

**NOTA BENE 2022:
REFLECTIONS ON THE REMORSELESS WORKINGS OF THINGS:
Can we overcome our collective hamartia?**

Assignment and Thought Questions

**Professor David Besanko
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The conventional concept of tragedy is that it is an unexpectedly devastating event that upends and possibly changes our lives. But tragedy's origins are actually in art—after all, tragedy is first and foremost a dramatic form, just as comedy, melodrama, or history are also dramatic forms.¹ And while the focus of dramatic tragedy is indeed human suffering, it is suffering of a particular kind: suffering that cannot be stopped despite our best efforts as humans to stop the events that lead to it. As British mathematician and philosopher Alfred North Whitehead put it in his book, *Science and the Modern World*, “The essence of dramatic tragedy is not unhappiness. It resides in the solemnity of the remorseless workings of things.”² Central to this remorselessness is Aristotle's concept of *hamartia*, most commonly translated as “tragic flaw.” Once a chain of events unfolds in a particular way it becomes inevitable that the protagonist's *hamartia* will lead to despair and doom, for them and possibly others, too.

It turns out that there are interesting examples of dramatic tragedy—the remorseless workings of things—that unfold in business and society. These tragedies stem from what economists call *collective action problems*. Though a class session on the “remorseless workings of things” might not seem like a natural topic during this significant and joyous week for you and your loved ones celebrating with you, the message of today's Nota Bene is, I think, an uplifting one: with what you have learned in your time at Kellogg, with the culture of cooperation you have been immersed in, and with the professional skills you have developed, you are in a position not only to understand the collection action problems that can arise in business and society, but to avoid and even overcome them to serve the common good. This is something to be savored and perhaps even celebrated.

¹ The etymology of the word “tragedy” is from the Greek *tragoidia*, stemming from *tragos*, “goat,” and *aeidein*, “to sing.” Scholars debate what the reference to “goat” pertains to—some suggest it might refer to goatskin costumes worn by performers, while others argue that it may have been a prize for the best acting—but all agree that “goat song” refers to a dramatic performance of some kind. For more on the etymology of “tragedy” see “Is it True that the Word ‘Tragedy’ Originally Meant ‘Goat-Song’?” *OxfordWords Blog* (October 26, 2011), <http://blog.oxforddictionaries.com/2011/10/tragedy-goat-song/>

² Whitehead, Alfred North, *Science and the Modern World: Lowell Lectures, 1925*, New American Library, 1925, p. 11.

For you, your family members, and your friends to be prepared to attend this session, there is a bit of homework you must do. And like much of your work at Kellogg, it involves reading cases. Don't worry, these cases are short, and they don't have exhibits that you need to work through. But please read them and be prepared to discuss them, guided by the question that follows each case. As in your classes at Kellogg, be ready: you may be cold called!

PLEASE READ EACH OF THE CASES BELOW AND BE PREPARED TO DISCUSS THEM IN THE NOTA BENE SESSION

Case 1: The devastated industry

What follows is a true story. The time period is real, and the situation is real. Only the industry's name has been disguised.

For decades prior to the 1980s, the North American widget industry had grown and prospered. It provided a good that consumers valued highly, and indeed was an essential commodity for many consumers. The industry had rich geographic context; in the communities in which the industry was concentrated, sons, fathers, and their fathers before them drew their livelihood from the industry, and it was an article of faith among the young men in these communities that if a family member worked in the industry, you probably would too. A case could even be made that the industry was part of the unique and compelling story that made America and its history exceptional.

The industry had, of course, gone through its ups and downs over time, but it had always bounced back. On those occasions in which the industry was poised to decline, it was able to rebound, either by breathing new life into its product or opening new markets for that product. Few industries had shown the centuries-long resilience that the North American widget industry had.

But as the 1970s gave way to the 1980s, the North American participants in the industry faced some significant threats. New entrants from overseas had begun to enter the industry. Some were from Europe and some from Asia. The widgets they produced were no different or no better than those produced by the North American firms. But by employing new technologies and methods of production, the international competitors were able to achieve levels of productivity that vastly exceeded those of the North American firms that, by and large, employed traditional methods of production. The success of these efficient global competitors revealed to some that the incumbent North American firms were “fat and happy,” and needed to be fundamentally revitalized.

