Monopoly Myths: Is Concentration Leading to Higher Profits?

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In short: no. Profits are difficult to measure accurately, but the best method is to focus on domestic earnings outside the financial sector as a share of net value added. By that measure, the long-term trend has been in decline.

KEY TAKEAWAYS

▪ Some scholars, advocates, and elected officials argue the economy is too concentrated and competition has suffered, thereby reducing innovation, raising prices, and depressing wages. The premise for their case is that corporate profits have risen.

▪ Oversimplified studies do show a rise in profits over the last few decades. But as a share of GDP, overall corporate profits are now lower than they were the 1960s.

▪ Moreover, domestic profits in nonfinancial firms actually have fallen as a share of net value added. The evidence of excess market power thus falls apart.
INTRODUCTION
In recent years, a growing number of advocates, pundits, and policymakers have raised alarms about a rise in market concentration. A few large companies in many industries are supposedly capturing a growing market share. This purported increase in market power has been implicated in a variety of social ills, including slower innovation, reduced capital investment, and a fall in the share of national income going to workers. These advocates typically recommend stronger antitrust enforcement that would stop mergers involving large firms. Some would go even further and recommend breaking up large companies just because they are big, with some desiring to return America to the small-business ideal advocated by the late U.S. Supreme Court justice Louis Brandeis. The main evidence for their case is the “smoking gun” of higher profits, which they argue is evidence of reduced competition and increased monopoly.

One might think it would be relatively easy to resolve this issue: Simply look at profit data. However, it turns out profits are difficult to accurately measure, especially for determining market power. Some studies do show a rise in profits over the last few decades, but they rely on simplifying assumptions that limit their policy relevance. Moreover, profits as a percentage of gross domestic product (GDP) are in fact lower than they were in the 1960s, a period of strict antitrust enforcement—and they have been decreasing for the last five years. Finally, much of the modest increase in profits in the last two decades has come from foreign profits of U.S. firms (something that is not a U.S. antitrust issue) and profits of the financial services industry. The growth over the last two decades in domestic nonfinancial profits as a share of the economy has in fact been quite modest, suggesting there is actually very little smoke from that gun.

THE DIFFICULTY OF MEASURING PROFITS
Despite the seeming simplicity of the concept of profits, economist Susanto Basu rightly stated that “profits are notoriously hard to calculate.” While the federal government provides data on profits as a share of GDP, and by industry and firm size, it does not provide firm-level data on either profits or costs. Even if firm-specific data existed, calculating profits requires a number of important assumptions, the most difficult of which is separating the normal return on capital (what a firm would earn if it deployed capital elsewhere) from pure profits, or what remains after all other expenses, including the cost of capital, have been realized. But the cost of capital depends on the riskiness of the investment, which is itself difficult to measure and changes by industry and over time.

Moreover, there are multiple profit measures. The numerator portion of the rate of profits is business income, which can be pretax or after-tax. Pretax income is more appropriate because it shows the direct effect of changes in market profitability without the various social objectives introduced by tax policy. Similarly, adjusting for changes in both the value of inventory and the correct measure of capital consumption gives a more accurate picture of corporate profits from running an ongoing business.

Another question involves the correct metric for the denominator. Looking at business income as a percentage of GDP provides a picture of how the profit rate is changing, but does not reflect possible changes in the share of overall profits by corporate form—as business income for sole proprietors is not reported as corporate profits. But this affect is likely to be small. When looking
at profits by industry, using industry profits as a share of GDP is useful, but does not control for changes in industry share of GDP. Profits as a share of net value added controls for this.

**THE CLAIMS THAT PROFITS ARE UP**

To listen to many pundits and advocates, it would seem there is little debate that corporate profits have risen in a meaningful way. Economist Larry Summers concluded that “we live in an economy where a few firms can get for themselves massive amounts of profits and persist in their dominant position for years and years.”

Former Clinton administration Labor Secretary Robert Reich wrote that recent changes in the economy have “resulted in higher corporate profits, higher returns for shareholders, and higher pay for top corporate executives and Wall Street bankers—and lower pay and higher prices for most other Americans. They amount to a giant pre-distribution upward to the rich.”

Despite the decline in profits since 2014, in 2016, Paul Krugman wrote that “profits are at near-record highs.” And in 2016, *The Economist* wrote that among the S&P 500 firms, domestic profits (excluding foreign earnings) were at near-record levels relative to GDP.

