

Hamilton: An economics case study in three acts

Michael Vaughan
Weber State University

Diana Meiser
Weber State University

ABSTRACT

This case study is based upon the musical *Hamilton*, and in particular the pricing of tickets in primary and secondary markets. The case also includes a brief examination of the economics underlying the performing arts. *Hamilton* opened on Broadway in August 2015 (Gioia, 2015). The musical was an immediate success; and as a result, ticket prices for *Hamilton* established records for a Broadway production. This case examines ticket prices in the primary and secondary markets as well as the trend in ticket prices in the performing arts. Because *Hamilton* utilizes rap music and incorporates contemporary themes into the musical, it is especially popular with audiences that are younger than the traditional musical theater audience, so the case should resonate with university students. The case is easily accessible for students in introductory economics courses who may use their understanding of basic market principles to analyze the case, but the case is also suitable for more advanced classes.

Keywords: Cost Disease, Market-Clearing Price, Scalping, Productivity, Rent-Seeking

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Introduction

In August 2015, the musical *Hamilton*, created by Tony Award-winner Lin-Manuel Miranda and based on the life of Alexander Hamilton, opened to acclaim on Broadway. With record-breaking ticket sales of \$32 million prior to its official opening, *Hamilton* proved itself to be a Broadway bonanza (Zoglin, 2015). At the 2016 Tony Awards, *Hamilton* won 11 Tony Awards, surpassing such Broadway legends as: *Fiddler on the Roof*, *Hello Dolly*, and a *Chorus Line* (Paulson, 2016). Only the musical *The Producers*, which won 12 Tony Awards in 2001, had ever garnered more awards.

A CASE STUDY OF HAMILTON

Act I: Market Prices

The award winning musical *Hamilton* is a sensation. In one arena, the musical is second to none. That arena is ticket prices. *Hamilton* quickly established itself as Broadway's highest price ticket. When *Hamilton* opened in 2015 the price of a premium seat was \$475. Shortly before the 2016 Tony Awards ceremony, the price of a premium ticket was raised to \$849, a record for Broadway. For the 2017 Christmas season, the price of premium seats for *Hamilton* was raised to \$1,150 (Cox, 2017).

Yet, those prices are not market-clearing prices. The demand for *Hamilton* tickets is so strong that there is an active secondary market for tickets. Selling tickets in a secondary market is colloquially known as ticket scalping. In secondary markets, *Hamilton* tickets commanded prices of several thousand dollars. The Harvard economist Gregory Mankiw (2016) wrote an article in the *New York Times* in which he talked about his experience of paying \$5,000 for two *Hamilton* tickets.

Mankiw and his wife made a spur of the moment decision to travel from Boston to New York, so he was delighted to get tickets. Mankiw (2016) wrote, "It was only because the price was so high that I was able to buy tickets at all on such short notice. If legal restrictions or moral sanctions had forced prices to remain close to face value, it is likely that no tickets would have been available by the time my family got around to planning its trip to the city." In Mankiw's view, ticket scalping is a marvelous device for making markets efficient.

Many, such as Mankiw, view secondary markets as a tool for achieving market-clearing prices and putting tickets into the hands of those who place the greatest value on the tickets. Others make a different argument.

Ticket scalping may be considered a form of rent-seeking. The term rent-seeking refers to cases where individuals earn a return without producing a good or service. Theft may be the simplest form of rent-seeking; the thief earns a return by simply transferring an asset from the owner to the thief. Other examples of rent-seeking would include lobbying for government subsidies, tariffs, and occupational licensing.

Gordon Tullock (1967) argued that rent-seeking wastes economic resources because individuals expend time, money and resources in the process of rent-seeking. Leslie and Sorensen (2014) note that, "In ticket markets, the costly rent-seeking typically takes the form of

brokers investing in strategies to buy up event tickets quickly when they go on sale, either by clogging phone lines and internet sites or by paying “pullers” to be first in line at the box office.” Therefore, the scalper may spend considerable time to acquire and sell the tickets. In addition, the buyer may go to some lengths to determine that the resold tickets are not counterfeit. Nevertheless, ticket scalping does not increase the number of people who view a performing arts event. It merely transfers tickets from one group to another.

Act II: Inflation, Productivity, and Ticket Prices

Whether purchased at the box office or through the secondary market, many view the ticket prices for *Hamilton* and other Broadway blockbusters as expensive. What underlies the prices of a Broadway ticket? Have Broadway tickets always been expensive?

One might postulate that the record-breaking price of *Hamilton* tickets is merely a reflection of the fact that *Hamilton* is the most recent Broadway blockbuster. The price of tickets for the Broadway hits of one, three, or five decades ago was lower because the price of a great many things was lower years ago. As one example, for most of the 20th Century gasoline prices were less than 30 cents a gallon. In other words, some may think the fact that *Hamilton* ticket prices surpass those of prior Broadway hits is simply a reflection of inflation.

In fact, Broadway tickets prices have far outstripped the overall rise in consumer prices. In 1960, the price of a ticket to the musical *Gypsy* cost \$2.50 (Hass, 2009). If you adjust that price for the overall rise in consumer prices, the ticket would cost about \$21 today. That is a far cry from the thousands of dollars that *Hamilton* tickets command. Further, inflation-adjusted ticket prices are far below the price of today’s typical Broadway show. The average cost of a ticket to a Broadway show passed the \$100 mark during the 2013-14 season (Ng, 2014). Compared to the 1960s, the price of an average Broadway show is 5 times the amount that a simple inflation-adjusted price increase would suggest.