Reminiscent of firms in other industries such as textiles and televisions, the initial response of the North American widget producers was to lobby government to enact barriers to foreign competition, and government was obliging, taking steps that to some extent (though by no means perfectly) kept the market protected from international competition. But the new technologies and production methods were compelling, and soon virtually all North American firms adopted them, almost certainly matching the production costs of their foreign competitors.

For a while, the fortunes of the North American widget industry appeared on the verge of a turnaround. But in the early 1990s, the bottom fell out. Within a few short years, the industry's output collapsed by over 90 percent ... this even though widgets were just as highly valued by consumers as they had ever been—probably even more so—and even though no technologically-advanced substitute products for widgets had arisen that offered better value. Most firms, even the largest, were forced to idle their assets, and many went out of business. Foreign producers, equally devastated, fled the market too. In the geographies in which industry activity was concentrated, tens of thousands of workers in widget firms and firms in the widget industry's supply chain lost their jobs.

Communities that had long relied on the industry were devastated. The collapse of the industry created an outmigration whose full social effects are still being felt today. Said one resident of the region at the center of the industry's collapse: "I'm pretty sure that at the university, one-third to one-half the graduates in business, engineering, and some other disciplines are on a plane the day after they get their diploma. That's very sad, but what are the alternatives?" By the late 1990s, unemployment in the region had reached 19 percent. By 2022 things had not changed much. The North American widget industry has never come back.

As noted, this is a true story. What real-life industry is the "widget industry"? Why do you think it collapsed? Could the industry's collapse have been prevented if North American firms had been more skillfully and efficiently managed?

Case 2: The experiment

A friend of yours recently described a situation they were in a few months ago.

“I volunteered to participate in a social psychology experiment. I was not told anything about the experiment except that it was supposed to have something to do with entrepreneurship and investors. When I showed up, I was placed in a room and was given \$100 in cash. I was told that I could keep the cash, in which case, the experiment was over, and I could leave. Or I could send the cash to a person in another room nearby. If I did that, the person in charge of the experiment would triple my \$100 and give it to that person, about whom I was told nothing. That person—who was similarly told nothing about me—would be instructed that they could keep as much of the \$300 as they wanted, up to and including the full amount. Or they could send some of that money back to me and keep the rest for themselves. At that point, the experiment would be over. I would never be introduced to the person in the other room, and since I was never told anything about them, I would have no idea if I were ever to encounter them in the future.”

- (a) What would you do if you were in your friend’s circumstances in this experiment?***
- (b) Suppose you knew your friend to be a hard-nosed, rational maximizer of their own well-being, and your friend also believed that most people were also hard-nosed rational maximizers. What do you think your friend did?***
- (c) Suppose instead you knew your friend to be a person with fairly typical inclinations and intuitions. Given this, what do you think your friend did?***
- (d) What do you take away from reflecting on this case?***

Case 3: Sirius versus XM in the U.S. satellite radio market

Since the first commercial radio broadcast in 1920 by station KDKA in Pittsburgh, Pennsylvania, commercial radio in the United States has experienced two significant technological leaps. The first occurred in the 1940s and 1950s when FM radio stations began broadcasting commercially. The second was the development of satellite radio in the 1990s.³ Satellite radio involves the possibility of offering listeners near-perfect reception over hundreds of channels that appeal to all manner of tastes. The service was thought to be particularly appealing to long-distance drivers (such as commercial truckers) who may traverse many local radio markets on a given journey.

The market for satellite radio officially began in 1997 when the U.S. Federal Communications Commission (FCC) auctioned off licenses to use the frequencies it had set aside for satellite broadcasting. Two firms won licenses: XM Radio (then known as American Mobile Radio), which paid \$93 million for its license, and Sirius, which paid \$85 million. XM launched its two satellites (named “Rock” and “Roll”) in spring 2001, and later that year it began its nationwide subscription service. Sirius launched its satellite in early 2002 and began its national service a few months later in July.

