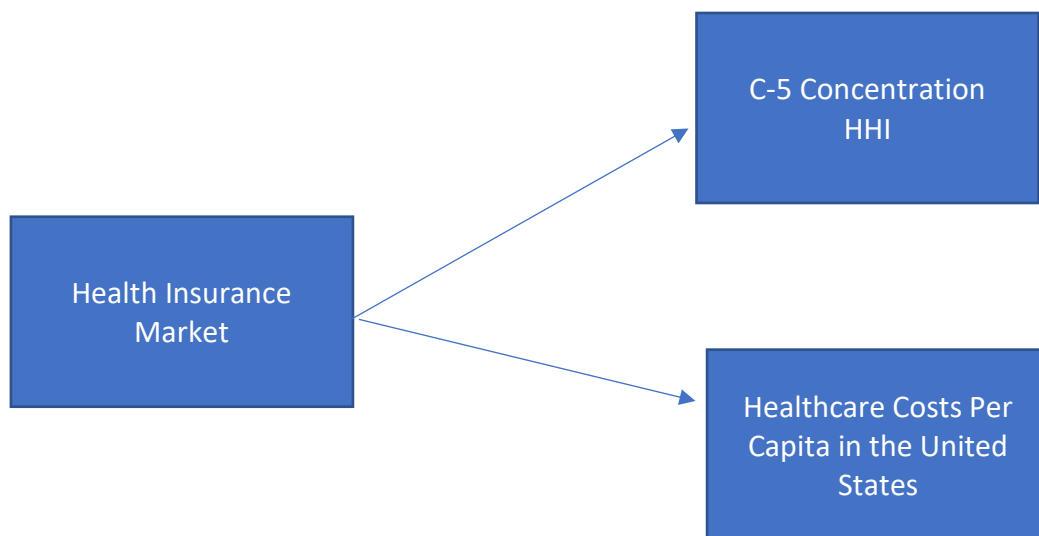
Research Question 2

Null Hypothesis (H₀): The market share of the top five health insurance corporations does not indicate significant market concentration in the U.S. health insurance sector between 2011 and 2018.

Alternative Hypothesis (H₁): The market share of the top five health insurance corporations indicates significant market concentration in the U.S. health insurance sector between 2011 and 2018.

Figure 3.1

Research Design: Insurance Market and U.S. Healthcare Costs



Theoretical Foundations in Public Administration and Economics

In this chapter, we will discuss the methodological implications of the theoretical frameworks introduced in earlier sections, specifically focusing on their application within the scope of this research. The use of Principal-Agent Theory and New Public Management (NPM) is not merely theoretical but serves as a foundation for the research methodology.

Applying Principal-Agent Theory, we examine the intricate dynamics between health insurance companies (agents) and consumers (principals). This exploration is pivotal in understanding how market concentration, characterized by high Herfindahl-Hirschman Index (HHI) values and dominant market shares, influences the behaviors and decisions of insurance companies. Methodologically, this involves a critical analysis of the extent to which these factors contribute to moral hazard and adverse selection scenarios, thereby affecting policyholders through increased premiums and potentially compromised service quality. The analysis is aimed at uncovering underlying factors that may be contributing to the escalation of healthcare costs in a highly concentrated market.

Further, the research methodologically employs New Public Management (NPM) principles to investigate the operational efficiencies within the health insurance sector. This involves a comparative analysis approach, where the operational strategies of private insurance companies are juxtaposed with public programs like Medicare and Medicaid. The focus is on determining whether the competitive market pressures in the private sector led to more efficient service delivery and how these efficiencies or inefficiencies correlate with the overall healthcare costs. This comparative analysis is critical in highlighting the distinct operational imperatives and their implications on service delivery and cost in both sectors.

Moving beyond the theoretical underpinnings, this methodological approach sets the stage for a comprehensive evaluation of the U.S. health insurance market. It bridges the gap between theoretical constructs and practical analysis, setting a clear path for the forthcoming sections of the dissertation. The ensuing subsections will further elaborate on the specific methodologies employed, such as data collection techniques and analytical methods, ensuring a seamless transition from theoretical framework to empirical investigation.

Interpretation of Research Questions through New Public Management

1. **HHI and Healthcare Costs:** NPM can help interpret how the efficiency gains touted by insurance companies during mergers—which ostensibly contribute to market concentration and thus higher HHI values—affect healthcare costs. Are these so-called efficiencies truly realized, and do they result in lower healthcare costs per capita? Or do they exacerbate the inefficiencies in the system by reducing competition and customer choice?
2. **Market Shares of Top Companies:** NPM also provides the tools to interrogate the role of market leaders in shaping the health insurance landscape. Are these top companies truly more efficient in their operations, justifying their market dominance, or is their market share indicative of a failure in the regulatory system that NPM often criticizes?

Role of Private Health Insurance Companies

Under the NPM framework, private health insurance companies can be seen as agents that bring market efficiencies into a traditionally public sector domain. These companies, often driven by profit motives, have an inherent need to minimize costs and

maximize outputs, theoretically benefiting consumers through lower prices and better services. However, as the research questions imply, high concentration levels could turn these efficiencies into market power, allowing firms to engage in behaviors that contradict NPM principles, such as price coordination or even predatory pricing.

Relevance to the Study

By using the NPM framework, this study can offer nuanced interpretations of the quantitative data gathered. The focus will not only be on the economic metrics of market concentration and healthcare costs but also on the qualitative aspects of service efficiency, accountability, and public welfare. In doing so, the research transcends mere statistical analysis to delve into the larger implications of market concentration in the health insurance sector for public policy and governance.

In summary, New Public Management provides a robust interpretative lens for examining the often-paradoxical roles of efficiency and competition within the private health insurance market and their broader impacts on healthcare costs and accessibility.

The Scope and Objectives of Quantitative Analysis

The specific focus of this study revolves around ascertaining the veracity and strength of the relationship between variables such as the Herfindahl-Hirschman Index (HHI) and healthcare costs per capita. Quantitative methodologies offer the advantage of producing statistically robust findings that not only build upon existing theoretical frameworks but are also generalizable and actionable from a policy perspective.

Data Collection Strategies and Analytical Tools

The empirical dimension of this study leans heavily on secondary data, collated from diverse yet complementary sources. The HHI scores used for gauging market concentration are extracted from datasets published by the American Medical Association (AMA, 2018).

Meanwhile, critical financial metrics, like market capitalization and annual revenue, are obtained from the 10-K filings of health insurance firms. The S&P Global Market Intelligence platform adds another layer of depth to the data inventory, providing broader market insights and trends (U.S. Department of Justice, 2019).

Variables and Their Operational Framework

The operational matrix for this study comprises the following key variables:

- Dependent Variable:
 1. Healthcare costs per capita in the United States (2011-2018)
- Independent Variables:
 1. Market capitalization of five largest health insurance firms
 2. Herfindahl-Hirschman Index (HHI)
 3. C-5 Concentration Ratio

Analytical Techniques

This study conducts a structured quantitative data analysis employing Pearson's R correlation analysis. This statistical method is chosen to examine the strength and direction of the relationship between the Herfindahl-Hirschman Index (HHI) values and

healthcare costs per capita in the United States. The analysis is performed using SPSS software, which provides a robust platform for statistical computation and interpretation of correlation coefficients.

Reliability, Validity, and Ethical Parameters

The economic models and multiple data sources used in this study offer a high level of measurement reliability, facilitating the inference of findings in a systematic manner (Mohajan, 2017). Data from verified and reputable sources such as Standard and Poor's Global Market Intelligence, Centers for Medicare & Medicaid Services (CMS), and American Medical Association (AMA) datasets have been used to ensure the validity of the research findings.

Both the Herfindahl-Hirschman Index (HHI) and the C-5 Concentration Ratio are renowned for their reliability in assessing market concentration. The HHI, extensively applied in market concentration studies, has received wide recognition for its formulaic consistency and mathematical rigor (Fulton, 2017). Similarly, the straightforward calculation of the C-5 Concentration Ratio minimizes computational errors, contributing to its high repeatability and reliability (American Medical Association, 2018).