Some scholars have also argued that profits have increased in the last two decades and that this represents a significant decline in competition. MIT economist Thomas Philippon looked at broad national data and found, “Over the past two decades … profits have outpaced economic growth, and the after-tax profit share has increased to around 10 percent [of GDP].” Using data from the National Income and Product Accounts, he presented statistics showing that between 1997–1999 and 2013–2015 the operating profit rate (income minus depreciation as a percentage of the amount of capital at the beginning of the year) in the United States increased by 3 percentage points, to 16 percent. However, as noted, using after-tax profits does not control for changes in tax policy, such as the recent reduction in U.S. corporate tax rates.

Philippon has also largely dismissed the argument that a rise in intangible capital could be inflating profits. If a greater proportion of business capital is taking the form of intangible assets such as software, brands, intellectual property, and research—and if this capital is undervalued because of its intangible nature—then measured profits should be rising because costs including depreciation are underestimated, not because companies are abusing market power. A recent paper concludes the intensity of intangible investment is highest and grows fastest for the largest and fastest-growing firms in an industry, presumably because this investment is tied to the firms’ productivity and competitiveness.

Economist Jan De Loecker and his colleagues looked at company-level data on all publicly traded firms to measure both markups and profitability in the United States from 1955 to the present. They have argued that, beginning in 1980, the average “pure profit” rate (that which is in excess of the normal cost of capital) increased from 1 percent to 8 percent. However, this study has been widely criticized, including for its data on markups. Economist Tyler Cowen has pointed out that if profits are defined as the difference between market prices and the marginal cost of production, businesses with high fixed costs and significant economies of scale can have large profits yet still lose money. Rohan Shah noted that the authors used accounting data to
estimate their models, which is different than economic data. Even if economic profits are zero because of stiff competition, a firm may still show a profit in its accounts. Also, tracking firms over time leads to “survivorship bias”: uncompetitive firms going out of business, leaving only the more profitable firms. Basu pointed out that the model used to achieve these results produces implausible estimates for other economic variables. For example, it implies that adding more capital to a process actually decreases output.

Economist Chad Syverson also examined De Loecker’s figures and found that, even if profits were zero in 1980, the finding that pure profit rates increased from 1 percent to 8 percent implies a profit share of 25 percent in 2016. Other estimates for actual profits are far lower than this. For example, in 2016, domestic corporate profits as a share of net value added was 17.7 percent. In the published version of his paper, De Loecker himself admitted that the implied profit rate was too high. He attributed the discrepancy to two assumptions in his model. The first is the ratio of average cost to marginal cost is always 1:1. The second is all firms in an industry are the same. But many industries such as information technology and capital machinery experience significant economies of scale. De Loecker’s assumption about marginal costs therefore overstates profits by ignoring the need to earn a rate of return on large fixed costs. Similarly, the assumption that all firms have the same experience ignores research showing some firms in an industry earn higher-than-average profits while others experience much lower profits or even losses, indicating higher profits may be the result of greater competition, not market power. Models that rely on such artificial assumptions may be easier to use, but have limited policy relevance.

Gauti Eggertson and colleagues used national- and firm-level data to estimate changes to the share of corporate income going to profits since 1985. Initially, the pure profit share in excess of the normal cost of capital was only 3 percent of total income, with 63 percent of income going to labor, and another 26 percent to capital (taxes took 8 percent). By 2015, the pure profit share had risen to 17 percent, while the labor and capital shares had fallen to 57 and 17 percent respectively (taxes rose to 9 percent). There is a problem, however, in that defining “pure profit” requires an accurate estimate of the cost of capital—and firms typically do not list a line item for capital costs in their accounting tables, so it must be estimated. Capital costs also differ between firms due to the perceived riskiness of the industry and the liquidity of its firms. Also, the value of intangibles is both growing and difficult to value, which can affect pure profits.

