



# The Market Structure of the Health Insurance Industry

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## Summary

In March 2010, Congress passed a pair of measures designed to reform the U.S. health care system and address the twin challenges of constraining rapid growth of health care costs and expanding access to high-quality health care. On March 21, the House passed the Patient Protection and Affordable Care Act (H.R. 3590), which the Senate had approved on Christmas Eve, as well as the Health Care and Education Reconciliation Act of 2010 (H.R. 4872). President Obama signed the first measure (P.L. 111-148) on March 23 and the second on March 30 (P.L. 111-152). On November 2, 2009, the House Judiciary Committee reported out the Health Insurance Industry Antitrust Enforcement Act (H.R. 3596), which would limit antitrust exemptions provided by the McCarran-Ferguson Act (P.L. 79-15). The House passed the Health Insurance Industry Fair Competition Act (H.R. 4626) on February 24, 2010.

This report discusses how the current health insurance market structure affects the two policy goals of expanding health insurance coverage and containing health care costs. Concerns about concentration in health insurance markets are linked to wider concerns about the cost, quality, and availability of health care. The market structure of the health insurance and hospital industries may have contributed to rising health care costs and deteriorating access to affordable health insurance and health care. Many features of the health insurance market and the ways it links to other parts of the health care system can hinder competition, lead to concentrated markets, and produce inefficient outcomes. Health insurers are intermediaries in the transaction of the provision of health care between patients and providers: reimbursing providers on behalf of patients, exercising some control over the number and types of services covered, and negotiating contracts with providers on the payments for health services. Consequently, policies affecting health insurers will likely affect the other parts of the health care sector.

The market structure of the U.S. health insurance industry not only reflects the nature of health care, but also its origins in the 1930s and its evolution in succeeding decades. Before World War II, many commercial insurers doubted that hospital or medical costs were an insurable risk. But after the rapid spread of Blue Cross plans in the mid-1930s, several commercial insurers began to offer health coverage. By the 1950s, commercial health insurers had become potent competitors and began to cut into Blue Cross's market share in many regions, changing the competitive environment of the health insurance market.

Evidence suggests that health insurance markets are highly concentrated in many local areas. Many large firms that offer health insurance benefits to their employees have self-insured, which may put some competitive pressure on insurers, although this is unlikely to improve market conditions for other consumers. The exercise of market power by firms in concentrated markets generally leads to higher prices and reduced output—high premiums and limited access to health insurance—combined with high profits. Many other characteristics of the health insurance markets, however, also contribute to rising costs and limited access to affordable health insurance. Rising health care costs, in particular, play a key role in rising health insurance costs.

Complex interactions among health insurance, health care providers, employers, pharmaceutical manufacturers, tax policy, and the medical technology industry have helped increase health costs over time. Reducing the growth trajectory of health care costs may require policies that affect these interactions. Policies focused only on health insurance sector reform may yield some results, but are unlikely to solve larger cost growth and limited access problems. This report will be updated as events warrant.

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## Introduction

In March 2010, after more than a year of legislative deliberation, Congress passed a pair of measures designed to reform the U.S. health care system and address the twin challenges of constraining rapid growth of health care costs and expanding access to high-quality health care. On March 21, the House passed the Patient Protection and Affordable Care Act (PPACA; H.R. 3590), which the Senate had approved on Christmas Eve, as well as the Health Care and Education Reconciliation Act of 2010 (H.R. 4872).<sup>1</sup> President Obama signed the first measure (P.L. 111-148) on March 23 and the second on March 30 (P.L. 111-152).

Other health reform proposals were also put forth, such as the Healthy Americans Act (S. 391), introduced by Senators Ron Wyden and Robert Bennett, and the Empowering Patients First Act (H.R. 3400), introduced by Representative Tom Price. On November 2, 2009, the House Judiciary Committee reported out the Health Insurance Industry Antitrust Enforcement Act of 2009 (H.R. 3596), which would limit antitrust exemptions provided by the McCarran-Ferguson Act (P.L. 79-15).<sup>2</sup> On February 24, 2010, the House passed the Health Insurance Industry Fair Competition Act (H.R. 4626) on a 406–19 vote, which would amend the McCarran-Ferguson Act to enable more robust antitrust enforcement.

Health care costs in the United States, which have risen rapidly in real terms in the last few decades, have strained state and federal budgets. Future growth in health care costs is projected to threaten the fiscal position of state and federal governments unless major policy changes occur. Additionally, for many Americans, the lack of health insurance coverage complicates access to health care. According to the U.S. Census Bureau, 46.3 million or 15.4% of the people in the United States lack health insurance coverage.<sup>3</sup> Furthermore, even families with health insurance may become vulnerable to the financial burdens of a serious health condition or illness either because of the narrowness of plan benefits or the unpredictability of decisions about what care is covered. Increases in health insurance premiums, according to some research, has degraded access to health care.<sup>4</sup>

Health insurance markets are often highly concentrated with one insurer accounting for over 50% of the market. Concerns about concentration in health insurance markets are linked to wider concerns about the cost, quality, and availability of health care. The market structure of the health insurance and hospital industries may have played a role in rising health care costs and in limiting access to affordable health insurance and health care. Some argue market concentration has led to higher health care prices.<sup>5</sup> Higher prices for health care or health care insurance may then make

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<sup>1</sup> CRS Report R41124, *Medicare: Changes Made by the Reconciliation Act of 2010 to the Patient Protection and Affordable Care Act (P.L. 111-148)*, coordinated by Patricia A. Davis; CRS Report R41128, *Health-Related Revenue Provisions: Changes Made by H.R. 4872, the Health Care and Education Reconciliation Act of 2010*, by Janemarie Mulvey.

<sup>2</sup> CRS Report R40968, *Limiting McCarran-Ferguson Act's Antitrust Exemption for the "Business of Insurance": Impact on Health Insurers and Issuers of Medical Malpractice Insurance*, by Janice E. Rubin and Baird Webel.

<sup>3</sup> U.S. Census Bureau, "Health Insurance Coverage: 2008," September 10, 2009, available at <http://www.census.gov/hhes/www/hlthins/hlthin08/hlth08asc.html>. See also CRS Report 96-891, *Health Insurance Coverage: Characteristics of the Insured and Uninsured in 2008*, by Chris L. Peterson.

<sup>4</sup> Todd Gilmer and Richard Kronick, "It's The Premiums, Stupid: Projections of the Uninsured Through 2013," *Health Affairs*, Web Exclusive, April 5, 2005, available at <http://content.healthaffairs.org/cgi/content/full/hlthaff.w5.143/DC1>.

<sup>5</sup> For example, see American Medical Association, *Competition in Health Insurance: A Comprehensive Study of U.S. Markets* (Chicago: AMA, 2008), p. 1; and David Balto, "Why A Public Health Insurance Option Is Essential," blog (continued...)

health care less affordable and thus less accessible for some families. Consumers in the individual and small group markets typically face particularly challenging conditions.

Others, however, contend that health insurers with strong bargaining leverage might help constrain health providers' ability to raise prices, and that the benefit of lower premiums resulting from that ability to bargain may be passed along to consumers. Some industry analysts have described competition among major health insurers as robust, and some pricing trends indicate that competition has strongly affected insurers' market strategies.<sup>6</sup> Moreover, some contend that economies of scale along with state and federal regulation have contributed to the rising levels of concentration in health insurance markets.

The Obama Administration made reform of the American health insurance and health care system a top policy priority. PPACA, according to the Administration, will broaden access to health care by increasing the number of Americans with health insurance coverage, by lowering the cost of insurance faced by individuals, by providing stronger incentives for individuals to acquire health insurance, and by restructuring parts of the health insurance market. PPACA contains some measures intended to slow the growth of health care costs, although some policy analysts are uncertain whether those initiatives are likely to accomplish that goal.<sup>7</sup> Some argue that a more fundamental reform of the health care sector and the health insurance market would be needed to change the projected trajectory of health care costs.

This report discusses whether or not the current health insurance market structure hinders the U.S. health system's ability to reach the policy goals of expanding health insurance coverage and containing health care costs. The report describes the forces that have shaped the health insurance industry, including its historical evolution, characteristics of health care and health insurance, determinants of supply and demand for health insurance, and the nature of competition among health insurers. Reasons for high market concentration are discussed, along with profitability measures for the industry. Finally, options for Congress regarding the health insurance industry are analyzed.

## How the Health Insurance Industry Developed

The market structure of the modern U.S. health insurance industry not only reflects the complexities and uncertainties of health care, but also its origins in the 1930s and its evolution in succeeding decades. Private insurers had offered accident, burial, and sickness policies in the latter half of the 19<sup>th</sup> century, and some railroad, mining, and timber firms began to offer workplace health benefits.<sup>8</sup> As population shifted from rural agricultural regions to industrialized urban centers, workers were exposed to risks of occupational accidents, but had less support from extended family networks that provided informal insurance benefits. Many workers obtained

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posting, *Health Affairs*, September 17, 2009.

<sup>6</sup> One leading insurance rating agency recently described the commercial health sector as "very competitive." A.M. Best Company, *Multiple Issues Adversely Impact Health Care Results for 2008*, May 4, 2009, p. 2.

<sup>7</sup> Congressional Budget Office, *The Budgetary Treatment of Proposals to Change the Nations Health Insurance System*, Economic and Budget Issue Brief, May 27, 2009.

<sup>8</sup> Laura A. Scofea, "The Development and Growth of Employer-Provided Health Insurance," *Monthly Labor Review*, vol. 117, no. 3 (March 1994), pp. 3-10.

accident or sickness policies through fraternal organizations, labor unions, or private insurers. These policies were usually indemnity plans, that would pay a set cash amount in the event of a serious accident or health emergency.<sup>9</sup> Social surveys at the turn of century spotlighted the link between industrial accidents and poverty, leading Progressive-era reformers and labor unions to push for compulsory social insurance, which helped lead to workers' compensation programs.<sup>10</sup>

## How the "Blues" Began

The modern health insurance industry in the United States was spurred by the onset of the Great Depression. In 1929, the Baylor University Hospital in Dallas created a pre-paid hospitalization benefit plan for school teachers after a hospital executive discovered that unpaid bills accumulated by local educators were a large burden on hospital finances as well as on the teachers themselves.<sup>11</sup> Unlike earlier health insurance policies, subscribers were entitled to hospital care and services rather than a cash indemnity. While the plan did not cover physician bills, it did improve enrollees' ability to pay those charges.

The Baylor Plan was soon extended to other groups. Other hospitals in Dallas quickly followed suit with their own group hospitalization plans as a means of ensuring a steady revenue source in difficult economic times.<sup>12</sup> For individuals, these plans offered a way to obtain hospital care at a reasonable and predictable cost. In 1932, local hospitals in Sacramento, CA, created a joint plan for group hospitalization benefits, and in 1933, hospitals in Essex County, New Jersey, offered a similar plan. Community-based plans in St. Paul, MN, Washington, DC, and Cleveland were created soon afterwards. The Blue Cross emblem, first used by the St. Paul plan, was widely adopted by other prepaid hospital benefit plans adhering to American Hospital Association (AHA) guidelines.

The AHA's 1933 guidelines required prepaid group hospitalization plans using the Blue Cross symbol to stress the public welfare, limit benefits to hospital charges, organize as a non-profit, and run on a sound economic basis.<sup>13</sup> While many of the early group hospitalization plans were organized by community leaders, voluntary hospitals controlled Blue Cross because they provided the key resources in most cases and because they were responsible for underwriting the policies.<sup>14</sup> Through the 1930s, the number of Blue Cross plans grew and enrollments expanded. By 1937, 1 million subscribers were covered, and by 1939, 25 states had passed legislation to

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<sup>9</sup> For a discussion of insurance before the Great Depression, see David T. Beito, "'This Enormous Army': The Mutual-Aid Tradition of American Fraternal Societies Before the 20<sup>th</sup> Century," in David T. Beito, Peter Gordon, and Alexander Tabarrok, eds., *The Voluntary City* (Ann Arbor, MI: Michigan University Press, 2002).

<sup>10</sup> Crystal Eastman, *Work-Accidents and the Law* (New York: Survey Associates, 1910), available at [http://books.google.com/books/download/Work\\_accidents\\_and\\_the\\_law.pdf?id=0wAtAAAAYAAJ&output=pdf&sig=ACfU3U1rXY2JDamyzoYbhpDxNPKQ-Lr-Q&source=gbs\\_v2\\_summary\\_r&cad=0](http://books.google.com/books/download/Work_accidents_and_the_law.pdf?id=0wAtAAAAYAAJ&output=pdf&sig=ACfU3U1rXY2JDamyzoYbhpDxNPKQ-Lr-Q&source=gbs_v2_summary_r&cad=0); David Rosner and Gerald Markowitz, "The Struggle over Employee Benefits: The Role of Labor in Influencing Modern Health Policy," *Milbank Quarterly*, vol. 81, no. 1 (2003), pp. 45-73.

<sup>11</sup> Robert D. Eilers, *Regulation of Blue Cross and Blue Shield Plans* (Homewood, IL: R.D. Irwin, 1963), pp. 10-11.

<sup>12</sup> Robert Cunningham III and Robert M. Cunningham Jr., *The Blues: A History of the Blue Cross and Blue Shield System* (Dekalb, IL: Northern Illinois University Press, 1997).

<sup>13</sup> American Hospital Association, "Essentials of an Acceptable Plan for Group Hospitalization," 1933.

<sup>14</sup> Paul Starr, *The Social Transformation of American Medicine* (New York: Basic Books, 1983), pp. 296-297; Eilers, p. 12.

enable hospitalization plans. Many state laws deemed Blue Cross plans charitable community organizations that were exempted from certain insurance regulations and taxes.<sup>15</sup>

The health insurance market in the United States, according to many historians, was originally structured to avoid competition among providers.<sup>16</sup> The earliest plans tied benefits to a single sponsoring hospital; each hospital plan competed with others. Groups or individuals with the option to negotiate with specific hospitals might have been able to exert bargaining power. Hospital and professional groups, however, soon pushed for joint plans that required “free choice of physicians and hospital,” rather than plans offered by individual hospitals. Joint plans dampened incentives for local hospitals to compete on the basis of price or generosity of plan benefits. The American Hospital Association strongly favored joint plans that allowed a subscriber to obtain care from any licensed local hospital and viewed single-hospital plans as a threat to the economic stability of community hospitals. Furthermore, in 1937, the AHA required Blue Cross plans to have exclusive territories so that they would not compete against each other.<sup>17</sup>

Hospital and physician groups’ opposition to competition in health care and health insurance dovetailed with more general criticism of “destructive competition” that was widespread in the early 1930s. Some business leaders and New Deal policymakers viewed heightened competition as the cause of sharp cuts in wages, which in their view reduced consumer buying power and drove price deflation and market instability during the early years of the Great Depression.<sup>18</sup> Most economists believe measures to reduce market competition imposed during the Great Depression actually retarded economic recovery.<sup>19</sup> Competition in health insurance markets, however, raises issues that do not apply in most markets. If health insurers adopt different underwriting standards, competition can make pooling risks more difficult, an issue discussed in more detail below.

Insurance coverage of physician services lagged behind the growth of Blue Cross hospital plans due to opposition from the American Medical Association (AMA) and restrictive state laws.<sup>20</sup> In several states, however, medical societies set up prepaid service plans to preempt proposed state or federal plans, which evolved into Blue Shield plans. In most states, Blue Shield was absorbed into Blue Cross plans, although some retained separate governing boards.

Blue Cross plans accelerated their growth during World War II and extended to almost all states by 1946.<sup>21</sup> Wartime wage and price controls authorized in October 1942 excluded “reasonable”

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<sup>15</sup> Starr, p. 298.

<sup>16</sup> Rosemary Stevens, *In Sickness and In Wealth: American Hospitals in the 20<sup>th</sup> Century* (New York: Basic Books, 1989), p. 156.

<sup>17</sup> Starr, p. 297.

<sup>18</sup> Anthony J. Badger, *The New Deal: The Depression Years, 1933-1940* (New York: Hill and Wang, 1989), p. 75.

<sup>19</sup> Carl Shapiro, Deputy Assistant Attorney General for Economics, Antitrust Division, U.S. Department of Justice, “Competition Policy In Distressed Industries,” Speech delivered at ABA Antitrust Symposium: Competition as Public Policy, May 13, 2009, available at <http://www.usdoj.gov/atr/public/speeches/245857.htm>; Michael M. Weinstein, *Recovery and Redistribution under the NIRA* (Amsterdam: North-Holland, 1980); and Harold L. Cole and Lee E. Ohanian, “New Deal Policies and the Persistence of the Great Depression: A General Equilibrium Analysis,” *Journal of Political Economy*, vol. 112, no. 4 (August 2004), pp. 779-816. De Long and Summers contend that certain wage and price rigidities may help with macroeconomic stability in some situations, but admit that anticompetitive policies in the early 1930s “may have had contractionary macroeconomic effects.” J. Bradford De Long and Lawrence H. Summers, “Is Increased Price Flexibility Stabilizing?” *American Economic Review*, vol. 76, no. 5 (December 1986), pp. 1031-1044.

<sup>20</sup> Starr, pp. 306-309.

<sup>21</sup> Testimony of C. Rufus Rorem, Executive Director, Hospital Service Plan Commission, in U.S. Congress, Senate (continued...)



insurance and pension benefits.<sup>22</sup> As industries struggled to expand war production, many employers used health insurance and other fringe benefits to attract new workers. In the late 1940s, the National Labor Relations Board (NLRB) successfully sued employers that refused to bargain collectively over fringe benefits, opening the way for unions to negotiate with employers over health insurance, which further helped boost enrollments in health insurance plans.<sup>23</sup>

## **Tax Advantages For Employer-Provided Health Insurance Benefits**

Prior to 1954, no explicit statutory provision excluded health insurance benefits from federal income taxation.<sup>24</sup> The IRS, however, had indicated in 1943 that group health insurance premiums paid by a firm for its employees would be considered an “ordinary and necessary” business expense rather than as taxable income received by the employee.<sup>25</sup> A major overhaul of the Internal Revenue Code of 1954 included Section 106, which explicitly excluded employer contributions for health insurance from employees’ taxable income. The tax exclusion for employer-provided health care made health insurance cheaper than non-tax-advantaged forms of consumption for individuals. One study found that health insurance coverage following the 1954 tax changes expanded more rapidly among employees with higher incomes, who generally had marginal tax rates, which could indicate that the tax exclusion led workers to demand more extensive or generous plans.<sup>26</sup> Other factors, such as rising income levels, competition for workers, and rising medical costs, also spurred growth in employer-provided health benefits.

## **Commercial Insurers Enter**

Before World War II, many commercial insurers doubted that hospital or medical costs were an insurable risk. Insurers traditionally considered a risk insurable only if the potential losses were definite, measurable and not subject to control by the insured.<sup>27</sup> The financial risks linked to illness or injury, however, could vary depending on the judgment of medical personnel, and behavior of the insured could affect the probability of ill health in many ways. After the rapid

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Committee on Education, 79<sup>th</sup> Cong., 2<sup>nd</sup> sess., 1946, available at [http://www.sigmondpapers.org/shapers\\_pdf/shapers\\_appendix\\_k.pdf](http://www.sigmondpapers.org/shapers_pdf/shapers_appendix_k.pdf).

<sup>22</sup> Wage and price controls and the War Labor Board was authorized by the October 2, 1942, entitled “An Act to Amend the Emergency Price Control Act of 1942, to Aid in Preventing Inflation, and for Other Purposes,” (P.L. 77-729, 56 Stat. 765) enacted October 2, 1942. President Franklin Roosevelt’s Executive Order issued the following day “exclud[ed] insurance and pension benefits in a reasonable amount as determined by the Director” from wages and salaries covered by the act (Title VI).

<sup>23</sup> Two key cases were *Inland Steel Co. v. NLRB*, 170 F.2d 247 (7<sup>th</sup> Cir. 1948), cert. denied 336 US 960 (1949) over retirement and pension issues, and *W.W. Cross & Co. v. NLRB*, 174 F.2d. 875 (1<sup>st</sup> Cir. 1949) regarding insurance benefits.

<sup>24</sup> For a brief review of the history of the exclusion see CRS Report RL34767, *The Tax Exclusion for Employer-Provided Health Insurance: Policy Issues Regarding the Repeal Debate*, by Janemarie Mulvey.

<sup>25</sup> IRS Special Ruling, Letter to Mr. Russell L. Davenport, October 26, 1943, quoted in 3 CCH 1943 Fed. Tax Rep. ¶6587 (1943); IRS Ruling Letter dated August 26, 1943, P-H 1943-44 Fed. Tax Serv. ¶ 66,294, cited in “Employer Health or Accident Plans: Taxfree Protection and Proceeds,” *University of Chicago Law Review*, Vol. 21, No. 2 (Winter, 1954), pp. 277-286.

<sup>26</sup> Melissa Thomasson, “The Importance of Group Coverage: How Tax Policy Shaped U.S. Health Insurance,” *American Economic Review*, vol. 93, no. 4 (September 2003), pp. 1373-1384.

<sup>27</sup> Eilers, pp. 12-13.

spread of Blue Cross plans in the mid-1930s, however, several commercial insurers began to offer similar health coverage. By the 1950s, commercial health insurers had become potent competitors and began to cut into Blue Cross's market share in many parts of the country. The large-scale entry of commercial insurers into the health insurance market changed the competitive environment in two ways. First, Blue Cross organizations, which had been sheltered from competition by exclusive territory and free-choice-of-hospital rules, were now engaged in head-to-head competition with commercial rivals.

Second, the commercial health insurers were not bound to set premiums using the Blue Cross community rating principle, which linked premiums to average claims costs across a geographic area rather than to the claims experience of particular groups or individuals. Therefore, commercial insurers using an "experience rating" approach were able to underbid Blue Cross for firms that employed healthier-than-average individuals, which on average were cheaper to insure. The loss of healthier groups then raised average costs among remaining groups, which hampered Blue Cross organizations' ability to compete with commercial insurers on price.<sup>28</sup> Competition from commercial insurers compelled Blue Cross to adopt experience rating in the 1950s, although most Blue Cross plans continued to support efforts to broaden risk pools.<sup>29</sup> The shift toward experience rating changed the nature of competition in the health insurance market. Insurers could cut costs by shifting risks to others, by recruiting firms whose employees and their families were healthier than average, rather than finding more efficient ways of managing risks for a given pool of subscribers.

## **Introduction of Medicare and Medicaid**

By the late 1950s, health insurance benefits had become a standard part of compensation packages among most major employers.<sup>30</sup> In 1959, Congress created the Federal Employees' Health Benefit Plan (FEHBP), which provided Blue Cross and Blue Shield benefits to federal workers across the country.<sup>31</sup> During the late 1950s, hospital costs rose sharply in many parts of the United States due to new hospital construction, the increasing capital intensity of inpatient care, the replacement of flat-rate per diem reimbursement for hospitals with retrospective full-cost payment, and the spread of health insurance benefits that increased patients' ability to pay. Those cost increases led many Blue Cross affiliates to request large premium increases, which raised public concern and resistance from many state insurance regulators. These pressures, according to some historians, led Blue Cross affiliates and voluntary hospitals to push states to enact certificate of need (CON) regulations in the mid-1960s to deflect more stringent cost control measures while raising barriers to entry to newer and proprietary hospitals.<sup>32</sup>

While Blue Cross/Blue Shield and commercial insurance plans covered a large portion of employees and their dependents at the end of the 1950s, many low-income and elderly people had

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<sup>28</sup> Starr, pp. 327-328.

<sup>29</sup> Robert Cunningham III and Robert M. Cunningham Jr., *The Blues: A History of the Blue Cross and Blue Shield System* (Dekalb, IL: Northern Illinois University Press, 1997).

<sup>30</sup> Robin A. Cohen et al., "Health Insurance Coverage Trends, 1959–2007: Estimates from the National Health Interview Survey, National Health Statistics Report," No. 17, July 1, 2009, available at <http://www.cdc.gov/nchs/data/nhsr/nhsr017.pdf>.

<sup>31</sup> Federal Employees Health Benefits Act of 1959 (P.L. 86-382).