In terms of validity, both models offer complementary insights. The HHI provides a comprehensive measure of market concentration and is highly indicative of market competitiveness and regulatory compliance (Fulton, 2017). On the other hand, the C-5 Concentration Ratio gives a focused snapshot of the market power of the top five firms in an industry. However, its validity can be limited if used in isolation. In this study, the combined use of HHI and C-5 enhances the validity of the methodology by offering a

nuanced understanding of market concentration, addressing the limitations inherent in each model when used individually.

The integration of these models creates a robust methodological approach, strengthening the study's reliability and validity. This synergistic approach allows for a comprehensive exploration of market dynamics, thereby contributing substantively to both academic discourse and public administration policies.

Research Significance

The results of this study are pivotal in addressing the current gaps in public administration and healthcare economics research (McGuire & Barreiro-Hurlé, 2020). Furthermore, its policy implications are manifold; the study provides critical insights for legislators, healthcare administrators, and other stakeholders.

Limitations

While this study aims for comprehensive analysis, some limitations should be acknowledged:

1. **Data Scope:** The research relies on secondary data, which could be subject to inaccuracies or biases present in the initial collection process.
2. **Time Range:** The study focuses on the years 2011 to 2018, which may not capture long-term trends in healthcare costs or market concentration.
3. **Model Limitations:** Both the HHI and C-5 are metrics that provide a snapshot of market concentration but may not capture other subtleties like regional disparities or the impact of emerging competitors.

4. **Pearson's R Correlation Analysis Limitations:** The addition of Pearson's R correlation analysis, while enriching the study with a quantitative measure of the relationship between HHI and healthcare costs, has its constraints. It provides a measure of linear correlation but does not imply causation. Additionally, this analysis might not capture the temporal dynamics or the causal relationship between market concentration and healthcare costs, as it treats the variables independently without accounting for external factors that could influence these trends over time.

Despite the methodological rigor employed, this study faces several limitations warranting acknowledgment. First, the utilization of the Herfindahl-Hirschman Index (HHI) and the C-5 concentration ratio as key metrics introduces limitations in capturing market nuances. While HHI is a standardized measure, it may not fully encompass complexities like firm interdependence (Fulton, 2017). Similarly, the C-5 concentration ratio, though easily calculated, is a single-parameter statistic that overlooks the distribution of market shares among all firms in the industry (American Medical Association, 2018; U.S. Department of Justice, 2019).

The study is framed within the paradigms of New Public Management and the Principal-Agent Theory. While these frameworks offer interpretive utility, they come with their own sets of criticisms and constraints, such as New Public Management's overemphasis on market solutions in public sectors. These limitations not only contextualize the findings but also offer avenues for future research to provide a more comprehensive understanding of the healthcare market landscape.

Ethical Guidelines and Conclusion

In keeping with academic rigor and ethical considerations, the research relies solely on secondary data and respects all intellectual property rights associated with these data. To summarize, this chapter provides a comprehensive, multi-dimensional view of the quantitative methodological framework that the study employs. By aligning the research design with well-established theories in public administration and economics, and by opting for quantitative testing mechanisms like Pearson's R correlation analysis.

The growing influence of major health insurance corporations in the U.S. poses pressing questions about healthcare costs and market dynamics. By employing statistical methodologies and validated economic models, this research not only contributes to academic discussions but also has implications for policy decisions, particularly in the areas of governance and regulatory oversight.

Overall, the methodology aligns well with the overall research objectives and provides a robust foundation for the ensuing analysis. The subsequent chapter will discuss the analysis and findings in detail, further building on the methodological framework laid out herein.

Chapter 4 : Data Analysis & Findings

Introduction

The purpose of this study is to empirically scrutinize the relationship between market concentration in the private health insurance sector and healthcare costs. To that end, this chapter is devoted to systematically presenting and analyzing the data pertinent to this study. Here, empirical findings are dissected in a way that aligns with the research questions and methodology outlined in the previous chapter.

As a starting point, this chapter analyzes the two central research questions that guide this inquiry:

1. Is there a correlation between Herfindahl-Hirschman Index (HHI) values and healthcare costs per capita in the United States from 2011 to 2018?
2. How does the market share of the top five health insurance corporations—Aetna, Cigna, Kaiser Permanente, Anthem, and UnitedHealth Group—reflect market concentration within the U.S. health insurance sector from 2017 to 2020?

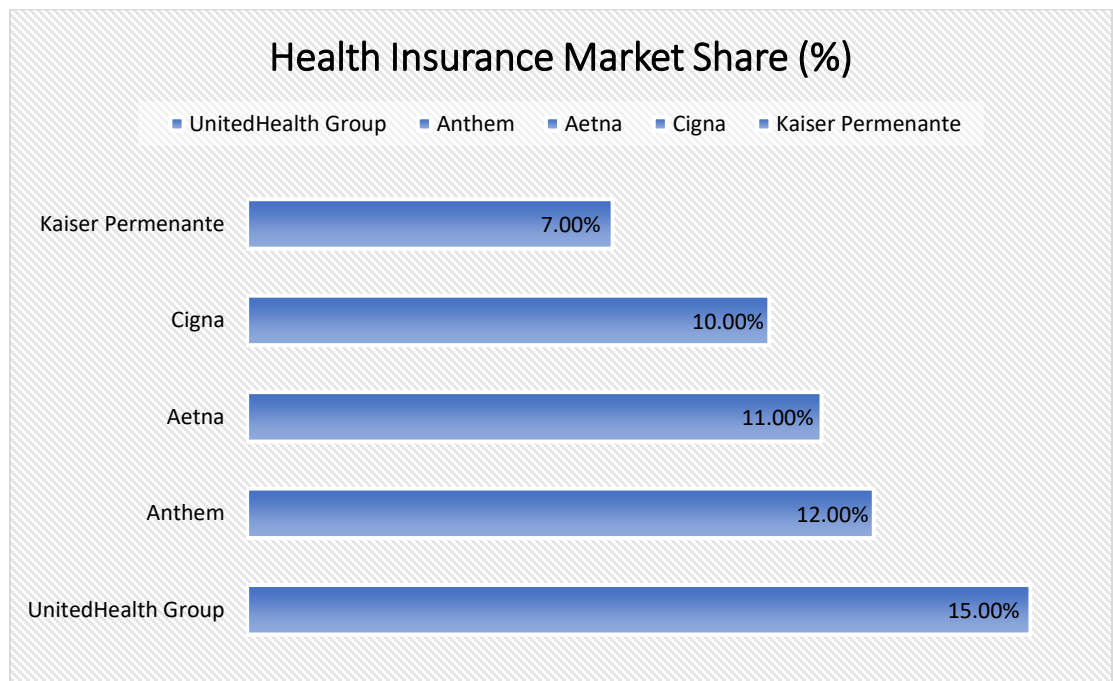
The analysis will employ a multi-faceted approach that leverages both descriptive and inferential statistical methods. Accordingly, the chapter is organized into several key subsections. The first segment will present Figure 4.1, a pie chart that encapsulates the C-5 concentration ratio through the proportion of market shares controlled by the five dominant insurance companies. This will be followed by a section based on Figure 4.2 and Figure 4.3, where the relationship between annual HHI values and healthcare costs in the United States will be depicted. Finally, Figure 4.4 will be introduced to explore the relationship between HHI and healthcare costs per capita via Pearson's R correlation analysis.

Each of these graphical representations and statistical models will be analyzed to ascertain their relevance and limitations, as well as how they serve to answer the research questions. This structured dissection will serve as the basis for the conclusions and recommendations addressed in the subsequent and final chapter.

