Chapter 8: Health Services and the Distribution of National Income

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Medical Industry Leadership Institute Open Education Hub

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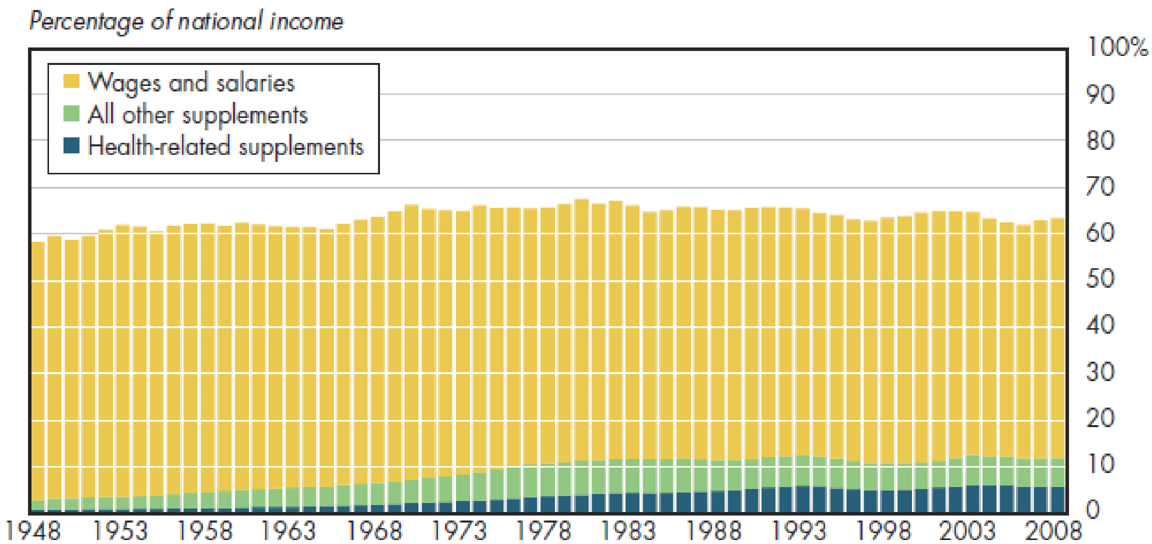
Table of Contents

Chapter 1

8.1 Share of Health-Related Supplement in National Income, 1948-2008[1]

Health-related fringe benefits have grown far more rapidly than has national income over the past 60 years. Yet the share of national income accounted for by employee compensation — wages, salaries, and supplements — has declined somewhat since its 1980 peak (figure 8.1a). This again shows that in the end, fringe benefits come out of worker pay, not corporate profits.

8.1a Despite rapid growth in health-related supplements, employee compensation as a share of national income has declined since 1980



Note: Health-related supplements include employer contributions to health-related social insurance (Medicare Part A, workers' compensation, temporary disability insurance) and private group health insurance.

National income can be viewed as an alternative way of measuring the net value of annual output, by adding all the costs of producing it. GDP measures gross output, but to arrive at a net national product (NNP), capital consumption (for example, depreciation of machinery) is not included. In the Bureau of Economic Analysis (BEA) National Income and Product Accounts (NIPA), national income measures the earnings of all factors of production used to produce NNP. These factors include wages, salaries, supplements,

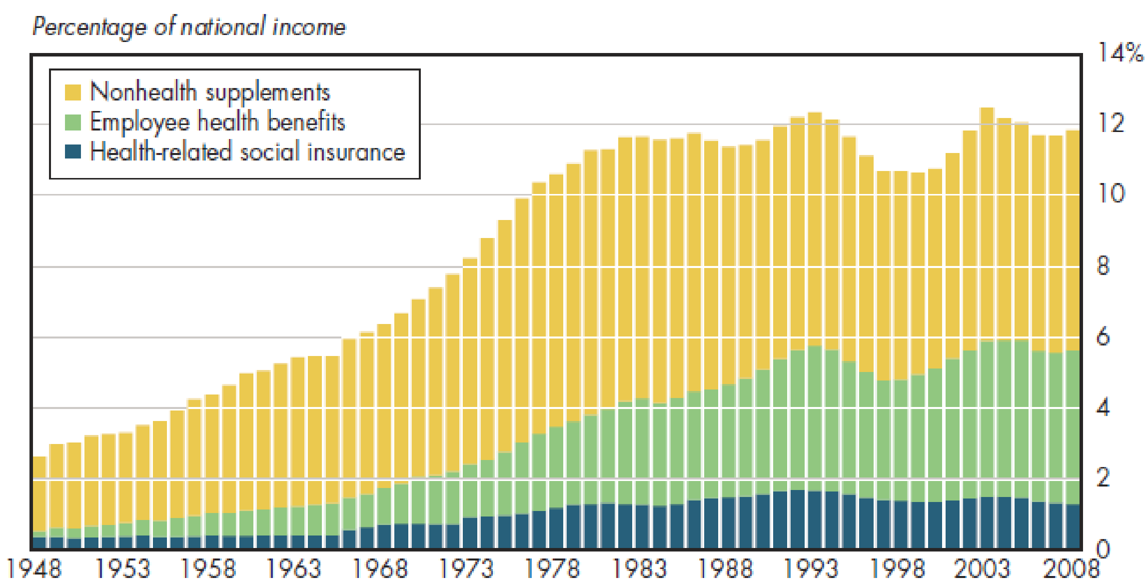
[1] This content is available online at <https://hub.mili.csom.umn.edu/content/m10109/1.1/>.

rents, interest, and profits and losses. In principle, this should equal the same sum measured in terms of final products (consumption + investment + government purchases + imports). However, because NNP and national income are measured using completely different methods, a small statistical adjustment is needed to reconcile the two totals.

Health-related supplements include not only employer-provided health coverage, but also legally required payroll deductions made by employers for Medicare and workers' compensation. Other fringe benefits, such as pensions or employer-paid retirement contributions, also grew much more rapidly than wages and salaries during this period, although not as rapidly as health-related supplements.

Examined in more detail, mandatory health-related payroll deductions for workers' compensation and Medicare peaked at 1.7 percent of national income in the early 1990s and have declined subsequently (figure 8.1b). Employee health benefits reached 4.1 percent of national income by 1993, declined during the boom years of the 1990s, peaked again at 4.4 percent in 2003 to 2005, slightly declining again thereafter. Non-health supplements peaked at 7.4 percent in the early 1980s and steadily declined thereafter until 2002, when they began increasing again. If health reform is implemented, the combination of employer penalties and mandatory increases in generosity of coverage make it possible that the employee health-benefits share will increase in future years.

8.1b Over 60 years, health-related supplements have increased steadily as a share of national income except in the 1990s and recent years



Note: Health-related social insurance includes mandatory employer payroll taxes for Medicare Part A (hospital insurance), military medical insurance (CHAMPUS/VA), state/local temporary disability insurance, and mandatory and voluntary employer contributions toward workers' compensation. Depending on jurisdiction, workers' compensation can serve as wage replacement (disability insurance), compensation for past or future economic loss, or payment of work injury-related medical expenses. Temporary disability insurance is for wage replacement but is counted as health insurance in the National Income and Product Accounts; the minuscule amounts for such insurance therefore are included in the data.