<sup>32</sup> Sallyanne Payton and Rhoda M. Powsner, "Regulation Through the Looking Glass: Hospitals, Blue Cross, and Certificate-of-Need," *Michigan Law Review*, vol. 79 (December 1980), pp. 203-277.

trouble obtaining affordable health insurance or paying for health care. Congress in the 1950s began to provide federal aid to states that chose to cover health care costs of these groups. Social Security was extended to pay providers to cover certain medical costs incurred by aged, blind, and disabled beneficiaries starting in 1950.<sup>33</sup> The Kerr-Mills Act of 1960 (P.L. 86-778), a forerunner of Medicaid, supported state programs that paid providers for health care of the “aged, blind, or permanently and totally disabled,” as well as low-income elderly individuals.<sup>34</sup> State governments, subject to certain federal requirements, retained substantial discretion over benefit levels and income limits, which were typically linked to welfare assistance programs.<sup>35</sup> By 1965, 40 states had implemented Kerr-Mills programs, and three more had authorized plans. Less than 2% of the elderly, however, were covered by Kerr-Mills programs in 1965.<sup>36</sup>

In 1965, the Johnson Administration worked with Ways and Means Committee Chairman Wilbur Mills to create the Medicare program, which provided health insurance for nearly all Americans over age 65.<sup>37</sup> Medicare combined a compulsory hospital insurance program (Part A) with a voluntary physician services plan (Part B).<sup>38</sup> While some had worried that Medicare would displace private insurers, Blue Cross organizations became fiscal intermediaries for Medicare, responsible for issuing payments to providers and other back office operations. Medicaid, created in the same 1965 act, is a means-tested program financed by federal and state funds. Each state designs and administers its own program under federal rules. Over time, Medicaid eligibility standards and federal requirements have become more complex.<sup>39</sup>

Private health insurance companies play an important role in several federal health programs. Many insurers run Medicare Advantage (Part C) and prescription drug benefit plans (Part D), and some help provide CHIP (Childrens’ Health Insurance Program, previously known as SCHIP) benefits.

## **The Rise of Managed Care**

In some parts of the country, plans combining insurance with the direct provision of health care evolved into important players in local markets despite the strong opposition of the AHA and AMA.<sup>40</sup> A health plan designed for southern California construction workers in the mid-1930s eventually became the Kaiser Health Plan. Some physicians set up group practices and clinics in

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<sup>33</sup> Social Security Amendments of 1950 (P.L. 81-831), 1956 (P.L. 84-880), 1960 (P.L. 86-778). See Wilbur J. Cohen, “Reflections on the Enactment of Medicare and Medicaid,” *Health Care Financing Review*, Annual Supplement 1985, pp. 3-11. Certain other groups, including low-income children deprived of parental support and their caretaker relatives, the elderly, the blind, and individuals with disabilities, also became eligible for Medicare benefits. In later years, Medicare benefits have been extended to other groups, such as those requiring end-stage renal dialysis.

<sup>34</sup> Judith D. Moore and David G. Smith, “Legislating Medicaid: Considering Medicaid and its Origins,” *Health Care Financing Review*, vol. 27, no. 2 (winter 2005), pp. 45-52, available at <http://www.cms.hhs.gov/HealthCareFinancingReview/downloads/05-06Winpg45.pdf>.

<sup>35</sup> U.S. Congress, House Committee on Energy and Commerce, Subcommittee on Health and the Environment, *Medicaid Source Book: Background Data and Analysis (A 1993 Update)*, committee print, 103<sup>rd</sup> Cong., 1<sup>st</sup> sess., January 1993, CP 103-A, p. 29.

<sup>36</sup> Moore and Smith, p. 47.

<sup>37</sup> Enacted as the Social Security Amendments of 1965 (P.L. 89-97).

<sup>38</sup> See CRS Report R40425, *Medicare Primer*, coordinated by Hinda Chaikind.

<sup>39</sup> For more information about Medicaid eligibility, see CRS Report R40490, *Medicaid Checklist: Considerations in Adding a Mandatory Eligibility Group*, by Chris L. Peterson, Elicia J. Herz, and Julie Stone.

<sup>40</sup> Starr, pp. 303-305.

the 1920s and 1930s.<sup>41</sup> Many health care cooperatives were formed by employers, employee groups, and the federal governments during the 1930s and 1940s.<sup>42</sup> While some of these plans prospered locally or regionally, they did not achieve national reach until the 1970s.

In 1971, President Nixon announced a program to encourage prepaid group plans that joined insurance and care functions as a way to constrain the growth of medical care costs, which had risen sharply in the years following the startup of the Medicare and Medicaid programs, and to enhance competition in the health insurance market. Advocates claimed that health maintenance organizations (HMOs), which integrate health care and health insurance functions, would have a financial motive to promote wellness and would lack incentives to overprovide care. The Health Maintenance Organization Act of 1973 (P.L. 93-222) provided new grants, loans and loan guarantees to expand the number of HMOs, which then only numbered about 30, so that 90% of the country would have access to HMOs in 10 years.<sup>43</sup>

While this ambitious goal was not reached in the 1970s, by the late 1980s policymakers and businesses began to view greater use of managed care organizations such as HMOs and similar organizations as a key strategy for controlling health care costs.<sup>44</sup> In the mid-1990s, the broader use of more restrictive forms of managed care (such as stringent gatekeeper, second medical opinion, and pre-approval requirements) sparked strong consumer resistance, which forced an industry retreat from some of those strategies.<sup>45</sup> Networks of providers, known as preferred provider organizations (PPOs), grew rapidly in the late 1980s and early 1990s. PPOs, often owned by hospital systems and other providers, typically contract with insurers or self-insured firms and offer discounted fee-for-service (FFS) rates. PPO enrollees who receive care outside of the network typically must obtain plan approval or pay more. Thus, a PPO plans provided patients with more flexibility than staff-model HMOs, which generally did not cover care provided outside of the HMO.<sup>46</sup> As various types of managed care plans such as HMOs and PPOs became widespread, more employers offered choices among competing health plans to let workers willing to pay higher premiums avoid restrictive plans.

## **Blurring Distinctions Between “Blues” and Commercial Insurers**

By the 1980s, health researchers and policymakers had begun to view the differences between Blue Cross/Blue Shield insurers, which were organized as non-profit organizations, and for-profit commercial health insurers as having narrowed.<sup>47</sup> The Internal Revenue Service regulations had regarded Blue Cross organizations as tax exempt community service organizations since their

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<sup>41</sup> Stevens, p. 155.

<sup>42</sup> Cooperatives created by the Farm Security Administration are discussed in the *Options for Congress* section below.

<sup>43</sup> See CRS Report 91-261, *Health Maintenance Organizations and Employer Group Health Plans*, by Mark Merlis (out of print, available from the author of this report).

<sup>44</sup> Jon Gabel, et al., “The Commercial Health Insurance Industry In Transition,” *Health Affairs*, vol. 6, no. 3 (fall 1987), pp. 46-60.

<sup>45</sup> M. Susan Marquis, Jeannette A. Rogowski, and José J. Escarce, “The Managed Care Backlash: Did Consumers Vote with Their Feet?” *Inquiry*, vol. 41, no. 4 (2004), pp. 376-390.

<sup>46</sup> As managed care spread in the 1990s, staff-model HMOs became much less common. Karen L. Trespacz, “Staff-Model HMOs: Don’t Blink or You’ll Miss Them,” *Managed Care*, July 1999, available at <http://www.managedcaremag.com/archives/9907/9907.staffmodel.html>.

<sup>47</sup> U.S. General Accounting Office, *Health Insurance: Comparing Blue Cross and Blue Shield Plans With Commercial Insurers*, HRD-86-110, July 11, 1986, available at <http://archive.gao.gov/d4t4/130462.pdf>.

inception in the 1930s.<sup>48</sup> The Tax Reform Act of 1986 (P.L. 99-514) removed Blue Cross/Blue Shield plans' tax exemption because Congress believed that "exempt charitable and social welfare organizations that engage in insurance activities are engaged in an activity whose nature and scope is inherently commercial rather than charitable," and that "the tax-exempt status of organizations engaged in insurance activities provided an unfair competitive advantage."<sup>49</sup> The 1986 act retained some limited tax advantages to reflect Blue Cross/Blue Shield plans' provision of community-rated health insurance, especially in the individual and small-group markets.<sup>50</sup>

In the 1990s, many health insurers struggled with rising health care costs and sharper criticism of industry practices. Blue Cross/Blue Shield of West Virginia went bankrupt and several other Blue Cross/Blue Shield affiliates faced serious financial difficulties.<sup>51</sup> In 1994, Blue Cross/Blue Shield guidelines were amended to let affiliates reorganize as for-profit insurers, leading the way for more than a dozen Blue Cross/Blue Shield affiliates to convert to for-profit status.<sup>52</sup> Other Blue Cross/Blue Shield insurers bought other insurers, merged, or restructured in other ways. At the same time, private insurers acquired HMOs and other managed care organizations. Consolidations reduced both the number of commercial and Blue Cross/Blue Shield organizations, leading to the emergence of a small number of very large insurers with strong market positions across the country.<sup>53</sup> For example, the commercial insurer Anthem acquired Blue Cross/Blue Shield affiliates located in Colorado, Connecticut, Indiana, Kentucky, Maine, Missouri, Nevada, New Hampshire, Ohio, Virginia, and Wisconsin. In 2004, Anthem bought WellPoint Inc., which had acquired Blue Cross/Blue Shield plans in California, Georgia, and New York, and now operates under the WellPoint name.<sup>54</sup> **Table 1** lists the top 30 health insurers ranked by total medical enrollment at the end of 2008. Commercial health plan enrollments for fully insured health plans in 2007 totaled 168.2 million enrollees.<sup>55</sup>

<sup>48</sup> James J. McGovern, "Federal Tax Exemption of Prepaid Health Care Plans." *The Tax Adviser*, vol. 7 (February 1976), pp. 76-81.

<sup>49</sup> U.S. Congress, Joint Committee on Taxation. "Tax Exempt Organizations Engaged in Insurance Activities." In General Explanation of the Tax Reform Act of 1986. Joint Committee Print, 100<sup>th</sup> Cong., 1<sup>st</sup> sess. Washington, DC: Government Printing Office, May 4, 1987, pp. 583-592.

<sup>50</sup> The small-group market is typically defined as covering firms with fifty or fewer employees.

<sup>51</sup> U.S. General Accounting Office, *Blue Cross and Blue Shield: Experiences of Weak Plans Underscore the Role of Effective State Oversight*, April 1994, GAO/HEHS-94-71, available at <http://archive.gao.gov/t2pbat3/151562.pdf>. A Senate staff report issued in 1992 concluded that the West Virginia Blue Cross and Blue Shield Plan failed in part because of mismanagement by senior officials, diversion of resources to non-insurance activities, conflicts of interest among the plan's board, creation of unsuccessful affiliates and subsidiaries, as well as increased health care costs. See Staff Statement, Part VII, in U.S. Congress, Senate Committee on Governmental Affairs, Permanent Subcommittee on Investigations, *Efforts to Combat Fraud and Abuse in the Insurance Industry*, 102<sup>nd</sup> Cong., 2<sup>nd</sup> sess., July 2, 29 and 30, 1992; and Robert Pear, "Money Shortage Puts Blue Cross on Shaky Ground," *New York Times*, July 20, 1992, p. A1.

<sup>52</sup> Robert Cunningham III and Robert M. Cunningham Jr., *The Blues: A History of the Blue Cross and Blue Shield System* (DeKalb, IL: Northern Illinois University Press, 1997); Christopher J. Conover, "Impact of For-Profit Conversion of Blue Cross Plans: Empirical Evidence," paper presented at the Conversion Summit, Princeton University, December 5, 2008. Regulators have blocked several other proposals to convert Blue Cross organizations to for-profit status.

<sup>53</sup> For a more complete description of market conditions in health insurance and health care, see Federal Trade Commission and U.S. Department of Justice, *Improving Health Care: A Dose of Competition*, July 2004, available at [http://www.usdoj.gov/atr/public/health\\_care/204694.pdf](http://www.usdoj.gov/atr/public/health_care/204694.pdf). Also, see notes to **Table 5**.

<sup>54</sup> For details, see Steven B. Larsen, Commissioner of the Maryland Insurance Administration, Report Regarding the Proposed Conversion of CareFirst Inc. to For-Profit Status and Acquisition by WellPoint Health Networks, Inc., March 5, 2003, available at <http://www.mdinsurance.state.md.us/sa/documents/FinalMIARepor-CareFirst3-5-03.pdf>.

<sup>55</sup> Enrollments in **Table 1** total 181 million, which includes enrollments in some public insurance plans such as Medical Advantage and certain Medicaid plans. Some individuals may obtain health coverage from more than one source.

**Table 1. Top 30 Health Insurance Companies Ranked By Total Medical Enrollment**

<b>Company</b>	<b>Total Medical Enrollment (2008)</b>
UnitedHealth Group, Inc.	32,702,445
WellPoint, Inc.	30,622,381
Aetna, Inc.	16,318,625
Health Care Service Corporation	12,218,623
CIGNA HealthCare, Inc.	9,922,135
Kaiser Permanente	8,532,951
Humana, Inc.	8,486,913
Health Net, Inc.	6,180,395
Highmark, Inc.	5,182,186
Blue Cross Blue Shield of Michigan	5,011,359
Coventry Health Care, Inc.	4,762,000
EmblemHealth, Inc.	4,035,710
Medical Mutual of Ohio	3,929,677
WellCare Group of Companies	3,537,777
Independence Blue Cross	3,480,168
Horizon Healthcare Services, Inc.	3,149,279
CareFirst, Inc.	3,044,880
Blue Cross Blue Shield of North Carolina	2,789,587
Regence Group, The	2,545,973
Blue Cross Blue Shield of Minnesota	2,483,968
Lifetime Healthcare Companies	1,797,053
Wellmark, Inc.	1,745,372
Premera, Inc.	1,720,057
AMERIGROUP Corporation, Inc.	1,549,000
Molina Healthcare, Inc.	1,313,211
Centene Corporation	1,275,829
MVP Health Care Preferred Care	931,844
CareSource, Inc.	678,654
Group Health Cooperative	566,156
University of Pittsburgh Medical Center (UPMC)	514,377

**Source:** Atlantic Information Service, *Directory of Health Plans: 2009* (Washington, DC: Atlantic Information Service, 2009).

**Notes:** Membership data represent health plan enrollments in managed care companies offering commercial and certain public-sector (government) programs. Fully funded (insured) and self-insured (administrative services only [ASO]) enrollments are both included. Enrollments are for the fourth quarter of 2008. Parent company enrollment include enrollments of regional subsidiaries. These data exclude ancillary health insurance programs such as for dental, chiropractic, and vision benefits.

In the 1990s, proponents of “consumer-directed” health care proposed measures intended to make consumers more sensitive to medical care costs. In 1996, Congress enacted legislation to create Archer Medical Savings Accounts (MSAs), which were superseded in 2003 when Congress passed legislation to allow consumers with high-deductible health insurance plans to set up Health Savings Accounts (HSAs) that allow people to pay for out-of-pocket expenses through a

tax-advantaged medical savings account.<sup>56</sup> By early 2009, HSA-qualified high-deductible plans covered an estimated 8 million consumers.<sup>57</sup>

## Description of the Health Insurance Market

Individuals and families typically buy insurance to avoid risks by paying a known premium in order to receive benefits if an adverse event were to occur during the insurance policy's term. Most individuals are willing to pay an insurer to assume the bulk of financial risks associated with unpredictable health outcomes of uncertain severity. Health insurance is a method of pooling risks so that the financial burden of medical care is distributed among many people. Some insured people will become sick or injured and incur significant medical expenses. Most people, however, will remain relatively healthy, thus incurring little or no medical expenses.<sup>58</sup> While it is difficult to predict who will incur high expenses, the average medical expense among a large group of people is more predictable. Insurance pools the medical expenses of the insured, who pay for the expenses through their premiums. In essence, money is shifted from those who remain healthy to those who become sick or injured.

The health insurance market is tightly interrelated with other parts of the health care system. Consequently, many parties play a role in the health insurance market. Health insurers are intermediaries in the transaction of the provision of health care between patients and providers—health insurers are a third-party who reimburse providers on behalf of patients.<sup>59</sup> Health insurers not only reimburse providers, but also typically have some control over the number and types of services covered and negotiate contracts with providers on the payments for health services—most health insurance plans are managed care plans (HMOs, PPOs) rather than indemnity or traditional health insurance plans that provide unlimited reimbursement for a fixed premium.<sup>60</sup> Other parties involved in the health insurance market include employers (most private health insurance is obtained through an employer), federal, state and local governments, and health care providers. The federal government directly provides health insurance through Medicare. The Department of Veterans Affairs (VA) health system provides health care benefits, and military health systems provide both health insurance and health care benefits. States and the federal government share responsibility for Medicaid and private health insurance industry regulation.

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<sup>56</sup> Archer MSAs were introduced in the Health Insurance Portability and Accountability Act of 1996 (P.L. 104-191). HSAs were authorized by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA, P.L. 108-173). For details, see CRS Report RL33257, *Health Savings Accounts: Overview of Rules for 2010*, by Janemarie Mulvey.

<sup>57</sup> America's Health Insurance Plans, "January 2009 Census Shows 8 Million People Covered By HSA/High-Deductible Health Plans," May 2009, available at <http://www.ahipresearch.org/pdfs/2009hsacensus.pdf>.

<sup>58</sup> A analysis of 2002 Medical Expenditure Panel Survey data found that "[h]alf of the population spends little or nothing on health care, while 5 percent of the population spends almost half of the total amount." For details, see Mark W. Stanton, "The High Concentration of U.S. Health Care Expenditures," U.S. Department of Health and Human Services, Agency for Healthcare Research, *Research in Action*, Issue 19, June 2006, available at <http://www.ahrq.gov/research/ria19/expendria.pdf>.

<sup>59</sup> In some cases the insurer and the provider are a single entity as in the case of staff-model HMOs.

<sup>60</sup> Gary Claxton, Jon Gabel, and Bianca DiJulio, et al., "Health Benefits in 2007: Premium Increases Fall to an Eight-Year Low, While Offer Rates and Enrollment Remain Stable," *Health Affairs*, vol. 26, no. 5 (September/October 2007), pp. 1407-1416.

The health insurance market has many features that push it far from the economic benchmark of perfect competition. Perfectly competitive markets, according to economic theory, allocate goods and services efficiently if certain conditions are met. Markets allocate goods and services efficiently when the social cost of the resources (e.g., labor, buildings, machinery, raw materials) used to make the last unit sold equals the social benefit of consuming that unit.<sup>61</sup> Conditions required to ensure the efficiency of competitive markets include the following:

- many buyers and sellers—each participant is small in relation to the market and cannot affect the price through its own actions;
- neither consumption nor production generates spillover benefits or costs;
- free entry and exit from the market—new firms can open up shop and existing firms can costlessly leave the market as conditions change;
- symmetric information—all market participants know the same things so that no one has an informational advantage over others;
- no transaction costs—the buyers and sellers incur no additional cost in making the transaction, and the complexity of decisions has no effect on choices; and
- firms maximize profits and consumers maximize well-being.

Competitive markets may allocate goods inefficiently if those conditions are not met. Most of these conditions often fail to hold in the health insurance market. Departures from these conditions can hinder markets and lead to inefficient outcomes. Reforms are most likely to be effective, according to some economists, when they are tied to underlying structural causes of poor market performance.<sup>62</sup> The lack of symmetric information plays a particularly important role in the health insurance market; most consumers rely heavily on the specialized knowledge and expertise of intermediaries such as insurers, employers, labor unions, physicians, and others.

## **Intermediaries Play Key Roles in Health Care**

Quality of health care is hard to evaluate. Consequently, consumers typically set up relationships with various intermediaries in advance. This can provide benefits as well as limit consumer choice.<sup>63</sup> Health insurers (public and private) make the bulk of health care payments. As **Figure 1** shows, national health expenditures paid through federal, state and local, and private insurance as a proportion of gross domestic product (GDP) have increased since 1960, while the proportion paid by consumers out of pocket has slightly decreased. In other words, over the past 40 years consumer out-of-pocket spending in real (i.e., inflation-adjusted) terms has grown slightly more slowly than the U.S. economy, while health expenditures paid through other sources have grown faster than the U.S. economy.

How insurers design health care networks influences how consumers use health care. Consumers typically choose a primary physician who selects tests and treatments and makes referrals to

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<sup>61</sup> This is the familiar condition of supply equaling demand in a market with no third-party effects. In the absence of third-party effects, the demand curve reflects social benefits and the supply curve reflects social costs of production.

<sup>62</sup> Robin W. Boadway and David E. Wildasin, *Public Sector Economics*, Second Edition (New York: Little, Brown, 1984), pp. 1-4.

<sup>63</sup> For an explanation, see Peter Zweifel and Friedrich Breyer, *Health Economics* (New York; Oxford University Press, 1997), p. 238.



medical specialists. Employers negotiate with insurers on behalf of their workers, and labor unions negotiate with employers over health benefits on behalf of their members. Health insurers, in turn, negotiate contracts with providers and handle payments for individual services. A primary physician's admitting privileges typically determine where his patient goes for non-emergency hospital care. Patients must go through a physician to obtain most medical tests and pharmaceuticals. Health care consumers typically rely on these intermediaries instead of interacting directly with other parts of the health care system. This heavy reliance on intermediaries is a key characteristic of the current health care market.

Consumers benefit from the specialized expertise of intermediaries, such as employers, insurers, and physicians, as they navigate the health care system. Consumers also may benefit from the bargaining power of their employer or health insurer, in much the same way as they may benefit from the market power of a very large retailer (such as Walmart or Costco) when they buy ordinary consumer goods. Intermediaries may also help patients navigate the fragmented and complex structure of the U.S. health care system.<sup>64</sup> Patients may depend on physicians and health insurers to intermediate with a highly diverse array of health care providers, such as imaging centers, specialized surgery centers, public health clinics, hospice organizations, home health care providers, nursing homes, as well as other health care providers.

Using intermediaries such as health insurers protects consumers from financial risks linked to serious medical problems, but also insulates consumers from information about costs and prices for specific health care goods and services. When a third-party, such as a private insurer or a government, pays for the bulk of health care costs, consumers may demand more care and providers may wish to supply more care. Links among intermediaries and providers can also limit consumers' choices. For example, a person's job may limit her health insurance choices, and another person's choice of physician may limit choices among hospitals.

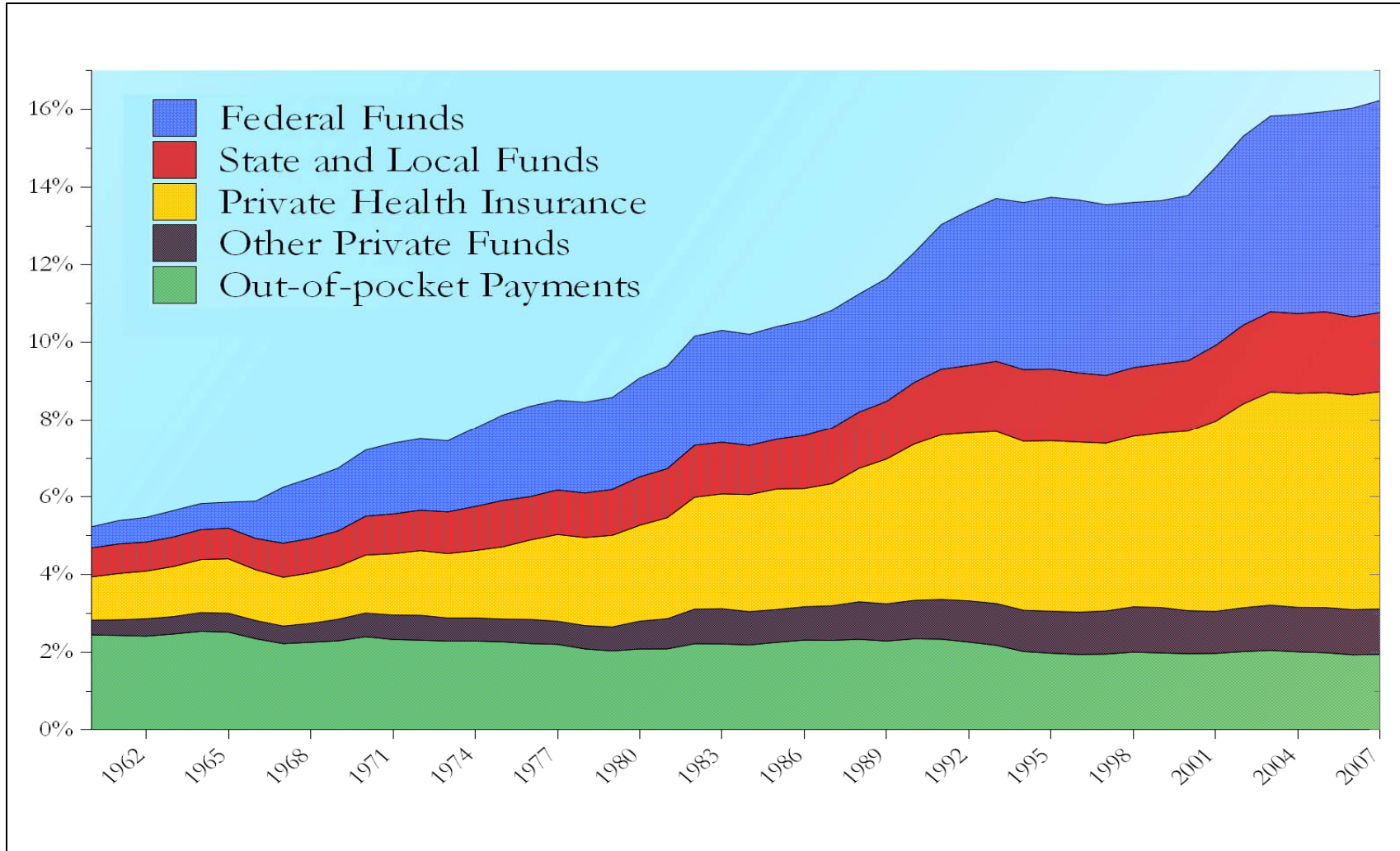
Some families and individuals lacking these intermediaries must navigate the health insurance and health care system themselves, which may be a serious challenge. People without health insurance coverage are not only vulnerable to the financial risks accompanying serious medical problems, but may also pay higher prices for care because they lack the bargaining leverage of insurers. Hospitals and physicians have charged individuals who pay their own bills far more than they charge insurance companies and public health programs.<sup>65</sup> Generous tax advantages for employer-sponsored plans do not help those who buy health insurance in the individual market. Those without a regular primary care physician may struggle to find an appropriate care setting.