Chapter 4 critically examines the relationship between health insurance market consolidation and healthcare costs in the U.S., focusing on the C-5 concentration ratio. The next chapter will highlight the combined market share of the top five insurers—Aetna, Cigna, Kaiser Permanente, Anthem, and UnitedHealth Group—over the period from 2017 to 2020. This metric is crucial as it indicates the level of control these companies have in the market. The analysis of the C-5 ratio is the first step in exploring the core questions of this research, aiming to fill the current research gaps and to better understand how the concentration of market power influences healthcare pricing.

Figure 4.1

Private Insurance Companies' Market Share (2017-2020)



C-5 Concentration Ratio

Regarding market concentration, the C-5 concentration ratio registers at 55% for the health insurance market's largest corporations. Although this figure falls within the 40-70% range often cited as indicative of medium concentration (Mankiw & Taylor, 2014), it is crucial to exercise interpretative caution. A combined market share of 55% does not definitively signal an oligopolistic market structure but raises the question of its likelihood (Tirole, 1988).

The basis for this cautionary stance is rooted in various economic considerations. Firstly, the classification of a market as oligopolistic is not solely contingent upon market share but is also influenced by the degree of competitive or anti-competitive behavior exhibited by the firms (Tirole, 1988). Secondly, other variables such as the quality and differentiation of products and services, demand elasticity, and the potential for market entry by other corporations also contribute to the assessment (Stiglitz, 1993). Lastly, the market's geographic dimension could influence its categorization; a national market share may not reflect regional concentrations.

Thus, while the C-5 concentration ratio of 55% highlights a substantial level of market concentration, it is but the initial layer in a multi-dimensional analysis, which should include behavioral characteristics of firms, product differentiation, and market entry potential (Posner, 2001).

Herfindahl-Hirschman Index (HHI), Market Dynamics, and Healthcare Costs Per Capita

The Herfindahl-Hirschman Index (HHI) stands as a cornerstone in understanding market structures, providing invaluable insights into market dynamics and competition.

Its significance is entrenched in its ability to offer a panoramic view of market concentration through a relatively simple mathematical construct. The HHI is computed by squaring the market share of each firm present in the industry and subsequently summing up these squared values. Represented formulaically:

$$HHI = \sum I = 1N(S_i)^2$$

Where:

- S_i is the market share of firm i (expressed as a percentage),
- N is the total number of firms in the market.

This formulation has seen widespread acceptance in academic and regulatory circles alike for its utility in capturing the overall distribution of market shares across firms in an industry (Tirole, 1988). From an interpretative standpoint, an HHI below 1,000 denotes a highly competitive market; values between 1,000 and 1,500 suggest an unconcentrated industry; an HHI in the range of 1,500 to 2,500 indicates moderate concentration, and above 2,500 is indicative of high concentration.

Guidelines set forth by the Department of Justice (DOJ) and the Federal Trade Commission (FTC) further echo these thresholds, establishing frameworks for regulatory scrutiny based on HHI calculations. Specifically, markets with an HHI greater than 2,500 are typically flagged for potential antitrust concerns and can be considered as exhibiting high concentration (DOJ and FTC, 2010).

Given this context, the reported HHI for the private health insurance market in the United States stands intriguingly at 639. This places the market within the “highly competitive” range as per traditional benchmarks. Such a reading contradicts some of the dominant narratives around the health insurance sector, which often frame it as being

dominated by a few large players. Yet, this HHI score seems to underscore a more competitive landscape, at least from a structural perspective.

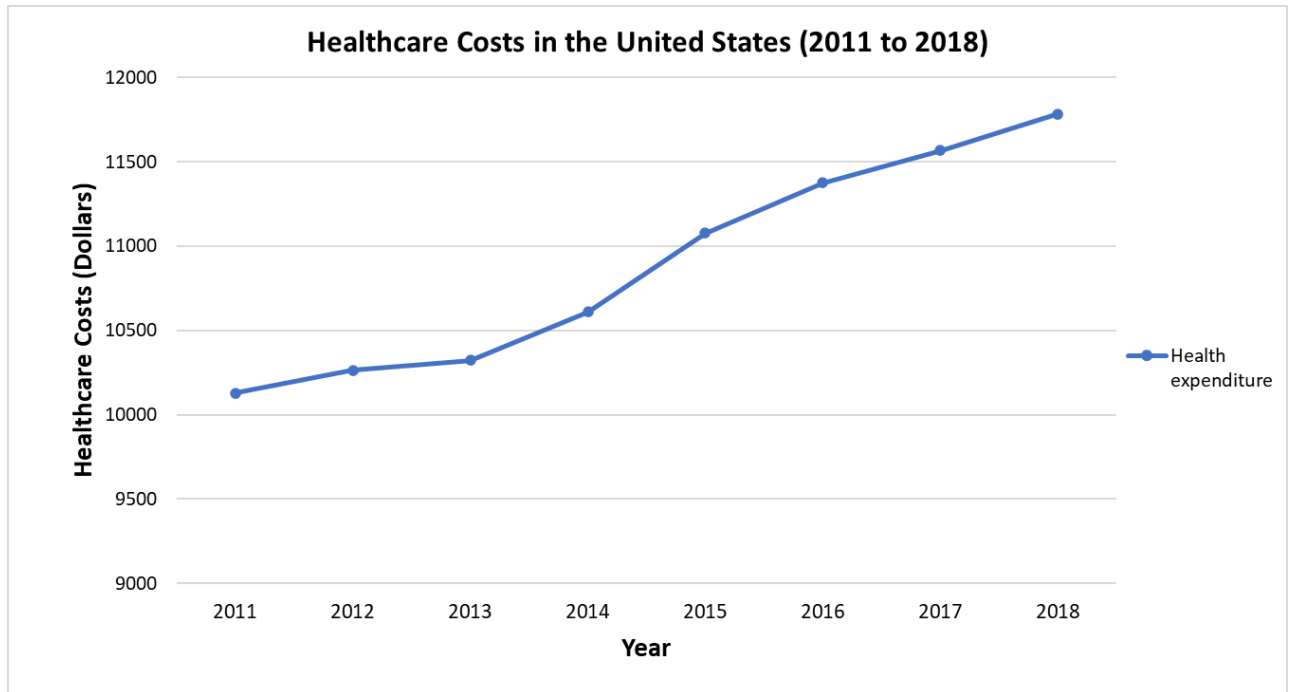
However, an HHI value, though illuminating, should be interpreted with caution. The score of 639 suggests competitiveness but does not capture the complexities of market behavior, barriers to entry, or strategic actions of dominant firms. It is paramount to consider these nuances when deciphering market dynamics, as market concentration is not the sole determinant of market health or competitiveness. Numerous socio-economic, policy, and industry-specific variables intertwine to influence the broader landscape, especially in sectors as multifaceted as healthcare.

In correlating the HHI with healthcare costs, the data reveals a trajectory worth pondering. The intertwining paths of HHI and healthcare expenditures suggest potential causality, but deducing a direct link necessitates deeper analysis, accounting for other influencing factors. Economics posits that higher market concentration can lead to reduced competitive pressures, potentially driving prices upwards (Stigler, 1964). Yet, the myriad of variables at play in healthcare, from policy shifts to technological advancements, may confound such direct interpretations.

In essence, while the HHI offers a valuable vantage point into the structure of the U.S. health insurance market, it is but a fragment of a larger narrative. A comprehensive understanding requires piecing together this index with a plethora of other market dynamics, behaviors, and externalities.

Figure 4.2

Healthcare Costs Per Capita in the United States (2011 to 2018)



Note. Figure 4.2 illustrates the trend in healthcare costs per capita in the United States from 2011 to 2018. The costs have been adjusted for inflation and are presented in 2021 constant dollars to accurately reflect the real value of healthcare expenditures over time.

The Link Between Health Insurance Market Consolidation and Rising Healthcare Costs in the U.S.