1.1 Downloads

Download Excel tables used to create Figures 8.1a/8.1b Tables[2] . Figures 8.1a and 8.1b were created from the following tables (the workbook includes all supporting tables used to create this table):

[2] https://hub.mili.csom.umn.edu/content/m10109/latest/8.1TAB.xls

- Fig. 8.1a: Table 8.1.1. Total Employee Compensation – Wages, Salaries, and Fringes – As a Percentage of National Income, 1948-2008
- Fig. 8.1b: Table 8.1.2. Health-related Fringe Benefits as a Percentage of National Income by Type, 1948-2009

Download PowerPoint versions of both figures.

- Figure 8.1a Image Slide (as it appears above)[3]
- Figure 8.1a Editable Slide (can be formatted as desired)[4]
- Figure 8.1b Image Slide (as it appears above)[5]
- Figure 8.1b Editable Slide (can be formatted as desired)[6]

1.2 References

A. Department of Commerce. Bureau of Economic Analysis.

[3]https://hub.mili.csom.umn.edu/content/m10109/latest/8.1aIMG.ppt
[4]https://hub.mili.csom.umn.edu/content/m10109/latest/8.1aDATA.ppt
[5]https://hub.mili.csom.umn.edu/content/m10109/latest/8.1bIMG.ppt
[6]https://hub.mili.csom.umn.edu/content/m10109/latest/8.1bDATA.ppt

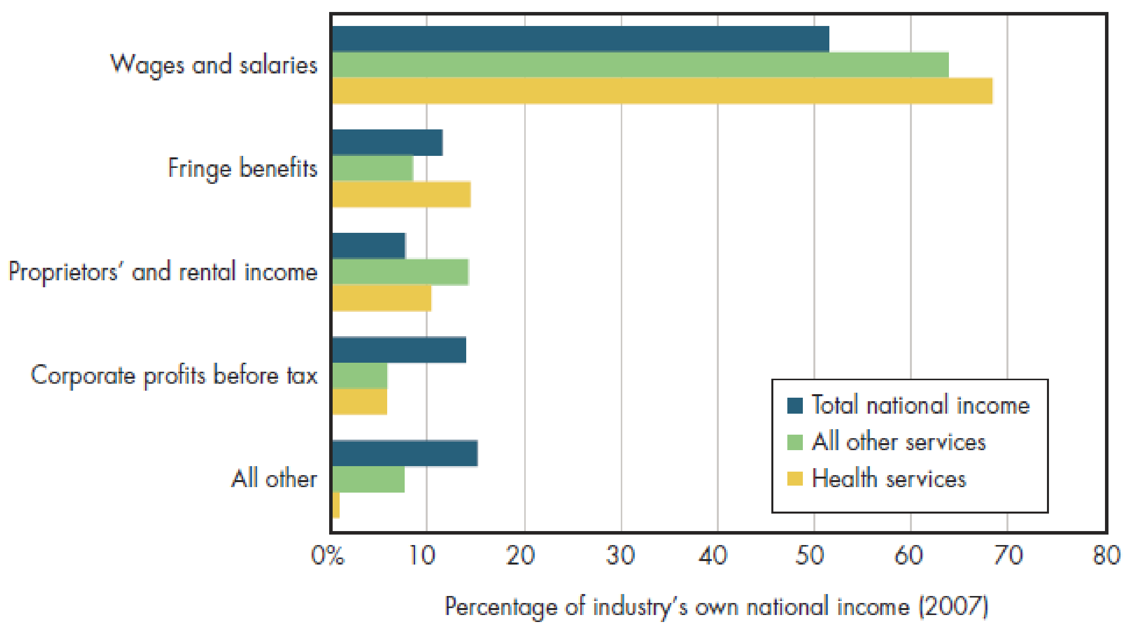
Chapter 2

8.2 Wages and Salaries Account for Big and Growing Share of Income in Health Services[1]

A much higher share of national income for the health services sector flows to employee compensation than in the economy in general (figure 8.2a). The share allocated to wages and salaries, and fringe benefits, is higher than in the economy overall or in the services sector. The combined total exceeds 80 percent of health services-related national income. In the breakdown in figure 8.2a, health services include ambulatory care, hospitals, nursing homes, and residential care facilities. The category excludes the pharmaceutical industry, medical devices, and non-durable medical products sold in retail outlets such as pharmacies. More than 90 percent of national income from health facilities goes to employee compensation, compared with approximately 75 percent of national income having to do with ambulatory health services.

[1]This content is available online at <https://hub.mili.csom.umn.edu/content/m10110/1.1/>.

8.2a In health services, the share of income for wages and salaries as well as for fringe benefits are higher than in the service sector or general economy

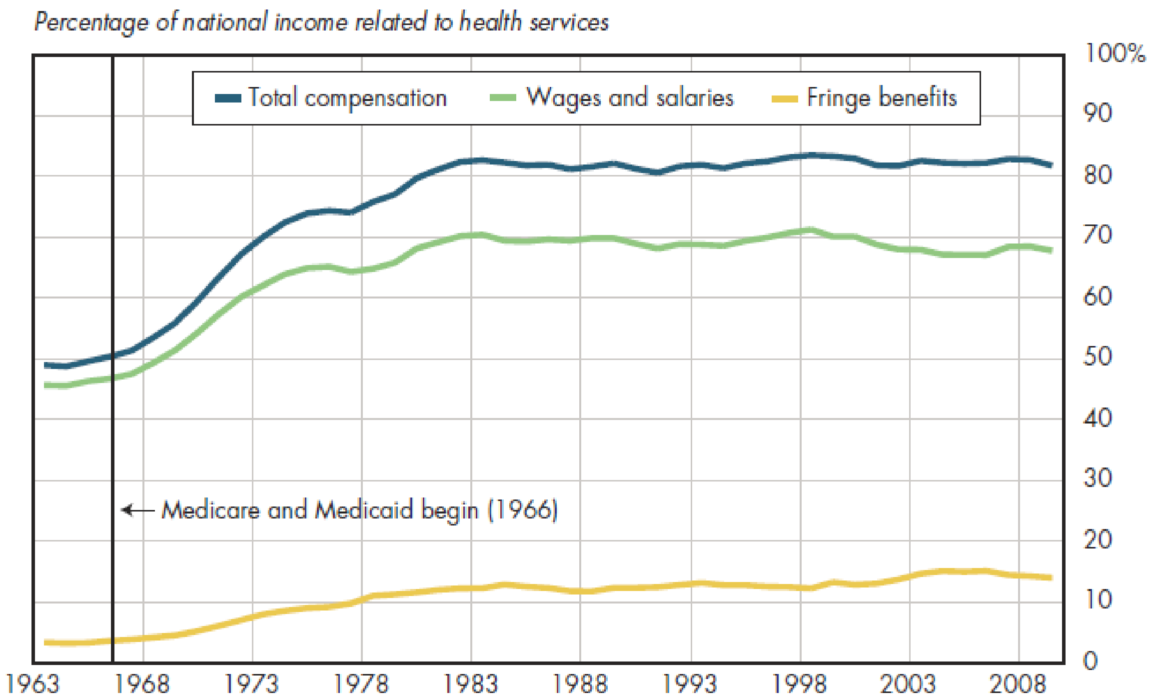


Note: "Health services" includes ambulatory health care services and hospitals, nursing, and residential care facilities. It does not include pharmaceuticals, medical devices, non-durable medical products, or the health insurance industry.