Why has the price of Broadway tickets surpassed the rise in overall prices? A key to the answer lies in the concept of productivity. Productivity is simply “the quantity of good and services produced from each hour of a worker’s time.” (Mankiw, 2015, p. 821) In other words, the amount of output produced by a typical worker in an hour. In a great many industries, productivity has increased over time. When productivity increases, it is possible for a company to increase profits as well as the wages paid to workers without increasing the price of its product.

The economist William Baumol (1966) pondered the question of why the cost and price increases for performing arts events exceeds the rate of inflation. Baumol contended that many sectors of the economy are characterized by continual increases in productivity. In contrast, productivity in the performing arts is constant. A string quartet will always have four musicians, and a composer writes their music to be performed at a specific tempo. Productivity cannot be increased by reducing the number of musicians or playing the piece faster.

Yet, even though the productivity of musicians does not increase, it is necessary for symphony orchestras to increase the wages of musicians periodically to keep pace with other sectors where productivity is increasing. A symphony that attempted to form an orchestra by paying the wages that prevailed in the baroque era would have a very difficult time recruiting musicians.

Baumol coined the term cost disease to describe the economic consequences of industries with stagnant productivity. One of those consequences is the tendency for prices to outpace the rate of inflation. The concept of cost disease is now generally accepted. Maiello (2017) notes, “The effect now known as Baumol’s cost disease is used to explain why prices for the services offered by people-dependent professions with low productivity growth—such as . . . the arts—keep going up, even though the amount of goods and services each worker in those industries generates hasn’t necessarily done the same.”

Act III: Equity and Efficiency in Secondary Markets

Mankiw, who was happy to pay \$5,000 for two Hamilton tickets, did acknowledge that not everyone would have the wherewithal to pay that price. Mankiw (2016) noted, “To be sure, most people can’t easily afford paying so much for a few hours of entertainment. That is indeed lamentable. The arts expand our horizons, and in a perfect world, everyone would have the opportunity to see a megahit like *Hamilton*.”

Many found Mankiw’s appreciation of the equity issues lacking. In the online comments following his article, one reader simply described his viewpoint as “appalling.” Another comment highlighted the issue of income inequality with the remark: “I hadn’t been aware that Marie Antoinette is alive and living in Boston.”

The sociologist Nathan J. Robinson (2016) provides a more scathing critique of Mankiw’s viewpoint. To illustrate his point Robinson describes the following example:

You see a man drowning. You are about to toss him a life preserver. But then you remember Mankiw’s words: there is no shame in figuring out what the market will bear.

“How much would you pay for me to toss you this life preserver?” you shout to the man.

“Blub,” he replies.

“I’m afraid ‘blub’ just won’t do,” you call back, beginning to walk away. Through mouthfuls of seawater, he manages to spit out the words: “I’ll pay whatever you want, just toss the damn life preserver!” As he thrashes about, struggling for his life, you manage to strike a deal. You will toss the life preserver, and he will turn over all his worldly assets to you as soon as he hits land.

For economists, what has just occurred is an *efficient* transaction. Each person has been made “better off.” The person who tosses the life preserver gets paid, and the drowning man gets saved, by paying someone to toss a life preserver. Everyone is happy.

Of course, in reality, you have extracted a person’s entire wealth from them by threatening to let them die, and callously refused to engage in the most basic of moral human behaviors unless you get paid for it. You have acted like a total sociopath. (Or, in other words, like an economist.) (para. 11-15)

One does not need to resolve the differing viewpoints of Mankiw and Robinson to know where the producers of *Hamilton* stand on the issue. They are clearly concerned about providing access for an audience who cannot afford the highest price the market will bear. Perhaps this is why box office prices are set below market clearing levels. More compelling evidence is found in the fact that producers set aside 46 prime seats for each Broadway performance that are distributed through a digital lottery. Lottery winners may purchase tickets for \$10. A similar number of lottery tickets are available for each performance on the musical’s two national tours.

Although this number is small, it does provide an option for those who cannot afford the market price. Moreover, it is an indication that the producers are concerned about equity issues.

Mankiw does not quibble with the producers' concern for equity. However, he does feel the ticket lottery is inefficient. Mankiw (2016) wrote, "Yet Mr. Miranda [*Hamilton's* creator] and his investors could find better ways to give back to the community than vastly underpricing most "*Hamilton*" tickets and enriching ticket resellers. Maybe fund scholarships for theater students."

Mankiw's mention of "enriching ticket resellers" suggest that he believes that lottery winners may simply turn around and resell the tickets. In fact, the producers check photo identification for each lottery winner to make sure that the lottery winners actually attend the performance. Nevertheless, the lottery does not put the tickets into the hands of those with the greatest willingness and ability to pay, an outcome Mankiw finds desirable.

Conclusion

The popularity of the Broadway musical *Hamilton* created a great demand for tickets and an active market for reselling tickets in secondary markets. Both the scope of the market for *Hamilton* tickets and the record-setting prices provide a rich platform to apply microeconomic concepts in a real-world setting. This case has set the stage to discuss the concepts of, market-clearing prices, scalping, rent-seeking, productivity, and cost disease. Enterprising and engaged students may well find other relevant economic concepts to apply to the market for *Hamilton* tickets.

DISCUSSION QUESTIONS

1. List a number of reasons why the producers of a performing arts event would set the box office prices below market-clearing prices.
2. Do you agree or disagree that the reselling of Broadway tickets in secondary markets promotes efficient market outcomes? Why do you agree or disagree?
3. Are there reasons why ticket reselling may be inefficient?
4. Other than ticket scalping, give several other examples of rent-seeking.
5. Explain why the performing arts are subject to the phenomenon of cost disease.
6. Other than the performing arts, what other industries might be subject to cost disease?
7. Do you agree or disagree with the position that the producers of *Hamilton* should not sell \$10 tickets through a lottery? Why do you agree or disagree?

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