This chapter provides a comprehensive analysis of the data relevant to understanding the dynamics at play within the U.S. healthcare system, particularly focusing on the relationship between market concentration and healthcare costs. In this context, Figures 4.2 and 4.3 play a pivotal role. Figure 4.2 tracks healthcare costs in the United States from 2011 to 2018, using 2021 inflation adjusted dollars and offering a clear visualization of the expenditure trend over the years. The steady upward trajectory

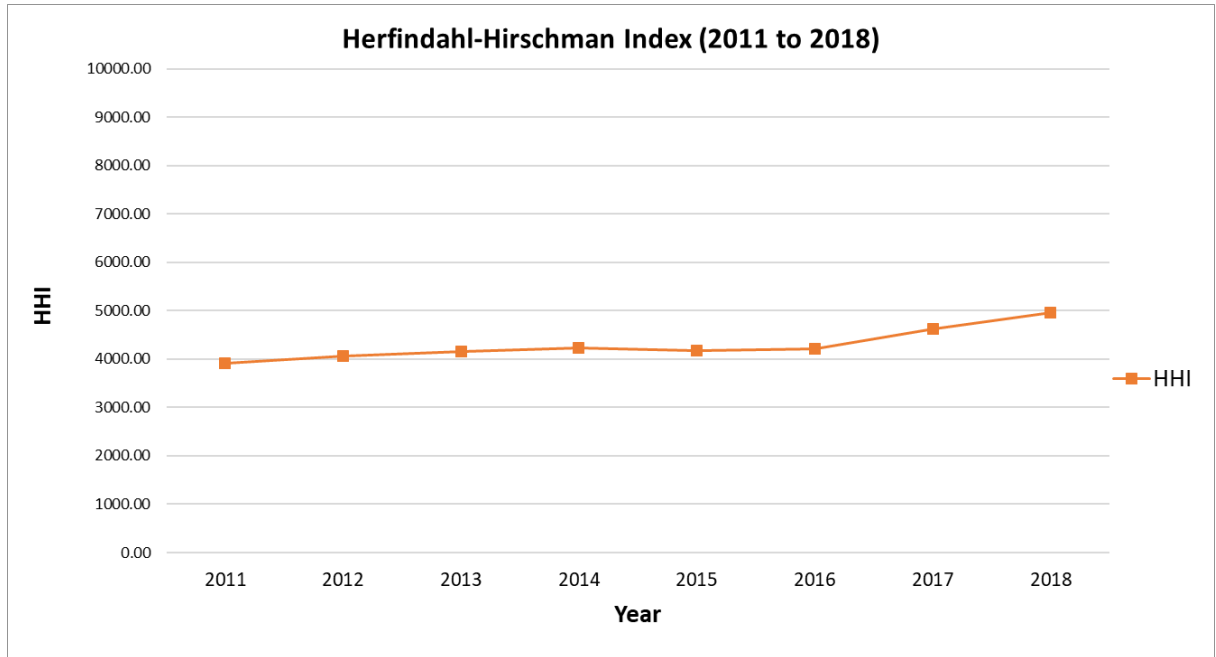
observed in this figure reflects the continuous increase in healthcare costs over the specified period.

In contrast, Figure 4.3 focuses on the Herfindahl-Hirschman Index (HHI), a critical measure of market concentration within the health insurance industry. The HHI is plotted over the same time frame, 2011 to 2018, and reveals a relatively stable trend with a slight increase noticeable towards the latter years. The separation of these two figures is necessary due to the distinct nature of the measures: healthcare costs are depicted in dollar amounts, while the HHI is a bounded index with different scaling.

The analysis of these two figures side by side provides an opportunity to investigate the potential link between increased market concentration, as indicated by the HHI, and the rising healthcare costs. While Figure 4.2 demonstrates an unequivocal rise in healthcare expenditures, Figure 4.3's depiction of HHI suggests only a modest escalation in market concentration towards the end of the observed period. An objective assessment of these trends indicates that while both HHI and healthcare costs have risen, their relationship is not necessarily indicative of a direct correlation. The nuances and complexities of these findings underscore the importance of cautious interpretation. Statistical analysis and research are warranted to ascertain the nature and strength of any potential relationship between these variables.

Figure 1.3

Herfindahl-Hirschman Index in the United States (2011 to 2018)



Note. Figure 4.3 displays the Herfindahl-Hirschman Index (HHI) trend from 2011 to 2018, reflecting the degree of concentration in the national health insurance market.

This observation suggests that while both healthcare expenditures and HHI values are indeed on an upward trajectory, the ascent does not occur concurrently across the given timeline. The divergence in the timing of these increases, with healthcare costs rising prior to a noticeable change in HHI values, invites scrutiny into the directness of their relationship. The lack of parallelism in the magnitude and intensity of the increases further complicates the assertion of a causative link between market concentration and healthcare costs.

The illustration does not conclusively support a causative relationship between the HHI and healthcare expenditures; rather, it serves a descriptive function. Given the

temporal misalignment and disparities in the rate of increase, the inference of correlation—let alone causation—between the variables is not substantiated by the visual data presented. This analytical caveat necessitates a more in-depth exploration into the dynamics at play, potentially involving additional variables and influences that were not encapsulated within the scope of this visual analysis.

The analysis of market concentration and its economic implications suggests that as market concentration increases, competition typically decreases. In such scenarios, firms—including health insurance providers—may gain increased pricing power, which could lead to higher costs for consumers (Stiglitz, 1993). Nonetheless, it is imperative to acknowledge that a correlation, as indicated by the simultaneous rise in the Herfindahl-Hirschman Index (HHI) and healthcare expenditures, does not inherently imply causation. The observed trend in the data does not independently confirm that increases in HHI directly cause the increase in healthcare costs.

The role of HHI as an economic indicator is to shed light on its possible effects on consumer welfare. A market with a higher HHI is potentially less competitive, which might lead to decreased responsiveness to consumer demands, a dip in innovation, and potential pricing inefficiencies (Tirole, 1988). However, it is critical to account for other factors that may be influencing healthcare costs, such as advancements in medical technology, policy changes, and demographic trends.

Figure 4.4

Pearson's Correlation Test, Healthcare Expenditures and HHI (2011-2018)

	<i>Health Expenditures per capita</i>	<i>HHI</i>
Health Expenditures	1	
HHI	0.849292779	1

Note. Figure 4.4 was generated following a Pearson's R test to compare the data represented in Figures 4.2 and 4.3. The Pearson's R test was utilized to assess the strength and direction of the relationship between the Herfindahl-Hirschman Index (HHI) and healthcare costs per capita in the United States from 2011 to 2018.

The Pearson correlation coefficient presented in Figure 4.4 stands at .849, signifying a strong positive association between the Herfindahl-Hirschman Index (HHI) and healthcare expenditures per capita within the observed dataset. This statistical measure indicates that, to a considerable extent, as the HHI increases—a proxy for market concentration—there is a concurrent rise in healthcare expenditures per capita.

However, it is crucial to note that correlation does not imply causation. The analysis presented here is descriptive and does not account for the temporal sequence of events, which is essential for establishing a causal relationship. The absence of a variable that captures the element of time in the Pearson's R analysis constitutes a significant limitation, as it precludes the ability to discern whether changes in market concentration precede or follow shifts in healthcare expenditures (Field, 2013).

Further compounding this limitation is the fact that a correlation coefficient, irrespective of its magnitude, cannot unravel the intricacies of cause and effect. It merely

quantifies the strength of a relationship between two variables, without regard to other potential influencing factors (Cohen, Cohen, West, & Aiken, 2003). Thus, while a strong correlation is observed, the results should be interpreted with caution. To establish causation, a more sophisticated analytical approach, such as time series analysis or longitudinal study design, would be required, incorporating a temporal dimension to better understand the dynamics between market concentration and healthcare costs (Gaynor & Town, 2012).

While the data may suggest a notable correlation, the findings do not substantiate a causative link between HHI and healthcare expenditures. This study's results underscore the need for further research incorporating time as a variable, which would provide a more definitive analysis of the relationship between these critical economic indicators.