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<sup>64</sup> Randall D. Cebul, "Organizational Fragmentation and Care Quality in the U.S. Healthcare System," *Journal of Economic Perspectives*, vol. 22, no. 4 (fall 2008), pp. 93-113.

<sup>65</sup> CRS Report RL34101, *Does Price Transparency Improve Market Efficiency? Implications of Empirical Evidence in Other Markets for the Health Sector*, by D. Andrew Austin and Jane G. Gravelle.

**Figure I. National Health Expenditures By Source of Payment**  
As a Percentage of GDP



**Source:** CMS, Office of the Actuary.

**Notes:** Category definitions are available at <http://www.cms.hhs.gov/NationalHealthExpendData/downloads/quickref.pdf>.

Finally, how intermediaries interact has important consequences in the health care market. For instance, employers and health insurers, which both intermediate on behalf of individuals, interact through negotiations over insurance benefits packages. Politicians can also act as intermediaries for their constituents by helping determine reimbursement rates for public insurance programs and by changing the regulatory environment facing health insurers.<sup>66</sup> The interaction of intermediaries in the health care market can improve or impede efficiency, cost control, and quality of service.

## **Demand for Health Insurance**

Demand for health insurance, according to economic theory, depends on a person's attitudes towards risk, the variability of medical expenses, the effectiveness of health care covered by insurance, income, and the level of premiums. In a simplified case, an insurance policy is characterized by the premiums charged, medical services covered, and cost sharing (deductibles, coinsurance, and copayments).<sup>67</sup> The insurance premium equals the expected benefits the insurance company will pay out, which equals the average price of medical care multiplied by the average quantity of medical care provided, plus a loading fee to cover administrative expenses and profits.<sup>68</sup> The loading fee acts as a "price" of insurance: other things equal, higher loading fees reduce demand for insurance coverage.

The average price of medical care may depend on the complexity of services, the relative bargaining power of providers and insurers, and the cost structure of the providers. The average quantity depends on consumers' demand for health care, providers' willingness to supply care at prevailing prices, and managed care controls of the insurer. The size of the load factor depends on the insurers' administrative costs, costs of capital, and the ability of insurers to pass along higher premiums to employers and consumers.

In this simple example, providers gain when medical care prices are higher and when quantities are higher, so long as prices exceed their unit costs and so long as prices do not reduce demand too much. Consumers within a given plan benefit when quantities are higher (so long as the benefits of health care exceed out-of-pocket costs and non-monetary costs such as pain and inconvenience) and when prices are lower, so long as providers are willing to supply care. Higher cost-sharing rates and stricter managed care requirements may lead to higher out-of-pocket costs, but lower premiums. Insurers gain when the load factor and cost-sharing rates rise, so long as these do not reduce demand for health insurance too much. If competitive pressure is high, so that employers and consumers can resist higher premiums, insurers will face pressure to lower load

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<sup>66</sup> For a discussion of complementary agents (intermediaries), see Zweifel and Breyer, pp. 239-257.

<sup>67</sup> Insurance plans typically have out-of-pocket limits and global payment caps, and coinsurance requirements differ for care obtained through in-network and out-of-network providers. This example ignores investment income made possible by the lag between premiums and claims payments.

<sup>68</sup> More explicitly, premiums (R) thus equal  $R=(1+L)\cdot(1-C)\cdot p_m\cdot m^*$ , where L is the load factor, C is the average cost-sharing rate (percentage of covered expenses paid out of pocket by the individual),  $p_m$  is the average price of medical care, and  $m^*$  is the average quantity of medical care of the insured. The costs of medical care and insurance in this stylized example are split as follows:

- Consumer pays out of pocket  $C\cdot p_m\cdot m^*$  in addition to the premiums
- Insurer retains  $L\cdot(1-C)\cdot p_m\cdot m^*$  (amount remaining after paying claims)
- Provider receives  $p_m\cdot m^*$ .

factor, cost-sharing rates, prices, and quantities. Factors affecting competition in the health care market are discussed below.

### Sources of Health Insurance Coverage

Employer-sponsored health insurance covers the majority of the nonelderly U.S. population (see **Table 2**). Individuals, in general, pay only a fraction of the total premiums of employer-sponsored plans, while employers pay the balance. Research has found, however, that employers generally pass their share of the financial burden onto the employees through reduced compensation.<sup>69</sup>

**Table 2. Sources of Health Insurance Coverage, 2008**

	Age Group			All Ages
	Under 19	Under 65	65+	
Population (millions)	78.7	263.7	37.8	301.5
Type of Insurance				
Employment-based	60.0%	63.3%	35.5%	59.8%
Private Nongroup	5.1%	6.3%	26.7%	8.9%
Medicare	0.8%	2.9%	93.4%	14.3%
Medicaid or Other Public	29.7%	14.9%	9.1%	14.1%
Military or Veterans' Coverage	3.0%	3.3%	7.5%	3.8%
Uninsured (percent)	10.3%	17.3%	1.7%	15.4%
Uninsured (millions)	8.1	45.7	0.6	46.3

**Source:** CRS analysis of data from the March 2009 Current Population Survey (CPS), taken from CRS Report 96-891, *Health Insurance Coverage: Characteristics of the Insured and Uninsured in 2008*, by Chris L. Peterson, Table I, which presents a more detailed breakdown of these data.

**Notes:** Percentages may total to more than 100 because people may have more than one source of coverage. Employer-based category includes group health insurance through current or former employer or union and all coverage from outside the home (published Census Bureau figures are slightly lower due to the exclusion of certain people with outside coverage). Medicaid and Other Public category includes Children's Health Insurance Program (CHIP) and other state programs for low-income individuals and excludes military and veterans' coverage.

### What People Know Differs: Information Problems in Insurance Markets

When market participants do not share the same information, so that some have information advantages over others, markets may fail to generate efficient outcomes. Insurance analysts have long focused on two basic concepts of information asymmetry: *adverse selection*, which occurs when some have risk characteristics hidden from others, and *moral hazard*, which occurs when insurance status alters behavior. Information asymmetries between a consumer and an

<sup>69</sup> See, for example, Katherine Baicker and Amitabh Chandra, "The Labor Market Effects of Rising Health Insurance Premiums," *Journal of Labor Economics*, vol. 24, no. 3 (2006), pp. 609-634; and Dana Goldman, Neeraj Sood, and Arleen Leibowitz, "Wage and Benefit Changes in Response to Rising Health Insurance Costs," *Forum for Health Economics and Policy*, vol. 8, article 3 (2005).

intermediary (principal-agent problems) can also create inefficiencies. These concepts are discussed below. Other, more complex information problems affect insurance markets as well.

### *Adverse Selection*

Differences in what buyers of insurance and insurers know is a central problem in the health insurance market. Buyers of insurance may know more about individual health risk factors than the insurance company.<sup>70</sup> Therefore, an insurer may be unable to distinguish a less healthy applicant, who derives a greater benefit from more generous insurance plans, from healthier applicants. Consequently, the insurance company could offer an insurance plan that would break even if it covered a representative sample of buyers in the market, but would bankrupt the insurer if it attracted a subset of the population with very high health care needs. This is known as adverse selection, a problem that could be especially severe in the individually purchased health insurance market. Adverse selection can force insurers to charge very high premiums, which then can drive healthier buyers out of the voluntary insurance market. Three decades of research suggest that adverse selection is quantitatively large.<sup>71</sup>

Firms typically pay a large portion of the costs of employer-sponsored health insurance plans, which economic research suggests is passed along to employees via lower wages and salaries.<sup>72</sup> Substantial tax advantages and employer cost-sharing of premiums supports high health plan participation, which allows the insurer to attract a group of individuals who are healthy enough to work and who participate in the plan for reasons other than buying health insurance. This reduces the extent of adverse selection, although it also makes employees less sensitive to health insurance costs. Firms' ability to self-insure, however, may raise other adverse selection issues.

Group plans typically charge the same premiums to individuals with differing characteristics (e.g., sex, age, and other health risk factors). This contrasts with risk-rated premiums where younger, healthier individuals are charged lower rates due to their lower expected claims. When premiums are not adjusted for individual characteristics and when consumers can opt in or out of insurance plans, risk pools can splinter, leading to an "adverse selection death spiral." If the proportion of older, sicker individuals increases in the insurance pool, the rates charged will increase in response to the higher costs (claims). Some of the younger, healthier individuals will respond by dropping coverage (either dropping health coverage altogether or moving to a less expensive plan). This could cause costs to rise further, leading to higher rates and, consequently, more younger, healthier individuals dropping their coverage in the plan. In the extreme, only older, sicker individuals will be left in the plan. Studies have documented that an adverse selection death spiral can occur when an employer offers a choice of health insurance plans.<sup>73</sup> Other researchers find that a common premium need not result in a death spiral.<sup>74</sup>

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<sup>70</sup> On the other hand, health insurers may have much more sophisticated information about average health risks for specific categories of people.

<sup>71</sup> For a literature review see David M. Cutler and Richard J. Zeckhauser, "The Anatomy of Health Insurance," in *Handbook of Health Economics*, ed. A.J. Culyer and J.P. Newhouse, vol. 1A (Amsterdam: Elsevier, 2000), pp. 563-643.

<sup>72</sup> See, for example, Katherine Baicker and Amitabh Chandra, "The Labor Market Effects of Rising Health Insurance Premiums," *Journal of Labor Economics*, vol. 24, no. 3 (2006), pp. 609-634; and Dana Goldman, Neeraj Sood, and Arleen Leibowitz, "Wage and Benefit Changes in Response to Rising Health Insurance Costs," *Forum for Health Economics and Policy*, vol. 8, article 3 (2005).

<sup>73</sup> See, for example, David M. Cutler and Sarah J. Reber, "Paying for Health Insurance: The Trade-off Between (continued...)"

The splintering of health insurance pools into narrower risk categories in the small group and individual insurance markets has raised congressional concern about the availability and affordability of coverage for individuals who lack employer-sponsored health insurance coverage and who are ineligible for public insurance programs. Individual mandates that would require more people to obtain health insurance coverage, according to proponents, could mitigate some adverse selection risks.

### *Cancellation, Renewal, and Incentives*

The insurance benefit of a policy is reduced if the insurance carrier can cancel it when adverse events occur or are anticipated. Similarly, if insurers can change conditions and premiums for a policy renewal once an adverse event occurs, which would make renewal unaffordable or unattractive for the enrollee, then insurance plans become a less effective means of spreading risks. Conversely, insurers suffer losses due to adverse selection if uninsured individuals can enroll once they anticipate an adverse event. For this reason, some group health insurance plans have limited open enrollment seasons for large group insurance and impose preexisting conditions limits on individual or small-group insurance. In the individual health insurance market, the lack of guaranteed renewal at average-risk rates can limit effective risk pooling.

When individuals can switch insurers, insurers may lack sufficient incentives to make long-term investments in an individuals' health. For example, an insurer may hesitate to cover wellness benefits that lower health costs in future years if enrollees can switch plans in coming months.

### *Moral Hazard*

Moral hazard, which occurs when insurance status changes behavior, is another problem in the health insurance market.<sup>75</sup> Moral hazard occurs if an insured individual consumes more medical services than she would have had she been uninsured. For example, having health insurance could induce someone to seek medical care for minor conditions (e.g., a sore throat), choose a high-amenity health care setting (e.g., a more hotel-like hospital), or neglect his health (e.g., by eating fatty foods). Consequently, moral hazard leads the insurer to pay providers more for an insured person's medical services than that person would have paid out of his own pocket had he not been insured.<sup>76</sup> Of course, non-monetary costs, such as the pain and inconvenience of obtaining unnecessary medical care, may help limit moral hazard among patients.

Insurers typically react to moral hazard by raising premiums to cover the costs of additional services and by limiting care, either directly (e.g., through prior approval requirements) or through cost-sharing measures such as copayments and deductibles. Research has shown that the

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(...continued)

Competition and Adverse Selection," *Quarterly Journal of Economics*, vol. 113, no. 2 (May 1998), pp. 433-466. The authors analyze the case of Harvard University's relatively generous Blue Cross/Blue Shield PPO, which was one of several plans offered in Harvard's health insurance program. Faced with a deficit in the employee benefits budget in the mid-1990s, Harvard implemented pricing reforms that raised the employee's costs of the PPO.

<sup>74</sup> See, for example, Thomas Buchmueller and John DiNardo, "Did Community Rating Induce an Adverse Selection Death Spiral? Evidence from New York, Pennsylvania, and Connecticut," *American Economic Review*, vol. 92, no. 1 (March 2002), pp. 280-294.

<sup>75</sup> Arson is perhaps the clearest example of moral hazard. Few owners are tempted to ignite an uninsured building.

<sup>76</sup> The price paid by the insured individual depends on cost-sharing through coinsurance, deductibles, and copayments.

extent of cost-sharing does have a significant impact on health care spending.<sup>77</sup> The lack of transparency in the pricing of medical services contributes to this problem—most people do not know the cost of medical services (both what the provider normally charges and what the insurance company reimburses the provider).<sup>78</sup>

### *The Principal-Agent Problem*

A patient (here, a *principal*), as noted above, typically relies on a physician (an *agent*) for care and advice. The physician, or other intermediary, might face incentives to act to further their own interests, rather than those of the patient, by providing a higher quantity or lower quality of care than would be appropriate for a patient.<sup>79</sup>

When someone uses an intermediary (agent) with special knowledge or expertise, the principal often has trouble evaluating or monitoring the quality or appropriateness of the agent's work. When the aims of the principal and agent do not fully coincide, payment and incentive systems may mitigate conflicts of interests. Professional standards and professional organizations may also help mitigate those conflicts. Fixed fees and a system of professional standards and licensing may be seen as one response to the principal-agent problem between patients and physicians.

While that arrangement may avoid some problems, it may not solve others. In fee-for-service (FFS) arrangements, physicians and other providers may face financial incentives to provide more care than would best suit the patient's interests. When insurance pays most of the costs associated with health care, providers have little financial incentive to control costs and may overprovide health care services. One study randomly selected doctors into a salary group and a fee-for-service group during a nine-month study.<sup>80</sup> The results show that doctors in the fee-for-service group scheduled more office visits than salaried doctors and almost all of the difference was due to the fee-for-service doctors seeing well patients rather than sick patients. Defensive medicine, in which physicians or other providers order tests that may reduce the probability of medical malpractice litigation but which provide limited therapeutic benefits to the patient, presents a similar problem.<sup>81</sup>

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<sup>77</sup> The RAND Health Insurance Experiment examined this issue in the 1970s with a randomized trial. See Willard G. Manning et al., "Health Insurance and the Demand for Medical Care: Evidence from a Randomized Experiment," *American Economic Review*, vol. 77, no. 3 (June 1987), pp. 251-277; Emmett B. Keeler, "Effects of Cost Sharing on Use of Medical Services and Health," *Journal of Medical Practice Management*, vol. 8 (summer 1992), pp. 317-321; and RAND, *The Health Insurance Experiment*, RAND Corporation, Research Highlights, Santa Monica, CA, 2006, available at <http://www.rand.org>.

<sup>78</sup> CRS Report RL34101, *Does Price Transparency Improve Market Efficiency? Implications of Empirical Evidence in Other Markets for the Health Sector*, by D. Andrew Austin and Jane G. Gravelle.

<sup>79</sup> For details, see Thomas G. McGuire, "Physician Agency," in *Handbook of Health Economics* (Amsterdam: Elsevier, 2000), vol. 1, pt. 1, pp. 461-536.

<sup>80</sup> Gerald B. Hickson, William A. Altemeier, and James M. Perrin, "Physician Reimbursement by Salary or Fee-for-Service: Effect on Physician Practice Behavior in a Randomized Prospective Study," *Pediatrics*, vol. 80, no. 3 (September 1987), pp. 344-350.

<sup>81</sup> Defining and measuring "defensive medicine" is hard because many procedures that may lower physicians' risk of malpractice litigation also provide at least some diagnostic or therapeutic benefit to the patient.

### ***Information Problems and the Structure of Health Care Finance***

Responses to adverse selection, moral hazard, and principal-agent problems affect the structure of the health financing system. Health insurers, as noted above, use coinsurance and pre-approval requirements to limit potential moral hazard among patients. Health insurers concerned about moral hazard and principal-agent problems among providers design incentive systems to limit overprovision of care. For example, the rapid transition to managed care in the 1990s might be seen as an attempt to control costs due to moral hazard. In addition, research and development (R&D) decisions made by medical technology and pharmaceutical firms may be indirectly guided by how health insurance coverage affects choices of providers and patients. Reforms that change the health financing system without taking into account potential moral hazards that previous structures and practices were designed to mitigate could encounter unanticipated problems.

### **Price Effects**

How price affects the demand for health insurance is an important piece of information given the extent of current tax subsidies for health insurance, proposals to change this tax treatment, and proposals to further subsidize the purchase of health insurance. Consumers' price sensitivity is usually measured in terms of price elasticity. A price elasticity is the percentage change in market demand for a good resulting from a 1% increase in its price. Many older studies (published before 1995) estimated price elasticities for health insurance that are quite large, ranging from -1.0 to -2.0; that is, a 1% increase in price would lead to a 1% to 2% reduction in the number of people buying health insurance.<sup>82</sup> This suggests that a small price reduction could lead to moderately large increases in health insurance coverage. With improved data and empirical methods, more recent studies find elasticities in the range of 0.0 to -0.1.<sup>83</sup> This research, however, applies to workers who are offered group health insurance; workers who are not offered employer-sponsored insurance (about three-quarters of the uninsured) might react differently to price changes.<sup>84</sup> One study examining the group of uninsured not offered employer-sponsored insurance estimates an elasticity in the range of -0.3 to -0.4.<sup>85</sup> Lastly, a recent study using time-series data estimates a price elasticity in the range of -0.2 to -0.3.<sup>86</sup> Overall, the recent studies estimate that a 1% increase in price would lead to a 0% to 0.4% reduction in participation in health insurance. These recent results suggest that subsidies, by themselves, would have to be quite large to increase health insurance coverage. Moreover, cost-effective targeting health

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<sup>82</sup> See Charles E. Phelps, *Health Economics, Fourth Edition* (New York: Addison-Wesley, 2009), p. 334 for a summary of the early literature estimating the price sensitivity of health insurance demand.

<sup>83</sup> See Linda J. Blumberg, Len M. Nichols, and Jessica S. Banthin, "Worker Decisions to Purchase Health Insurance," *International Journal of Health Care Finance and Economics*, vol. 1 (2001), pp. 305-325; Michael Chernen, Kevin Frick, and Catherine G. McLaughlin, "The Demand for Health Insurance Coverage by Low-Income Workers: Can Reduced Premiums Achieve Full Coverage?" *Health Services Research*, vol. 32, no. 4 (October 1997), pp. 453-470; and Jonathan Gruber and Ebonya Washington, "Subsidies to Employee Health Insurance Premiums and the Health Insurance Market," *Journal of Health Economics*, vol. 24, no. 2 (March 2005), pp. 253-276.

<sup>84</sup> Jonathan Gruber, "Covering the Uninsured in the United States," *Journal of Economic Literature*, vol. 46, no. 3 (September 2008), p. 590.

<sup>85</sup> M. Susan Marquis and Stephen H. Long, "Worker Demand for Health Insurance in the Non-Group Market," *Journal of Health Economics*, vol. 14, no. 1 (January 1995), pp. 47-63.

<sup>86</sup> Francis W. Ahking, Carmelo Giaccotto, and Rexford E. Santerre, "The Aggregate Demand for Private Health Insurance Coverage in the United States," *Journal of Risk and Insurance*, vol. 76, no. 1 (March 2009), pp. 133-157.



insurance subsidies to this group (employees not offered health insurance) is difficult, which could increase the public costs of such subsidy programs.<sup>87</sup>

## **Tax Benefits**

Health insurance is subsidized through the tax system in several ways. First, workers pay no income or payroll tax on the portion of the health insurance premium paid by the employer on behalf of covered workers. The Joint Committee on Taxation (JCT) estimates the federal government forgoes about \$230 billion annually in tax revenue because of this exclusion.<sup>88</sup> Second, the self-employed may deduct the full amount paid for health insurance and long-term care insurance, which JCT estimated led to a revenue loss of \$4.4 billion in 2008. Third, some taxpayers may deduct their own contributions to health savings accounts, which leads to an estimated revenue loss of \$500 million in 2008.<sup>89</sup>

## **Supply of Health Insurance**

The basic tasks of insurers are to bear risks, which are pooled to reduce overall risks, and to administer plans, by paying claims, providing customer support, and negotiating with providers.

## **Risk-Sharing**

While the medical expenses of an insured group may be somewhat predictable, a group's expenses could be extraordinarily high or low. This variability, however, declines as the number of people in the insured pool increases.<sup>90</sup> Insurance risk is inversely related to group size. In other words, according to the law of large numbers, average expenses for larger and larger groups will become less and less variable—and thus less risky.<sup>91</sup> Some experts believe that a financially sound health insurer would need a minimum insurance pool size of about 25,000 policies, which would cover about 50,000 individuals, along with appropriate surplus or stabilization funds.<sup>92</sup> Even very large employer pools, such as the Federal Employee Health Benefit (FEHP) program,

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<sup>87</sup> Providing subsidies for workers that are not offered health benefits might motivate some employers to drop health coverage benefits. For details, see Jonathan Gruber, "Incremental Universalism for the United States: The States Move First?" *Journal of Economic Perspectives*, vol. 22, no. 4 (fall 2008), pp. 65–66. Maine's Dirigo Health Plan provides some subsidies for low-income workers. See Commonwealth Fund, "Expanding Health Coverage: Maine's Dirigo Health Reform Act," Innovations Note, May 2005, available at <http://www.commonwealthfund.org/Content/Innovations/State-Profiles/2004/Aug/Expanding-Health-Coverage—Maines-Dirigo-Health-Reform-Act.aspx>.

<sup>88</sup> For 2008, the estimate is \$226.2 billion of which \$132.7 billion is forgone income tax and \$93.5 billion is forgone payroll tax. See U.S. Congress, Joint Committee on Taxation, *Background Materials for Senate Committee on Finance Roundtable on Health Care Financing*, May 8, 2009, JCX-27-09.

