From Cash Registers to Clicks: The Sonic Revolution

In the early 1990s, music shops were pulsating with anticipation as fans flocked to bustling record and CD shops to get their hands on a copy of Nirvana's newest album, Nevermind. The air charged with the excitement of discovering new music and the familiar "ding!" of the cashier ringing up each sale resonated over the excited chatter. The transaction was a straightforward exchange. One new CD for $15.98[1]. Fast forward to today where the music landscape has undergone a revolutionary transition. The era of physical CDs has given way to a digital age where music is accessible with just a couple of clicks for no cost at all. With the introduction of Napster, iTunes, Soundcloud, and other digital streaming services, music has transformed from a private good to a public good, affecting the way artists profit through streams, and increasing artists' reliance on concerts, media coverage, virality, and merchandise.

The type of goods and services greatly affect how producers can make money. In the case of music, early formats of music production, like CDs, were excludable and rivalrous, meaning access could be restricted (excludable), and consumption by one person reduced the availability for others (rivalrous). Napster, a file-sharing application created in 1999, revolutionized the music industry and made music a public good. Digital music files, once shared, become non-excludable and non-rivalrous. Once a file is available online, anyone can access it, and one person's consumption doesn't diminish its availability to others.

The difference between a public and private good affects the demand curve for that product as shown in these graphs (the graphs assume the market is only two people for simplicity):