The analysis presented in Figure 4.4 illustrates a moderate positive correlation between the Herfindahl-Hirschman Index (HHI) and healthcare expenditures per capita. While the plot and Pearson's R value of .849 suggest a correlation, implying that as market concentration increases, so do healthcare costs, this does not confirm causation. The figure should be interpreted with consideration for other potential influencing factors that the analysis does not control for.

The data indicates a trend consistent with the hypothesis that market concentration is associated with healthcare expenditure growth. However, given the limitations of a bivariate analysis and the absence of a time variable, conclusions about causality remain tentative. A deeper investigation, potentially including time-series analysis, is recommended to elucidate the dynamics at play fully.

Discussion

Chapter 4 aimed to interpret the relationship between market concentration within the U.S. private health insurance sector and its implications on healthcare costs per capita, spanning the years 2011 to 2018. The Herfindahl-Hirschman Index (HHI), a widely recognized tool in economics for gauging market concentration, yielded a value of 639 for this period. The Department of Justice's benchmark identifies an HHI exceeding 2,500 as emblematic of a highly concentrated market. In light of the 639 value, the market, during this duration, reflected a concentration that fell considerably short of being classified as highly concentrated.

The C-5 concentration ratio was also scrutinized as a vital measure for evaluating market concentration. A C-5 concentration ratio of 55% infers that the five leading firms in the health insurance sector collectively represent 55% of the total market share. Economically, when few firms command a substantial segment of the market, it can diminish competition, potentially leading to augmented prices and diminished consumer welfare.

The Pearson's R correlation analysis conducted in this chapter aimed to assess the association between the Herfindahl-Hirschman Index (HHI) and healthcare costs per capita. The derived Pearson's R value of .849 signifies a strong positive correlation, suggesting that as the HHI increases, there is a corresponding rise in healthcare costs per capita. However, the R-squared value derived from the Pearson's R, when squared, equates to approximately 72%, indicating that about 72% of the variation in healthcare costs per capita can be accounted for by variations in the HHI. This result implies a

significant correlation but necessitates further investigation to understand causality and the influence of additional variables.

Conclusion

Drawing from the empirical analysis, the study yields the following conclusions regarding the research questions:

1. *Is there a correlation between Herfindahl-Hirschman Index (HHI) values and healthcare costs per capita in the United States from 2011 to 2018?*

Rejected: While the Pearson R analysis correlation test results did imply a relationship between HHI values and per capita healthcare costs, an HHI value of 639, when contrasted against the maximum possible value of 10,000, suggests only moderate market concentration. Economically, this leads to the inference that the magnitude of market concentration, as represented by this HHI, was unlikely to be the dominant factor influencing healthcare costs per capita during the years in question.

2. *How does the market share of the top five health insurance corporations—Aetna, Cigna, Kaiser Permanente, Anthem, and UnitedHealth Group—reflect market concentration within the U.S. health insurance sector from 2017 to 2020?*

Accepted: A C-5 concentration ratio of 55% unequivocally underscores the significant market dominance exerted by these five entities. This concentration level can, through economic principles, lead to a reduction in competitive forces, enabling these dominant firms to exert greater control over pricing, potentially to the detriment of consumers.

Given these conclusions, market concentration as represented by HHI has a limited to moderate influence on healthcare costs in the United States. This influence

necessitates a proactive approach from policymakers and industry stakeholders to cultivate and preserve competitive market conditions. Rather than implementing aggressive regulatory measures, a balanced approach to maintaining competitive market conditions is recommended. This approach should focus on creating an environment that encourages fair competition, thereby safeguarding consumers from potential cost increases due to market concentration. It is essential to maintain a competitive market to prevent monopolistic tendencies, which, while not a predominant issue given the limited influence of HHI, could still pose risks to cost, quality, and accessibility of healthcare if left unchecked.

Chapter 5 : Summary, Implications, and Discussion

Introduction

This final chapter brings together the research findings on healthcare market dynamics in the United States. The study explored how the increasing consolidation of health insurance providers might be affecting costs for Americans. By combining economic analysis with public administration principles, it highlights how policy and market practices intersect and their impact on health outcomes. This chapter discusses the broader implications of these findings and looks at possible approaches in public administration to create a fairer and more socially equitable health insurance system amid changing market trends.

Guided by these broader objectives, this study posited two central research questions that not only unraveled the intricacies of the U.S. health insurance sector but also spotlighted the crucial role of smart governance in ensuring that the tenets of equitable healthcare access remain inviolable. The two research questions that guided this inquiry are:

- 1. Is there a correlation between Herfindahl-Hirschman Index (HHI) values and healthcare costs per capita in the United States from 2011 to 2018?*
- 2. How does the market share of the top five health insurance corporations—Aetna, Cigna, Kaiser Permanente, Anthem, and UnitedHealth Group—reflect market concentration within the U.S. health insurance sector from 2017 to 2020?*

This research represents a crucial advancement in the literature, offering an expansive examination of the link between market concentration in the health insurance sector and the healthcare costs borne by U.S. citizens. While numerous studies have

previously probed the contours of the health insurance landscape, virtually none of them employed statistical scrutiny to delineate the correlation between escalating market concentration and burgeoning healthcare expenditures. This study, by informing this relationship, fills a void in academic discourse.

Relying on secondary data sourced from reputable platforms like the AMA, CMS, and the S&P Global Market Intelligence, the study unveiled that the combined market share of the top-tier health insurance companies—Aetna, Cigna, Kaiser Permanente, Anthem, and UnitedHealth Group—amounts to a significant 55%. This stark C-5 concentration ratio highlights the pronounced dominance of these firms, collectively capturing over half of the market's expanse. Additionally, the computed HHI value of 639, while not veering into the realm of extreme concentration by standard benchmarks, points towards the meaningful clout these leading corporations wield. Collectively, this data affirms the U.S. health insurance sector's movement towards an oligopolistic configuration.

Summary of Key Findings: An Intersection of Health Economics, Public Administration, and Macroeconomics

The U.S. health insurance market's current trajectory offers a rich tapestry of interlacing economic and administrative trends, and this study's findings unveil some critical junctures. At the nexus of health economics, public administration, and broader macroeconomic considerations, the results provide both a snapshot of the present and hints at the future landscape.

1. **Market Concentration and Its Implications:** The calculated HHI value of 639, while not reaching the threshold for high concentration, certainly hints at a market

leaning towards oligopolistic tendencies. This is further corroborated by the 55% C-5 concentration ratio. In health economics, such concentration often equates to reduced competition, which can lead to higher prices for consumers and potential inefficiencies in the market. The dominance of a few major players, like Aetna, Cigna, Kaiser Permanente, Anthem, and UnitedHealth Group, raises concerns about potential price collusion or the exercise of undue market power, which could stifle innovation and lead to a stagnation of service quality.

2. **Healthcare Costs and Economic Load:** The macroeconomic perspective offers insights into the broader implications of rising healthcare costs. As healthcare expenditures form a considerable portion of the U.S. GDP, an increase in costs can potentially reduce households' disposable incomes, lead to decreased consumption in other sectors, and affect overall economic growth.
3. **Public Administration Implications:** From a public administration perspective, the predominance of a select few insurance companies in the market highlights the need for vigilant regulatory oversight. According to Principal-Agent Theory, an imbalance arises when the agent (insurance companies) holds significantly more information or power than the principal (the government or private insurance companies acting on behalf of consumers). Such disparities can lead to decisions that diverge from the principal's best interests. The present market dynamics suggest this type of misalignment, where insurance companies may prioritize their profitability over consumer welfare or governmental healthcare objectives. Furthermore, within the framework of New Public Management, there is a push for efficiency and results-driven performance in the public sector. As the

health insurance market trends towards diminishing competition, public administrators may need to develop and implement regulatory actions or strategies that recalibrate market functions to better serve public interests and ensure that health insurance companies operate in a manner that aligns with broader health policy goals.