<sup>89</sup> The two deductions for health insurance of the self-employed and health savings accounts are above-the-line deductions. Furthermore, individuals can exclude from taxable income the contributions their employer makes to their health savings account.

<sup>90</sup> See Thomas E. Getzen, *Health Economics: Fundamentals and Flow of Funds*, Second Edition (New York: John Wiley & Sons, 2004), pp. 72-73 for a discussion.

<sup>91</sup> The law of large numbers is a mathematical theorem stating that the average of a randomly drawn sample of observations will converge to the true value of the underlying probability distribution as the sample size increases under certain conditions. See Charles M. Grinstead and J. Laurie Snell, *Introduction to Probability* (Providence, RI: American Mathematical Society, 2003).

<sup>92</sup> American Academy of Actuaries, private communication, August 26, 2009.

can experience year-to-year random fluctuations in expenses. Many individual and small-group insurance pools, by contrast, are much smaller. Higher expense variability and adverse selection risks may explain, in part, why premiums in the individual and small-group market are high relative to large-group premiums.

## **Administration**

The administrative tasks of insurance companies include underwriting, processing claims, making payments to providers, and negotiating agreements with providers. The main components of this production process are people, computers, and buildings. These costs are covered by the loading fees, which are included in premiums charged by the insurance company. Insurance companies also earn a return on investments. Premiums are usually collected at the beginning of the policy period, but claims are paid throughout the policy period or afterwards. Because of this timing difference, the insurance companies hold and invest premiums until needed to pay claims. The lag between premium collection and claims payments, however, may be shorter than for some other types of insurance.

## **Types of Health Plans**

The predominant type of health insurance plan has changed dramatically over the past 25 years. Over 90% of the privately insured were covered by an indemnity or traditional “unmanaged” health insurance plan in 1980; now the share is less than 10%.<sup>93</sup> Today, most people covered by private insurance are covered by some kind of managed care plan ranging from a managed indemnity plan (e.g., PPOs, where the insurers negotiate fees with providers) to a staff HMO (the insurer and the provider are the same, and patients see physicians who are on salary). With managed care, the health insurers and the providers are vertically integrated to some extent.<sup>94</sup>

Most major health insurers offer administrative service only (ASO) support to self-insured plans, which in some ways resembles a specialized type of outsourcing. The characteristics of the ASO market differ in some important ways from more traditional health plans that combine risk-bearing and administration, which is discussed in more detail below.

## **Types of Insurance Companies**

Health insurers are a diverse group of organizations. Health insurers may be commercial insurance firms, for-profit or non-for-profit Blue Cross/Blue Shield plans, or HMO-type organizations such as Kaiser Permanente. Established health insurance companies can be either non-profit organizations or for-profit companies.

These non-profit organizations have limited tax advantages and often face less state regulation (depending on the state) than their for-profit rivals. The “Blues” (Blue Cross/Blue Shield) have been the most prominent example of non-profit health insurers, although Blue Cross/Blue Shield organizations have been allowed to convert to for-profit status since 1994. These organizations

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<sup>93</sup> David M. Cutler and Richard J. Zeckhauser, “The Anatomy of Health Insurance,” in *Handbook of Health Economics*, ed. A.J. Culyer and J.P. Newhouse, vol. 1A (Amsterdam: Elsevier, 2000), pp. 563-643.

<sup>94</sup> See Charles E. Phelps, *Health Economics, Fourth Edition* (New York: Addison-Wesley, 2009), pp. 350-352; and CRS Report RL32237, *Health Insurance: A Primer*, by Bernadette Fernandez.

were originally organized on a state or substate level, which may have prevented them from taking advantage of possible economies of scale that larger multi-state insurers can capture.<sup>95</sup> Many Blue Cross/Blue Shield plans are now part of large national insurers, such as WellPoint.

Employers that self-insure take on some or all of the functions of an insurance company, such as bearing risk and paying the claims of its employees. Self-insuring employers mostly contract with an established insurance company for administrative services. The Employee Retirement and Income Security Act of 1974 (ERISA, P.L. 93-406) provides some advantages to large multi-state firms that self-insure by preempting state regulation and establishing federal standards, which ensures that the firm’s employee benefits are subject to the same benefit law across all states. ERISA, which exempts firms from certain benefit mandates and premium taxes, also benefits firms that operate in a single state.

For-profit insurers play an increasingly prominent role in the health insurance market. Many offer a wide variety of plans tailored for different firms or market segments. These insurers have an obligation to their shareholders to maximize profits. Many operate in several states or nationwide and often offer other lines of insurance, such as life or disability coverage.

### Role of Employers

Most private health insurance is offered through employers. With employer-sponsored plans, employers may simply offer health benefit plans through an insurance company for a negotiated price and bear no insurance risk. At the other extreme, the employer may self-insure and handle the plan itself, thus bearing all of the insurance risk and the administrative burden of the plan. Often the extent of employer involvement depends on the number of employees. Research has found that 80% of large employers (500 or more employees) choose to self-insure rather than purchase coverage from a health insurer.<sup>96</sup> **Table 3** presents data on characteristics of establishments offering health insurance that have chosen to self-insure at least one health plan.

**Table 3. Percentage of Private-Sector Establishments Offering Health Insurance That Self-Insure At Least One Plan**

	Total	Fewer than 100 Employees	100-499 Employees	500 or More Employees
All Firms	34.2%	13.1%	29.2%	81.8%
Number of Locations				
1 location only	13.6%	13.3%	24.1%	38.8%
2 or more locations	63.5%	11.0%	30.3%	82.0%
Industry group **				
Agriculture, fishing, forestry	15.1%	12.1%	12.5%	71.9%
Mining and manufacturing	25.5%	9.9%	41.6%	84.8%

<sup>95</sup> The Federal Employees Health Benefits program, which provides health benefits to most federal workers, has a national Blue Cross option. Beneficiaries in that plan receive benefits from the Blue Cross affiliate where they live.

<sup>96</sup> Thomas C. Buchmueller and Alan C. Monheit, *Employer-Sponsored Health Insurance and the Promise of Health Insurance Reform*, National Bureau of Economic Research, Working Paper 14839, Cambridge, MA, April 2009.

	Total	Fewer than 100 Employees	100-499 Employees	500 or More Employees
Construction	17.5%	14.6%	39.1%	76.2%
Utilities and transportation	41.5%	9.3%	26.7%	87.3%
Wholesale trade	28.8%	9.3%	42.9%	86.1%
Financial services and real estate	46.5%	10.5%	29.7%	85.5%
Retail trade	53.7%	12.6%	31.3%	89.4%
Professional services	26.3%	14.3%	23.2%	74.6%
Other services	31.4%	14.9%	24.2%	71.2%
<b>Ownership</b>				
For profit, incorporated	37.6%	12.9%	31.7%	84.1%
For profit, unincorporated	25.0%	11.8%	28.2%	78.3%
Nonprofit	23.1%	17.2%	20.9%	50.8%
<b>Unionization</b>				
No union employees	27.9%	12.4%	27.6%	77.6%
Has union employees	72.5%	32.4%	44.3%	92.3%
<b>Low wage employees</b>				
50% or more low wage	43.0%	13.8%	25.3%	80.7%
Less than 50% low wage	31.3%	12.9%	31.1%	82.4%

**Source:** Agency for Healthcare Research and Quality, Center for Financing, Access and Cost Trends. 2008 Medical Expenditure Panel Survey-Insurance Component., available at [http://www.meps.ahrq.gov/mepsweb/data\\_stats/summ\\_tables/insr/national/series\\_1/2008/tia2a.htm](http://www.meps.ahrq.gov/mepsweb/data_stats/summ_tables/insr/national/series_1/2008/tia2a.htm)

**Notes:** See *Technical Notes* for the Insurance Component of the Medical Expenditure Panel Survey, available at [http://meps.ahrq.gov/mepsweb/survey\\_comp/ic\\_technical\\_notes.shtml](http://meps.ahrq.gov/mepsweb/survey_comp/ic_technical_notes.shtml).

Additionally, choice of insurance options also differs by firm size. Among small firms (fewer than 200 employees) offering health benefits, 86% offer only one plan to their employees. Among very large firms (5,000 or more employees), 72% offer two or more plan choices to their employees.<sup>97</sup> Research evidence suggests that plan choice is associated with higher levels of employer-sponsored health coverage and health care satisfaction.<sup>98</sup>

Health insurance premiums have increased dramatically over the past nine years. Between 1999 and 2008, the average worker contribution for employer-sponsored health insurance increased by 80% in real (inflation-adjusted) terms while the employer’s contribution increased by 83%.<sup>99</sup> Nonetheless, evidence suggests that employer’s health insurance decisions are fairly unresponsive

<sup>97</sup> Kaiser Family Foundation and Health Research and Educational Trust, *Employer Health Benefits: 2009 Annual Survey*, Kaiser Family Foundation and Health Research and Educational Trust, 2009, Exhibit 4.1, available at <http://ehbs.kff.org/pdf/2009/7936.pdf>.

<sup>98</sup> Barbara Steinberg Schone and Philip F. Cooper, “Assessing the Impact of Health Plan Choice,” *Health Affairs*, vol. 20, no. 1 (January/February 2001), pp. 267-275.

<sup>99</sup> Kaiser Family Foundation and Health Research and Educational Trust, *Employer Health Benefits: 2009 Annual Survey*, Kaiser Family Foundation and Health Research and Educational Trust, 2009, Exhibit 6.4. Inflation adjustment made using U.S. Bureau of Economic Analysis GDP price index.

to price with estimated elasticities in the range of -0.1 to -0.25.<sup>100</sup> As noted above, employer cost sharing, which covers about 75% of premiums on average, along with the large tax exemption for employer-provided health insurance, helps insulate employees from the price of health insurance.

## **Regulation of Health Insurers**

Health insurance is primarily regulated at the state level, although some federal standards apply. Regulation seeks to promote a variety of social goals including assuring the financial solvency of insurance companies, protecting consumers from insurance fraud, and ensuring promised benefits are paid. While all states require insurers to be solvent and pay claims, state regulations pertaining to health insurance access, minimum acceptable ratings, and covered benefits vary.<sup>101</sup> Large employers that self-insure are exempt from many state regulations under ERISA. State laws still apply to these firms for issues involving the “business of insurance.” Longstanding debates and litigation continue, however, over the scope of the ERISA preemption.<sup>102</sup>

Federal standards were generally set in two pieces of legislation.<sup>103</sup> The Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA, P.L. 99-272) gives workers who lost their jobs a right to pay for continued job-based coverage of their dependents and themselves under certain circumstances.<sup>104</sup> The Health Insurance Portability and Accountability Act of 1996 (HIPAA, P.L. 104-191) improved access to health insurance by restricting exclusions for pre-existing conditions and prohibiting discrimination against certain people with medical needs and limited the use of preexisting condition restrictions. HIPAA, however, does not guarantee that consumers can renew their policies at rates that reflect pool characteristics, which some contend limits the act’s effectiveness.<sup>105</sup> Moreover, while HIPAA can help ensure continuity and portability of insurance coverage when a person changes from employer-provided group insurance to individual coverage, HIPAA does not cover certain other transitions.<sup>106</sup>

## **Market Concentration Among Health Insurance**

The health insurance market, according to many researchers, is highly concentrated in much of the United States. If large health insurers in highly concentrated markets exercised market power when selling insurance, prices would be distorted and an inefficiently low level of health insurance coverage would be provided. In simple economic models, firms with market power in

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<sup>100</sup> See, for example, M. Susan Marquis and Stephen H. Long, “To Offer or Not to Offer: The Role of Price in Employers’ Health Insurance Decisions,” *Health Services Research*, vol. 36, no. 5 (October 2001), pp. 935-958.

<sup>101</sup> For a discussion of state differences see Mila Kofman and Karen Pollitz, *Health Insurance Regulation by States and the Federal Government: A Review of Current Approaches and Proposals for Change*, Health Policy Institute, Georgetown University, Washington, DC, April 2006.

<sup>102</sup> See CRS Report RL32237, *Health Insurance: A Primer*, by Bernadette Fernandez.

<sup>103</sup> See CRS Report RL33759, *Health Care and Markets*, by D. Andrew Austin for details.

<sup>104</sup> For details, see CRS Report R40142, *Health Insurance Continuation Coverage Under COBRA*, by Janet Kinzer and Meredith Peterson.

<sup>105</sup> Vip Patel and Mark V. Pauly, “Guaranteed Renewability And the Problem of Risk Variation in Individual Health Insurance Markets,” *Health Affairs* Web Exclusive, August 28, 2002, available at <http://content.healthaffairs.org/cgi/content/abstract/hlthaff.w2.280>.

<sup>106</sup> For details, see CRS Report RL31634, *The Health Insurance Portability and Accountability Act (HIPAA) of 1996: Overview and Guidance on Frequently Asked Questions*, by Hinda Chaikind et al.

product markets raise prices above and reduce output below competitive levels.<sup>107</sup> Firms that exercise market power when buying from suppliers (i.e., hiring labor and buying inputs) can lower payments and reduce output below competitive levels.<sup>108</sup> Firms' profitability depends on market interactions with both consumers and suppliers. For instance, a firm with a market position relative to its suppliers may be forced to pass along savings by strong competitive forces in the consumer market. A buyer that exercises market power to lower supplier prices below competitive levels, however, reduces economic efficiency, whether or not gains are retained by the firm or passed onto consumers.

## Measures of Market Concentration

Measures of market concentration are intended to reflect the potential for firms within a specific market to exercise market power by raising prices. Market concentration is typically measured by analyzing market shares of firms that supply a specific good or service within a particular geographic area. Factors other than market share may also affect a firm's ability to exercise market power. A firm with a strong brand, obtained through successful advertising and marketing or through a reputation for higher quality and reliability, may possess more market power than indicated by concentration measures based on market share data. Potential entry by new firms, or by firms in related markets, may constrain firms from exerting market power.

Two common measures are N-firm concentration ratios and the Hirschman-Herfindahl index (HHI), which are based on market shares of firms that sell products competing within a geographic area. An N-firm concentration ratio (CR) is the simple sum of the market shares of the top N firms. For example, a CR-3 is just the total market share of the top three firms in a market. The Hirschman-Herfindahl index is calculated by summing the squares of the percentage market share of all firms in the market. For instance, the HHI for an market with two firms with equal market shares would be  $50^2 + 50^2 = 5000$ . A market with 100 firms with equal market shares would have a HHI of  $100 \cdot 1^2 = 100$ . Thus, a higher HHI indicates a greater degree of market concentration. The HHI measure has the advantage of reflecting the market shares of all firms in the market and is commonly used in antitrust and merger analysis.

## DOJ-FTC Merger Guidelines

The U.S. Department of Justice (DOJ) first incorporated the HHI into its horizontal merger guidelines in 1982.<sup>109</sup> The guidelines included detailed requirements for defining product markets and geographic market areas. The merger guidelines have been revised several times by the Department of Justice and Federal Trade Commission since 1982, most recently in 1997.<sup>110</sup>

The merger guidelines were intended to provide a clearer indication of which corporate mergers or acquisitions the U.S. Department of Justice or Federal Trade Commission would be likely to oppose by specifying HHI thresholds. Markets with an HHI below 1,000 were deemed

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<sup>107</sup> A single seller in a market is a monopolist and a small group of firms in a market are called oligopolists.

<sup>108</sup> A single buyer in a market is a monopsonist and a small group of firms in a market are called oligopsonists.

<sup>109</sup> Horizontal mergers are those among firms that compete in the same product market.

<sup>110</sup> U.S. Department of Justice, *Merger Guidelines*, 47 *Federal Register* 28493, June 30, 1982; U.S. Department of Justice and the Federal Trade Commission, *Horizontal Merger Guidelines*, April 8, 1997, available at [http://www.usdoj.gov/atr/public/guidelines/horiz\\_book/hmg1.html](http://www.usdoj.gov/atr/public/guidelines/horiz_book/hmg1.html).

“unconcentrated,” those with an HHI between 1,000 and 1,800 were deemed “moderately concentrated,” and those with an HHI above 1,800 were deemed “highly concentrated.” The guidelines stated that mergers in unconcentrated or moderately concentrated markets were unlikely to face federal opposition unless the merger significantly raised the HHI.<sup>111</sup>

The 1982 merger guidelines reflected new research that suggested that economies of scale and economies of scope (that is, efficiencies made possible by combining related lines of business within one firm) could play important roles in shaping market structure and in serving consumers. Moreover, some industrial organization researchers argued that the success of leading firms, who might possess superior management or better technologies, could lead to high levels of market concentration, but still benefit consumers.<sup>112</sup> For these reasons, industrial organization economists note that an industry concentrated due to forces that promoted economic efficiency (e.g., a firm with a superior technology) could easily resemble an industry that was concentrated because of anticompetitive consolidation strategies. The 1982 merger guidelines and subsequent updates reflected those views and allowed a wider role for “efficiency defenses” in antitrust policy.<sup>113</sup>

Concentration measures are sensitive to how a market is defined in terms of product lines and geographic area. If a market is defined to include a broader variety of products, more firms will be counted as competing in the market, which tends to lower measured market concentration. Similarly, if the geographic area of a market is large, more firms will be included, which will tend to produce lower measures of market concentration. For example, Coca Cola, responding to a Federal Trade Commission (FTC) antitrust challenge to carbonated soft drink producers, argued that the relevant market should include all beverages, including coffee, tea, and milk, and the geographic scope of the market extended throughout the United States.<sup>114</sup> Market concentration computed using that market definition was sharply lower compared with measures that defined the relevant market as carbonated soft drinks within local metropolitan areas. Thus, defining markets by product category and by geographic area so that they reflect a reasonable set of alternatives available to consumers is crucial to obtaining a valid measure of market concentration.<sup>115</sup>

## Market Concentration Among Health Insurers

Health insurance markets in most parts of the country, according to data published by the American Medical Association (AMA) and others, are highly concentrated.<sup>116</sup> In 2007, according

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<sup>111</sup> According to the guidelines, HHI increases of 100 or more in moderately concentrated markets or 50 or more in highly concentrated markets raise significant competitive concerns, although other factors play a role.

<sup>112</sup> For instance, many economists would argue that Google acquired its dominance of internet search engines by developing superior technologies and better marketing strategies rather than through anticompetitive measures.

<sup>113</sup> For an economic analysis of the merger guidelines, see Janusz A. Ordover and Robert D. Willig, “The 1982 Department of Justice Merger Guidelines: An Economic Assessment,” *California Law Review*, vol. 71, no. 2 (March 1983), pp. 535-574.

<sup>114</sup> This view was rejected by the judge. *F.T.C. v. Coca Cola Co.*, 641 F Supp. 1128.

<sup>115</sup> David A. Hyman and William E. Kovacic, “Monopoly, Monopsony, And Market Definition: An Antitrust Perspective on Market Concentration Among Health Insurers,” *Health Affairs*, vol. 23, no. 6 (2004), pp. 25-28.

<sup>116</sup> The AMA publishes an annual report that lists a two-firm concentration ratio (CR-2) and the HHI for health insurers by metropolitan statistical areas (MSAs) across the country. The 2008 AMA report lists market concentration data for 42 states and 314 MSAs (out of 362 MSAs in the United States). Other states and MSAs were excluded due to data limitations. American Medical Association, *Competition in Health Insurance: A Comprehensive Study of U.S. Markets 2007 Update* (AMA: Chicago, 2007), available at <http://www.ama-assn.org/ama1/pub/upload/mm/368/> (continued...)

to the AMA, 295 out of 314 metropolitan statistical areas (MSAs) had HHIs over 1800 for the combined HMO and PPO market, a range that the DOJ/FTC merger guidelines deem “highly concentrated” (that is, if the AMA market and product definitions are accepted). The percentages for the HMO and PPO markets considered separately were higher. The Government Accountability Office (GAO) found that in 2004, markets for private small group health insurance coverage were highly concentrated in most states.<sup>117</sup>

The AMA market share statistics underlying the concentration measures are based on commercial health insurance data on enrollments in managed care organizations. Those enrolled in public insurance plans such as Medicare and the State Children’s Health Insurance Plan are excluded. In addition, some enrolled in self-insured employer plans are also excluded.<sup>118</sup> Because some might consider that HMO plans and PPO type plans belong to distinct market segments, the AMA report calculates concentration statistics for the HMO market, the PPO market, and the combined HMO and PPO market. If most consumers view HMO and PPO plans as substitutes competing in the same market segment, then the market will be more competitive than if the market for each type of plan were considered separately. Differences between HMO and PPO plans have blurred over the last two decades to the point that a significant minority of consumers do not know which type of plan they have.<sup>119</sup> This suggests that HMO and PPO plans no longer occupy distinct market segments.

Counting employees in fully or partially self-insured employer plans as enrollees of health insurers who administer such plans, however, could arguably overstate the effective market shares of those insurers if the market for administrative services to self-insured firms was more competitive than the standard commercial insurance market. Industry analysts note that many large employers have responded to rising premiums by shifting to self-insured plans.<sup>120</sup> The bulk of administrative service only (ASO) contracts with self-insured firms are held by large health insurers. Some evidence, discussed below, suggests that profit margins on ASO contracts are lower than on standard commercial health plans. Of course, firms with ASO contracts bear risks and some administrative costs that would be borne by insurance companies in a standard plan.

Market share data collected on the consumer side of the health insurance market might not reflect important factors that affect the potential for health insurers to exert market power on the supply side of the market. Many health care providers and health insurers are deeply involved in public health insurance programs such as Medicare Advantage (MA), Medicare drug benefit plans, the

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(...continued)

compstudy\_52006.pdf.

<sup>117</sup> U.S. Government Accountability Office, “Private Health Insurance: Number and Market Share of Carriers in the Small Group Health Insurance Market in 2004,” letter to Senator Olympia J. Snowe, GAO-06-155R, October 13, 2005.

<sup>118</sup> If a firm self-insures through an ERISA plan administered by an insurance company, or if an insurance company bears some risk, then those enrollments are probably included in the AMA market share data. Data for employees covered in employer self-insured plans administered by health insurers were checked to avoid double-counting. For additional information on ERISA, see CRS Report RS22643, *Regulation of Health Benefits Under ERISA: An Outline*, by Jennifer Staman. Enrollments in some employer self-insure plans that are self-administered or administered by a servicer that is not a health insurer may be excluded from the AMA data. Combining administrative data on coverage, on which the AMA report is based, with survey data on, such as MEPS data presented in Table 4, is probably too imprecise to impute the extent of health insurance coverage offered by self-insured plans not run by a health insurer.

<sup>119</sup> James Reschovsky, J. Lee Hargraves, Albert F. Smith, “Consumer Beliefs and Health Plan Performance: It’s Not Whether You Are in an HMO but Whether You Think You Are,” *Journal of Health Politics, Policy and Law*, vol. 27, no. 3 (June 2002).

<sup>120</sup> A.M. Best Company, *Earnings Decline, Expenses Are Up, But BCBS Results Remain Favorable*, July 28, 2008, p. 3.



State Childrens' Health Insurance Program (CHIP; formerly known as SCHIP), and Medicaid. Most hospitals derive a large share of their revenues from Medicare Part A. A few health care providers derive significant shares of their revenue from self-paying individuals. To the extent that providers and insurers can enter or leave specific market segments, concentration measures based on consumer shares in the private health insurance market may underestimate the competitiveness of the supply side.

## **Market Concentration and Market Power**

Market concentration, as noted above, might not translate into the ability to use market power to raise prices or lower output or quality for several reasons.<sup>121</sup> First, concentration measures may be computed in ways that overlook the range of alternatives available to consumers and employers. Second, potential entrants may curb incumbent firms' ability to raise prices. For instance, other types of insurers with extensive contacts with firms could potentially enter the health insurance business, and some firms may choose to offer health insurance benefits through self-insured plans. Market concentration could be overestimated in areas where employer self-insured plans not included in AMA data have significant enrollments.

Third, firms in concentrated industries might choose not to exercise what market power they may possess, perhaps because their governance and organizational structure is designed to pursue other goals. For instance, some contend that non-profit health insurers act differently than for-profit insurers and may choose not to exercise their market power.<sup>122</sup> On the other hand, others have expressed skepticism that non-profit and for-profit health care providers and insurers act in substantially different ways.<sup>123</sup>

Whether market concentration allows firms to enhance profitability by exercising market power has fueled controversy among economists and industry analysts. Many economists have pointed to strong correlations between market concentration levels and elevated profit levels across industries.<sup>124</sup> Those correlations led some economists to argue that market concentration enables firms to exercise market power through enhanced pricing power. While prices elevated above competitive levels increase firms' profitability, they reduce economic efficiency by reducing output levels below optimal levels. Others point out that other factors, such as successful innovation, could both promote economic efficiency and market concentration.