The share accounted for by proprietors' and rental income is more in the health services industry than in the general economy, albeit less than that in the services industry overall. Conversely, the share flowing into pre-tax corporate profits is twice as much in the general economy as in the health services industry, reflecting the dominance of non-profit and public service providers in health care described in chapter 7.

The employee compensation share of national income in the health services sector has grown dramatically in less than 50 years (figure 8.2b). Just before the introduction of Medicare and Medicaid (which began in 1966), employee compensation accounted for less than half of the national income generated by health services. But in less than 20 years after the massive infusion of public dollars into these new entitlement programs, the employee compensation share had climbed to more than 80 percent (where it has stayed ever since).

8.2b In the health services sector, both wages and salaries, and fringe benefits are substantially higher than they were 50 years ago



Unionization has helped spur this growth, but another factor has been the declining share of health services national income that went to proprietors' and rental income. Physicians who own their own practices get proprietors' income rather than wages. However, an increasing number of physicians are salaried, thereby elevating the relative importance of wages as a form of health sector compensation.

2.1 Downloads

Download Excel tables used to create Figures 8.2a/8.2b Tables[2] . Figures 8.2a and 8.2b were created from the following tables (the workbook includes all supporting tables used to create this table):

- Fig. 8.2a: Table 8.2.1. Percentage Distribution of National Income Related to Health Services, 2007
- Fig. 8.2b: Table 8.2.2. Employee Compensation as a Percentage of National Income Related to Health Services, 1963-2009

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- Figure 8.2a Image Slide (as it appears above)[3]
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- Figure 8.2b Editable Slide (can be formatted as desired)[6]

[2]https://hub.mili.csom.umn.edu/content/m10110/latest/8.2TAB.xls
[3]https://hub.mili.csom.umn.edu/content/m10110/latest/8.2aIMG.ppt
[4]https://hub.mili.csom.umn.edu/content/m10110/latest/8.2aDATA.ppt
[5]https://hub.mili.csom.umn.edu/content/m10110/latest/8.2bIMG.ppt
[6]https://hub.mili.csom.umn.edu/content/m10110/latest/8.2bDATA.ppt

2.2 References

A. Department of Commerce. Bureau of Economic Analysis.

Chapter 3

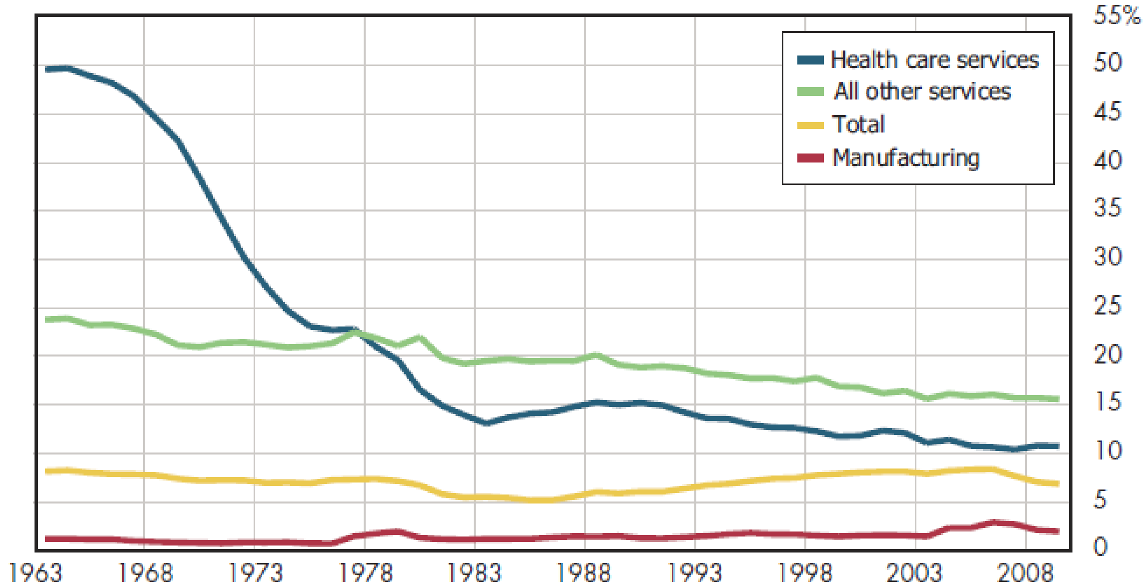
8.3 Share of Health-Related Income Accounted for by Proprietors' and Rental Has Fallen Steeply[1]

Before Medicare and Medicaid, approximately half of national income for health services went to proprietors' and rental income. Not even 20 years later, this amount was less than 15 percent. It has steadily declined further to approximately 10 per- cent today (figure 8.3a). During this period, the rest of the services sector also saw a declining share of its national income going to proprietors' and rental income, but this occurred much less rapidly than in health services.

[1] This content is available online at <https://hub.mili.csom.umn.edu/content/m10111/1.1/>.

8.3a The share of health-related national income accounted for by proprietors' and rental income has declined dramatically over 50 years

Percentage of sector-specific national income attributable to proprietors' and rental income



Note: Health services includes 1) ambulatory health care services, and 2) hospitals and nursing and residential care facilities. It does not include pharmaceuticals, medical devices, non-durable medical products, or the health insurance industry.

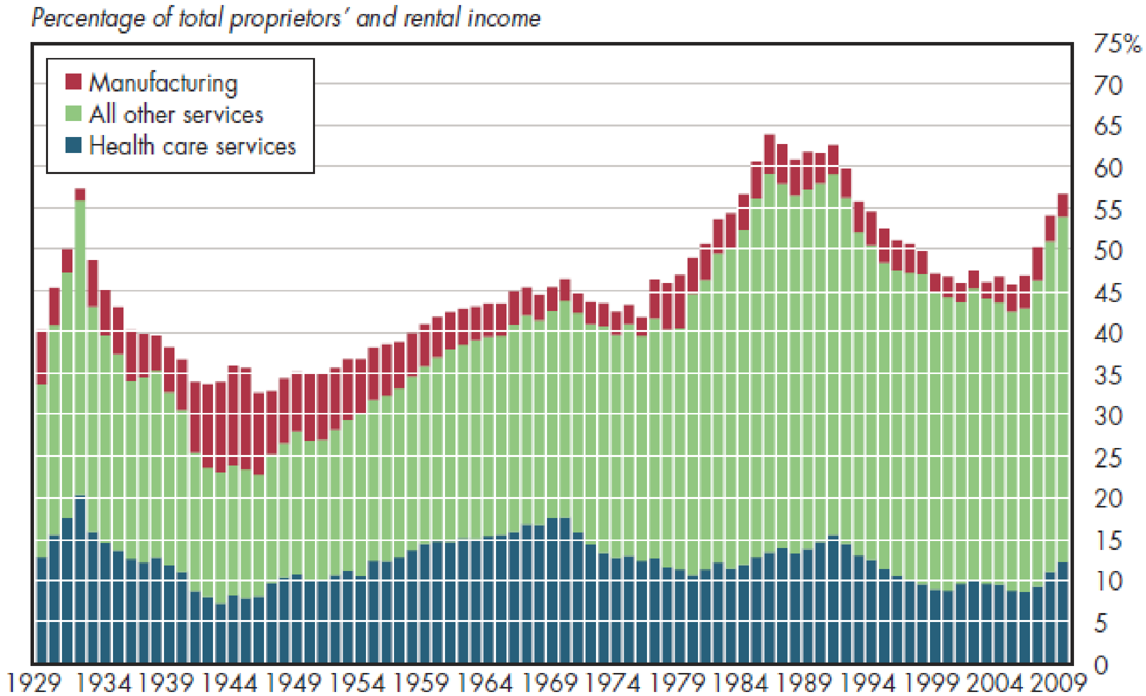
The current level in health care (just over 10 percent) is below the share seen in the rest of the services sector and is only slightly more than the percentage in the economy overall. In contrast, the share is less than 3 percent in manufacturing.