4. **Economic Trends and Forward Movement:** The landscape of the health insurance market in the U.S. mirrors some global economic trends, where increased market concentration in various sectors is becoming the norm. This raises macroeconomic concerns about income inequality, wealth distribution, and the potential for decreased economic dynamism. A sector as vital as health insurance, where the stakes are individuals' health and well-being, these concerns become even more pronounced.

In synthesizing these findings, it's evident that the health insurance market in the U.S., while not overtly monopolistic, is treading an oligopolistic path that warrants close observation. As economic, administrative, and macroeconomic factors intertwine, the decisions of today will indubitably shape the health and economic outcomes of tomorrow.

Limitations

The methodology of this study relied primarily on the utilization of secondary data, which, despite being cost-effective and efficient, imposed inherent limitations on the research outcomes. The scope of data, confined to what was already available, meant that additional health insurance companies or diverse income sources could not be

explored, potentially omitting critical insights. Moreover, the legal framework governing consumer billing in healthcare restricted access to comprehensive financial data, which could have narrowed the findings' depth and breadth.

The study also encountered limitations with its time range, focusing on data from 2011 to 2018, potentially missing longer-term trends in healthcare costs or market concentration. The key metrics used to gauge market concentration, the Herfindahl-Hirschman Index (HHI) and the C-5 concentration ratio, while providing an immediate picture of market dynamics, may not fully articulate subtleties such as regional disparities or the impact of new market entrants. These metrics, although standardized, might not capture complex elements like firm interdependence, and the C-5, as a single-parameter statistic, overlooks the distribution of market shares among all firms (Fulton, 2017; American Medical Association, 2018; U.S. Department of Justice, 2019).

The use of Pearson's R correlation analysis, introduced to measure the relationship between HHI and healthcare costs, provides valuable insight into the linear relationship between these two variables. However, it does not imply causation and may not account for the temporal dynamics or causal relationship between market concentration and healthcare costs. Pearson's R treats the variables as independent entities and overlooks potential external factors that could impact these observed trends (Field, 2013; Pallant, 2020)

In addition, the study's analytical frameworks—New Public Management and Principal-Agent Theory—provide interpretive utility but also carry their own limitations. For example, New Public Management has been criticized for its overemphasis on

market-oriented solutions in public sectors, which may not be universally applicable or effective.

Lastly, the data may carry inaccuracies or biases from the original collection process, and the foundational assumption that healthcare providers have a negligible influence on medical spending growth may affect the study's perspective. These limitations underscore the findings' context and suggest directions for future research to build a more comprehensive understanding of the healthcare market landscape.

Discussion of Validity

The validity of a study is pivotal in asserting the reliability and relevance of its findings. Central to the core of this research was the quantification of the market share and the C-5 concentration rate of the top five largest health insurance companies in the United States. These companies, collectively, hold sway more than half of the entire health insurance market share, providing a compelling rationale for their selection. Such a significant share underscores the appropriateness of the sample size, suggesting that the findings here are not just representative but also indicative of broader trends in the market.

The adoption of annual financial reports as primary data sources, spanning the period from 2011 to 2018, adds another layer of validity. These reports, by virtue of being official documents, reduce the likelihood of data manipulation or misrepresentation. However, it's important to reckon with the temporal limitation posed by the datasets. While the analysis touches upon significant economic patterns and shifts from 2011 to 2018, the subsequent years till the present remain uncharted.

Incorporating results from this intervening period, were the data available, would undoubtedly enhance the study's applicability to the contemporary economic landscape of the United States. In its current form, while the research does present a comprehensive outlook, it's also, to a degree, a retrospective. It offers a detailed but not the most recent view, a factor that readers should bear in mind when interpreting the findings and their implications.

Suggestions for Future Research

The implications of this study, coupled with the current trajectory of healthcare in the United States, underscore the urgency for further research. There exists a clear and pressing need to probe potential avenues that address the growing healthcare conundrum. Historical evidence suggests that mere consolidation in the healthcare sector doesn't necessarily translate into enhanced quality or reduced costs. The steady amalgamation of private insurance entities seems to have ironically stifled the competitive spirit, giving way to diminished quality and escalated prices. Furthermore, this diminished competition not only conserves the extant status quo, favoring established firms, but it also casts an overwhelming shadow, thwarting the emergence of new entrants in the market. The steep barriers to market entry, in many ways, perpetuate the existing paradigms and deter innovation (Beaulieu, 2020).

At its core, the subsequent wave of policy recommendations ought to address and rectify policies inadvertently bolstering consolidation. By curtailing such unintentional incentives, the associated detriments of consolidation can be mitigated. It's crucial to streamline administrative processes that disproportionately hike costs without corresponding benefits. For instance, while entities like Medicaid and Medicare,

alongside other private insurers, engage in exhaustive quality reporting, a synchronized approach among these stakeholders can dramatically curtail administrative overheads. Additionally, certain state-specific regulations inadvertently deter new entrants or skew negotiating dynamics between providers and payers. This spectrum includes statutes such as any *willing provider* laws, licensing board mandates, *certificate of need* legislation, and *scope of practice* laws. A considered reevaluation, modification, or even elimination of these regulations, ensuring they serve their intended purposes, is imperative.

As we pivot to broader systemic changes, the prospect of supplanting the ACA necessitates expansive health insurance coverage for Americans. Literature suggests that a transition towards a single-payer healthcare system might be a strategic alternative to the extant healthcare framework (Chua, 2005; Galvani et al., 2020). Within this model, the onus would be on the federal government to underwrite both preventative and non-elective medical procedures, as delineated by legislative frameworks (Bauchner and Fontanarosa, 2020). This shift could guarantee healthcare coverage in exchange for equitable taxation, with overarching objectives of enhancing clinical outcomes, slashing healthcare expenses, and alleviating the recurring personal bankruptcies induced by medical debts.

The long-term vision encapsulates a revamp of the U.S. healthcare infrastructure, pivoting from inflated administrative expenditures towards an efficient system. It's imperative to recognize that bloated administrative expenses channel resources into operations that seldom contribute to health enhancements (Weisbart, 2012).

Conclusion, Policy Alternatives, and Theoretical Implications

The in-depth analysis of this research, examining the intertwined dynamics of healthcare costs per capita and the increasing market concentration among private insurers, positions the study at the nexus of health economics, public administration, and macroeconomics. The results present a compelling argument, inviting a closer look into the real-world ramifications of such market dynamics, especially in the realm of public administration and policymaking.

Interestingly, the study unveiled an HHI score of 639 out of 10,000 for the health insurance market. At first glance, this might not seem indicative of an oligopoly when considering conventional standards. However, it's pivotal to underscore that this study concentrates on national market shares of health insurers, instead of a more granulated regional analysis. Such a national perspective could potentially dilute the HHI value, potentially masking the actual intensity of market concentration in regional markets (Feldstein, 2012). The dynamics of regional markets may indeed be more monopolistic or oligopolistic than what the national data suggests.

Within the context of the Principal-Agent Theory in public administration, the dynamic between the government (the principal) and private health insurance companies (the agents) is crucial. This theory posits that in a market with high concentration, such as the health insurance industry, the agents (insurance providers) have a propensity to leverage their position, potentially acting in ways that might not align with the best interests of the principals (consumers and the government). This misalignment can manifest in practices that may prioritize profit maximization over consumer welfare, such as consumer exploitation or price-gouging. This situation raises a pivotal question about

the motives and actions of private insurance companies: Are their operational strategies predominantly aimed at protecting profits, or do they earnestly endeavor to provide better-quality products to the consumers they serve? This inquiry is central to understanding the balance, or lack thereof, between corporate gains and consumer welfare in a highly concentrated insurance market.

The socio-economic fallout of this scenario is concerning. The resultant price inflation and reduced access to quality healthcare perpetuate social inequities, placing a considerable burden on consumers and, by extension, the broader economy. When individuals are priced out of essential medical care or face crippling debt due to healthcare costs, it impacts consumer spending, savings, and overall economic vitality (Krugman and Wells, 2009).