Several recent studies have examined the effects of market concentration in the health insurance market. One study found evidence that private health insurers charge higher premiums to more profitable firms, indicating that health insurers have exercised market power. Furthermore, this

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<sup>121</sup> For an overview of research examining links between market concentration and health insurance profitability, see Government Accountability Office, *Private Health Insurance: Research on Competition in the Insurance Industry*, GAO-09-864R, letter to Senator Herb Kohl, July 31, 2009, available at <http://www.gao.gov/new.items/d09864r.pdf>.

<sup>122</sup> For a systematic overview of research on differences between profit and non-profit health care organizations, see Allyson M. Pollock et al., "A Literature Review on the Structure and Performance of Not-For-Profit Health Care Organisations," Report for the National Coordinating Centre for NHS Service Delivery and Organisation R&D (NCCSDO), February 2007, chapter 3, available at <http://www.sdo.nihr.ac.uk/files/project/106-final-report.pdf>. The authors contend that much of the research on this issue is flawed.

<sup>123</sup> Jack Needleman, "The Role of Nonprofits in Health Care," *Journal of Health Politics, Policy and Law*, vol. 26 (2001), pp. 1113-1130.

<sup>124</sup> Leonard Weiss, ed., *Concentration and Price* (Cambridge, MA: MIT Press, 1990).

effect was estimated to be stronger where health insurance markets were more concentrated.<sup>125</sup> A related study estimated that the increase in health insurance market concentration between 1998 and 2006 led to a 2% average increase in inflation-adjusted premiums over that period, after controlling for many employee and employer characteristics. Moreover, the study found that increased market concentration was linked to lower job and earnings growth for physicians, but higher job and earnings growth for nurses.<sup>126</sup> That finding supports claims of some provider groups that assert many health insurers exert their market power to lower prices paid to providers below efficient levels.<sup>127</sup> The exertion of insurer market power, however, could affect various provider types in different ways. Another recent study found that hospitals in areas where health insurance markets were more concentrated provided more inpatient days of service, which the authors contend shows that concentration among health insurers enhances provider efficiency.<sup>128</sup> Finally, one health economist contends that some health insurers with a dominant market position use high physician reimbursement rates to deter entry by potential rivals.<sup>129</sup>

Many economists who studied the effects of industrial structure in the 1960s and 1970s viewed market structure as a primary determinant of firm behavior, including pricing and output policies. Firms' choices, in this view, in turn determined the performance of the industry as a whole, as reflected in market prices and aggregate output, the rate of technical progress, and the success in meeting consumer needs while minimizing production costs.<sup>130</sup> In this view, market concentration led to higher output prices and profits, as well as lower output levels and product quality.

More recently, economists who study the structure of industries and markets emphasize deeper causes of market concentration, while allowing a role for historical factors in some types of industries.<sup>131</sup> More modern theories of market competition have focused on cost structures such as economies of scale and the intensity of competition as influencing market structures. For example, industries with strong economies of scale, such as those that manage networks, will tend to be highly concentrated because larger firms can reduce costs more than smaller firms.<sup>132</sup> In other industries in which branding strategies can be effective, market structure may reflect leading firms' past strategic choices. Other economists note that regulation and legislative barriers to entry, which might also reflect policy responses structural factors such as economies of scale,

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<sup>125</sup> Leemore Dafny, "Are Health Insurance Markets Competitive?" forthcoming *American Economic Review*, available at [http://www.kellogg.northwestern.edu/faculty/dafny/personal/Documents/Working%20Papers/Dafny5\\_09.pdf](http://www.kellogg.northwestern.edu/faculty/dafny/personal/Documents/Working%20Papers/Dafny5_09.pdf).

<sup>126</sup> Leemore Dafny, Mark Duggan, Subramaniam Ramanarayanan, "Paying A Premium On Your Premium? Consolidation In The U.S. Health Insurance Industry," National Bureau of Economic Research (NBER) Working Paper 15434, October 2009, available at <http://www.nber.org/papers/w15434>.

<sup>127</sup> American Medical Association, *Competition in Health Insurance: A Comprehensive Study of U.S. Markets 2007 Update* (AMA: Chicago, 2007).

<sup>128</sup> Laurie J. Bates and Rexford E. Santerre, "Do Health Insurers Possess Monopsony Power in the Hospital Services Industry?" *International Journal of Health Care Finance and Economics*, vol. 8 (March 2008), pp. 1-11.

<sup>129</sup> Testimony of Len M. Nichols, Ph.D., Director, Health Policy Program, New America Foundation, in U.S. Congress, Senate Committee On Commerce, Science, and Transportation, "Competition In The Healthcare Marketplace," hearings, 111<sup>th</sup> Cong., 1<sup>st</sup> sess., July 16, 2009, available at [http://www.newamerica.net/files/NICHOLS\\_Commerce.pdf](http://www.newamerica.net/files/NICHOLS_Commerce.pdf).

<sup>130</sup> This view, known as the structure-conduct-performance approach, is presented in Frederic M. Scherer, and David Ross, *Industrial Market Structure and Economic Performance, Third Edition* (Boston: Houghton-Mifflin, 1990).

<sup>131</sup> John Sutton, *Sunk Costs and Market Structure* (Cambridge, MA: MIT Press, 1991).

<sup>132</sup> Networks of health care providers are not obviously similar to networks in transportation or communications. A hospital not within a network of other hospitals generates much the same benefits as a hospital within a network. By contrast, a road or telephone not connected to a network of other roads or telephones generates few, if any, benefits.

can also promote highly concentrated market structures. Factors that may affect market concentration are discussed in more detail in the following section.

## **Possible Causes of Concentration in the Health Insurance Market**

The causes of market concentration in the health insurance market are complex, and reflect historical elements as well as forces related to the special characteristics of health insurance and health care. Historically, the original structure of Blue Cross plans was designed to avoid competition by requiring exclusive territories and barring plans linked to specific hospitals. Those requirements may have been aimed at supporting community rating policies and broadly based risk pools, which may have benefited many consumers. Regulators and policymakers at times have also made decisions that were intended to avoid splintering of risk pools, which may have tended to encourage higher levels of market concentration. As commercial insurers and managed care strategies became more prominent, market forces along with merger and acquisition strategies have helped reshape the health insurance market. Some insurers may have engineered mergers and acquisitions to enhance their market power; the success of that strategy depends on underlying factors that determine the structure of the market.

The nature of employment-based health benefits and the market structure of health care providers may strongly affect the structure of the health insurance market. In addition, state and federal regulations and tax policy have helped shape the health insurance market. Moreover, the federal government's involvement in health markets through Medicare, Medicaid, and other programs has profoundly affected U.S. health care markets, and may have important indirect effects on the private health insurance market. Federal antitrust policy has affected the market structure of many industries, but at times federal enforcement agencies have had trouble persuading courts to apply antitrust remedies to health care and health insurance markets.<sup>133</sup>

The following sections discuss possible causes of market concentration. Determining which factors have been most important in promoting market concentration among health insurance markets may be difficult, but such analysis is critical to the assessment of the likely consequences of proposed reforms of the health insurance industry.

### **The Spread of Managed Care**

During the 1980s and 1990s, as noted above, the spread of managed care transformed the American health care system. Rising health care costs put pressure on insurers to find ways to control the growth of premiums by limiting utilization or by holding down medical costs. Many traditional insurers, according to some analysts, had difficulty implementing managed care techniques successfully. Not all insurers were able to balance the demands of managing care, maintaining consumer satisfaction, and responding to changing market conditions. This led some insurers to acquire or merge with existing health maintenance organizations or similar types of organizations as a way to gain the management capability to run managed care health plans.<sup>134</sup> While the spread of managed care might help explain increases in market concentration in the

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<sup>133</sup> Martin Gaynor, "Why Don't Courts Treat Hospitals Like Tanks for Liquefied Gases? Some Reflections on Health Care Antitrust Enforcement," *Journal of Health Politics, Policy, and Law*, vol. 31, no. 3 (June 2006), pp. 497-510.

<sup>134</sup> Paul B. Ginsburg, "Competition In Health Care: Its Evolution Over The Past Decade," *Health Affairs*, vol. 24, no. 6 (2005), pp. 1512-1522.

1990s, it is less clear that it can explain changes in market structure once managed care strategies become more widespread and standardized.

## **Countervailing Power**

High levels of market concentration among health insurers may be a response to the market power of hospitals and other health care providers. Both hospitals and insurers may want to acquire “countervailing power” to enhance their bargaining strength.<sup>135</sup> In many geographic areas, market concentration among hospitals has steadily increased over the past few decades. Many hospitals banded together to create exclusive networks of providers, in part to increase in part bargaining power in negotiations with insurers.<sup>136</sup> Some hospitals viewed the hospital chain Columbia/HCA, which had expanded its networks rapidly in the early 1990s and had used aggressive business practices, both as a model and a potential competitive threat to independent hospitals.<sup>137</sup> Moreover, the introduction of Medicare’s inpatient prospective payment system (IPPS) and the adoption of similar systems by private insurers in the early 1990s reduced average hospital lengths of stays and occupancy rates. Some hospitals viewed mergers as an easier way to eliminate excess capacity compared with other strategies. Some physicians also formed groups, which may have been, in part, motivated by the desire to enhance bargaining power in negotiations with payors.<sup>138</sup>

Increasing market concentration or strategic coordination among providers and insurers may create distortions that can lead to the misallocation of resources and suboptimal health access or availability.<sup>139</sup> While both insurers or providers may employ market strategies to build up countervailing power in response to increasing concentration on the opposite side of the market, many economists believe those measures weaken market competition and are likely to reduce consumer well-being and possibly reduce the availability of certain services.<sup>140</sup>

## **Economies of Scale**

Economies of scale play an important role in many industries. If larger firms can produce more cheaply than smaller rivals, then markets will be composed of a smaller number of large firms. In

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<sup>135</sup> J. Kenneth Galbraith introduced the term “countervailing power” to describe the use of one large organization to check the power of another. As noted above, consumers use the bargaining power of large retailers to counteract the power of large suppliers. J. Kenneth Galbraith, *American Capitalism: The Concept of Countervailing Power* (Boston: Houghton Mifflin, 1952).

<sup>136</sup> Boston Globe, “A Healthcare System Badly Out of Balance: Call It the ‘Partners Effect,’” November 16, 2008, available at [http://www.boston.com/news/local/articles/2008/11/16/a\\_healthcare\\_system\\_badly\\_out\\_of\\_balance/](http://www.boston.com/news/local/articles/2008/11/16/a_healthcare_system_badly_out_of_balance/).

<sup>137</sup> Robert Kuttner, “Columbia/HCA and the Resurgence of the For-Profit Hospital Business,” *New England Journal of Medicine*, vol. 335, no. 5 (Aug 1, 1996), p. 362 and no. 6 (August 8, 1996), p. 446-453. Columbia/HCA was subject to several major fraud lawsuits and investigations. For details, see U.S. Department of Justice, Largest Health Care Fraud Case In U.S. History Settled: HCA Investigation Nets Record Total of \$1.7 Billion,” Press release #03-386, June 26, 2003, available at [http://www.justice.gov/opa/pr/2003/June/03\\_civ\\_386.htm](http://www.justice.gov/opa/pr/2003/June/03_civ_386.htm).

<sup>138</sup> U.S. Department of Justice and Federal Trade Commission, *Improving Health Care: A Dose of Competition*, July 2004, p. 14. The report concluded that “countervailing power should not be considered an effective response to disparities in bargaining power between payors and providers. (p. 27)

<sup>139</sup> Martin Gaynor, “Why Don’t Courts Treat Hospitals Like Tanks for Liquefied Gases? Some Reflections on Health Care Antitrust Enforcement,” *Journal of Health Politics, Policy and Law*, 2006, vol. 31, no. 3, pp. 497-510.

<sup>140</sup> See Kuttner (1996); and Joyce Gelb and Colleen J. Shogan, “Community Activism in the USA: Catholic Hospital Mergers and Reproductive Access,” *Social Movement Studies*, vol. 4 no. 3 (December 2005), pp. 209-229.

health insurance, economies of scale could be captured in claims processing, building compliance regimes, designing software systems, or negotiating provider networks. While larger employer groups are cheaper to administer than smaller ones, there is little relation between the size of major insurers and administrative costs, according to some industry analysts.<sup>141</sup> This suggests that the largest health insurers do not enjoy substantial scale economies unavailable to their smaller rivals and that economies of scale in administrative functions plays little role in explaining market concentration among health insurers. As noted above, some experts believe that a financially sound insurer would need a risk pool with about 25,000 policies covering about 50,000 people. Actuarial gains due to risk sharing across wider coverage pools may taper off above that point.

If indeed the health insurance industry lacks of economies of scale above a certain minimum point, then a public option might not achieve administrative cost efficiencies by simply being larger. It also suggests that efficiency losses would be small if incumbent firms were forced to contract the scale of their operations.

Some economists and financial analysts believe that in some industries that lack scale economies (above some minimal level), firms may seek to grow, not because they can become more efficient or more profitable, but because senior managers may obtain more benefits by leading a larger firm. According to this view, weak corporate governance, that prevents shareholders from focusing management attention on profits rather than perquisites, may motivate corporate growth.

## **Marketing and Brand Management**

The ability of firms to use marketing strategies to heighten customer loyalty can affect market structure and market concentration if the creation of strong brand identities hinders entry of potential rivals or changes the nature of competition with existing rivals.<sup>142</sup> For instance, the Blue Cross emblem has proved a potent marketing tool in the health insurance market. Marketing plays a larger role in the health insurance market and may complicate or retard the entry of new firms. Advertising and other marketing strategies can also provide potential consumers with information to help them choose among insurers. Where employees have had expanded choices among health plans, insurers have stepped up marketing efforts.

Health insurers spend considerable sums on marketing. According to one estimate, commercial health plans spent 4.6% of total premium revenues on marketing in 2007.<sup>143</sup> By contrast, marketing expenses for employers' self-insured plans administered by commercial insurers (administration services only [ASO] plans) were only 1.0% of total premium income in 2007. Marketing directed towards employers' human resources departments, who help select plans or design self-insured plans, may be more focused and therefore cheaper than marketing aimed at individuals.

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<sup>141</sup> Douglas B. Sherlock and Christopher de Garay, "Administrative Expenses of Health Plans, and for the Small Groups and Individual Markets," presentation to CRS staff, April 2009.

<sup>142</sup> John Sutton, *Sunk Costs and Market Structure* (Cambridge, MA: MIT Press, 1991).

<sup>143</sup> Sherlock and de Garay, 2009.

## **Competitive Environment**

The nature of competition in the health insurance market may also affect market structure. Because most nonelderly Americans obtain health insurance coverage through their employers, insurers must compete for the business of both employers and employees.

Some aspects of health insurance promote competition. Many, but not all, employers allow workers to choose among different insurers. Those buying coverage on the individual market can use websites such as eHealthInsurance.com to compare plans. Consumers generally must decide which insurer to choose well in advance of the need to use health care. Many insurers provide detailed information about policies and procedures. On the other hand, even detailed plan brochures may omit important details, and comparing competing plans can be difficult even for sophisticated health care consumers.

Other aspects of health insurance can reduce the sharpness of competition. Employers are typically reluctant to switch insurers, which could require a major overhaul of human resources department procedures and a reorientation of employees.<sup>144</sup> Health insurance policies are often difficult to compare, and information on some important aspects of policies, such as promptness and fairness of claim handling, prompt and convenient access to plan representatives, and willingness to approve certain medical or surgical procedures, are often unavailable.

Some researchers have found underwriting cycles in some health insurance markets, suggesting that at times health insurers have engaged in aggressive price competition. Underwriting cycles are said to occur when insurers compete to gain market share by offering attractive premiums and then when investment or premium income threatens to fall short of claim costs, raise premiums. Some health insurance executives in 2004 said that better cost monitoring techniques and market consolidation would let health insurers link medical cost increases and premium growth more closely, making sharp price competition and large swings in premiums less likely in the future.<sup>145</sup>

## **Health Insurance Company Profitability**

Many have expressed concern about the rapid growth of health insurance premiums during the past half century. Rising premiums are linked to the growth of medical and other health care costs, which now make up about four-fifths of health insurance premium income. Many economists believe the extent of health insurance coverage has encouraged providers to increase the quantity of health care services, and over the longer term has led to higher prices for health care.<sup>146</sup> The portion of premiums not paid out as claims, often called the loading costs, includes administrative costs, taxes, and profits. Administrative costs include employee salaries, business overhead, marketing expenses, and other expenditures necessary to running an insurance firm. The rest of this section discusses trends in health insurance companies' profitability.

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<sup>144</sup> Randall Cebul et al., "Employer-Based Insurance Markets and Investments in Health," Case Western Reserve University Working Paper, July 2007, available at [http://wsomfaculty.case.edu/rebitzer/Employer-Based%20Insurance%20Markets%20and%20Investments%20in%20Health\\_02.pdf](http://wsomfaculty.case.edu/rebitzer/Employer-Based%20Insurance%20Markets%20and%20Investments%20in%20Health_02.pdf).

<sup>145</sup> Joy M. Grossman and Paul B. Ginsburg, "As The Health Insurance Underwriting Cycle Turns: What Next?" *Health Affairs*, vol. 23, no. 6 (2004), pp. 91-102.

<sup>146</sup> Amy Finkelstein, "The Aggregate Effects of Health Insurance: Evidence from the Introduction of Medicare," *Quarterly Journal of Economics*, vol. 122, no. 1 (2007).

Evaluating the profitability of health insurers is complicated because insurers earn part of their profits from the difference between total premiums and total claims paid, and another part of their profits from the “float,” that is, the lag between the payment of premiums and the payment of claims. Because claims lag premium payments, insurance companies can invest funds gathered from premiums until the claims are paid, thus allowing the insurer to collect investment income. This lag is generally shorter for health insurers than for many other lines of insurance. Some insurers suffered sharp declines in investment income in 2007 and 2008 due to lower interest rates on bonds and other fixed income securities as well as to steep declines in asset values in the wake of the economic recession. Profitability data for those years may therefore be atypical.<sup>147</sup>

Insurers typically participate in multiple segments of the health insurance market (large group, small group, individual, public insurance programs), but each segment differs in important ways. While most policies are issued through employer-provided plans, some insurers obtain a significant portion of their earnings from public programs such as Medicare Advantage, the Medicare Part D prescription drug program, and the State Children’s Health Insurance Program (CHIP). Medicare Advantage (MA) may play a particularly important role in insurers’ profitability. The Medicare Payment Advisory Commission (MedPAC) has calculated that MA plan costs are 18% higher than traditional fee-for-service (FFS) Medicare plan costs, in part because MA enrollees tend to be healthier than FFS enrollees.<sup>148</sup> Generous reimbursement policies, in turn, have helped encourage insurers to grow MA enrollments.

Some research has found that high market concentration in health insurance markets tends to accelerate increases in premiums on the consumer side, although one study found that HMO merger did not tend to higher premium growth rates.<sup>149</sup> Another study failed to find evidence that higher HMO market concentration reduced physician reimbursement rates, although a different study found an association between HMO concentration rates and lower hospital reimbursement rates.<sup>150</sup> Some economists believe that more empirical research is needed to explore links between health insurance market concentration and economic outcomes.

## **Financial Results and Ratios**

Insurance companies typically report financial data that include widely used measures of profitability such as net income, the medical loss ratio, return on revenues, and return on equity. Typically, analysts rely on several sources of financial data and various financial ratios to assess the profitability of a firm or industry.

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<sup>147</sup> A.M. Best Company, Inc., *Earnings Decline, Expenses are Up, But BCBS Results Remain Favorable*, Special Report, July 28, 2008; *Multiple Issues Adversely Impact Health Care Results for 2008*, Special Report, May 4, 2009. According to the latter report, net income for the managed care industry fell by 36.5% year over year, as underwriting income fell 22.5% and investment income fell by almost 60%.

<sup>148</sup> Medicare Payment Advisory Commission, *A Data Book: Healthcare Spending and the Medicare Program*, June 2009, Table 10-7; U.S. Government Accountability Office, *Medicare Advantage: Increased Spending Relative to Medicare Fee-for-Service May Not Always Reduce Beneficiary Out-of-Pocket Costs*, February 2008, GAO-08-359.

<sup>149</sup> For a literature review of research on the effects of market concentration in the health insurance market, see U.S. Government Accountability Office, *Private Health Insurance: Research on Competition in the Insurance Industry*, letter to Sen. Herb Kohl, July 31, 2009, GAO-09-864, available at <http://www.gao.gov/new.items/d09864r.pdf>.

<sup>150</sup> *Ibid.*, pp. 3-4.

Financial data for the health insurance industry can be sensitive to firms' accounting and financial reporting—accounting in the insurance industry can be complex because of the nature of the business. Insurance companies take in premiums from customers when a policy is issued and at some later time may pay claims on that policy. Insurers will make a profit if total premiums and investment income exceed total claims and operating expenses. In addition, because of the lag between the collection of a premium and the payment of a claim, insurers can invest funds in stocks, bonds, or direct investments that yield earnings.

Insurers typically keep three sets of books, so financial data reported for one purpose may differ from data reported for a different purpose. First, insurers use statutory accounting practices to compile reports to state regulators who monitor solvency of insurance companies or subsidiaries that write policies. Statutory accounting standards are issued by the National Association of Insurance Commissioners (NAIC). Second, insurers use generally accepted accounting principles (GAAP) to present financial data for investors in documents such as 10-Ks filed with the Securities and Exchange Commission (SEC). Third, insurers also keep a separate book for tax accounting, which is governed by state and federal tax rules. What insurers report as net income, a common measure of profitability, can depend on which accounting standards are used as well as accounting and actuarial judgments regarding investment cash flows and insurance reserves, although these are generally subject to state insurance regulation.<sup>151</sup> In particular, the link between data in state insurance filings for separate legal entities and financial results reported on a consolidated group basis by major insurers consisting of many subsidiaries is often unclear.

Financial indicators from three sources (Fortune magazine, the A.M. Best Company and the Sherlock Company) are discussed below. Because financial data presented below derive from different sources and may be calculated using different procedures, results may vary.

### **Comparing Profitability By Industry**

**Table 4** presents two indicators of profitability by major industrial sector. A third indicator, profits as a percentage of shareholder equity, is presented in **Table A-3**. For each industry, simple averages (means), weighted averages, and medians are presented.<sup>152</sup>

Profits as a percentage of revenues is widely used to compare performance of retail-oriented industries. This measure is sensitive to what funds pass through a firm as revenues. For example, for traditional commercial coverage, the insurer collects premiums (which are booked as revenues) and pays claims. When self-insured employers outsource health plan administration and claims processing to an insurer via an ASO plan, the insurer does not book premiums paid by workers as revenue, but instead collects administrative service fees. While the insurer may offer substantially the same services (apart from differences in risk-bearing) for both types of plans, profits as a percentage of revenues will generally be much lower for traditional commercial risk coverage than for ASO plans because those revenues include full premiums, not just administrative fees. For example, **Figure 2** shows how net margins for major health insurance companies vary depending on ASO plan enrollments as a share of total enrollments. In general, insurers with higher shares of ASO enrollments earn higher net margins.