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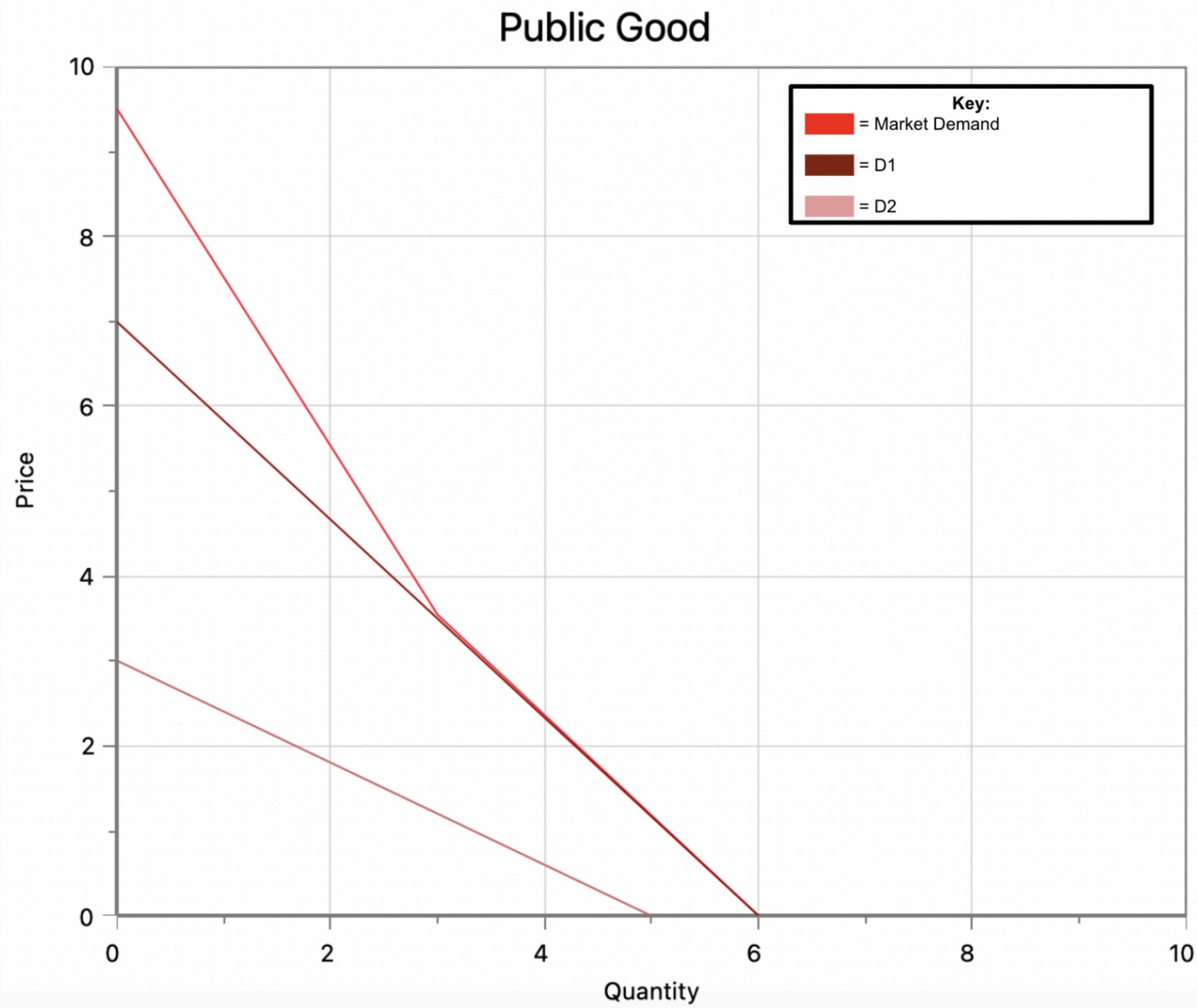
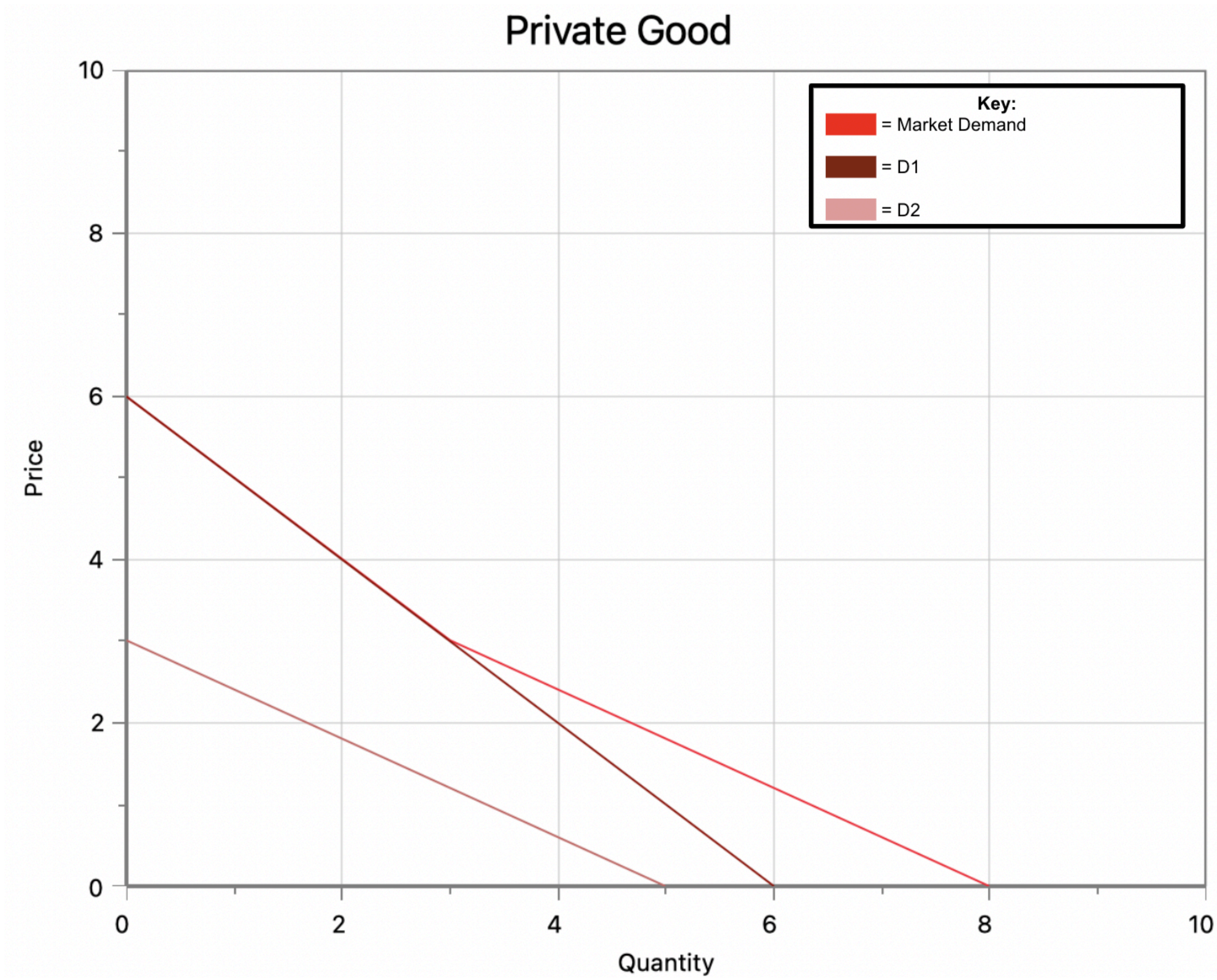
[1] Chuck Philips, "HOME ENTERTAINMENT: High Cost of Listening," *Los Angeles Times* (Los Angeles, CA), May 3, 1992, accessed November 18, 2023, https://www.latimes.com/archives/la-xpm-1992-05-03-ca-2007-story.html.