Given the stakes, it becomes imperative to explore policy alternatives. The research points towards the potential merits of single-payer healthcare, where the federal government would cover preventative and non-elective procedures. This approach, championed by scholars such as Bauchner and Fontanarosa (2020), promises more comprehensive coverage, reducing personal bankruptcies stemming from medical debt and ensuring a more streamlined administrative apparatus. It moves away from the administrative bloat characteristic of the current system, where excessive overheads often do not translate to improved health outcomes (Weisbart, 2012).

Furthermore, the dire need for policy reforms targeting the undue market power of private insurance companies is evident. One radical proposition could be the elimination of private insurance companies altogether, transitioning towards a public-

centric model. Such a paradigm shift would prioritize equitable access and affordability over profit margins, seeking to correct the inherent imbalances in the current system.

In conclusion, this research not only highlights the intricacies of the U.S. healthcare system but also calls for a reevaluation of the role of private insurance companies within this framework. As the nation stands at a crossroads, deciding its future healthcare trajectory, this study provides a robust foundation for informed, equitable, and progressive decision-making.

References

- Adedoyin, Olasile. (2020). Quantitative research method. Near East University.
- American Medical Association. (2017). Competition in health insurance. *American Medical Association Division of Economic and Health Policy Research*.
- Arrow, K. J. (1963). *Uncertainty and the welfare economics of medical care*. *American Economic Review*, 53(5), 941-973.
- Baker, L. C., Bundorf, M. K., & Kessler, D. P. (2014). Vertical integration: Hospital ownership of physician practices is associated with higher prices and spending. *Health Affairs*, 33(5), 756-763. doi:10.1377/hlthaff.2013.1279
- Baldwin WL. (1987) Market power, competition, and antitrust policy. Homewood, IL: Irwin.
- Baranes, E., & Bardey, D. (2015). Competition between health maintenance organizations and nonintegrated health insurance companies in health insurance markets. *Health Economics Review*, 5(1). <https://doi.org/10.1186/s13561-015-0073-3>
- Bauchner, H., Fontanarosa, P. B. (2020). Health Care is a right and not a privilege. *JAMA*, 323(11), 1049. <https://doi.org/10.1001/jama.2020.0891>
- Bazzoli GJ, Marx D, Arnould RJ, & Manhiem LM. (1995). Federal antitrust merger enforcement standards: a good fit for the hospital industry? *J Health Polit, Policy Law*, 20:137 – 69.
- Berenson, R., King, Jaime S., Gudixsen, Catherine L., Murray, R., and Shartzter, A. (2020) Addressing health care market consolidation and high prices, University of California Hastings Law Department, University of California.

- Berwick, D. M., & Hackbarth, A. D. (2012). Eliminating waste in U.S. health care. *JAMA*, 307(14), 1513-1516. <https://doi.org/10.1001/jama.2012.362>
- Blumenthal, D., Fowler, E. J., Abrams, M., & Collins, S. R. (2019). Health care in the United States: A work in progress, still. *Journal of the American Medical Association*, 322(10), 923-924. <https://doi.org/10.1001/jama.2019.9292>
- Chen, L. M., & Glied, S. A. (2019). Promoting competition to address the U.S. health spending problem. *Health Affairs*, 38(3), 483-490. <https://doi.org/10.1377/hlthaff.2018.05325>
- Centers for Medicare & Medicaid Services. (2021). National health expenditure data: Historical. Retrieved from <https://www.cms.gov/data-research/statistics-trends-and-reports/national-health-expenditure-data/historical>.
- Christianson, J., Carlin, & Warrick, L. (2014). The dynamics of community health care consolidation: Acquisition of Physician Practices. *Milbank Quarterly*, 92(3), 542–567. <https://doi.org/10.1111/1468-0009.12077>
- Chua, K.-P. (2005, May 1). The case for universal health care. Retrieved January 10, 2023, from <https://www.amsa.org/wp-content/uploads/2015/03/CaseForUHC.pdf>
- Clemens, J. K., & Gottlieb, D. (2018). Health insurance market concentration and premiums. The Heritage Foundation. Retrieved from <https://www.heritage.org/health-care-reform/report/health-insurance-market-concentration-and-premiums>
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Lawrence Erlbaum Associates.

- Crosby, L. E., Ware, R. E., & Goldstein, A. (2020). Health-related quality of life in children with sickle cell disease: A report from the Comprehensive Sickle Cell Centers Clinical Trial Consortium. *Pediatric Blood & Cancer*, 57(4), 551-558. <https://doi.org/10.1002/pbc.22922>
- Dafny, L. (2010). Are health insurance markets competitive? *The American Economic Review*, 100(4), 1399–1431. <https://doi.org/10.1257/aer.100.4.1399>
- Dafny, L. (2015). Evaluating the impact of health insurance industry consolidation: Learning from experience. *American Journal of Health Economics*, 1(1), 53-78.
- Denhardt, R. B., & Denhardt, J. V. (2000). The new public service: Serving rather than steering. *Public administration review*, 60(6), 549-559.
- Denhardt, R. B., & Denhardt, J. V. (2015). The new public service revisited. *Public administration review*, 75(5), 664-672.
- Depew, B., & Bailey, J. (2015). Did the Affordable Care Act's dependent coverage mandate increase premiums? *Journal of Health Economics*, 41, 1–14. <https://doi.org/10.1016/j.jhealeco.2015.01.004>
- Dranove D, Shanley M, & White W. (1993), Price and competition in hospital markets: the switch from patient-driven to payer-driven competition. *Journal of Law Economics*, 36:179 – 204
- Eisenhardt, K. M. (1989). Agency Theory: An assessment and review. *The Academy of Management Review*, 14(1), 57. doi: 10.2307/258191
- Feinel, Greg (2017). "American antitrust institute expresses concern about proposed optum-change healthcare deal." *FierceHealthcare*,

www.fiercehealthcare.com/payer/american-antitrust-institute-expresses-concern-about-proposed-8b-optum-change-healthcare-deal. Accessed 13 Aug. 2021.

Feldstein, M. (2012). *Inflation, Tax Rules, and Capital Formation*. University of Chicago Press.

Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. Sage.

Folland S, Goodman AC, & Stano M. (1997) *The economics of health and health care*. 2nd ed. New Jersey: Prentice-Hall.

Furukawa, M. F., Jones, D. J., & Escarce, J. J. (2011). Health system characteristics and rates of readmission after acute myocardial infarction in the United States.

Medical Care Research and Review, 68(3), 255-273.

<https://doi.org/10.1177/1077558710387381>

Fulton, B. D. (2017). Health care market concentration trends in the United States: Evidence and Policy Responses. *Health Affairs*, 36(9), 1530–1538.

<https://doi.org/10.1377/hlthaff.2017.0556>

Galvani, A. P., Parpia, A. S., Foster, E. M., Singer, B. H., & Fitzpatrick, M. C. (2020). Improving the prognosis of health care in the USA. *The Lancet*, 395(10223), 524–533. [https://doi.org/10.1016/s0140-6736\(19\)33019-3](https://doi.org/10.1016/s0140-6736(19)33019-3)

Gaynor, M., & Town, R. J. (2012). The impact of hospital consolidation—Update. *The Synthesis Project, Robert Wood Johnson Foundation*, (21).