Simcha Barkai estimated that between 1984 and 2014, the share of total value added going to pure profit increased from -5.6 to 7.9 percent, a rise of 13.5 percentage points, or over $1.2 trillion in 2014. But pure profits obviously could not have been negative for very long, as that would have implied the owners of capital were not even covering all of their costs. Some rise in the rate was therefore inevitable. Even a very low rate of pure profits would have cut the measured increase in half. However, using data from the Bureau of Economic Analysis (BEA), in 1984, domestic profits as a share of GDP were actually the highest of any year during the 1980s (7.5 percent), and were slightly higher than the 7.2 percent rate in 2019 (see figure 1). Barkai wrote that “the value of this increase in pure profits amounts to over $1.2 trillion in 2014.” But according to BEA, total profits in the nonfinancial sector were $1.3 trillion in 2014, suggesting a cost of capital of essentially zero, even though Barkai had estimated that cost to be around 8 percent that year. This suggests the differences stemmed not from changes in the rate of profits, but in how “profits” were defined. In other words, Barkai engaged in a significant
number of assumptions to measure not only the rate of pure profit, but the amount of capital investment—and those assumptions apparently led him to significantly overstate pure profits.

**DATA ON PROFIT TRENDS**

Many of the studies claiming an increase in profit rates focus on trends since the late 1980s. As figure 1 shows, corporate profits as a percentage of GDP before tax and after adjusting for changes in inventories and capital consumption have increased since then. However, looking at a longer time period, corporate profits are currently around the same level as in the 1960s, if not a bit lower.

The top line of figure 1 includes foreign and domestic profits. However, to assess domestic competition, we should be looking only at domestic profits. If profits are higher due to limited domestic competition, this is where they should show up. But if they are high due to overseas sales, any rise in those profits should be welcome, especially if U.S. firms are creating new markets or taking market share from foreign competitors. Higher U.S. foreign profits boost firms’ account balances and increase national income. Higher foreign profits from a lack of competition in overseas markets would be a problem for foreign antitrust regulators.

Domestic profits also appear to be trending up, at least since the 1980s. But there are several mitigating factors. First, when looking only at domestic profits, the rise is less prominent. Between 1990 and 2019, total profits as a percentage of GDP rose by 2.6 percentage points, from 7.1 percent to 9.7 percent. But the rise in domestic profits was about half that rate (1.4 percentage points), from 5.8 percent to 7.2 percent. Second, since their peak in 2014, they declined 4.2 percentage points by 2019, suggesting the recent rise in profits may be correcting itself.

Finally, domestic profits as a share of GDP are now significantly lower than they were in the 1950s and 1960s—a period of very aggressive antitrust enforcement during which excessive profits were, as expected, limited. U.S. competition authorities were still highly skeptical of mergers that allowed acquirers to gain any increase in market share. For instance, in 1962, the Supreme Court upheld the government’s challenge of a merger that would have given the combined entity roughly 5 percent of the manufacturing, and 10 percent of the retail shoe markets. Four years later, it upheld the government’s challenge to a merger of two grocery chains in Los Angeles whose combined market share was 7.5 percent.

*Figure 1: Corporate profits as a percentage of GDP before tax and after inventory and capital consumption adjustments*
It is also appropriate to exclude the financial sector, as since the 1980s, it has experienced a significant increase in value added and profits, which is unlike the rest of the economy. By this measure, the recent rise in profits is even lower. Indeed, one can note a long-term decline in the profit rate. As previously reviewed, between 1990 and 2019, total domestic profits increased by 1.4 percentage points. However, nonfinancial domestic profits increased by only 0.8 percentage points, from 4.5 percent of GDP to 5.3 percent.

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The slower growth rate is partly due to nonfinancial industries accounting for a declining share of GDP. Indeed, one problem with using profits as a share of GDP to measure whether profits overall are increasing is the ratio may go down if an industry’s or group of industries’ share of GDP gets relatively smaller. To control for that, it is important to account for changes in the size of the industry. The best way to do this is to measure profits as a share of domestic net value added, which is the value of output minus the cost of inputs such as labor, raw materials, and equipment, including the consumption of fixed assets. Corporate nonfinancial domestic profits as a percentage of net value increased by 36.8 percent from 1990 to 2019. But as figure 2 shows, since the 1950s, the trend line has been steadily going down.

Figure 2: Nonfinancial domestic corporate profits as a share of nonfinancial domestic net value added

There are two other pieces of data that call into question the notion that profits are currently soaring. First, the average annual increase in the consumer price index has been only 2.1 percent over the past 4 years, well below its average of 2.8 percent between 2010 and 2017, and much lower than its level during the 1980s. Companies have seemingly had trouble raising prices. Second, using 2013 data from the Internal Revenue Service (the latest available), the profit rate of corporations with less than $1 million in sales was actually higher (8.0 percent) than for corporations with sales over $250 million (7.7 percent), suggesting little or no systemic market power for large firms.
WHAT IS THE RELATIONSHIP BETWEEN CONCENTRATION AND PROFITS?

