Research

Market Concentration Grew During Obama Administration

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Whether the industry is health care, energy, airlines, or telecommunication, the largest players in the economy have grown more concentrated during the past eight years.

Regulatory burdens have grown in concert with business consolidation leading to greater concentration. The question remains whether regulation caused increased business consolidation, regulation grew because industries consolidated, or the simultaneous growth is merely coincidental. The trends over time paint a picture of federal regulation and bigger business growing in conjunction.

To conduct this research, the American Action Forum (AAF) surveyed seven industries with available Herfindahl-Hirschman Index (HHI) data from 2000 to 2014: airlines, automotive, banking, energy, health insurance, hospitals, and telecommunication. HHI is an index of market concentration, with 0 representing a hypothetical market with an infinite number of firms of equal size, and 10,000 representing a perfect monopoly with no competition. Regulatory agencies consider HHI figures between 1,500 and 2,500 as "moderately concentrated," while figures more than 2,500 are generally defined as "highly concentrated." In AAF's sample, two industries went from moderately concentrated to highly concentrated during the observed period. But, even this measure is controversial. The HHI index is hardly the sole measure of market concentration, but it is the most widely used and employed by regulators when reviewing mergers.

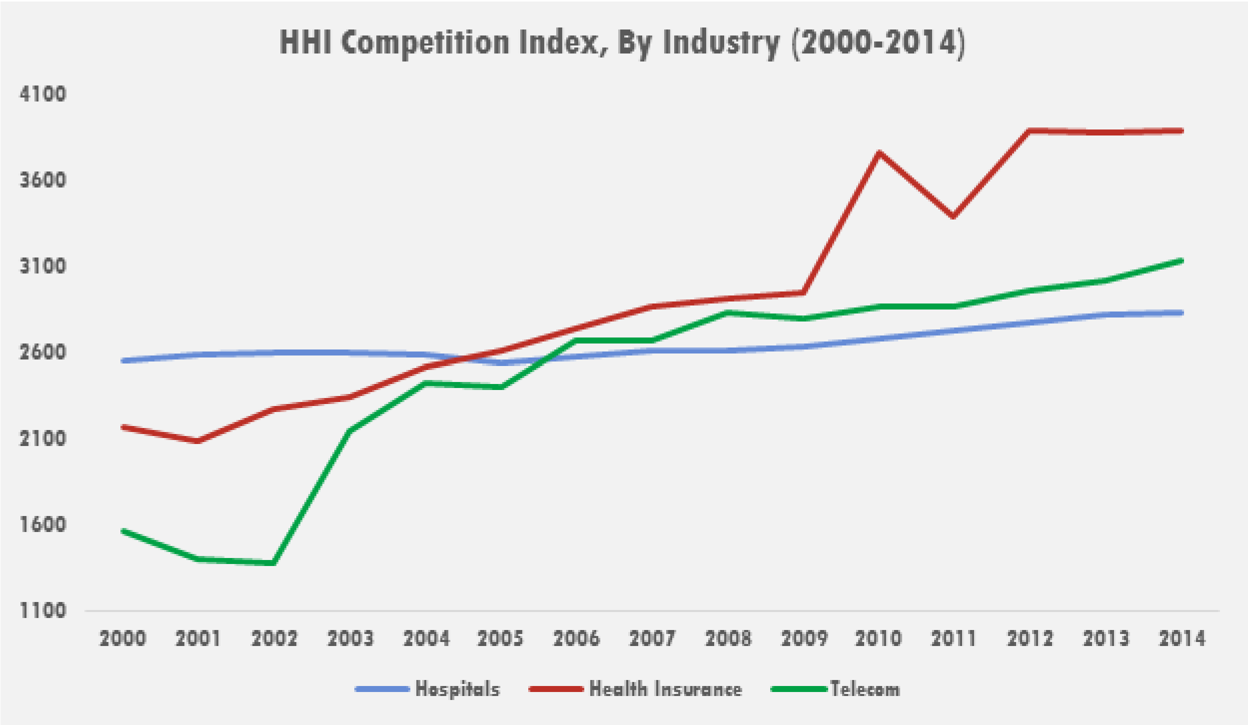
In general, AAF attempted to find national figures on HHI itself. For example, national telecommunication HHI data are made available by the Federal Communications Commission (FCC) and are based on local economic areas. Overall HHI data, however, are limited and frequently AAF had to calculate the HHI index using data on market shares.