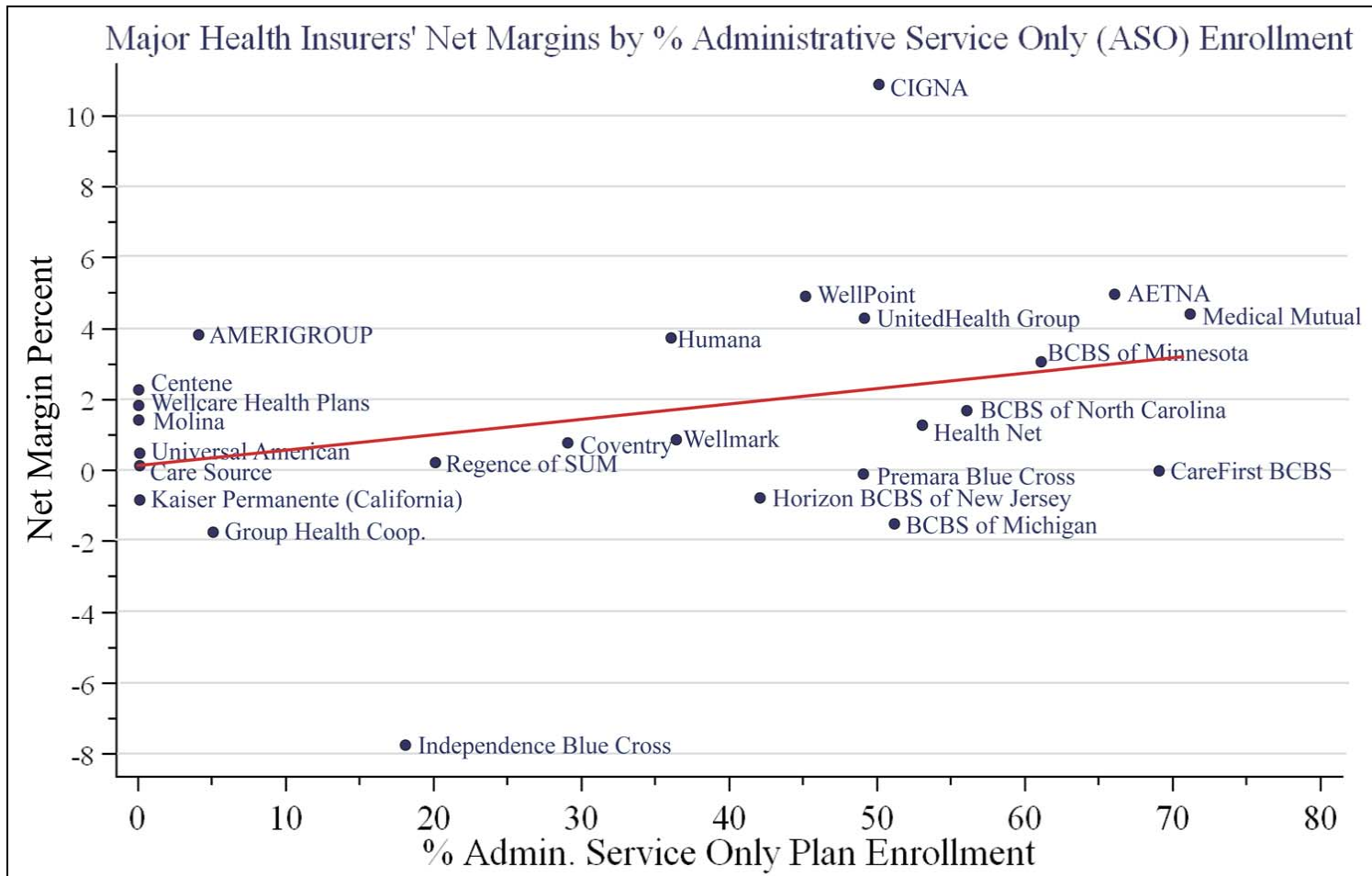
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<sup>151</sup> Douglas Sherlock, President of the Sherlock Company, letter to Ms. Janet Kinzer, CRS, dated June 25, 2009.

<sup>152</sup> Half of the firms have profits below the median and half have profits above. Weighted means are computed using industry totals for firms within the Fortune 1000.



**Figure 2. Major Health Insurers' Net Margins by Percentage ASO Enrollments**



**Source:** Atlantic Information Service, *Directory of Health Plans: 2009* (Washington, D.C., 2009). Net margin is for second quarter of 2009. Graph by CRS.

**Notes:** CIGNA data may include non-health lines of insurance. ASO plans are generally self-insured plans. Data gathered from public sources.

**Table 4. Two Profit Indicators for Fortune 1000 Firms By Industry, 2009**

Industry Group	# Firms in Fortune 1000	Profits As a Percentage of							
		Revenues				Assets			
		Median	Average	Weighted Average	Rank	Median	Average	Weighted Average	Rank
Internet Services and Retailing	7	20.9	23	22.3	1	13	13.4	14.2	1
Savings Institutions	2	20	20	19.4	2	0.9	0.9	0.9	60
<i>Pharmaceuticals</i>	21	17.3	17.7	24	3	8.2	9.9	10.2	5
Tobacco	6	15.2	15.4	19.9	4	8.1	13.8	12.2	6
<i>Medical Products and Equipment</i>	18	13.5	0.7	7.6	5	8.4	4.8	4.2	4
Computer Software	11	13.1	-0.3	13.3	6	6.2	-0.5	8.3	13
Railroads	4	12.9	12.9	12.9	7	4.4	4.2	4.3	26
Network and Other Communications Equipment	9	11.8	11.9	11.7	8	5.8	5	6.3	17
Financial Data Services	16	11.1	9	8.2	9	6.9	6	3.2	11
Securities	14	9.6	5	5.1	10	1.5	1.2	0.5	57
Toys, Sporting Goods	2	9.5	9.5	9.5	11	10.3	10.3	10.4	2
Scientific, Photographic and Control Equipment	10	9.1	6.7	6.1	12	4.7	3.9	3.4	22
Household and Personal Products	13	9	11.3	13.6	13	9.8	10.8	10.4	3
Oil and Gas Equipment, Services	14	8.3	7.4	6.9	14	5.4	4.6	4.8	18

Industry Group	# Firms in Fortune 1000	Profits As a Percentage of							
		Revenues				Assets			
		Median	Average	Weighted Average	Rank	Median	Average	Weighted Average	Rank
Food Consumer Products	20	7.5	7.2	8.1	15	7	7.3	7.7	10
Beverages	8	7.3	9.7	11.5	16	5.3	6	8.4	21
Waste Management	2	7.2	7.2	7.4	17	3.6	3.6	3.7	30
Utilities: Gas and Electric	47	7.1	7.3	8.2	18	2.6	2.7	2.8	45
Aerospace and Defense	20	6.6	6.8	5.8	19	6	7.2	5.9	14
Apparel	13	6.4	4.2	5.4	20	6.9	4.9	7.1	12
<i>Insurance: Life, Health (stock)</i>	<i>19</i>	<i>6.3</i>	<i>3.5</i>	<i>2.8</i>	<i>21</i>	<i>0.5</i>	<i>0.6</i>	<i>0.2</i>	<i>65</i>
Insurance: Property and Casualty (Mutual)	5	6	4.1	1.8	22	1.3	1.3	0.6	59
Diversified Outsourcing Services	15	6	6.2	5.9	23	3.6	4.8	4.3	33
Information Technology Services	9	5.4	7.1	11.4	24	7.1	8.5	11.1	7
Diversified Financials	15	5.3	-14.1	-24.7	25	1.4	1.8	-2.7	58
Insurance: Property and Casualty (Stock)	31	4.9	1	2.1	26	1.9	1	0.4	55
Education	4	4.8	6.7	7.1	27	3.8	6.9	6.1	28
Electronics, Electrical Equip.	14	4.7	2.4	3.8	28	4.4	2.4	3.9	25
Packaging, Containers	18	4.5	4.6	4.2	29	4.6	4.5	3.9	23
Advertising, marketing	2	4.4	4.4	5.2	30	2.7	2.7	3	39
Telecommunications	24	4.4	2	4.9	31	2.4	0	2.2	48

Industry Group	# Firms in Fortune 1000	Profits As a Percentage of							
		Revenues				Assets			
		Median	Average	Weighted Average	Rank	Median	Average	Weighted Average	Rank
Industrial Machinery	23	4.3	2.5	3.7	32	3.3	2.8	3.2	34
Food Services	11	4	5.3	10	33	7	6.6	11	9
Computer Peripherals	5	3.8	3.6	5.7	34	4.1	3.2	4.1	27
Energy	21	3.6	5.3	7.7	35	2.7	3.5	3	42
Chemicals	37	3.6	4.7	5.4	36	4.6	4.1	4.2	24
<i>Health Care: Pharmacy and Other Services</i>	14	3.4	5	3.5	37	7	5.9	6.2	8
Mining, Crude-Oil Production	20	3.1	0.4	1.7	38	1.9	1.1	0.6	54
Engineering, Construction	14	3.1	3.2	3.1	39	5.3	5.8	5.9	20
Pipelines	14	3	3.5	3.2	40	2.4	2.1	1.8	49
Computers, Office Equipment	8	3	2.1	5.5	41	3.1	1.1	5.3	36
<i>Health Care: Insurance and Managed Care</i>	15	2.9	3.1	4.4	42	3.7	4.5	5.6	29
Building Materials, Glass	7	2.8	0	-0.9	43	2.4	0.4	-0.6	50
Construction and Farm Machinery	9	2.8	1.3	2.2	44	2.1	1.8	1.5	52
Specialty Retailers	64	2.7	2.3	2.7	45	6	4.4	5.2	16
Home Equipment, Furnishings	10	2.6	2.1	2	46	2.3	2.3	1.7	51

Industry Group	# Firms in Fortune 1000	Profits As a Percentage of							
		Revenues				Assets			
		Median	Average	Weighted Average	Rank	Median	Average	Weighted Average	Rank
Semiconductors and Other Electronic Components	19	2.6	1.7	3.8	47	2.5	1	2.9	47
Mail, Package, and Freight Delivery	2	2.5	2.5	2.8	48	3.6	3.6	4	32
<i>Health Care: Medical Facilities</i>	<i>16</i>	<i>2.5</i>	<i>2.2</i>	<i>2.7</i>	<i>49</i>	<i>2.7</i>	<i>2.1</i>	<i>2.7</i>	<i>40</i>
Commercial Banks	29	2.4	-8.6	4	50	0.1	-0.5	0.3	67
Trucking, Truck Leasing	6	2.3	0.2	-1.5	51	2.9	0.6	-1.7	38
Petroleum Refining	15	2.2	1.5	4.2	52	3.1	1.3	4.9	37
Food Production	8	1.8	1	0.9	53	2.7	1.9	1.9	41
Wholesalers: Diversified	18	1.8	1.8	2.3	54	3.6	3.1	3.8	31
Entertainment	15	1.7	-2.9	0.3	55	0.8	-0.3	0.1	61
General Merchandisers	13	1.5	1.9	3.2	56	2	3.2	6.3	53
Wholesalers: Food and Grocery	7	1.5	1.3	1.9	57	5.4	5	7.1	19
Forest and Paper Products	7	1.5	-5.4	-2.8	58	2.6	-2.1	-2.1	44
<i>Wholesalers: Health Care</i>	<i>7</i>	<i>1.3</i>	<i>2.6</i>	<i>1.1</i>	<i>59</i>	<i>6</i>	<i>6</i>	<i>4.3</i>	<i>15</i>
Transportation and Logistics	4	1.1	-0.7	1.8	60	3.3	-9.2	4.4	35
Airlines	11	1	-0.2	-3	61	0.7	-0.4	-2.3	62
Food and Drug Stores	17	0.9	-0.1	0.1	62	2.6	-1.3	0.2	43

Industry Group	# Firms in Fortune 1000	Profits As a Percentage of							
		Revenues				Assets			
		Median	Average	Weighted Average	Rank	Median	Average	Weighted Average	Rank
Wholesalers: Electronics and Office Equipment	10	0.8	0.3	-0.3	63	2.5	1.1	-0.9	46
Real estate	7	0.8	-2.4	-3.3	64	0.5	-0.5	-0.7	64
Automotive Retailing, Services	11	0.8	1	0.7	65	1.7	1.4	0.8	56
Insurance: Life, Health (Mutual)	11	0.3	0.3	0.4	66	0	0.1	0	68
Publishing, Printing	13	0.3	-26.2	-15.1	67	0.2	-14	-13	66
Miscellaneous	10	0	6.3	8.1	68	0.6	2.3	4.9	63
Temporary Help	4	-0.2	-0.4	-0.3	69	-0.7	-1.6	-0.9	71
Motor Vehicles and Parts	22	-0.5	-3.4	-0.1	70	-0.6	-5.3	-0.1	70
Hotels, Casinos, Resorts	11	-1.3	-2.9	-2.5	71	-0.6	-1.2	-1	69
Metals	10	-2.2	-6.8	-6.3	72	-2.4	-10.1	-4.8	73
Transportation Equipment	4	-3.2	-5.3	-5.8	73	-1.8	-3	-3.9	72
Homebuilders	8	-21.9	-22.5	-21.7	74	-9.9	-11.6	-11.3	74

**Source:** *Fortune*, May 3, 2010, and data provided by *Fortune*. Calculations by CRS.

**Notes:** Health insurance and health care industries are emphasized for ease of comparison. For additional notes, see “The Largest U.S. Corporations,” *Fortune*, vol. 161, no. 6 (May 3, 2010), pp. F-28-29

Profits as a percentage of assets reflects an industry's profitability with its capital intensity. Profits as a percentage of equity indicate returns to stock investors. Return-on-equity ratios, unlike return-on-revenue, depends on how a firm raises its capital, and may change abruptly due to changes in corporate structures such as mergers and acquisitions. A firm that relies more on equity, rather than debt, may be less vulnerable to bankruptcy. Comparisons of profitability ratios across industries requires some caution, as each industry has a different cost structure and each faces a particular set of risks and opportunities. Industry profitability is also affected by temporary economic shocks and broader social trends. Individual firms, of course, vary from the industry averages, with some performing better on profit measures, and with others performing less well.

Neither of the two health insurance sectors (Health Care: Insurance & Managed Care; and Insurance: Life, Health [stock]) are in the top 20 industries on either of the two profitability measures for 2009 presented in **Table 4**, nor among the top 20 industries in terms of profits as percentage of shareholder value (see **Table A-3**).

### **Profitability Measures Reported by the A.M. Best Company**

The A.M. Best Company provides ratings and analysis for the insurance industry, including GAAP financial indicators for major health insurers.<sup>153</sup> Which companies A.M. Best lists varies over time due to mergers, acquisitions, and the growth of smaller firms.

**Table 5** presents medical loss ratios for major health insurers over the period 2000-2008. Two other measures of profitability the health insurance industry, return on equity and return on revenues, are presented in **Table A-1** and **Table A-2**.

The medical loss ratio, defined as total health benefits paid divided by premium income, is a commonly used, albeit rough, indicator of profitability and administrative efficiency. The proportion of premium revenues not paid through benefits is used to cover administrative costs, taxes, interest payments, and profits. Investment income, which can be much more volatile than premium income due to occasional rapid price changes in asset markets, is excluded. To industry analysts, the medical loss ratio reflects how well premiums are keeping up with increases in medical costs. To consumers, the medical loss ratio shows what proportion of premiums, on average, are returned through benefits. State insurance regulators typically monitor health insurers' medical loss ratios to ensure adequate benefits are paid out and that premiums do not rise much more quickly than claims expenses. Some financial analysts perceive that lower medical loss ratios signal profit potential. Some have proposed stricter federal requirements on medical loss ratios (see below). Medical loss ratios typically do not include data from ASO plans used by self-insured plans, which make up the bulk of enrollments for larger firms (see **Table 3**).

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<sup>153</sup> Most of these reports provide GAAP data for the previous two years. Thus, for many companies two sets of financial results are reported for the same year, which might not agree due to accounting revisions or other factors.

**Table 5. Medical Loss Ratios for Major Publicly Traded Health Insurers, 2000-2008**

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Aetna Inc.	92.1	89.8	89.8	76.6	78.3	77.4	79.9	80.4	81.5
Amerigroup Corp.	81.0	80.6	80.6	80.2	81.0	84.7	81.1	83.1	81.4
Anthem Inc.	84.7	84.5	84.5	82.4					
Centene Corp.	84.3	82.8	82.8	83.4	81.5	82.6	85.9	83.8	82.0
Cigna HealthCare Inc.	84.2	86.3	70.5	75.5	71.5	72.1	71.5	72.2	70.7
Cobalt Corp.	81.8	77.9	89.2	85.0					
Coventry Health Care Inc.	85.8	86.0	86.0	81.2	80.5	79.4	79.3	79.6	84.0
Health Net Inc.	82.8	84.4	84.4	82.6	89.3	86.5	85.0	86.6	88.4
Humana Inc.	84.5	83.3	83.3	83.5	84.1	83.2	84.0	83.0	84.5
Molina Healthcare Inc.				83.4	84.4	86.9	84.6	84.5	84.8
Mid Atlantic Medical Services Inc.	86.1	85.3	86.4	85.0					
Oxford Health Plans Inc.	77.5	78.9	78.9	79.4					
PacifiCare Health Systems Inc.	87.5	89.7	89.7	86.8	88.5				
RightCHOICE Managed Care, Inc.	81.7	80.3							
Sierra Health Services Inc.	95.4	91.0	84.8	79.2	79.5	79.1	79.9	84.2	
Trigon Healthcare, Inc.	83.6	84.0							
Triple-S Management, Corp.							87.6	87.0	88.9
UnitedHealth Group	85.4	85.3	85.3	81.4	80.6	80.0	81.2	80.6	82.0
Universal American Corp.								80.4	83.3
WellCare Health Plans Inc.				82.5	80.9	81.2	81.1	79.4	85.3
WellChoice Inc.			88.1	85.4	86.3				
WellPoint Health Networks Inc.	80.8	81.5	81.5	81.0	82.5	80.9	82.0	83.2	84.4

**Source:** A.M. Best Company, Special Reports, various years. The medical loss ratio is defined as total health benefits divided by total premium revenue.

**Notes:** Anthem Inc. acquired WellPoint in late 2004 and operates under the WellPoint name. Cobalt Corp. was acquired by WellPoint in late 2003. Mid Atlantic Medical Services, Inc. (also known as MAMSI) was acquired by UnitedHealth Corp. in February 2004. PacifiCare Health Systems Inc. was acquired by UnitedHealth on December 20, 2005. RightCHOICE Managed Care, Inc. was acquired by WellPoint on January 31, 2002. Sierra Health Services Inc. was acquired by UnitedHealth on February 25, 2008. Trigon Healthcare, Inc. merged with Anthem on July 31, 2002. Triple-S Management, Corp., the Blue Cross/Blue Shield affiliate for Puerto Rico, became a publicly traded company in 2006. As of December 28, 2005, WellChoice Inc. has operated as a subsidiary of WellPoint Inc. See source for additional notes.



Some contend that the medical loss ratio is a seriously flawed measure of administrative costs, profitability, and plan efficiency, and argue that customer satisfaction and cost-per-covered-person-per-month data on specific health insurance market segments would be more informative.<sup>154</sup> Medical loss ratios can differ by market segment. For instance, administrative costs are typically higher, and medical loss ratios are therefore generally lower, for individual plans than for large group plans. Medical loss ratios are typically higher when health insurers shift insurance risks to consumers through cost-sharing or to providers through capitation arrangements. The allocation of overhead costs, which is inherently arbitrary to some degree, will typically depend on accounting judgments, which may vary from insurer to insurer, although computation of medical loss ratios is generally constrained by some state regulators and by generally accepted accounting principles.<sup>155</sup> While many insurance companies and some large employers use those data to track health plan performance, those data are typically considered proprietary. A more stringent limit on medical loss ratios might require careful attention to how those ratios are defined.<sup>156</sup>

In the latest data (2008), medical loss ratios among major insurers range from a low of 70.7% to almost 89%. Some major commercial insurers have had significant decreases in medical expense ratios in the past decade. For example, CIGNA HealthCare's medical loss ratio, 86.3% in 2001, fell to 70.7% in 2008, according to A.M. Best reports. In general, medical loss ratios are somewhat volatile and can change dramatically from one year to the next. Such swings may be explained by aggressive pricing intended to increase market share or by unexpectedly high medical costs.

Trends in medical loss ratios may also reflect changes in insurers' administrative costs. A major component of insurers' administrative costs is linked to processing of claims and running call centers, which are both closely linked to information technology. While many other businesses saw rapid productivity advances in the 1990s due to better and cheaper information technology, some evidence suggests that productivity in the insurance industry grew less rapidly. While productivity in the finance industry (in value added terms) *grew* by 1.3% per year in the first half of the 1990s and by 4.9% in the second half, according to one estimate, productivity in the insurance industry *fell* by 1.5% in the first half of the 1990s and fell by 0.06% in the second half of that decade.<sup>157</sup> In recent years, some insurers have claimed that better information technology management has helped constrain administrative costs.<sup>158</sup> Finally, as noted above, health insurers in some market segments have significant marketing expenses. Trends in marketing costs may therefore affect medical loss ratios.

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<sup>154</sup> James C. Robinson, "Use and Abuse of the Medical Loss Ratio to Measure Health Plan Performance," *Health Affairs*, vol. 16, no. 4 (1997), pp. 176-187, available at <http://content.healthaffairs.org/cgi/reprint/16/4/176.pdf>.

<sup>155</sup> The Securities and Exchange Commission has sued Wellcare Health Plans alleging that it manipulated medical loss ratio data in order to avoid refunding the State of Florida certain Medicaid costs. For details, see U.S. SEC v. Wellcare Health Plans, U.S. District Court, Middle District of Florida, Civil Action 8:09.CV.00910-T-33EAS, available at <http://www.sec.gov/litigation/complaints/2009/comp21044.pdf>.

<sup>156</sup> American Academy of Actuaries, *Critical Issues in Health Reform: Minimum Loss Ratios*, July 2009, available at [http://www.actuary.org/pdf/health/loss\\_july09.pdf](http://www.actuary.org/pdf/health/loss_july09.pdf).

<sup>157</sup> Susanto Basu et al., "The Case of the Missing Productivity Growth: Or, Does Information Technology Explain Why Productivity Accelerated in the United States but not the United Kingdom?" Federal Reserve Bank of Chicago Working Paper 2003-08, June 2003.

<sup>158</sup> Atlantic Information Services, Inc., *Health Plan Facts, Trends and Data: 2008-2009* (Washington, DC: Atlantic Information Services, 2009), p. 25.

## **Profitability Measures Reported by the Sherlock Company**

The Sherlock Company tracks administrative expenses for health insurance companies by collecting financial and operating data from a large number of health insurance firms. These data are checked and compiled in a consistent manner. Sherlock Company estimates are widely used in the industry. The Sherlock data are not drawn by random sample; therefore, if firms not cooperating with the Sherlock Company's data collection were more profitable than average, the profitability measures would be skewed downwards.

The tables below present Sherlock Company data for 2007 and 2008. Profit margins for 2007 and 2008 in the health insurance industry may reflect substantial job losses, which reduce the number of employees covered by employer plans. Losses due to asset price declines following the turmoil in financial markets in late 2007 and 2008 have also adversely affected some insurers' profits. Thus, profitability measures for 2007 and 2008 might be atypical for the insurance industry.

Profit margins in the health insurance industry for 2007 appear to be lower than profit margins reported for other parts of the health sector, such as the pharmaceutical industry, reflecting different investment, risk, and opportunities in each industry. **Table 6** presents data for 2007 on profit margins for standard commercial plans and administrative service only (ASO) plans used by firms that self insure.<sup>159</sup> Within each category, unweighted averages (means), medians, and weighted averages are presented.<sup>160</sup> These profit margin estimates exclude investment income as well as interest expenses and many taxes. Results for 2007 presented in **Table 6** suggest that standard commercial plans were more profitable than ASO plans. When the weighted average margins are higher than the unweighted mean, it suggests that larger firms in 2007 tended to be more profitable than smaller firms.

**Table 6** includes an adjustment that helps make profit margins on standard and ASO plans more comparable. Insurers that run ASO plans charge firms fees, but the firms pay claims themselves (aside from any reinsurance provisions) out of funds collected from employees.<sup>161</sup> For example, out of every \$100 of employee health insurance funds, a hypothetical firm might pay \$90 in benefits and pay an insurance firm \$10 to administer the program. In standard plans, firms pass on premiums from employees to insurers, who then pay claims. Thus, for an ASO plan the insurance firm would receive \$10, but would get \$100 in premium income in a standard plan. Therefore, calculating ASO profit margins by using premium equivalents in the denominator puts profit margins on ASO and standard plans on a more comparable basis.

**Table 7** presents profit data for all Blue Cross/Blue Shield plans in 2008 taken from publicly reported data, such as filings with the Securities and Exchange Commission (SEC). Unlike the profit data in **Table 6** these data include investment income and may include income from other lines of insurance. The adjustment for ASO plans used for profit margins presented in **Table 6** is not included in margins reported in **Table 7**.

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<sup>159</sup> Douglas Sherlock, President of the Sherlock Company, letter to Ms. Janet Kinzer, CRS, dated June 25, 2009.