As noted, profits appear to have increased modestly, but are lower than they have been in other post-World War II years. Does this provide evidence of increased market power? A number of academics, some of whom are sympathetic to the argument that increased concentration explains at least part of our broader economic troubles, have pointed out serious weaknesses in the argument that there is a clear connection between higher industry concentration and rising profits. For instance, Basu explained that profit calculations are problematic for a company with large economies of scale because even firms with large markups may experience losses.32

But when looking at the available data, there appears to be little correlation between changes in concentration ratio and the rate of profits. The percentage-point change in market share of the top-4 firms in each of 39 industries for which there is data available regarding percentage-point increases in profits for 2002 and 2012 shows a positive correlation (0.67), meaning as concentration increased, so too did profits. But this positive correlation was driven solely by changes in the airline industry. When that is excluded, the relationship is actually negative (-0.19).

IS REDUCED COMPETITION CREATING HIGHER PROFITS?

In 2019, domestic profits as a share of GDP (9.7 percent) were actually lower than they were from 1962 to 1968. Yet the 1960s were hardly a time of lax antitrust enforcement. But while profits are lower now than they were in the 1950s and 1960s—or even 5 years ago—there appears to have been some modest increase since the 1990s. Why has this happened? Is it, like Philippon and others have indicated, largely due to lax antitrust enforcement allowing firms across the economy to exercise market power by raising prices and reducing quantity and/or quality? Or is it due to other, perhaps more benign, factors?

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The most serious challenge to the concern about profits is the linkage between competition and concentration on the one hand, and profits on the other, can go both ways.33 In some circumstances, increased concentration can provide firms with enough market power to raise profits at the expense of consumers. However, it is also true that heavily competitive markets can force companies to innovate and raise productivity in order to separate themselves from others. This process can increase the profits going to more productive firms, and cause less-competitive firms to shrink or exit the market.34 This argument is buttressed by a recent report from the International Monetary Fund, which finds that market power has increased moderately across advanced countries (indicating this is a global phenomenon and therefore less likely to reflect U.S. antitrust policy). Although the increase has been fairly widespread across industries, within industries it has been concentrated among a small fraction of more productive and innovative firms.35

Harvard University’s Anna Stansbury and Lawrence Summers recently proposed another explanation. Rather than attribute rising corporate profits to greater market power, they believe growing profits represent the fact that a decline in worker power is shifting more of the total
surplus earned by a firm away from workers and toward the owners of capital. If true, stricter antitrust enforcement would be largely ineffective in reversing the trend, while policies such as a higher minimum wage would be more effective.

Heavily competitive markets can force companies to innovate and raise productivity in order to separate themselves from others. This process can increase the profits going to more productive firms and cause less-competitive firms to shrink or exit the market.

In summary, Syverson found that “the relationship between concentration and markups, prices, or profits is a relationship between market outcomes. These can be uninformative or, worse, misleading about the causal effect of competition.” Policymakers need to be mindful of these limitations.

ABOUT THIS SERIES

In this series of short reports, the Information Technology and Innovation Foundation (ITIF) is examining many of the key claims behind the argument that a significant change in U.S. antitrust policy is warranted. In most cases, we find that the empirical evidence is weaker than claimed. In other cases, the causal relationships are speculative. Although some of the broader trends, such as a decline in innovation, raise serious social issues, they usually have several causes. Finally, in most cases, it is not clear that antitrust policy is either the cause or an effective cure. Broader social policies need to be enacted for such issues as income inequality and privacy.
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ENDNOTES


10. Ibid, 106.


13. Ibid, 50.


22. Moreover, Barkai admits this estimate is likely overstated by 1.2 percentage points because the owners of Subchapter S corporations tend to report labor income as profits in order to escape payroll taxes. Ibid.


25. Although this series only shows profits from corporations and not other forms of business such as partnerships and sole proprietorships, corporations tend to be the largest companies and the ones most likely to benefit from any broad increase in profits favoring big firms.


34. Chad Syverson, “Macroeconomics and Market Power: Context, Implications, and Open Questions,” 27.