A growing number of physicians have abandoned their own practices in favor of a buy-out by hospitals or managed care plans. There now are thousands of retail clinics run by major chains such as CVS, Walgreen's, and Wal-Mart. With health reform, pressures to adopt electronic medical records are likely to fuel a continuation of this trend away from solo practices and partnerships into corporate medicine.

In principle, owner income reflects both what unincorporated health professionals earn as labor (wages, salaries, fringe benefits) and some hard-to-measure remainder (if anything) that represents profits. If a solo practitioner with a net income of $200,000 became a hospital employee whose total compensation was $200,000, total spending would remain unchanged. However, the employee compensation share of national income would rise by the identical amount that proprietors' income fell.

Another way to look at these trends is to consider what share of total proprietors' and rental income is accounted for by the health sector. Today, health services account for approximately one in eight dollars of such income (figure 8.3b), contributing more than $100 billion to the national total. In absolute dollar terms, this is the highest it has ever been. One-eighth also is the highest share since 1994 and is almost identical to the share observed in 1929. Even so, over 80 years, the health sector share has never exceeded 20 percent except in 1932.

8.3b The health services share of owner income is almost as high today as it was in 1929; the share for all other services has increased



3.1 Downloads

Download Excel tables used to create both figures: Figures 8.3a/8.3b Tables[2] . Figures 8.3a and 8.3b both were created from the following table (the workbook includes all supporting tables used to create this table):

- Table 8.3. Proprietors' and Rental Income as a Percentage of National Income for Selected Industries, 1929-2009

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- Figure 8.3b Image Slide (as it appears above)[5]
- Figure 8.3b Editable Slide (can be formatted as desired)[6]

3.2 References

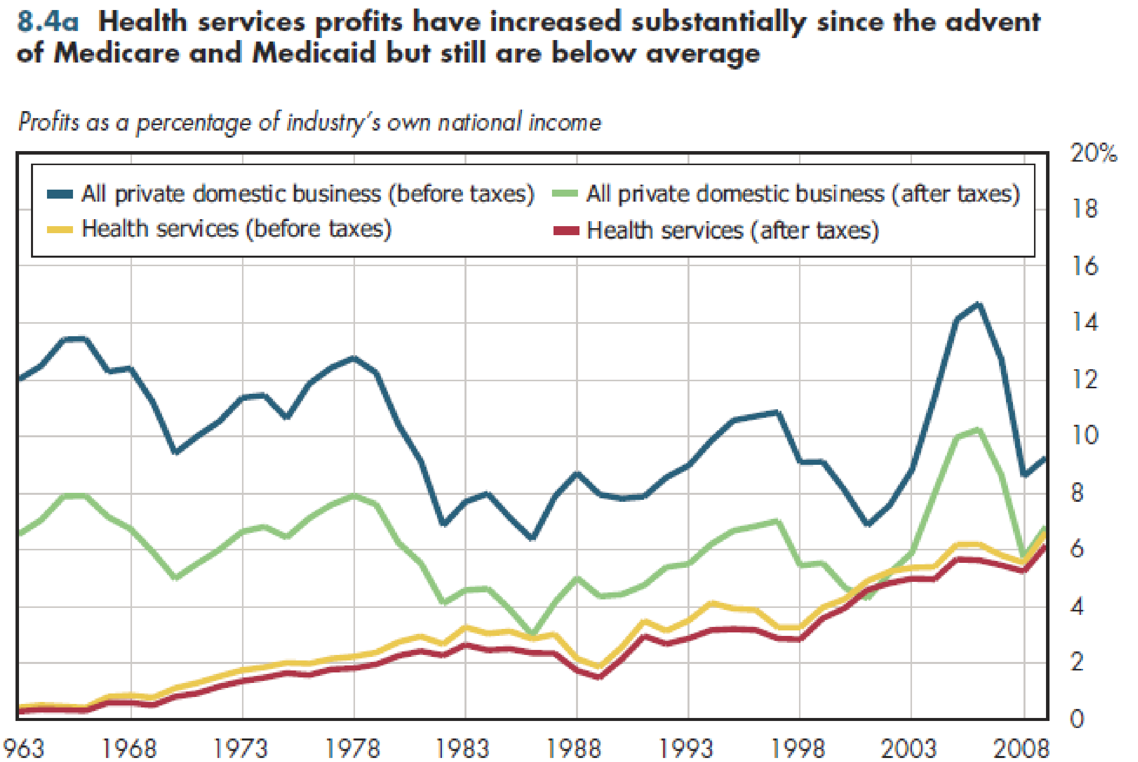
A. Department of Commerce. Bureau of Economic Analysis.

[2]https://hub.mili.csom.umn.edu/content/m10111/latest/8.3TAB.xls
[3]https://hub.mili.csom.umn.edu/content/m10111/latest/8.3aIMG.ppt
[4]https://hub.mili.csom.umn.edu/content/m10111/latest/8.3aDATA.ppt
[5]https://hub.mili.csom.umn.edu/content/m10111/latest/8.3bIMG.ppt
[6]https://hub.mili.csom.umn.edu/content/m10111/latest/8.3bDATA.ppt

Chapter 4

8.4 Corporate Profits Have Reached Peak Share of Health Services Income[1]

After-tax corporate profits for health services now exceed $58 billion. This is a large number in absolute terms but accounts for only 6.1 percent of health services-related national income. The share of such income accounted for by profits has grown considerably since 1963, when both pre-tax and after-tax profits were less than 0.5 percent of health care's national income (figure 8.4a).



These numbers reflect the growing share of health services provided by for-profit organizations and the declining share of health-related national income accounted for by proprietors' and rental income. These numbers do not include profits in pharmaceuticals or medical devices, or they assuredly would be higher.

Corporate profits in most of the rest of the economy tend to be highly sensitive to changing business

[1] This content is available online at <https://hub.mili.csom.umn.edu/content/m10112/1.1/>.