<sup>160</sup> Half of reporting firms have profits below the median and half have profits above. Weighted means are weighted by enrollments. These match means weighted by revenues to the extent that revenue per enrollee is the same for insurers.

<sup>161</sup> These payments might be routed through the insurer running the ASO plan, but are not typically booked as revenues by the insurer.

**Table 6. Profit Margins of Health Plans**

Operating Profits as a Percentage of Premium Equivalents, 2007

	Commercial Insured			Commercial ASO			Commercial Total		
	Mean	Weighted	Median	Mean	Weighted	Median	Mean	Weighted	Median
Blue Cross	0.63%	0.10%	1.95%	-0.30%	0.27%	-0.11%	0.39%	0.22%	0.59%
Independent/ Provider-Sponsored	1.87%	1.93%	1.26%	-1.09%	-1.24%	-0.18%	1.56%	1.16%	1.19%
Total	0.63%	0.37%	1.95%	-0.30%	0.17%	-0.11%	0.39%	0.32%	0.59%

**Source:** Sherlock Company, Sherlock Expense Evaluation Reports data.

**Notes:** Mean is an unweighted average. Weighted averages are weighted by enrollments. Income taxes, certain state taxes, investment income and interest expense are excluded from these calculations. Premium equivalents for administrative service only (ASO) plans are fees plus health benefits. Operating Profits include pharmacy and mental health expenses and exclude miscellaneous business taxes. Premium equivalents exclude miscellaneous business taxes. Provider-sponsored plans are owned by non-profit health systems. Independent plans are regionally based and often are closely associated with a provider network.

**Table 7. Profit Margins of Blue Cross/Blue Shield Plans, 2008**

Computed Using Publicly Reported Data

	Mean	Weighted	Median
Operating Margins	1.02%	2.84%	1.18%
Pretax Margin	1.65%	2.55%	1.67%
Margin After Taxes	1.52%	1.64%	1.24%
Federal Income Tax Rate	23.45%	35.41%	13.71%

**Source:** Sherlock Company analysis of public data (e.g., SEC, NAIC).

**Notes:** Includes data for all 39 Blue Cross/Blue Shield plans. See notes for **Table 6**.

**Table 8** shows profit margins for the six largest national commercial insurers in 2008 (Aetna, CIGNA, Coventry, Health Net, Humana and UnitedHealth), whose plans covered 73 million members. Profit margins in **Table 8** were computed in the same way as in **Table 7**. These data suggest that large commercial insurers enjoyed higher profit margins in 2008 than Blue Cross/Blue Shield plans. To the extent that the 2007 data reported in **Table 6** is similar to 2008 profit data, the profit margins reported in **Table 7** and **Table 8** suggest that investment income is a significant source of insurer’s profits.

Many insurers are active in many different segments of the health insurance market. **Table 9** shows profit margins for the individual market, the small group insurance market, and the ASO market. These markets, according to these data, were less profitable in 2008 than standard commercial plans. Health insurers on average had negative profit margins in the small group and commercial ASO markets, but had positive margins in the individual market. That the weighted mean margin for the individual market is less than the unweighted mean suggests that smaller insurers in 2007 tended to have higher profit margins in that market segment.

**Table 8. Profit Margins of National Commercial Insurers, 2008**

Computed Using Publicly Reported Data

	Mean	Weighted	Median
Operating Margins	6.01%	5.96%	5.32%
Pretax Margin	5.40%	5.90%	5.13%
Margin After Taxes	3.62%	3.81%	3.35%
Federal Income Tax Rate	35.61%	35.35%	34.75%

**Source:** Sherlock Company analysis of public data (e.g., SEC, NAIC).

**Notes:** See text and notes for **Table 6**.

**Table 9. Profit Margins By Line of Health Insurance, 2008**

Individual		
Mean	Weighted	Median
2.17%	1.04%	6.41%
Small Group		
Mean	Weighted	Median
-5.96%	-8.47%	-6.28%
Commercial ASO		
Mean	Weighted	Median
-0.30%	0.27%	-0.11%

**Source:** Sherlock Company, Sherlock Expense Evaluation Reports and publicly reported data.

**Notes:** Profit margins for Commercial ASO using data for Blue Cross/Blue Shield Commercial ASO plans (**Table 6**). Profit margins for the small group and individual markets were estimated using data from 10 plans serving policyholders in 13 states. See text and notes for **Table 6**.

## Options for Congress

In the wake of health care reform measures enacted in March 2010, congressional concern over health insurance policy is likely to persist, even if health reform takes a less central role in legislative deliberations. Congress could take several further actions to affect the behavior and structure of health insurance markets. Important policy details remain to be resolved through federal rule-making, agency actions, and possibly through further legislation. The remainder of this section discusses some possible policy responses to perceived problems in the health insurance market.

### More Aggressive Antitrust Enforcement

More aggressive antitrust enforcement is one potential response to perceived problems resulting from high levels of market concentration among health insurers. Federal agencies with antitrust enforcement responsibilities have been active in health care markets, opposing many hospital mergers and putting restrictions on some health insurance mergers. The U.S. Department of

Justice and the Federal Trade Commission issued a major report on competition, antitrust policy, and the health care sector in 2004, which urged policies to enhance competition in the health care and health insurance markets.<sup>162</sup> State governments, which generally have primary responsibility for insurance regulation, also have antitrust enforcement capabilities.<sup>163</sup> Some have argued that the McCarran-Ferguson Act, which delineates federal and state responsibilities for insurance regulation, has hindered effective antitrust enforcement. One former FTC official contends that modifying the McCarran-Ferguson Act (P.L. 79-15) and removing other impediments could strengthen federal antitrust policy in the health care market.<sup>164</sup> Congress could amend antitrust laws to facilitate stronger pro-competition policies among health insurers. On November 2, 2009, the House Judiciary Committee reported out the Health Insurance Industry Antitrust Enforcement Act (H.R. 3596), which would limit antitrust exemptions provided by the McCarran-Ferguson Act (P.L. 79-15). On February 24, 2010, the House passed the Health Insurance Industry Fair Competition Act (H.R. 4626) on a 406–19 vote, which would amend the McCarran-Ferguson Act to enable more robust antitrust enforcement. The Obama Administration supports passage of H.R. 4626, and has promised stronger antitrust action in healthcare markets.<sup>165</sup>

Strong antitrust action is preferable to allowing both health insurers and providers to build up countervailing power, according to some economists who argue that a more fully competitive market would better protect consumers.<sup>166</sup> Such antitrust remedies may be most effective in promoting economic efficiency if applied to both the health insurance market and key health care provider markets.

On the other hand, the federal government in the past has had trouble using antitrust remedies to increase the competitiveness in the health sector. The federal government lost many antitrust cases intended to promote competition among hospitals.<sup>167</sup> While federal antitrust authorities have

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<sup>162</sup> U.S. Department of Justice and Federal Trade Commission, *Improving Health Care: A Dose of Competition*, July 2004. The report recommended that (1) experiments to find ways to motivate providers to reduce costs and improve quality should continue; (2) states should remove barriers to entry for providers such as certificate of need (CON) programs; (3) governments should reconsider health care subsidies, especially indirect subsidies that may create distortions; (4) governments should not let physicians bargain collectively; (5) states should consider costs and benefits of pharmacy benefit manager regulation; and (6) governments should reconsider the use of health care mandates (i.e., requirements that insurance plans cover certain types of benefits).

<sup>163</sup> The McCarran-Ferguson Act (P.L. 79-15) delineates state and federal responsibilities for insurance regulation and exempts insurers from certain antitrust actions. The act, however, allows federal regulation of the “business of insurance,” including antitrust actions. The act also leaves some regulatory and antitrust options to the discretion of states. For a detailed discussion, see CRS Report RL33683, *Courts Narrow McCarran-Ferguson Antitrust Exemption for “Business of Insurance”: Viability of “State Action” Doctrine as an Alternative*, by Janice E. Rubin; and CRS Report R40968, *Limiting McCarran-Ferguson Act’s Antitrust Exemption for the “Business of Insurance”: Impact on Health Insurers and Issuers of Medical Malpractice Insurance*, by Janice E. Rubin and Baird Webel.

<sup>164</sup> Testimony of David Balto, Senior Fellow, Center for American Progress, in U.S. Congress, House Committee on the Judiciary, Subcommittee on Courts and Competition Policy, “Health Insurance Industry Antitrust Enforcement Act of 2009 (H.R. 3596),” hearings, 111<sup>th</sup> Cong., 1<sup>st</sup> sess., October 8, 2009, available at <http://judiciary.house.gov/hearings/pdf/Balto091008.pdf>.

<sup>165</sup> U.S. Office of Management and Budget, *Statement of Administration Policy on H.R. 4626*, February 23, 2010, available at [http://www.whitehouse.gov/omb/assets/sap\\_111/saphr4626r\\_20100223.pdf](http://www.whitehouse.gov/omb/assets/sap_111/saphr4626r_20100223.pdf); and Christine A. Varney, Assistant Attorney General, Antitrust Division, U.S. Department of Justice, “Antitrust and Healthcare: Remarks as Prepared for the American Bar Association/American Health Lawyers Association Antitrust in Healthcare Conference Arlington, Virginia,” May 24, 2010, available at <http://www.justice.gov/atr/public/speeches/258898.pdf>.

<sup>166</sup> Martin Gaynor, “Why Don’t Courts Treat Hospitals Like Tanks for Liquefied Gases? Some Reflections on Health Care Antitrust Enforcement,” *Journal of Health Politics, Policy, and Law*, vol. 31, no. 3 (June 2006), pp. 497-510.

<sup>167</sup> *Ibid.*

forced alterations of some health insurance mergers, federal antitrust policies do not appear to have had a determining influence on the structure of health insurance markets.<sup>168</sup>

Other measures could also inject greater competition into health insurance markets. Some analysts contend that simplifying regulatory policies encourages new entrants. Standardization of claims processes and payment mechanisms could also lower barriers to entry. Other policies might allow insurers in related lines of business, such as life and disability insurance, to provide more competition in ASO markets for firms that self-insure.

## **Stronger Regulatory Measures**

Congress could adopt more stringent regulatory measures designed to improve performance in private health insurance markets. This may require a realignment of regulatory responsibilities with state governments, which now play the leading role in insurance regulation. Congress has taken some steps in the past to regulate health insurance. For example, the Health Insurance Portability and Accountability Act of 1996 (HIPAA; P.L. 104-191) imposed several federal requirements on health insurance plans.<sup>169</sup> Although HIPAA provided uniform federal standards on certain aspects of insurance plans, some contend that HIPAA had only limited effects on health insurance markets. Legislative changes to the Employee Retirement Income Security Act (ERISA), which provides a federal exemption to many state health insurance requirements, could also have important consequences in the health insurance market. Many large corporations, which typically operate in many states, oppose changes in ERISA.

## **Regulation of Medical Underwriting**

The Protection and Affordable Care Act (H.R. 3590; P.L. 111-148) bars some medical underwriting practices, which may change how health insurance companies compete.<sup>170</sup> The practice of medical underwriting, which consists of offering better prices and conditions to the healthy, rearranges the cost burden of health care but has little or no effect on overall costs. Although an individual insurer earns higher profits by attracting a healthier risk pool via medical underwriting, total costs to society are not reduced. Because underwriting consumes real resources, a system with extensive medical underwriting may have higher administrative costs, which provide little social benefit.

Individual firms, however, could face major financial risks by unilaterally dropping medical underwriting practices. The health insurers' trade association, America's Health Insurance Plans

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<sup>168</sup> Some contend that the George W. Bush Administration undertook very little federal antitrust enforcement. The DOJ in the past decade required minor adjustments to three health insurance mergers, out of a total of nearly 400 such mergers during that period. For case citations, see Leemore Dafny, "Are Health Insurance Markets Competitive?" forthcoming *American Economic Review*, available at [http://www.kellogg.northwestern.edu/faculty/dafny/personal/Documents/Working%20Papers/Dafny5\\_09.pdf](http://www.kellogg.northwestern.edu/faculty/dafny/personal/Documents/Working%20Papers/Dafny5_09.pdf); also see David Balto, "Why a Public Health Insurance Option is Essential," blog posting, *Health Affairs*, September 17, 2009.

<sup>169</sup> For more information, see CRS Report RL31634, *The Health Insurance Portability and Accountability Act (HIPAA) of 1996: Overview and Guidance on Frequently Asked Questions*, by Hinda Chaikind et al.

<sup>170</sup> The act directs the HHS Secretary to work with states to create high-risk insurance pools that do not impose preexisting condition limitations, and a more general prohibition on preexisting condition limitations in group insurance plans takes effect for plans years after the beginning of 2014.

(AHIP), had said it would accept limitations of pre-existing condition exclusions, but only if individuals are required to purchase coverage, so that not just the sick enroll.<sup>171</sup>

Regulations barring medical underwriting practices, such as limiting coverage of those with preexisting conditions, could change the nature of competition in health insurance markets. If those regulations motivated health insurers to compete on the basis of how well they served consumers rather than on the ability to shift risks to others, economic efficiency could be enhanced. Even with limits on medical underwriting, however, health insurers may affect the composition of their risk pools through marketing, customer service practices, and by other means. The implementation of individual mandate provisions that encourage purchase of health insurance may have important interactions with management and marketing decisions of health insurers.

### **Minimum Loss Ratio Requirements**

Some critics of the health insurance industry contend that medical loss ratios (defined as total claims divided by premium income) are too low, which in their view has helped push health insurance premiums up. Health insurance industry analysts argue that high medical loss ratios could undermine insurers' ability to raise capital and could lead to cuts in cost of care coordination activities, chronic disease management activities and quality assurance programs. A few states have minimum medical loss ratio requirements for some segments of the health insurance market.<sup>172</sup>

The Protection and Affordable Care Act (H.R. 3590; P.L. 111-148, Sec. 1331(b)(3)) requires that plans offered through state health insurance exchanges (which are to be operational at the beginning of 2014) have a medical loss ratio of at least 85%. The act also will require large group health insurance plans to have a medical loss ratio of at least 85%. Small-group and individual plans will have to satisfy an 80% threshold.

That requirement may require the Secretary of the Department of Health and Human Services to specify how medical loss ratio will be calculated, and how that requirement will interact with state-level insurance regulation. A 30-day request for comments on defining medical loss ratios was issued in April 2010.<sup>173</sup> AHIP and NAIC, along with many other trade groups and interested parties, submitted detailed responses.<sup>174</sup>

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<sup>171</sup> AHIP, "Health Plans Propose Guaranteed Coverage for Pre-Existing Conditions and Individual Coverage Mandate," November 19, 2008, available at <http://www.ahip.org/content/pressrelease.aspx?docid=25068>.

<sup>172</sup> For details, see Families USA, *Medical Loss Ratios: Evidence from the States*, June 2008, available at <http://www.familiesusa.org/assets/pdfs/medical-loss-ratio.pdf>.

<sup>173</sup> Internal Revenue Service, Department of the Treasury; Employee Benefits Security Administration, Department of Labor; Office of the Secretary, Department of Health and Human Services, "Medical Loss Ratios; Request for Comments Regarding Section 2718 of the Public Health Service Act," *75 Federal Register* 71, April 14, 2010.

<sup>174</sup> NAIC, "NAIC Response to Request for Information Regarding Section 2718 of the Public Health Service Act," May 12, 2010, available at [http://www.naic.org/documents/committees\\_e\\_hrsi\\_hhs\\_response\\_mlr\\_adopted.pdf](http://www.naic.org/documents/committees_e_hrsi_hhs_response_mlr_adopted.pdf); AHIP, letter to Donald B. Moulds, Acting Assistant Secretary for Planning and Evaluation, Office of the Secretary, Department of Health and Human Services, regarding DHHS-2010-MLR, Medical Loss Ratios; Request for Comments Regarding Section 2718 of the Public Health Service Act, available at <http://wonkroom.thinkprogress.org/wp-content/uploads/2010/05/AHIPmlr.pdf>.

## **Individual and Employer Health Insurance Mandates**

Individual or employer mandates could affect the health insurance market in important ways. An individual mandate would require individuals to offer proof of health insurance either to avoid financial penalties or to qualify for certain tax benefits. An individual health insurance mandate in some ways would resemble the individual mandate most states impose on automobile drivers that require either minimum insurance coverage levels or proof of financial responsibility. The aim of these mandates is to widen the insurance risk pool as broadly as possible and to discourage individuals from forgoing insurance and then transferring the costs of an accident or illness onto others. Of course, enforcing a health insurance mandate would likely require different administrative mechanisms than an automobile insurance mandate.

Critics note that an individual mandate could compel purchase of an insurance policy that in the individual's view would cost more than its expected benefits. In particular, if premiums were not adjusted for age and other relevant risk factors, an individual mandate could be seen as helping transfer economic resources from younger and healthier people to older and sicker people. In Massachusetts, the individual health insurance mandate was tied to the availability of "affordable" policies, which required a state panel to judge what "affordable" meant.<sup>175</sup>

An employer mandate would require certain firms to offer qualifying health insurance to their employees or pay some amount into a government health fund or alternatively, face the loss of some tax benefits. Some argue that health costs of uncovered employees are to some degree borne by those with private insurance coverage because providers shift some costs of uncompensated care onto others. Some argue that imposing a employer mandate would level the playing field among larger firms, who are more likely to offer health insurance benefits, and smaller firms, which are most likely not to offer those benefits. On the other hand, an employer mandate could force some firms to lower wages and other benefits. Some employees may value those forgone wages and benefits more than new health benefits.

Employer mandates would affect the health insurance market more broadly as well. The number and proportion of American workers receiving employer-provided health insurance has been declining over time. Imposing an employer mandate would probably slow or even reverse that trend.

Employer-provided health care has important advantages and disadvantages. As noted above, employer-provided health insurance coverage can be administratively efficient and helps mitigate adverse selection problems that could lead to splintering of risk pools. On the other hand, tying health benefits to employment can reduce job mobility and hinder efficient matching of workers to positions that make the best use of their skills. Making the individual health insurance market more attractive (see discussion of Wyden-Bennett plan below) or providing health coverage on the basis of citizenship, as do many other advanced industrial countries, could enhance job mobility.

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<sup>175</sup> See Jonathan Gruber, "Incremental Universalism for the United States: The States Move First?" *Journal of Economic Perspectives*, vol. 22, no. 4 (fall 2008), pp. 51–59.



## Health Insurance Exchanges

Some proposals that Congress considered contained measures partially intended to heighten competition in the market for health care.<sup>176</sup> For example, H.R. 3200 proposed creation of a “Health Insurance Exchange” that would provide an alternative to employer-based health coverage for groups that have had difficulty obtaining affordable health insurance. The Health Insurance Exchange proposed in H.R. 3200 includes a “public option” insurance plan intended to spur greater competition among health insurers. Critics of H.R. 3200 expressed concern that a federally financed public option would enjoy special advantages unavailable to private health insurers and that creation of a public option might be a first step towards a much broader federal role in health care finance.

The Affordable Health Choices Act (S. 1679), approved by the Senate Health, Education, Labor, and Pensions (HELP) Committee on July 15, 2009, proposes new federal private health insurance standards and the creation of an “Affordable Health Benefit Gateway” in each state, along with a public option plan called the “Community Health Insurance Plan.” On September 16, 2009, the Chairman of the Senate Finance Committee, Senator Baucus, released a chairman’s mark of the America’s Healthy Futures Act of 2009, which also included new federal health insurance standards and health insurance exchanges, but does not include a public option plan.<sup>177</sup> On November 19, Senator Reid proposed a measure that melded provisions of the HELP and Finance Committee bills, which allowed states to include a public option in health insurance exchanges.<sup>178</sup> The version of H.R. 3590 that passed the Senate on December 24, 2009, however, omitted the public option.<sup>179</sup>

## Lessons from the Massachusetts Connector

The proposed Health Insurance Exchange in some ways resembles the Massachusetts Connector created in 2006 and implemented at the end of 2007. Both the proposed federal Health Insurance Exchange and the Massachusetts Connector act as an intermediary between insurance companies and eligible enrollees, playing a similar role to employers who act as health insurance intermediaries for most Americans.<sup>180</sup> Massachusetts mandates that individuals have health insurance (as long as “affordable” insurance options are available) or face financial penalties. All but the smallest firms (fewer than 10 employees) that offer no (qualifying) health insurance benefits must pay an annual penalty of \$295 per full-time employee. The program has roughly halved the number of uninsured people in the state.<sup>181</sup>

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<sup>176</sup> For a summary of H.R. 3200’s provisions and information on current legislative status, see CRS Report R40724, *Private Health Insurance Provisions of H.R. 3200*, by Hinda Chaikind et al.

<sup>177</sup> A revised mark of the bill was released on September 22, 2009.

<sup>178</sup> S.Amndt. 2786 to H.R. 3590, November 19, 2009.

<sup>179</sup> See *New York Times* website, “Public Health Insurance Option,” Times Topics website, updated March 25, 2010, available at <http://www.nytimes.com/info/public-health-insurance-option/>.

<sup>180</sup> For a description of recent Massachusetts experience with health insurance reform, see Jonathan Gruber, “Incremental Universalism for the United States: The States Move First?” *Journal of Economic Perspectives*, vol. 22, no. 4 (fall 2008), pp. 51–68; John Holahan and Linda Blumberg, “Massachusetts Health Reform: Solving the Long-Run Cost Problem,” Robert Wood Johnson/Urban Institute issue brief, January 2009, available at [http://www.urban.org/UploadedPDF/411820\\_mass\\_health\\_reform.pdf](http://www.urban.org/UploadedPDF/411820_mass_health_reform.pdf).

<sup>181</sup> *Ibid.*

## What Role Would Exchanges Play: Traffic Cops vs. Gatekeepers

The role played by a Health Insurance Exchange could have important effects. The exchange could act as a “traffic cop” that imposed minimal requirements on plans, in order to allow a large number of insurers to offer coverage to eligible individuals. Alternatively, the exchange could act as a “gatekeeper,” as most large employers do, and preselect a limited number of alternatives. In Medicare Part D, which offers prescription drug coverage, the Center for Medicare and Medicaid Services (CMS) acts more like a traffic cop, allowing a wide range of insurers to enter that market. This policy allows Medicare beneficiaries to choose among a wide array of plans. Prices for actuarially equivalent plans, however, are widely dispersed, which suggests that market competition has been ineffective in weeding out plans that offer less value for the money.

Alternatively, an exchange could also play a more active “gatekeeper” role. Many employers have played a very active role in designing health insurance offerings.<sup>182</sup> The exchange could either select a limited number of plans judged to be more attractive or impose stricter requirements on plans. Some economists have found that consumers have difficulty choosing among plans when alternatives are numerous and when differences among plans are difficult to compare.<sup>183</sup> Congress arguably acted as a gatekeeper by requiring standardization of Medigap policies in order to encourage more effective competition among insurers.<sup>184</sup>

## The Public Option

Creation of a public option within the proposed Health Insurance Exchanges would have arguably been one way to expand health insurance coverage and control the growth of health insurance costs. The public option proposals responded to concerns about high levels of market concentration and the exercise of market power in health care markets, as well as to concerns about some industry practices in the individual and small-group market segments. Proponents of the public option argued that it would help limit costs in two ways.<sup>185</sup> First, a public option plan could institute administrative efficiencies. Second, some argued that a public plan could negotiate better discounts with providers.

Government intervention in the market motivated by concerns about market concentration and the exercise of market power could have unintended consequences if the determinants of market structure are not well understood. The bargaining power of a public option could enhance economic efficiency by counteracting monopoly power exerted by providers, thus lowering prices and increasing output.<sup>186</sup> But if providers are operating efficiently, then increased bargaining

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<sup>182</sup> Henry Aaron, “A Funny Thing Happened on the Way to Managed Health Competition,” *Journal of Health Politics, Policy and Law*, vol. 27, no. 1 (2002), pp. 31-36.

<sup>183</sup> Richard G. Frank and Richard J. Zeckhauser, “Health Insurance Exchanges—Making the Markets Work,” *New England Journal of Medicine* website, July 22, 2009, available at <http://content.nejm.org/cgi/reprint/NEJMp0906246.pdf>.

<sup>184</sup> CRS Report RL33300, *Standardized Choices: Medigap Lessons for Medicare Part D*, by Jim Hahn.

