

ECO 156, Fall 2026, Required Assignment #2

Applications to Market Failures: MBSs, Monopsony, and Car Insurance

I highly recommend that you attempt this assignment prior to the first midterm on Monday, October

5. I will, however, accept assignments through Friday October 9 at 4 PM.

Instructions Answer each of the following questions. Most questions can be effectively answered in a few concise sentences. Submit your assignment via [this Google form](#). You will need to be logged into your Bates account to access the link.

Part I: Mortgage Backed Securities: In September 2008, the global economy fell into the Global Financial Crisis, which led into the Great Recession. A financial instrument, known as a mortgage backed security (MBS), is often blamed for helping cause the crisis.

1. Find a source describing how mortgage backed securities created systemic risk in the runup to the Global Financial Crisis. Provide a proper citation. For citations, I recommend the [Chicago Style](#), although you are free to use other widely used methods such as APA or MLA. Then, in your own words, explain how systemic risk is a negative externality.
2. Suppose that the private marginal utility is $P = 500 - 20Q$ and that the private marginal cost is $P = 100 + 30Q$. Furthermore, suppose that there is a negative externality equal to 50. In an unregulated market where the externality is not corrected, solve for the price, quantity, consumer surplus, producer surplus, and the social cost. Include a graph.
3. Now, find a tax that will correct the externality. Include a graph. Show that total welfare is higher in #3 than #2
4. Suppose that the externality equals $50Q$ instead of 50. How would this change your interpretation of the externality [Hint: use the word ‘marginal.’] For a bonus point, find a tax that corrects for the externality of $50Q$.

Part II: Monopsony: In 2022, two large publishers, Penguin Random House and Simon & Schuster proposed merging to create a unified, larger publisher.

5. How did the U.S. Department of Justice block this proposed merger? Provide a source with a proper citation.
6. Unlike most anti-trust cases, this merger was blocked due to the risk of monopsony rather than monopoly. Using a graph, illustrate how the proposed, combined firm could have used its market power to boost its consumer surplus.
7. In your graph from #7, describe what specific price is included on the vertical axis and what specific quantity is on the horizontal axis. Would it be accurate to call this a labor market?
8. Suppose that the supply curve in your graph is almost vertical (supply is inelastic). Does this make it easier or harder for a monopsonist to exploit their market power?

Part III: Car Insurance:

Consider a world with two types of drivers. 100 are high risk drivers. 9% of high risk drivers get into an accident each year, and the average cost of an accident is \$1000. 100 are low risk drivers. 1% of low risk drivers get into an accident each year, with each accident again costing \$1000.

9. How much would each driver have to contribute to an insurance pool to pay out claims so that each driver no longer faces any financial risk. To keep it simple, assume no administrative costs and that the insurer earns no profit. Furthermore, assume that insurers cannot discriminate between high risk and low risk drivers.
10. Discuss whether low risk drivers would opt out of such an insurance scheme, a market failure known as adverse selection.
11. How have 49 U.S. states, as well as most developed countries, chosen to correct this potential market failure in the market for car insurance? Provide a citation.

12. Suppose that a technology allows insurers to discriminate between high risk and low risk drivers. Propose an alternate (and simple) strategy to eliminate the threat of adverse selection.

Notes.

1. **AI use** You may use AI to search for sources. All answers should be crafted in your own words. You should not use AI to solve any math problems. Hand drawn graphs are recommended. If you use AI to create graphs, this should be indicated and the graphs should be customized to the details of the question.