

**ECO 150, Winter 2022, Required Homework Assignment #3**  
**Due by the start of class on March 15**

This assignment asks you to apply issues of monopoly and competition to a policy question.

The [Herfindahl-Hirschman Index](#) (HHI) is used in antitrust law to measure how concentrated a market is with 2500 used as a threshold for a “highly concentrated” market that may display some features of monopoly.

. To calculate the HHI for an industry, take each firm's market share, square it, and add these together. For example, suppose that both Coke and Pepsi have half of the soda market:

$$HHI = 50^2 + 50^2 = 5000 \quad (1)$$

1. Suppose that Coke and Pepsi merge to form a super company known as Timmy's Soda Inc. With only one firm in the market, calculate the new HHI if the merger were to take place.
2. This [article](#) describes how antitrust regulators use the HHI when reviewing mergers and acquisitions. Based on this, what actions might regulators take against Timmy's Soda Inc?
3. Now suppose that Coke and Pepsi argue that they are best thought of as part of the broader beverage market and that each is only 10% of that market. If correct, how would this affect the analysis of the potential merger from #2. Note that this question is a little open-ended.
4. What would the HHI be in a truly perfectly competitive market? What about a pure monopoly?
5. Using a model of supply and demand, show the potential impact of a Coke-Pepsi merger.
6. The U.S. Department of Justice is one of the agencies tasked with antitrust enforcement. They [provide data](#) on both civil and criminal antitrust cases. Based on these data, have antitrust cases become more or less common in the U.S. over the past two decades?
7. Using a spreadsheet program, make a graph plotting some measure of antitrust enforcement over time. There are many measures that you could choose, but explain why you chose the one that you did.

Some observers have blamed high inflation on a lack of competition. [Here](#) is a related article while [here](#) is another.

8. Using a graph of supply and demand, explain how a reduction in competition could affect prices.

9. Many economists are deeply skeptical that a lack of competition is a primary driver of inflation. What data might be helpful in answering this question?