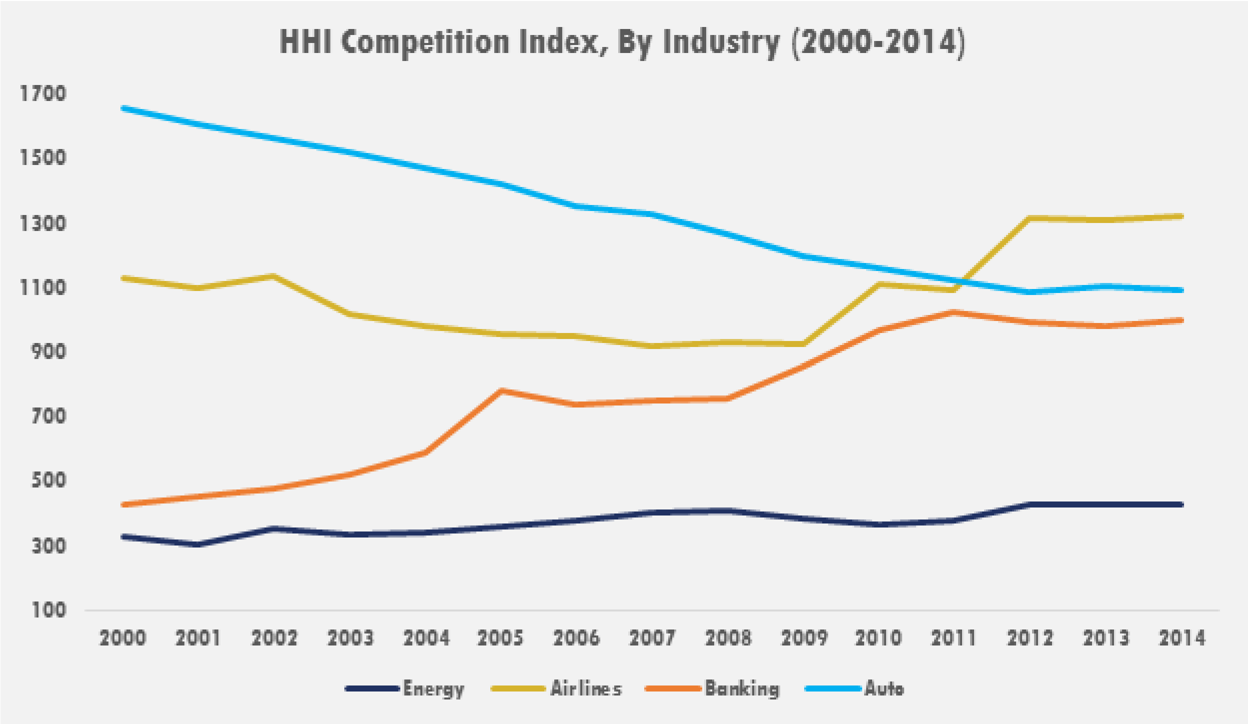
Combined, the business sectors in AAF's sample contributed $4.3 trillion to the nation's Gross Domestic Product in 2014, roughly one-quarter of economic output. All but one industry (automotive) had a positive correlation between increased regulation and rising industry consolidation. Five of the industries examined had positive correlation coefficients exceeding 0.7 (where 1 indicates a perfect correlation and 0 represents no relationship).

AAF examined several variables to proxy for the scale of regulation. For instance, AAF employed Mercatus's RegData tool, which counts the number of regulatory restrictions contained in the Code of Federal Regulations, to compare an industry's regulatory burdens with its consolidation. Additional regulatory metrics included the aggregate paperwork burden from the regulating agency and total number of major rules.

Increased Concentration

Across the industries that became more concentrated, the average HHI index increased by more than 22 percent from 2008 to 2014. The auto industry became slightly less concentrated, with a 13 percent decrease in HHI. It's important to note that every measure of regulation AAF studied increased during this period as well, from paperwork, to major rules, to RegData metrics. The graphs below chart the growth in HHI from 2000 to 2014.





The table below shows the growth in regulation as well as the consolidation in the different industries between

2000 and 2014. The telecommunications industry saw the largest change in market concentration with a 101 percent increase. This change in market concentration was accompanied by a substantial increase in regulatory burdens imposed on that industry. Furthermore, the average HHI between each industry and the average regulatory burden rose simultaneously. While market concentration increased by 43 percent, RegData increased by 58 percent, paperwork hours by 186 percent, and major rules by 437 percent.