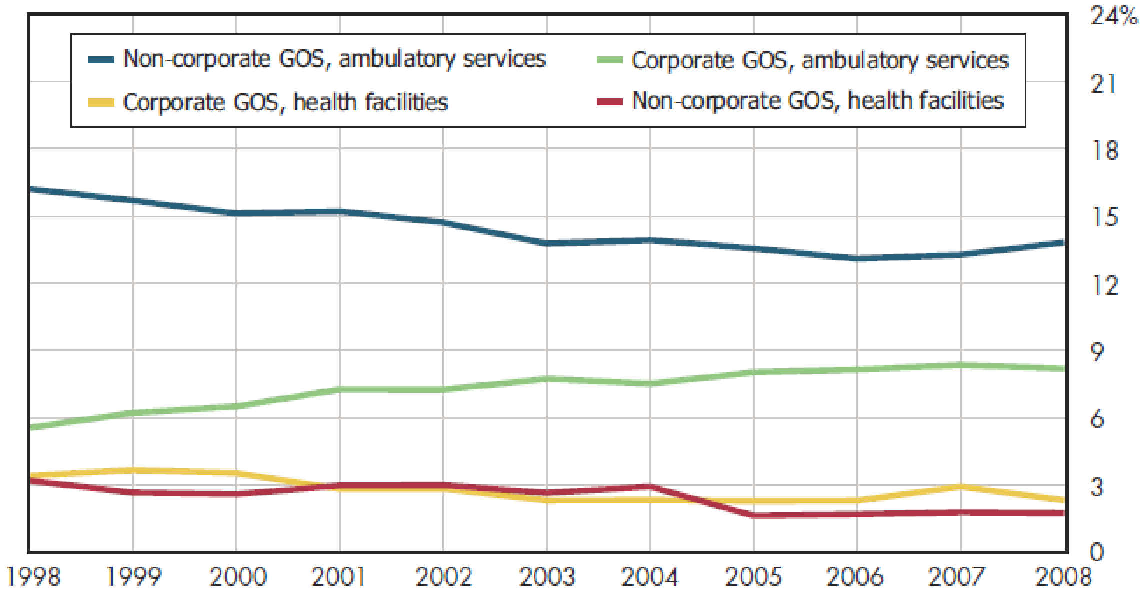
conditions. Little evidence of parallel fluctuations in health services profits exists. The decline in profits starting in 1983, for example, occurred after the deep recession of 1981-1982 had ended. It can be attributed to the introduction of the Medicare PPS for hospitals, which limited payments to a fixed amount that varied by diagnosis. In contrast to the earlier cost-based reimbursement system, PPS forced hospitals to economize by limiting lengths of stay and reducing the intensity of care per admission.

Likewise, much of the downturn in profits starting in 1997 is likely caused by the Balanced Budget Act of 1997 (BBA97), which included the largest cuts in Medi- care's history. BBA97 included payment cuts for hospitals and home health agencies that sharply crimped their profitability. In late 1999, Congress passed legislation to ameliorate some of BBA97's harshest fiscal consequences. As expected, profitability again started to increase. Nevertheless, the most recent decline in profitability started in 2006, long before the most recent recession started.

Although parallel profitability numbers are lacking at a more fine-grained level, approximate measures such as gross operating surpluses suggest that profits are high- er in the ambulatory health sector than in health facilities (figure 8.4b). In ambulatory care, corporate profits appear to be increasing in importance.

8.4b Gross operating surpluses—an extreme approximate measure of profitability—are higher in ambulatory care than in health facilities

Gross operating surplus (GOS) as a percentage of industry's own national income



Note: GOS is the share of industry's national income remaining after deducting compensation for employees and indirect business taxes (for example, privilege licenses). GOS is somewhat more than pre-tax corporate profits because it includes net interest payments and adjustments for capital consumption and inventory valuation.

4.1 Downloads

Download Excel workbooks used to create Figure 8.4a Table[2] and Figure 8.4b Table[3] . [Note that you'd have separate links for each set of tables] Figures 8.4a and 8.4b were created from the following tables (the workbook includes all supporting tables used to create these tables):

[2]https://hub.mili.csom.umn.edu/content/m10112/latest/8.4aTAB.xls
[3]https://hub.mili.csom.umn.edu/content/m10112/latest/8.4bTAB.xls

- Fig. 8.4a: Table 8.4.1. Corporate Profits Before and After Taxes as Percentages of National Income Related to Health Care, 1963-2008
- Fig. 8.4b: Table 8.4.2. Gross Operating Surplus as a Percentage of National Income for Ambulatory Health Services and Hospitals and Nursing Facilities, 1998-2008

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- Figure 8.4a Image Slide (as it appears above)[4]
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- Figure 8.4b Image Slide (as it appears above)[6]
- Figure 8.4b Editable Slide (can be formatted as desired)[7]

4.2 References

A. Department of Commerce. Bureau of Economic Analysis.

[4]https://hub.mili.csom.umn.edu/content/m10112/latest/8.4aIMG.ppt
[5]https://hub.mili.csom.umn.edu/content/m10112/latest/8.4aDATA.ppt
[6]https://hub.mili.csom.umn.edu/content/m10112/latest/8.4bIMG.ppt
[7]https://hub.mili.csom.umn.edu/content/m10112/latest/8.4bDATA.ppt

Chapter 5

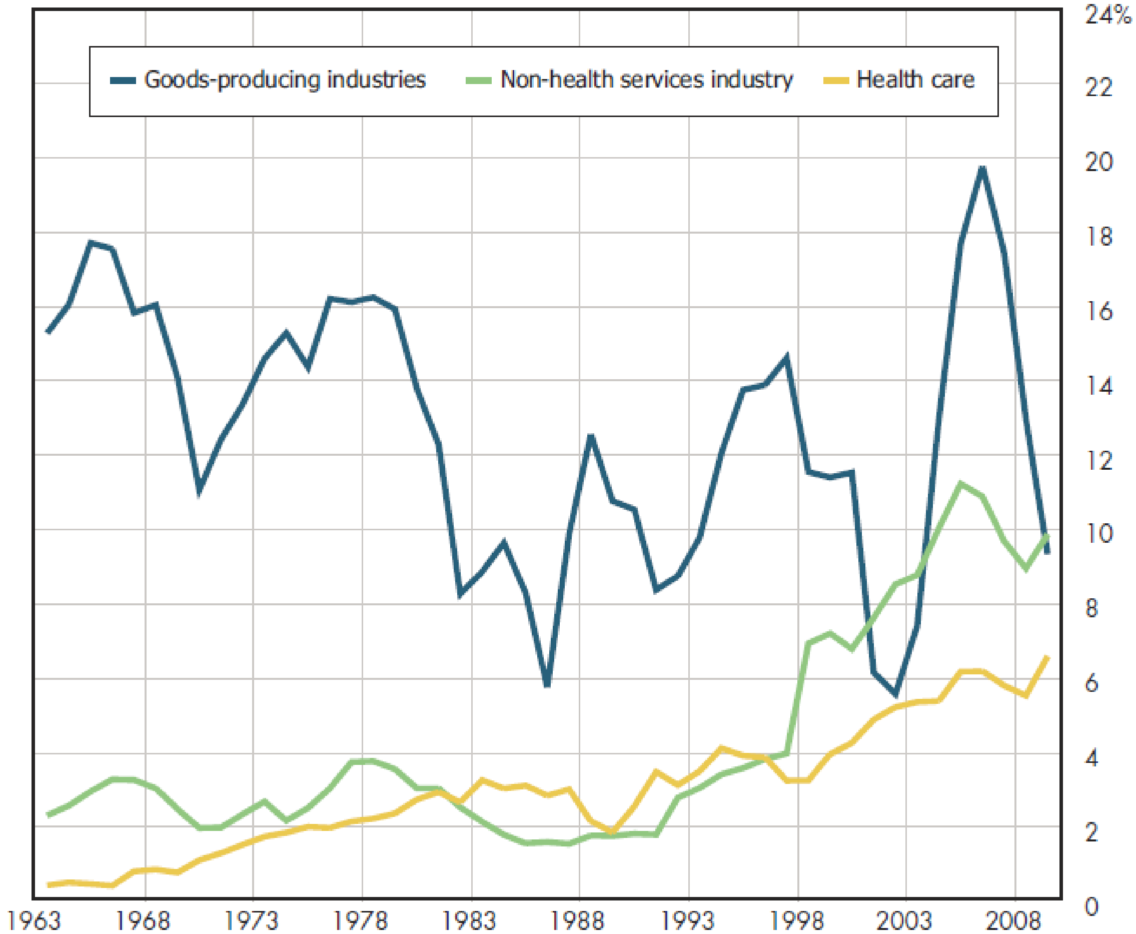
8.5 Pre-Tax Corp Profits in Health Sector Are the Least among Major Sectors in Private Businesses[1]

