

# Music and Economics

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## My Background

- ▶ BA from Hamilton College, 2014
- ▶ Majored in Economics and Philosophy
- ▶ Worked for one year at the FDIC, and four years at the Postal Regulatory Commission

## My Road to Economics and Music

- ▶ Technical and business side of music
- ▶ Digital platforms, streaming technology
- ▶ Wanted to do the kinds of research PhD economists at my jobs could do
- ▶ Specialized in industrial organization to work on imperfect competition, market structures, and regulation

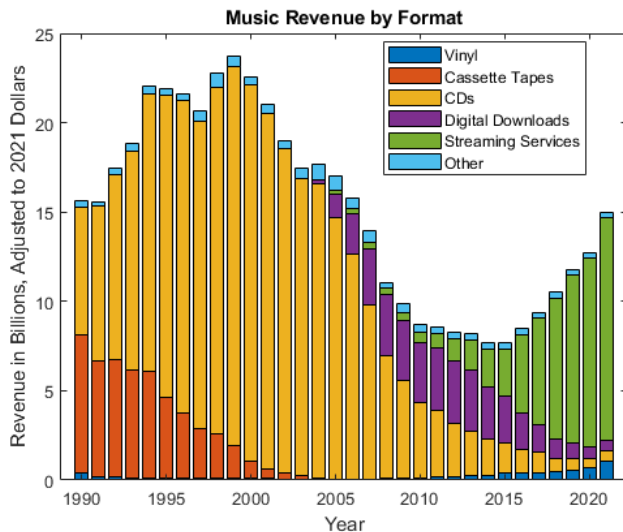
## How do Music and Economics Intersect?

- ▶ Economics is the study of choices: by people, by firms, by governments, etc.
- ▶ Music is one of many choices in an economic market:
  - ▶ People choose whether to listen to/buy music
  - ▶ Firms and artists choose whether to make music, and what kind of music to make
  - ▶ Governments choose whether to support musical arts
- ▶ Why might people, firms, and governments make these choices?

## Music and Economics Through History

- ▶ Commercial music has always been subject to market demand
- ▶ Patronage and Performance
- ▶ Recorded Music, Radio, and Record Labels
- ▶ Digitization and Streaming

# Music as a Commercial Enterprise



## Economic Research in Music

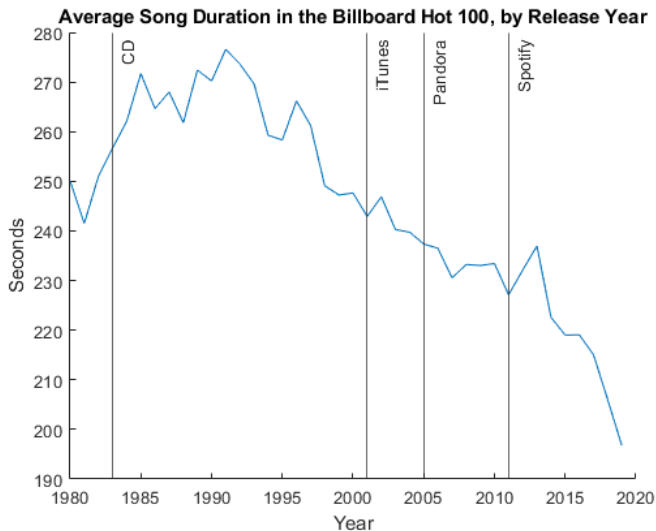
- ▶ Berry, Eizenberg, Waldfogel (2014): How do radio station owners decide what markets to enter and what genres to play?
- ▶ Aguiar and Waldfogel (2021): How does inclusion on Spotify editorial playlists affect song success?
- ▶ Boughanmi and Ansari (2021): How do different acoustic features predict success on Billboard's charts?
- ▶ Bourreau and Gaudin (2022): How much does a platform bias its recommendations when songs have different royalty rates?

## An Economic Question

- ▶ How has the introduction of streaming services affected the length of popular songs?
- ▶ How do we approach this question using economics?
- ▶ Motivate the question:
  - ▶ Streaming services make up over 85% of music industry revenue in 2021
  - ▶ Spotify has almost 200mn users, and is a major source for music discovery
  - ▶ Changes in access to music have historically affected music production



## Identifying Trends in the Data



## Modeling the Market

- ▶ We see a trend, but how can we causally identify this connection?
- ▶ Use a mathematical model to characterize this relationship
- ▶ What other factors could influence both streaming services and song length?
- ▶ What assumptions are we making?
- ▶ What data are we using?

## Getting Results

- ▶ Quantify the impact
  - ▶ The introduction of Spotify has reduced the length of a song on Billboard's Hot 100 by, 47 seconds
  - ▶ For every additional billion streaming services earn, song length declines by 4.47 seconds
- ▶ What mechanisms might drive these changes?
  - ▶ New access and pricing model for consumers and labels
  - ▶ Recommendation algorithms
- ▶ Refine model based on feedback, results, etc.