Percent Change in Market Concentration and Regulation
2000-2014

Industry	**HHI Index**	**RegData**	**Paperwork Hours**	**Major Rules**
Hospitals	11%	50%	283%	524%
Health Insurance	79%	50%	283%	524%
Banking	100%	111%	223%	700%
Telecom	101%	43%	220%	65%
Airlines	16%	53%	168%	745%
Auto Industry	-34%	22%	96%	288%
Energy	31%	74%	30%	213%
Average *Change*	43%	58%	186%	437%

In recent years, almost every industry above has observed significant mergers. For example, in 2014 there were 95 hospital mergers following 98 mergers in 2013. During the observed period, the HHI index in this industry grew from 2,556 to 2,840. During the Obama Administration, it increased roughly 7.5 percent.

For health insurance, Aetna and Humana, Anthem and Cigna, and Centene and Healthnet have all started the merger process; however, some of these mergers are too recent to be reflected in the data. Health insurance, as shown in the red line in the graph above, is the most concentrated industry in the sample. With a current HHI index near 4,000, according to the Kaiser Family Foundation, and some states with indices exceeding 8,000, health insurance is easily considered highly concentrated. During the Obama Administration, the HHI index has increased by 31 percent. If the Affordable Care Act's goal was to increase competition, on that count, it appears to have failed. It did manage to add more than $46 billion in costs and 170 million paperwork burden hours.

In the energy industry, Duke's merger with Progress created the largest public utility in the nation and FirstEnergy's merger with Allegheny created the second largest company at the time. Public utilities, already highly regulated, offer little choice to consumers in individual markets, but on the national stage, its HHI index is relatively low: from 329 in 2000 to 436 in 2015. Still, during the Obama Administration, the index has crept up by 12 percent.

Airlines too have witnessed almost unprecedented consolidation in recent years. In spite of this, the cost of airfares remains cheaper than it was in 2008. Still, the HHI index increased 41 percent between 2008 and 2014 from 935 to 1,321, which is the result of the mergers of Southwest and AirTran, Delta and Northwest, Continental and United, and US Airways and American. The more recent mergers are also not represented in the HHI data.

Telecommunication is marked as one industry where regulators attempted to squash industry consolidation, only to watch concentration grow. AAF derives its data from the FCC's report on the state of competition in wireless mobile. This is just a slice of the overall telecommunications market and critics have suggested that FCC might overstate market concentration in the industry. However, even with the public rejection of the merger between AT&T and T-Mobile, the HHI index has grown more than ten percent since President Obama took office. This is in part due to AT&T's partial purchase of Qualcomm assets, T-Mobile's purchase of MetroPCS, and AT&T's purchase of Leap Wireless.

Finally, the banking industry is an area where observers might expect the most scrutiny by regulators. But, while some emergency consolidation took place during the financial crisis and that might have caused an increase in HHI, the industry has actually undergone an incredible increase in concentration recently. Whether measured by net assets or deposits, the banking HHI has climbed roughly 32 percent since 2008.

Intersection of Regulation and Market Concentration

Given the rising level of market concentration, AAF had several options to compare regulatory growth to big business growth. The primary metric was Mercatus's RegData, which counts the number of regulatory restrictions contained in the Code of Federal Regulations. RegData allows a granular examination by industry as well. AAF also examined the paperwork burdens and number of major rules from each regulating agency affecting an industry.

Broadly, the correlation between industry consolidation and regulatory growth over time is strong. For five of the seven industries studied, the correlation coefficients exceeded 0.70. This represents the linear dependence between industry HHI and RegData, implying that as one variable increases we can expect the other to increase as well. The correlation coefficients were also consistently high when using the other metrics of regulation. Below are the correlation coefficients for the seven industries AAF examined, which included one negative correlation:

Industry	**RegData Correlation Coefficient**
Hospitals	0.84
Health Insurance	0.96
Energy	0.76
Airlines	0.47
Automotive	-0.85
Telecommunication	0.86
Baking	0.96

For the positive correlations, the average correlation coefficient was 0.80. The only outlier is the automotive industry, where the rise in regulation was correlated with a decline in consolidation. These data do not necessarily indicate regulation has caused these industries to become less competitive. It could be that as industries grew more concentrated, regulation increased in tandem. However, it might illustrate some relationship between rising regulatory burdens and greater industry consolidation during the past 15 years.

Conclusion

During President Obama's tenure, regulation has certainly not abated the increase in concentration, as measured by HHI. Rather, large industries have consolidated and grown more concentrated. This could be due to rising regulatory restrictions, entrenching those most able to navigate the capital and legal hurdles associated with complex rules. In AAF's previous work, we found regulation hit small business establishments the hardest and actually helped the largest businesses. Today's findings cast little doubt on those previous results. Presumably, both consumers and regulators want competitive markets, but evidence from the Obama Administration reveals only more consolidation.