Throughout the 2000s, the market for satellite radio grew steadily, and by the end of 2006, Sirius had about 6 million subscribers, while XM had about 7.5 million. Each company acquired an impressive portfolio of programming. For example, XM secured broadcast rights for Major League Baseball and the National Hockey League, while Sirius obtained the rights for the NFL and the NBA. Both firms also signed contracts with high-profile broadcasting personalities, XM with Oprah Winfrey and Sirius, famously, with “shock jock” Howard Stern. And yet despite rapid revenue growth, both companies incurred large net losses every year between 2002 and 2007. While Sirius brought in almost \$2 billion in total revenue over the period 2002 to 2007, it incurred a cumulative loss of more than \$3 billion over the same period.⁴ XM generated almost \$3 billion between 2001 and 2007 and incurred a cumulative loss of slightly more than \$4 billion.⁵

Faced with the prospect of continued losses if the competition between them continued, in 2007 the companies made the decision to merge, with shareholders of each company receiving 50 percent of the consolidated firm, to be called Sirius XM. In early 2008, the U.S.

³ It could be argued that a third leap occurred in the 2000s with the advent of Internet radio.

⁴ Historical financial data for Sirius was obtained from 10K reports available from the U.S. Securities and Exchange Commission’s Edgar database, <https://www.sec.gov/edgar/searchedgar/companysearch.html> (accessed May 31, 2022).

⁵ Historical financial data for XM was obtained from the 2007 and 2003 10K reports available at <https://investor.siriusxm.com/investor-overview/default.aspx#reports-tab1> (accessed May 31, 2022).

Department of Justice cleared the merger, and it was approved by the FCC in a 3 to 2 vote. Sirius XM began operation as a unified satellite broadcasting network in 2009.

After losing money in 2009 and again in 2010, Sirius XM turned a corner in 2011. For the first time ever, the company achieved positive net income, and it has continued in the black ever since. Indeed, thought by many to be a transitory technology in a world of iTunes, Spotify, and Pandora, satellite radio has managed to defy expectations and steadily grow its base of subscribers. By the end of 2018, when it announced its plan to purchase Pandora, Sirius XM had 34 million subscribers.⁶ Though its revenue growth has slowed in recent years, Sirius XM survived the pandemic in decent shape, and it was considered to be a reliable performer among media companies. According to *Motley Fool*, “Sirius XM has outlasted the naysayers. Despite the common bearish thesis that this is a transitory technology—destined to obsolescence in this age of the connected car—the platform continues to grow. It has added at least one million net subscribers in 10 of the past 11 years.”⁷

Still, considering the outcome—a “truce” between two firms that took the form of a merger into a monopoly—one must wonder what the point of the battle for market leadership between 2002 and 2007 had been. Many observers of this market believed that a merger between the two contestants was bound to occur; said one columnist in 2008, “This consolidation was inevitable and in many ways makes sense.”⁸ Yet, Sirius and XM together incurred \$11.6 billion in capital investment and operating losses engaging in the battle to dominate this market.⁹ Put bluntly, the fight for competitive position in this market destroyed billions of dollars in shareholder wealth to achieve an outcome that could have been negotiated before the fight even started!

If merger was inevitable, why did Sirius and XM not attempt to merge three or four years earlier and avoid billions of dollars of destroyed shareholder value?

⁶ Statista, “Number of Sirius XM subscribers in the United States from 1st quarter 2011 to 4th quarter of 2021,” <https://www.statista.com/statistics/252812/number-of-sirius-xms-subscribers/> (accessed May 31, 2022).

⁷ Munarriz, Rick, “Downgrading Sirius XM Stock Could Be a Mistake,” *The Motley Fool* (April 18, 2022), <https://www.fool.com/investing/2022/04/18/downgrading-sirius-xm-stock-could-be-a-mistake/> (accessed May 31, 2022).

⁸ “Is the New Sirius XM the Beginning of Satellite’s End,” http://voices.washingtonpost.com/rawfisher/2008/11/is_the_new_sirius_xm_the_begin.html (accessed May 31, 2022).

⁹ Hazlett, Thomas, “The Economics of the Satellite Radio Merger,” (working paper), July 2007, <https://arlingtoneconomics.com/wp-content/uploads/2016/02/economics-of-satellite-radio-merger.pdf> (accessed May 31, 2022).