Before-tax corporate profits for health services are generally less than half the levels seen in private businesses as a group, even during times of recession. As illustrated in figure 8.5, in goods-producing industries (agriculture, forestry, fishing and hunting, mining, manufacturing, and construction), pre-tax profits typically are in the double-digit range, reaching as much as 20 percent in recent years. In contrast, pre-tax corporate profits in health services, while increasing, have consistently been much less than 10 percent of that industry's national income.

[1] This content is available online at <https://hub.mili.csom.umn.edu/content/m10113/1.1/>.

8.5 Pre-tax profits as a share of income are lower in health care than in goods-producing industries but are comparable to non-health services

Profits before taxes as a percentage of industry's own national income



Note: The industry classification system changed in 1998, substantially changing the components of the non-health services industry. Although every effort has been made to retain comparable industries within this category over time, this classification change might account for at least some of the apparent gap that appeared that year between health care and the rest of the services industry.

That said, profitability in the private economy, and major sectors such as goods and other services, are much more volatile than in the health services market. Consequently, there are brief periods during recoveries from recessions in which the share of national income going to profits in these other sectors increases more quickly than in health services. However, during the past 50 years, the secular rise in health sector profits as a share of health-related national income has been more rapid than in any other sectors.

The apparent sharp rise in profitability among all other services in 1998 might be a statistical anomaly. The BEA introduced a substantial revision in how industries were categorized, and they ceased reporting an aggregate number for "Services." Thus, since 1998, the total for services had to be derived by adding component parts. However, certain services (for example, information services) now appear in other BEA-reported aggregates. Conversely, some services appearing in the component parts might previously have been included in a different industry. Thus, the trend between 1998-2008 is more likely to be accurate than is the size of the large estimated increase between 1997 and 1998.

To avoid confusion, corporate profits shown here reflect the definitions used by the BEA. The BEA makes several adjustments (for example, inflation adjustments) to what are known as "book profits" that corporations report to stockholders in various financial reports. For most purposes, the adjusted BEA numbers are technically superior to these book amounts, but the adjustments also are arbitrary to some extent.

5.1 Downloads

Download Excel tables used to create figure: Figure 8.5 Table[2] . Figure 8.5 was created from the following table (the workbook includes all supporting tables used to create this table):

- Table 8.5. Corporate Profits Before Taxes as Percentages of Sector-Specific National Income, 1963-2008

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- Figure 8.5 Image Slide (as it appears above)[3]
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5.2 References

A. Department of Commerce. Bureau of Economic Analysis.

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[3]https://hub.mili.csom.umn.edu/content/m10113/latest/8.5IMG.ppt
[4]https://hub.mili.csom.umn.edu/content/m10113/latest/8.5DATA.ppt

Chapter 6

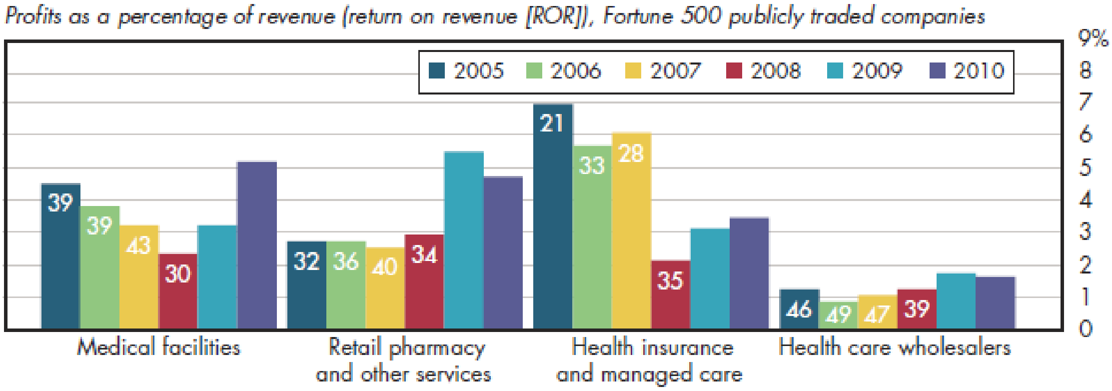
8.6 Among Fortune 500, Health Services Companies Have Lower Profits[1]

Even among publicly traded companies, industries having to do with health services tend to have lower rates of return than most other industries. Profitability for health services generally was less than in other major sectors of the economy (refer to figure 8.5). Some might view this as misleading because so much of the health industry is comprised of non-profit or government health providers.

An arguably fairer apples-to-apples comparison would be to restrict the comparison to for-profit firms within each sector. The most readily available numbers are rankings among Fortune 500 firms grouped by major industry (approximately 50 such industries are included in these rankings). This clearly is not complete because it ignores small- and medium-sized firms. Nevertheless, the Fortune 500 typically accounts for the lion's share of output in a given industry. Thus, these rankings provide an approximate idea of how health care firms compare to the rest of the economy. In figures 8.6a-c, the numbers in each bar show the ranking of each industry relative to all major U.S. industries. Although industry rankings were not reported with the most recently released 2009 and 2010 profit numbers, they are not likely to be sharply different from the rankings for prior years.

8.6a Profit margins generally are highest for "health insurance and managed care" and lowest for health care wholesalers for all health-related services

Profits as a percentage of revenue (return on revenue [ROR]), Fortune 500 publicly traded companies

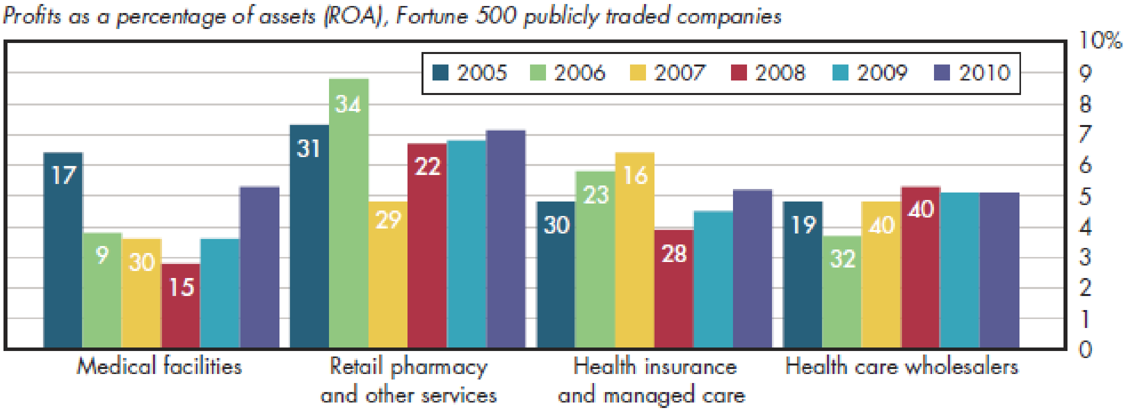


Note: Data labels indicate industry's ranking within Fortune 500 on ROR for year shown (rankings not available for 2009 or 2010). Although the number varies slightly by year and profitability measure, approximately 50 industries are included in each year's ranking.