Public Good
Key:
= Market Demand
= D1
= D2
Price
Quantity
0
2
4
6
8
10



The aggregate demand curve for a public good contrasts that for a private good because it is the horizontal sum of the individual demand curves at each price. Private goods are special because "unlike public goods, society does not have to agree on a given quantity of a private good, and any one person can consume more of the private good than another at a given price." [2]

As a result of music's transformation from a private to a public good, the revenue distribution model has shifted significantly. Since music was excludable and rival before the 1990s, artists relied heavily on physical album sales–whether through the form of CDs or records. However, artists often had little control over their income since "[t]he label was the

[2] *Economics (Boundless)* (LibreTexts), Chapter 8.1, PDF.

be-all and end-all of the artist's career, deciding everything from marketing budgets to video sets and tour dates."[3] Record labels typically took a significant portion of the revenue, leaving artists with a fraction.

Artists had other streams of income as well, such as concerts and merchandising, yet they were less crucial than album sales.

At the beginning of the 21st century, digital music formats became more prevalent as CD sales continued to dwindle. In 2002, the International Federation of the Phonographic Industry reported that "Sales of CD albums were down 7% and singles sales were off 17%, while cassettes continued a long-term fall by plunging 31%," as a result of competition from digital music[4]. As time passed and music became a public good, streaming services became a more mainstream way for artists to earn revenue. With the rise of streaming platforms, artists now earn revenue based on the number of streams their songs generate. Streaming has little to no marginal cost, so streaming services have the potential to raise revenue, consumer surplus, or both, depending on pricing.[5] However, the per-stream payout to artists can be relatively low, since the money-streaming services payout has to be divided among many parties, including distributors, record labels, and artists themselves.[6] This causes artists to rely more heavily on alternative sources of revenue, such as concerts, merchandise, and virality.

Live performances and merchandise sales have become increasingly important income streams, as evidenced by ticket pricing and the overall number of live concerts. Even more

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[3] 1. Tony M. Fountain, "The Evolution of The Music Industry — and What It Means for Marketing Yourself as a Musician," *Forbes*, September 13, 2021, accessed January 20, 2024, https://www.forbes.com/sites/forbesbusinesscouncil/2021/09/13/the-evolution-of-the-music-industry---and-what-it-means-for-marketing-yourself-as-a-musician/?sh=5659fc49297a.

[4] 1. Charles Goldsmith, "Recorded Music Sales Fell by 9.2% in 2002's 1st Half," *The Wall Street Journal* (New York City, NY), October 12, 2002, accessed November 18, 2023, https://www.wsj.com/articles/SB1034251936930520276?mod=Searchresults_pos19&page=1.

[5] Luis Aguiar and Joel Waldfogel, *Streaming Reaches Flood Stage: Does Spotify Stimulate or Depress Music Sales?*,, October 2015, accessed November 18, 2023, https://www.nber.org/system/files/working_papers/w21653/w21653.pdf.

[6] Ben Sisario, "Musicians Say Streaming Doesn't Pay. Can the Industry Change?," *The New York Times* (New York City, NY), May 7, 2021, accessed November 18, 2023, https://www.nytimes.com/2021/05/07/arts/music/streaming-music-payments.html.

recently, virality has helped unknown artists become chart-toppers overnight. Forms of social media and randomness of algorithms rapidly push new and undiscovered artists to fame.

This examination of the music industry in the past poses questions of the future – what are potential future threats to artist revenue? As AI technologies become more sophisticated, AI can automate tasks traditionally performed by humans, such as music composition, arrangement, and even aspects of music production, which can affect the labor market in the music industry. Additionally, the use of AI in music creation raises questions about copyright and ownership—who holds the rights to a piece of music generated or influenced by AI and who should receive the revenue? This could lead to legal and economic disputes over royalties, licensing, and intellectual property rights. Regulatory frameworks will need to adapt to the evolving landscape of AI in music creation and distribution.

The transformation of music distribution has democratized access to music but also presented challenges for artists to monetize their work effectively. The industry has seen a shift from a reliance on album sales to a more diverse income portfolio, with artists needing to leverage various avenues to sustain their careers. As the dynamics of the music industry continue to evolve, artists, labels, and streaming platforms must continue to adapt to uncharted economic realities to secure their successes.

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