Geyman, J. P. (2022). The case for single payer health care: Overcoming obstacles, myths, and misconceptions. *International Journal of Health Services*, 52(1), 13-

24. <https://doi.org/10.1177/00207314211061080>

- Goodsell, C. T. (2004). *The case for bureaucracy: A public administration polemic* (4th ed.). CQ Press.
- Greaney, T. (2020). Healthcare antitrust in the United States. *The Oxford Handbook of Comparative Health Law*. <https://doi.org/10.1093/oxfordhb/9780190846756.013.4>
- Grossman, M., & Gifford, A. (2006). Health insurance and the demand for medical care: Evidence from a randomized experiment. *The American Economic Review*, 96(3), 824-846.
- Guardado, J. R., & Kane, C. K. (2018). Competition in Health Insurance: A Comprehensive Study. *American Medical Association Division of Economic and Health Policy Research*.
- Havighurst, Clark C. and Richman, Barak D. (2011) The provider monopoly problem in healthcare, Vol. 89, Duke University.
- Himmelstein, D. U., Thorne, D., Warren, E., & Woolhandler, S. (2009). Medical bankruptcy in the United States, 2007: Results of a national study. *The American Journal of Medicine*, 122(8), 741-746.
- Hood, C. (1995). Contemporary public management: a new global paradigm? *Public Policy and Administration*, 10(2), 104–117.
<https://doi.org/10.1177/095207679501000208>
- Islam, N., Jdanov, D. A., Shkolnikov, V. M., Khunti, K., Kawachi, I., White, M., Lewington, S., & Lacey, B. (2021). Effects of covid-19 pandemic on life expectancy and premature mortality in 2020: Time Series Analysis in 37 countries. *The BMJ*. Retrieved April 4, 2022, from <https://www.bmj.com/content/375/bmj-2021-066768>

- Islam, M. S., Rahman, K. M., Sun, Y., Qureshi, M. O., Abdi, I., Chughtai, A. A., & Seale, H. (2021). Current knowledge of COVID-19 and infection prevention and control strategies in healthcare settings: A global analysis. *Infection Control & Hospital Epidemiology*, 42(10), 1147-1158. <https://doi.org/10.1017/ice.2020.237>
- Japsen, B. (2021). "Medicare advantage mergers and acquisitions poised to take off." *Forbes*, www.forbes.com/sites/brucejapsen/2021/05/20/medicare-advantage-mergers-and-acquisitions-poised-to-take-off/?sh=67d736e11bae. Accessed 13 Aug. 2021.
- Jaspens B. (1998), An off year for consolidations. *Modern Healthcare*; 28:40 – 8.
- Kingdon, J. W. (1995). *Agendas, alternatives, and public policies* (2nd ed.). HarperCollins College Publishers.
- Klein, R. (2017). How consolidation in the health insurance industry increases prices for consumers. The Heritage Foundation. Retrieved from <https://www.heritage.org/health-care-reform/report/how-consolidation-the-health-insurance-industry-increases-prices-consumers>
- Kotz, D., Basu, D., & Schneider, M. (2018). Social structures of accumulation, the rate of profit, and economic crises. *Journal of Economic Issues*, 52(2), 476-483. <https://doi.org/10.1080/00213624.2018.1468109>
- Krugman, P., & Wells, R. (2009). *Economics* (2nd ed.). Worth Publishers.
- Malone, Daniel C. (2018). "Are U.S. health insurers efficient or not?" *Value in Health*, vol. 21, no. 4, pp. 398–399, 10.1016/j.jval.2017.12.020. Accessed 8 Apr. 2020.
- Mankiw, N. G., & Taylor, M. P. (2014). *Economics*. Cengage Learning.

- McCubbins, M. D., Noll, R. G., & Weingast, B. R. (1989). Structure and process, politics, and policy: Administrative arrangements and the political control of agencies. *Virginia Law Review*, 75(2), 431-482.
- Mcguire, T. G. & Barreiro-Hurlé, J. (2020). Market concentration in health insurance: Implications for consumer welfare. *Journal of Health Economics*, 67, 1-14.
- Moe, T. M. (1984). The new economics of organization. *American Journal of Political Science*, 28(4), 739-777.
- Mohajan, Haradhan. (2017). Two Criteria for Good Measurements in Research: Validity and Reliability. *Annals of Spiru Harat Universit.* 17. 59-82. 10.26458/1746.
- Moore, M. H. (1995). *Creating public value: Strategic management in government.* Harvard University Press.
- Murphy, T. (2019). Vertical consolidation in health care and the debate over hospital quality. *Health Affairs*, 38(8), 1286-1294.
- Nicola, M., Alsafi, Z., Sohrabi, C., Kerwan, A., Al-Jabir, A., Iosifidis, C., & Agha, R. (2020). The socio-economic implications of the coronavirus pandemic (COVID-19): A review. *International Journal of Surgery*, 78, 185–193.
- O'Hanlon, C. E. (2020). Impacts of health care industry consolidation in Pittsburgh, Pennsylvania: A Qualitative Study. *Inquiry: a journal of medical care organization, provision, and financing*, 57, 46958020976246-46958020976246. doi:10.1177/0046958020976246
- OECD. (2021). Life expectancy at birth. OECD Health Statistics 2021. <https://doi.org/10.1787/27e0fc9d-en>

- Organisation for Economic Cooperation and Development. (2021). Health at a glance 2021. OECD. Retrieved June 6, 2021, from <https://www.oecd.org/health/health-at-a-glance/>
- Osborne, D., & Gaebler, T. (1993). *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector*. Plume.
- Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS* (7th ed.). Routledge.
- Papanicolas, I., Woskie, L. R., & Jha, A. K. (2018). Health care spending in the United States and other high-income countries. *JAMA*, 319(10), 1024-1039. <https://doi.org/10.1001/jama.2018.1150>
- Pauly, M. V. (1968). *The economics of moral hazard: Comment*. *The American Economic Review*, 58(3), 531-537.
- Porter, M. E., & Teisberg, E. O. (2004). *Redefining health care: Creating value-based competition on results*. Harvard Business School Press.
- Posner, R. A. (2001). *Frontiers of Legal Theory*. Harvard University Press.
- Ravenscraft DJ & Scherer FM. (1987), *Mergers, sell-offs, and economic efficiency*. Washington, DC: Brookings Institution.
- Rivers, D., & Glover, S. (2008). Health care financing reform and the new safety net. *Health Affairs*, 27(6), 1568-1578.
- Sabatier, P. A., & Weible, C. M. (2014). *Theories of the policy process* (3rd ed.). Westview Press.

- Sanders, B. (2017). Medicare for all: Leaving no one behind. Retrieved from <https://www.sanders.senate.gov/download/medicare-for-all-act?id=6CA2351C-6EAE-4A11-BBE4-CE07984813C8&download=1&inline=file>
- Schmalensee, R., & Willig, R. D. (Eds.). (1989). *Handbook of industrial organization* (Vol. 1 & 2). North-Holland.
- Simon, K. (2019). The impact of health insurance market consolidation on consumer prices. Commonwealth Fund. Retrieved from <https://www.commonwealthfund.org/publications/issue-briefs/2019/jul/impact-health-insurance-market-consolidation-consumer-prices>
- Smith, J. (2020). The dynamics of the U.S. insurance market. *Journal of Insurance Regulation*, 39(4), 567-585.
- Stigler, G. J. (2003). *Memoirs of an Unregulated Economist*. University of Chicago Press
- Stiglitz, J. E. 1993). *Economics*. W.W. Norton.
- Sommers, B. D., Gunja, M. Z., Finegold, K., & Musco, T. (2014). Changes in self-reported insurance coverage, access to care, and health under the Affordable Care Act. *JAMA*, 314(4), 366-374. <https://doi.org/10.1001/jama.2015.8421>
- Squires, D., & Anderson, C. (2015). U.S. health care from a global perspective: Spending, use of services, prices, and health in 13 countries. *The Commonwealth Fund*, 15(1819), 1-15.
- Tirole, J. (1988). *The Theory of Industrial Organization*. The MIT Press.
- UnitedHealth Group Incorporated. (2021, January 1). Form 10-K. Financial & earnings reports. *United Health Group*. <https://www.unitedhealthgroup.com/investors/financial-reports.html>.

Waterman, R. W., & Meier, K. J. (1998). Principal-agent models: An expansion? *Journal of Public Administration Research and Theory*, 8(2), 173-202.

Weiss, A. (1992). Using the efficiencies defense in horizontal mergers. *Antitrust Bull.* 1992 (Spring):123 – 31.