[1] This content is available online at <https://hub.mili.csom.umn.edu/content/m10114/1.4/>.

8.6b Retail pharmacies generally have the highest return on assets and medical facilities the lowest for health-related services

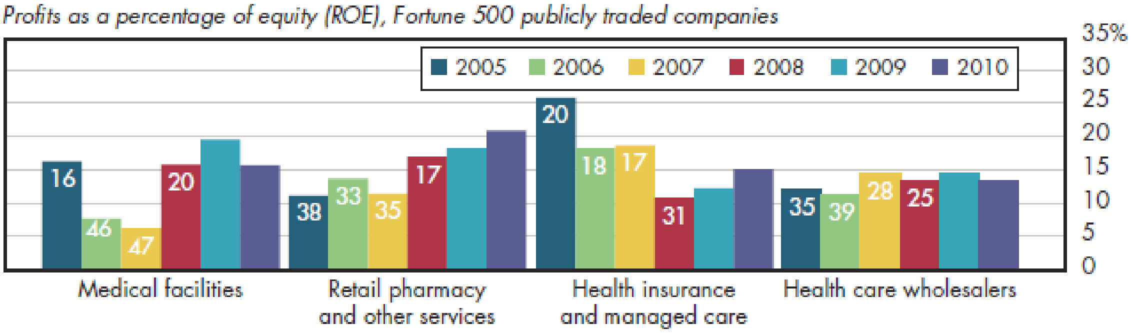
Profits as a percentage of assets (ROA), Fortune 500 publicly traded companies



Note: Data labels indicate industry's ranking on ROA for year shown (rankings not available for 2009 or 2010). Although the number varies slightly by year and profitability measure, approximately 50 industries are included in each ranking.

8.6c Return on equity generally exceeds 10 percent among health-related services industries

Profits as a percentage of equity (ROE), Fortune 500 publicly traded companies



Note: Data labels indicate industry's ranking on ROE for year shown (rankings not available for 2009 or 2010). Although the number varies slightly by year and profitability measure, approximately 50 industries are included in each ranking.

I start with health services industries and then turn to goods-producing components of health care (pharmaceuticals and medical equipment) in figures 8.7a-c. There are three standard measures of profits. In each case, profits are defined as the difference between revenues and costs, but the denominator used to calculate the profit rate differs. Return on revenue (ROR), what many call "profit margin," calculates profits as a percent of total revenues. Most health services industries have single-digit RORs of less than 5 percent (figure 8.6a).

When profits are divided by assets, that is, the overall capital invested in a given company, the result is return on assets (ROA). Assets equal both equity (for example, stocks) and debt. Such returns also are typically at single-digit levels for health services industries (figure 8.6b). The final measure divides only by equity, that is, to exclude debt. Using the return on equity (ROE), the health services industries attain double-digit levels of returns, but again these typically rank them in the bottom half of industries overall (figure 8.6c).

6.1 Downloads

Download Figure 8.6a-c Tables[2] used to create Figures 8.6a-c (the workbook includes all supporting tables used to create these tables).

- Fig. 8.6a created from Table 8.6a. Trends in Profitability: Return on Revenue Among Fortune 500 Firms for Selected Industries, 2005-2013 (last updated 6.21.14)
- Fig. 8.6b created from Table 8.6b. Trends in Profitability: Return on Assets Among Fortune 500 Firms for Selected Industries, 2005-2013 (last updated 6.21.14)
- Fig. 8.6c created from Table 8.6c. Trends in Profitability: Return on Equity Among Fortune 500 Firms for Selected Industries, 2005-2013 (last updated 6.21.14)

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- Figure 8.6b Editable Slide (can be formatted as desired; last updated June 21, 2014)[6]
- Figure 8.6c Image Slide (as it appears above)[7]
- Figure 8.6c Editable Slide (can be formatted as desired; last updated June 21, 2014)[8]

6.2 References

A. Fortune 500. Our Annual Ranking of America's Largest Corporations. http://fortune.com/fortune500/ (accessed June 20, 2014).

[2]https://hub.mili.csom.umn.edu/content/m10114/latest/8.6TAB
[3]https://hub.mili.csom.umn.edu/content/m10114/latest/8.6aIMG.ppt
[4]https://hub.mili.csom.umn.edu/content/m10114/latest/8.6aDATA.ppt
[5]https://hub.mili.csom.umn.edu/content/m10114/latest/8.6bIMG.ppt
[6]https://hub.mili.csom.umn.edu/content/m10114/latest/8.6bDATA.ppt
[7]https://hub.mili.csom.umn.edu/content/m10114/latest/8.6cIMG.ppt
[8]https://hub.mili.csom.umn.edu/content/m10114/latest/8.6cDATA.ppt

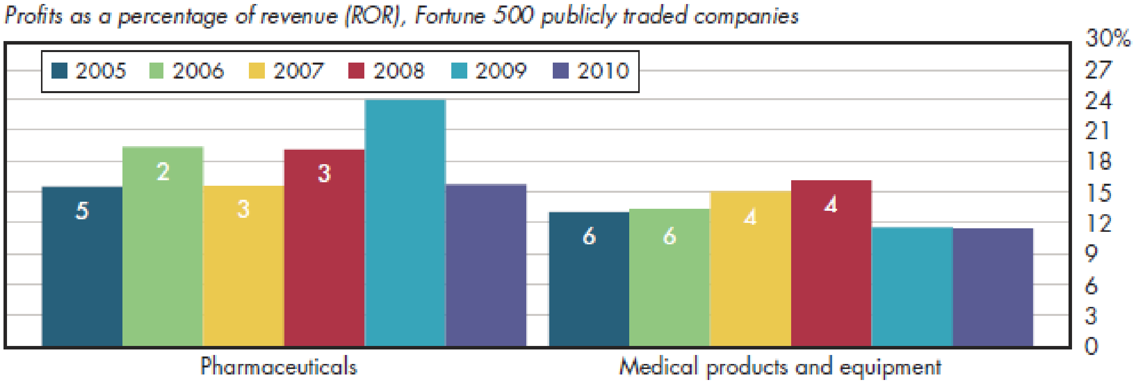
Chapter 7

8.7 Pharmaceutical and Medical Devices Are among Highest-Profit Industries[1]

Pharmaceuticals and medical devices typically rank among the top 10 most profitable industries in America. This is true whether profits are measured as a return on revenue (figure 8.7a), return on assets (figure 8.7b), or return on equity (figure 8.7c). Occasionally, one of these two industries ranks first among all industries in some measures of profitability (figure 8.7b).