<sup>185</sup> See, for example, Jacob S. Hacker, *The Case for Public Plan Choice in National Health Reform*, Institute for America’s Future and Center on Health, Economic and Family Security, Berkeley, CA, December 2008, <http://www.law.berkeley.edu/chefs.htm>; and Jacob S. Hacker, *Healthy Competition: How to Structure Public Health Insurance Plan Choice to Ensure Risk-Sharing, Cost Control, and Quality Improvement*, Institute for America’s Future and the Berkeley Center on Health, Economic and Family Security, Policy Brief, Berkeley, CA, April 2009.

<sup>186</sup> Economic efficiency would be enhanced only to the extent that providers did not shift costs to other insurers with less bargaining power.

power by insurers could lead to economic inefficiency in the health care market. Evidence suggests, however, that many providers are not operating efficiently.<sup>187</sup>

Without further regulation, however, a public plan would have likely attracted high-cost individuals—those who, because of health or age, can only buy insurance for very high premiums, or who are medically uninsurable because of pre-existing conditions. This adverse selection would have threatened the viability and stability of a public option. As an example, many states have high-risk health insurance pools (HRPs) to cover these high-cost individuals. But state HRPs typically charge premiums higher than premiums charged by private plans offered to healthier individuals and all operate at a loss.<sup>188</sup> To avoid or mitigate adverse selection problems, most public option proposals mandated health insurance coverage by all, require community rating, and prohibit denial of insurance based on health or pre-existing conditions by private insurance plans.

## Cooperatives

Some proposed creation of health insurance cooperatives as an alternative to a public plan.<sup>189</sup> Cooperative health insurance policies would be available to eligible individuals through health insurance exchanges created by health insurance reform legislation. Proponents argued that cooperative-run plans would increase competition in the health insurance market without requiring more direct federal involvement.<sup>190</sup> Others contended that cooperatives would be unable to improve performance of the health insurance industry.<sup>191</sup>

Some medical cooperatives were created in the 1930s, such as the Group Health Association in Washington, DC, and the Group Health Cooperative of Puget Sound. The AMA and local medical societies, however, vigorously opposed medical cooperatives and succeeded in driving many of them out of business.<sup>192</sup> The Farm Security Administration (FSA) created several programs to provide medical care to low-income rural households, which included cooperatives that at their peak reached 600,000 people.<sup>193</sup> Some historians argue the success of these cooperatives was limited by the lack of clear direction from FSA administrators and opposition from traditional farm groups.<sup>194</sup> These programs were discontinued starting in 1946. The United Mine Workers'

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<sup>187</sup> See, for example, Medicare Payment Advisory Commission, *Report to the Congress: Medicare Payment Policy*, Washington, DC, March 2008, available at [http://www.medpac.gov/documents/mar08\\_entirereport.pdf](http://www.medpac.gov/documents/mar08_entirereport.pdf).

<sup>188</sup> U.S. Government Accountability Office, *State High-Risk Health Insurance Pools*, GAO-09-730R, July 22, 2009, <http://www.gao.gov>.

<sup>189</sup> Ezra Klein, "Has Kent Conrad Solved the Public Plan Problem? An Interview," *Washington Post*, blog, posted June 11, 2009, available at [http://voices.washingtonpost.com/ezra-klein/2009/06/has\\_kent\\_conrad\\_solved\\_the\\_pub.html](http://voices.washingtonpost.com/ezra-klein/2009/06/has_kent_conrad_solved_the_pub.html).

<sup>190</sup> The proposed health insurance cooperatives would not resemble health insurance purchasing cooperatives (HIPC), which several states have set up to improve access to coverage.

<sup>191</sup> Jacob S. Hacker, "Un-Cooperative: The Trouble with Conrad's Compromise," *The New Republic*, The Treatment Blog, posted June 14, 2009, available at [http://blogs.tnr.com/tnr/blogs/the\\_treatment/archive/2009/06/14/hacker.aspx](http://blogs.tnr.com/tnr/blogs/the_treatment/archive/2009/06/14/hacker.aspx).

<sup>192</sup> Starr, pp. 302-306, 320-327.

<sup>193</sup> Michael R. Grey, *New Deal Medicine: The Rural Health Programs of the Farm Security Administration* (Baltimore: Johns Hopkins University Press, 1999). The Bankhead-Jones Farm Tenancy Act of July 1937 (P.L. 75-210) authorized the Farm Security Administration, and the Farmers' Home Administration Act of 1946 (P.L. 79-731) liquidated it.

<sup>194</sup> Anthony J. Badger, *The New Deal: The Depression Years, 1933-1940* (New York: Hill and Wang, 1989), p. 185; Kevin R. Kosar, "A Nearly Forgotten Classic Study in Public Administration: Edward C. Banfield's Government Project," *Public Administration Review*, vol. 69, no. 5 (Sept/Oct, 2009), pp. 993-997.

Welfare and Retirement Fund, created in the 1940s, might provide another model of a health cooperative.<sup>195</sup>

The early history of Blue Cross may be instructive. The Blue Cross idea, incorporated through a stream of new organizations, spread rapidly across the country during the 1930s and 1940s, demonstrating that a suitable design with support from existing organizations could transform the American health finance system. Blue Cross was able to piggyback on local hospitals and the AHA, and Blue Shield initially piggybacked on local medical societies. Links between hospitals and Blue Cross had profound effects on the governance and structure of Blue Cross. Though the modern health care sector is very different than when Blue Cross began, the strategy of linking new structures, such as cooperatives, to existing organizations could accelerate implementation. Those organizations would likely have a strong imprint on how proposed health insurance cooperatives were run.

Blue Cross, in its earliest days, was originally strongly community oriented. This, in part, reflected the ideals of the “voluntary hospital” movement. Yet while charity and altruism have played important roles in the hospital industry, business-like behavior has also been prominent.<sup>196</sup> By 1986, Congress concluded that Blue Cross organizations did not act much differently than commercial insurers.<sup>197</sup> Competitive pressures on cooperatives may also be strong enough to motivate them to act much like other insurers.

## Other Options

Some have proposed more fundamental reforms of the health care sector. Senators Wyden and Bennett have introduced a medical voucher proposal, the Healthy Americans Act, which was introduced in the 110<sup>th</sup> Congress as S. 334 and in the 111<sup>th</sup> Congress as S. 391.<sup>198</sup> The Wyden-Bennett plan would mandate that individuals carry private health insurance and would create state-run pools to restructure the individual health insurance market. The federal government would support the plan by providing subsidies to certain individuals.

The Empowering Patients First Act (H.R. 3400), introduced by Representative Tom Price on July 30, 2009, would provide additional tax incentives to individuals and employers to maintain or expand health insurance coverage; modify federal regulations governing insurance pools for individual purchasers; would take steps to ease purchase of individual insurance policies across state lines; would modify remedies for alleged medical malpractice; and would ban certain applications of comparative effectiveness research data in health care.

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<sup>195</sup> Ivana Krajcinovic, *From Company Doctors to Managed Care: The United Mine Workers' Noble Experiment*. Cornell Studies in Industrial and Labor Relations, no. 31 (Ithaca: Cornell University Press, 1997).

<sup>196</sup> See Rosemary Stevens, *In Sickness and In Wealth: American Hospitals in the 20<sup>th</sup> Century* (New York: Basic Books, 1989).

<sup>197</sup> U.S. Congress, Joint Committee on Taxation, “Tax Exempt Organizations Engaged in Insurance Activities.” In General Explanation of the Tax Reform Act of 1986, Joint Committee Print, 100<sup>th</sup> Cong., 1<sup>st</sup> sess. (Washington, DC: Government Printing Office, May 4, 1987), pp. 583-592.

<sup>198</sup> For more detailed analyses of the Wyden-Bennett proposals, see Congressional Budget Office, letter to Senators Ron Wyden and Robert Bennett, May 1, 2008, available at <http://cbo.gov/ftpdocs/91xx/doc9184/05-01-HealthCare-Letter.pdf>; and Edwin Park, “An Examination of the Wyden-Bennett Health Reform Plan: Key Issues in a New Approach to Universal Coverage,” Center on Budget and Policy Priorities working paper, September 24, 2008, available at <http://www.cbpp.org/cms/?fa=view&id=674>.

Others have proposed more limited reforms that would reintroduce cash indemnity payments under certain circumstances. For example, one proposal would allow patients in end-of-life care to choose between standard care or a package of palliative care and a cash payment that could be used for other purposes.<sup>199</sup> The option of indemnity benefits could make providers more conscious of the costs and benefits of the care they deliver.

## Concluding Remarks

Evidence suggests that health insurance markets in many local areas are highly concentrated. Many large firms have reacted to market conditions by self-insuring, which may provide some competitive pressure on insurers, although this is unlikely to improve market conditions for other consumers. The exercise of market power by firms in concentrated markets generally leads to higher prices and reduced output—high premiums and limited access to health insurance—combined with high profits. Many other characteristics of the health insurance markets, however, also contribute to rising costs and limited access to affordable health insurance.

Some evidence suggests that insurance companies' profits are not large, especially during the current economic recession; although some of those estimates exclude investment income. Even if health insurers were highly profitable, it is unclear how much reducing insurance industry profits would do to reduce total health care costs or even reduce administrative costs. Nor is it clear that more vigorous enforcement of antitrust laws and regulations would succeed in courts or would significantly reduce health insurance premiums or expanded health insurance coverage.

Health insurance is intertwined with the whole health care system. Health costs appear to have increased over time in large part because of complex interactions among health insurance, health care providers, employers, pharmaceutical manufacturers, tax policy, and the medical technology industry. Reducing the growth trajectory of health care costs may require policies that affect these interactions. Policies focused on health insurance sector reform may yield some results, but are unlikely to solve larger cost growth and problems of limited access to health care if other parts of the health are left unchanged.

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<sup>199</sup> Margaret M. Byrne and Peter Thompson, "Death and Dignity: Terminal Illness and the Market for Non-Treatment," *Journal of Public Economics*, vol. 76, no. 2 (May 2000), pp. 263-294.

## **Additional Indicators of Health Insurers’ Profitability**

This appendix presents two indicators of health insurer profitability for the period 2000-2008, and profits as a percentage of shareholder equity for Fortune 1000 firms by industry in 2008.

**Table A-1** presents return-on-equity figures for major publicly traded health insurers over the period 2000-2008. Return on equity measures a company’s overall after-tax profitability from underwriting and investment activity, and is defined as the sum of after-tax net income and unrealized capital gains divided by equity. Return on equity provides a useful comparison to profits in other lines of business, but can be volatile, especially when accounting changes require adjustments of equity levels. Firms obtain capital through equity (typically through the sale of shares that entitle shareholders to dividend payments and certain voting rights) and debt (typically through loans or bonds that require fixed or specified interest payments). Firms can increase return on equity by increasing their debt-to-capital ratio, but at an increased risk of bankruptcy in the event of adverse business conditions that make interest payments to debt holders hard to sustain.

**Table A-2** presents return-on-revenue figures for major publicly traded health insurers over the period 2000-2008. Return-on-revenue ratios are roughly analogous to return-on-sales figures in other industries. Return-on-revenue figures, unlike return-on-equity, measures profitability independently of how a firm raises its capital.<sup>200</sup>

**Table A-3** presents profits as a percentage of shareholder equity for Fortune 1000 firms by industry in 2008, which complements other profitability measures presented in **Table 4**. Shareholder equity can change dramatically when a firm’s capital structure changes, and can be affected by the timing of major writedowns on a firm’s financial statements.

As in **Table 4**, which presented profits as a percentage of revenues and as a percentage of assets, neither of the two health insurance sectors listed (Health Care: Insurance & Managed Care; and Insurance: Life, Health [stock]) are in the top 20 industries in terms of profits as a percentage of shareholder value for 2008.

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<sup>200</sup> Return-on-revenue figures for health insurers, however, may depend on how fees for administrative service only (ASO) contracts are included. See discussion of premium equivalents at p. 44.

**Table A-I. Return on Equity for Major Publicly Traded Insurers, 2000-2008**

	2000	2001	2002	2003		2004	2005	2006	2007	2008	
Aetna Inc.	-0.4	-5.9	-6.1	-41.3	3.0 <sup>a</sup>	15.1	13.4	15.4	18.6	18.2	16.9
Amerigroup Corp.	520.0	19.7	19.7	20.1		14.5	15.1	8.4	14.0	12.8	-6.0
Anthem Inc.	11.8	16.6	16.6	10.2							
Centene Corp.	-100.0	20.3	20.3	25.5		15.0	16.5	15.9	-13.4	17.7	16.7
Cigna HealthCare Inc.	14.2	15.4	14.4	15.0		9.8	27.6	30.3	26.7	23.5	8.1
Cobalt Corp.	-23.7	-10.6	-10.6	24.5							
Coventry Health Care Inc.	10.2	12.2	12.2	22.6		27.0	27.8	19.6	19.0	19.0	11.1
Health Net Inc.	15.5	7.4	7.4	17.5	18.2 <sup>a</sup>	18.1	3.4	14.5	18.5	10.3	5.4
Humana Inc.	6.6	7.8	7.8	8.9		12.5	13.4	11.8	16.0	20.7	14.5
Molina Healthcare Inc.						19.5	16.9	7.7	10.9	11.9	12.2
Mid Atlantic Medical Services Inc.	17.7	20.6	20.6	28.0							
Oxford Health Plans Inc.	41.8	69.8	69.8	44.7							
PacifiCare Health Systems Inc.	8.0	0.9	0.9	-57.1	10.5 <sup>a</sup>	13.1	13.8				
RightCHOICE Managed Care, Inc.	11.9	16.2									
Sierra Health Services Inc.	-222.2	3.1	4.2	23.1		41.1	60.9	42.3	64.5	29.1	
Trigon Healthcare, Inc.	11.0	11.4									
Triple-S Management, Corp.									16.0	12.1	5.1
UnitedHealth Group	19.1	23.5	23.5	30.5		35.6	24.1	17.3	20.0	23.2	14.3
Universal American Corp.										6.2	7.2
WellCare Health Plans Inc.						24.0	15.9	14.1	24.8	26.8	-4.6
WellChoice Inc.			15.8	30.6		14.0	14.7				
WellPoint Health Networks Inc.	20.9	19.5	19.5	17.7		12.9	4.9	9.9	12.6	14.6	11.6

**Source:** A.M. Best Company, Special Reports, various years.

**Notes:** Return on equity is the sum of after-tax net income and unrealized capital gains, to the mean of prior and current year-end policyholder surplus, expressed as a percentage. This ratio measures a company's overall after-tax profitability from underwriting and investment activity. Leftmost columns for year ending Dec. 31, 2003 were taken from A.M. Best Company, Special Report surveying 2003 GAAP results; right column taken from report surveying 2004 GAAP results. See notes for **Table 6**.

- a. Calculated before the cumulative effect of change in accounting principle. Return on revenue, return on equity and return on capital for Aetna Inc., Health Net Inc., and PacifiCare Health Systems Inc. were calculated using net income before the cumulative effect of accounting principle changes. "Change in accounting principle" is a technical accounting term that refers to changes due to the adoption of a generally accepted accounting principle different from the one used previously for reporting purposes.

**Table A-2. Return on Revenue for Major Publicly Traded Health Insurers, 2000-2008**

	2000	2001	2002 <sup>a</sup>		2003	2004	2005	2006	2007	2008
Aetna Inc.	-0.17	-2.61	-16.10	<i>1.31</i>	4.60	6.10	7.00	6.80	6.60	4.50
Amerigroup Corp.	3.94	4.04	4.13	<i>4.16</i>	4.10	4.70	2.30	3.80	3.00	-1.10
Anthem Inc.	2.59	3.28	4.13	<i>4.60</i>						
Centene Corp.	4.04	3.94	5.52	<i>5.64</i>	4.30	4.40	3.70	-2.20	2.60	2.50
Cigna HealthCare	5.26	4.96	3.67	<i>4.04</i>	3.30	7.90	9.70	7.00	6.30	1.50
Cobalt Corp.	-6.28	-1.57	4.71	<i>5.39</i>						
Coventry Health Care Inc.	2.31	2.63	4.04	<i>4.17</i>	5.50	6.30	7.50	7.10	6.20	3.20
Health Net Inc.	1.81	0.98	2.62	<i>2.77</i>	2.50	0.40	1.90	2.50	1.40	0.60
Humana Inc.	0.85	1.15	1.27	<i>1.31</i>	1.90	2.10	2.10	2.30	3.30	2.20
Molina Healthcare					5.40	4.80	1.70	2.30	2.30	2.00
Mid Atlantic Medical Services	2.70	3.21	4.17	<i>4.28</i>						
Oxford Health Plans	4.67	7.31	4.47	<i>4.58</i>						
PacifiCare Health Systems Inc.	1.39	0.16	-6.79	<i>1.28</i>	2.20	2.50				
RightCHOICE Managed Care,	3.33	5.43								
Sierra Health Services Inc.	-17.26	0.53	3.95	<i>4.20</i>	6.10	7.80	8.70	8.10	4.90	
Trigon Healthcare	4.29	3.90								
Triple-S Management, Corp.								3.50	3.80	1.40
UnitedHealth Group	3.34	3.89	5.40	<i>6.17</i>	6.30	7.00	6.60	5.80	6.20	3.70
Universal American Corp.									2.80	2.00
WellCare Health Plans					2.30	3.50	2.80		4.00	-0.60
WellChoice Inc.		2.84	7.40	<i>8.17</i>	3.70	4.20				
WellPoint Health Networks Inc.	3.72	3.34	4.05	<i>4.34</i>	4.60	4.60	5.50	5.40	5.50	4.10

**Source:** A.M. Best Company, Special Reports, various years.

**Notes:** See notes for **Table 6**. Return-on-revenue is sum of after-tax net income and unrealized capital gains divided by premium income.

- a. Second column for 2002 (in italics) calculated before the cumulative effect of change in accounting principle. Insurers financial data separates investment income and premium income (sometimes called underwriting income). Because investment income fluctuates with trends in asset markets, analysts often focus on premium income, which is more stable. Premium income is affected by employment growth and pricing decisions.



**Table A-3. Profits As a Percentage of Shareholder Equity By Industry for Fortune 1000 Firms, 2009**

Industry	Fortune 1000 Firms in Industry	Profits As a % of Shareholder Equity			
		Mean	Weighted Mean	Median	Rank
Tobacco	5	21.5	61.3	74.3	6
Computer Software	10	21.4	20.0	29.4	8
<b>Pharmaceuticals</b>	<b>21</b>	<b>15.3</b>	<b>15.2</b>	<b>21.1</b>	<b>27</b>
Railroads	5	17.0	15.7	16.7	20
Financial Data Services	15	15.7	-744.3	2.0	24
Network and Other Communications Equip.	8	13.1	-1.2	13.9	36
Oil and Gas Equip., Services	19	18.3	12.4	15.8	14
Scientific, Photographic and Control Equip.	8	13.9	10.4	10.2	32
Mining, Crude-oil production	22	11.5	0.9	3.9	38
Education	2	31.7	31.7	30.1	1
<b>Medical Products and Equip.</b>	<b>18</b>	<b>14.3</b>	<b>13.0</b>	<b>9.8</b>	<b>30</b>
Computer Peripherals	5	18.2	17.3	14.2	15
Securities	14	10.0	0.3	-24.2	45
Internet Services and Retailing	8	15.5	-1.1	10.1	26
Household and Personal Products	12	30.9	29.1	21.8	2
Utilities: Gas and Electric	46	11.0	10.8	12.0	41
Toys, Sporting Goods	2	20.0	20.0	19.6	10
Industrial Machinery	26	18.2	21.6	16.6	16
Transportation Equip.	4	23.3	6.1	5.6	5
Aerospace and Defense	20	19.5	11.4	27.0	12
Food Consumer Products	20	19.8	30.3	23.3	11
Advertising, marketing	2	20.2	20.2	21.6	9
Telecommunications	21	4.2	-4.4	9.2	57
Construction and Farm Machinery	11	23.4	12.3	30.2	4
Electronics, Electrical Equip.	17	13.9	13.0	18.2	31
Waste Management	2	9.7	9.7	8.8	46

Industry	Fortune 1000 Firms in Industry	Profits As a % of Shareholder Equity			
		Mean	Weighted Mean	Median	Rank
Metals	12	18.6	5.4	13.0	13
Mail, Package and Freight Delivery	2	26.0	26.0	19.4	3
Information Technology Services	10	13.8	24.3	53.5	33
Computers, Office Equip.	7	21.4	-8.3	22.2	7
Chemicals	40	17.1	13.9	15.3	19
Commercial Banks	28	2.8	-3.6	-1.2	60
Food Services	10	17.6	-70.2	27.0	17
Transportation and Logistics	6	15.5	15.2	19.1	25
Apparel	11	9.2	-17.0	9.1	48
Packaging, Containers	18	13.2	17.0	-5.5	35
Trucking, Truck Leasing	7	9.1	-12.3	-6.3	50
Wholesalers: Diversified	17	17.3	1.0	14.4	18
Real estate	9	7.7	-64.8	-5.4	52
Beverages	8	13.5	1778.4	4.7	34
Specialty Retailers	60	10.2	-18.6	8.8	44
Engineering, Construction	12	12.9	12.8	13.6	37
Diversified Outsourcing Services	15	14.9	-13.1	16.2	29
<b>Health Care: Pharmacy and Other Services</b>	<b>9</b>	<b>16.1</b>	<b>10.7</b>	<b>19.5</b>	<b>23</b>
<b>Health Care: Medical Facilities</b>	<b>17</b>	<b>7.3</b>	<b>-9.1</b>	<b>175.6</b>	<b>53</b>
<b>Health Care: Insurance and Managed Care</b>	<b>14</b>	<b>11.4</b>	<b>9.4</b>	<b>12.4</b>	<b>39</b>
Insurance: Property and Casualty (mutual)	4	1.4	1.5	-0.4	61
Miscellaneous	8	9.1	335.7	8.6	49
Building materials, Glass	7	-0.1	-12.9	-8.3	63
Home Equip., Furnishings	11	6.3	52.0	-0.4	55
Petroleum Refining	15	16.5	7.9	18.8	21
Food and Drug Stores	16	10.9	11.8	10.7	42
Energy	20	15.0	10.1	7.7	28

Industry	Fortune 1000 Firms in Industry	Profits As a % of Shareholder Equity			
		Mean	Weighted Mean	Median	Rank
Pipelines	15	11.2	-27.9	-3.0	40
<b>Wholesalers: Health Care</b>	<b>7</b>	<b>16.2</b>	<b>15.4</b>	<b>15.4</b>	<b>22</b>
Wholesalers: Food and Grocery	7	10.8	16.0	26.2	43
General Merchandisers	13	3.8	-12.8	11.0	58
Food Production	8	3.0	-40.0	4.2	59
Wholesalers: Electronics and Office Equip.	9	7.2	-15.4	-4.7	54
Semiconductors and Other Elec. Components	26	8.0	139.9	-8.5	51
Entertainment	14	9.7	25.9	-18.4	47
Temporary Help	6	-1.9	-5.9	1.8	66
Motor vehicles and Parts	29	0.9	-24.5	49.8	62
Diversified Financials	11	4.8	52.4	-100.6	56
Insurance: Property and Casualty (stock)	29	-1.7	-12.1	-27.4	65
Publishing, Printing	14	-2.1	-278.0	-542.4	67
<b>Insurance: Life, Health (mutual)</b>	<b>10</b>	<b>-5.1</b>	<b>-4.1</b>	<b>-7.2</b>	<b>69</b>
<b>Insurance: Life, Health (stock)</b>	<b>16</b>	<b>-5.2</b>	<b>-7.4</b>	<b>2.0</b>	<b>70</b>
Forest and Paper Products	9	-24.4	106.7	-33.8	72
Airlines	10	-1.2	-97.8	-556.9	64
Hotels, Casinos, Resorts	9	-3.7	36.7	-39.5	68
Automotive Retailing, Services	10	-69.3	-202.8	-62.5	73
Homebuilders	10	-73.8	-107.1	-66.0	74
Savings Institutions	2	-16.5	-16.5	-18.1	71

**Source:** Fortune, May 4, 2009 and other Fortune data, and CRS calculations.

**Notes:** Health insurance and health care industries are emphasized for ease of comparison. For additional notes, see “The Largest U.S. Corporations,” Fortune, vol. 159, no. 9 (May 4, 2009), pp. F-28-29. Firms with negative shareholder equity (66 firms in total) were excluded from calculations of profits as a percentage of shareholder equity.

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