8.7a Pharmaceuticals and medical devices typically rank in the top 10 among all industries in their return on revenue

Profits as a percentage of revenue (ROR), Fortune 500 publicly traded companies

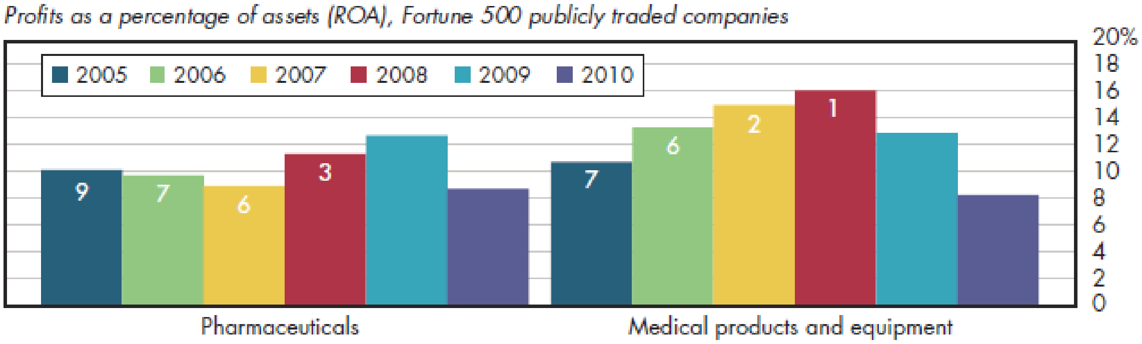


Note: Data labels indicate industry's ranking on ROR for year shown (rankings not available for 2009 or 2010). Although the number varies slightly by year and profitability measure, approximately 50 industries are included in each ranking.

[1]This content is available online at <https://hub.mili.csom.umn.edu/content/m10115/1.3/>.

8.7b Returns on assets for pharmaceuticals and medical devices place them among the top 10 industries in the United States

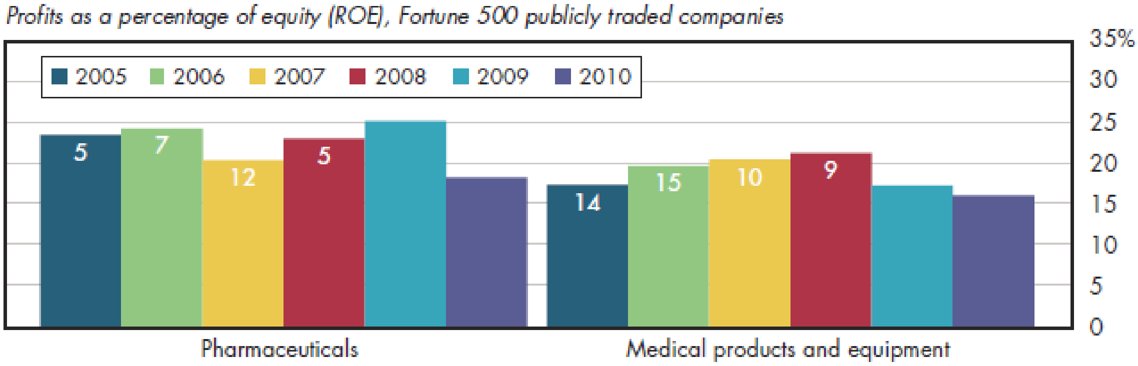
Profits as a percentage of assets (ROA), Fortune 500 publicly traded companies



Note: Data labels indicate industry's ranking on ROA for year shown (rankings not available for 2009 or 2010). Although the number varies slightly by year and profitability measure, approximately 50 industries are included in each ranking.

8.7c Both pharmaceuticals and medical products have somewhat lower industry rankings on return on equity than other measures of profit

Profits as a percentage of equity (ROE), Fortune 500 publicly traded companies



Note: Data labels indicate industry's ranking on ROE for year shown (rankings not available for 2009 or 2010). Although the number varies slightly by year and profitability measure, approximately 50 industries are included in each ranking.

Several reasons explain why these two health industries are so much more profitable than the various health-related services industries just examined. First, as shown previously, both industries consist entirely of for-profit firms, creating an arguably more competitive environment. Although there are mixed findings regarding performance of for-profit versus non-profit or government-owned enterprises, almost all comparisons agree that rates of return (however measured) are higher in for-profit firms relative to the not-for-profit counterparts.

Second, patents play a far more important role in pharmaceuticals and medical devices than in the rest of the health care sector. By design, patents are structured to encourage innovation by permitting their owners to earn monopoly returns for a limited time. Although the nominal patent term is 20 years, more than half of this time is typically lost before Food and Drug Administration (FDA) approval due to the lengthy time required for clinical trials and regulatory review.

Third (and related), pharmaceutical R&D especially is a complex, costly, risky, and time-consuming process. Including the costs associated with hundreds of compounds that do not succeed, as well as the cost of capital (financial resources) that is unavailable for other uses during this lengthy process, more than $1 billion is spent to bring a single new drug to market. Absent the incentives provided by the patent system, there is no question that the amount of pharmaceutical R&D would be considerably less. Concomitantly, the number of new drugs discovered would be fewer. Thus, high profits represent the price paid for the benefits of new discoveries.

Whether profits are higher than needed to bring forth an optimal level of innovation is a perennial question. Several different analyses have concluded that the high level of pharmaceutical profits only slightly exceeds the industry's cost of capital. Briefly, investors demand higher profits to invest in an industry where returns on R&D are so risky.

7.1 Downloads

Download Figure 8.7a-c Tables[2] used to create Figures 8.7a-c (the workbook includes all supporting tables used to create these tables).

- Fig. 8.7a created from Table 8.6a. Trends in Profitability: Return on Revenue Among Fortune 500 Firms for Selected Industries, 2005-2013 (last updated 6.21.14)
- Fig. 8.7b created from Table 8.6b. Trends in Profitability: Return on Assets Among Fortune 500 Firms for Selected Industries, 2005-2013 (last updated 6.21.14)
- Fig. 8.7c created from Table 8.6c. Trends in Profitability: Return on Equity Among Fortune 500 Firms for Selected Industries, 2005-2013 (last updated 6.21.14)

Download PowerPoint versions of both figures.

- Figure 8.7a Image Slide (as it appears above)[3]
- Figure 8.7a Editable Slide (can be formatted as desired; last updated June 21, 2014)[4]
- Figure 8.7b Image Slide (as it appears above)[5]
- Figure 8.7b Editable Slide (can be formatted as desired; last updated June 21, 2014)[6]
- Figure 8.7c Image Slide (as it appears above)[7]
- Figure 8.7c Editable Slide (can be formatted as desired; last updated June 21, 2014)[8]

7.2 References

A. Fortune 500. Our Annual Ranking of America's Largest Corporations. http://fortune.com/fortune500/ (accessed June 21, 2014).

[2] https://hub.mili.csom.umn.edu/content/m10115/latest/8.6TAB
[3] https://hub.mili.csom.umn.edu/content/m10115/latest/8.7aIMG.ppt
[4] https://hub.mili.csom.umn.edu/content/m10115/latest/8.7aDATA.ppt
[5] https://hub.mili.csom.umn.edu/content/m10115/latest/8.7bIMG.ppt
[6] https://hub.mili.csom.umn.edu/content/m10115/latest/8.7bDATA.ppt
[7] https://hub.mili.csom.umn.edu/content/m10115/latest/8.7cIMG.ppt
[8] https://hub.mili.csom.umn.edu/content/m10115/latest/8.7cDATA.ppt

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