

# It was Fifty Years Ago Today: Recording Copyright Term and the Supply of Music

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## Copyright term and the supply of music

- ▶ How does copyright affect consumers' access to creative works?
  - ▶ How do these effects differ by medium?
- ▶ Longer copyrights may create incentives to **maintain and promote** existing works
- ▶ May **restrict** entry by producers who could distribute reproductions without paying for licenses

## We look at how the expiry of recording copyrights in the UK affects access to music by artists popular in the 1960s

- ▶ Recording copyright was 50 years until 2013; 70 afterwards
  - ▶ Composition and lyrics protected separately
- ▶ Many artists of the '60s still living, actively touring in 2013
- ▶ This allows us to look at two aspects of the supply of music
  - ▶ Pre-recorded: e.g., re-releases of tracks, digital streaming
  - ▶ Live performance of songs in concert
- ▶ The UK term extension of 2013 allows us to econometrically identify the effect of public domain status controlling for age, time, and artist effects

# Preview of Results

- ▶ Overall, mixed results for the effect of copyright term on supply:
  - ▶ Expiry of recording copyright: 141-247% increase in re-releases
  - ▶ No significant difference in online streaming availability
  - ▶ However, artists less likely to perform (promote) songs in public domain

## Prior Literature

- ▶ Prior research has found an association between copyright status and the availability of books
  - ▶ Heald (2008, 2014): PD  $\rightarrow$  more likely in print, available on Amazon, more publishers
  - ▶ Reimers (2017): PD  $\rightarrow$  26.5 more editions
  
- ▶ Copyright expiry has been found to be associated with price declines
  - ▶ Reimers (2017): PD  $\rightarrow$   $\sim$  35% lower prices
  - ▶ Li, MacGarvie, and Moser (2017): prices decline towards expiry
  - ▶ Pollock, Stepan, and Valimaki (2010): PD recordings cheaper
  
- ▶ Reuse of copyrighted material
  - ▶ Heald (2014), Nagaraj (2017), Watson (2017)

## Term Extension - “Cliff’s Law”

- ▶ Motivated by “income gap,” lobbied for by musicians
- ▶ Copyright in sound recordings established in the UK with the Copyright Act of 1911
  - ▶ Limited to term of 50 years from date of recording
- ▶ Directive 2011/77/EU extends the copyright of sound recordings to 70 years
  - ▶ Effective November 1, 2013, extends terms of recordings from November 1963 and later.
- ▶ Not retroactive; “use it or lose it” clause

# We focus on three aspects of the supply of music

## 1. Physical releases

- ▶ Releases, re-releases, compilations, box sets, etc.
- ▶ Vinyl records, CDs, SACDs, DVDs

## 2. Digital Streaming

- ▶ Availability on Spotify
- ▶ Streaming often restricted by geographic region

## 3. Live performance in concert

- ▶ Observe artists' concert locations, dates, songs performed

## Dataset construction

- ▶ Sample based on all Top 10/20 UK Album charts from 1960-1965 (OfficialCharts.com)
- ▶ Collected all tracks released by these artists in the MusicBrainz database
  - ▶ Information on country of release – we focus on UK artists
  - ▶  $\Rightarrow$  13,238 tracks by 140 artists first released between 1928 and 1975
    - ▶ Supplemented year of original release with data from Discogs
- ▶ Spotify API
  - ▶ Digital streaming availability, disaggregated by geographic market
- ▶ Setlists.fm
  - ▶ Concert dates + locations, setlists of tracks performed in concert

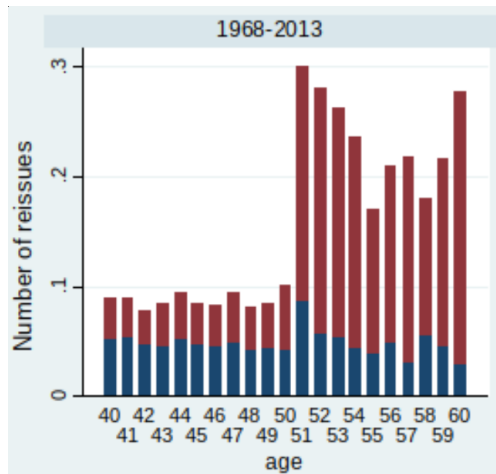


# Empirical Strategy

$$Y_{ijtA} = \alpha_0 + \alpha_1 PD_{ijtA} + \sum_{t=1961}^{2017} \beta_t year_t + \sum_{A=2}^{89} \gamma_A age_A + \sum_{j=2}^{140} \delta_j artist_j + \varepsilon_{ijtA}$$

- ▶  $Y_{ijt}$ : count of releases for track  $i$  by artist  $j$  in year  $t$  with track-age  $A$
- ▶  $PD_{ijtA} = 1$  for tracks whose recording copyright is expired as of year  $t$
- ▶ Term extension allows for identification with year, age, and artist effects:
  - ▶ year effects control for variation in demand over time,
  - ▶ age effects control for variation as tracks age,
  - ▶ artist effects control for heterogeneity in demand across artists
- ▶ Poisson regression with robust standard errors clustered by artist

## Average # re-issues before term extension



- ▶ Major labels
- ▶ Non-Major labels

# Recording right expiry boosts physical format availability

	# UK Releases				OLS
	Poisson	Poisson	Poisson	Poisson	
PublicDomain	2.939*** (0.465)	9.965*** (2.494)	2.405*** (0.593)	3.468*** (0.858)	0.146*** (0.034)
Age	No	Yes	Yes	Yes	Yes
Year	No	No	Yes	Yes	Yes
Artist	No	No	No	Yes	Yes

Incidence rate ratios (IRR) displayed for Poisson regressions

N. obs: 1,001,480.

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

## Robust results, with little difference across artist types

- ▶ Physical re-release results robust to:
  - ▶ Dropping bootleg releases
  - ▶ Excluding most prolific artists
  - ▶ Placebo U.S. regressions
- ▶ Little difference across artist types
  - ▶ Effect of Public Domain slightly weaker for UK artists (though only borderline significant)
  - ▶ No significant difference in the effect for artists on the NME top 500 album list
  - ▶ No significant difference in the effect for artists with more than 1 million certified units (RIAA)

# Digital Availability?

- ▶ Media consumption increasingly via digital distribution (especially streaming)
- ▶ How does copyright protection affect availability under digitization?
  - ▶ Blanket licensing
    - ▶ Digital streaming platforms entered blanket licensing agreements with major labels
  - ▶ Obscure works
    - ▶ Uncertain rights over old licensing + distribution contracts

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## Digital Supply: Empirical Strategy

- ▶ Empirics: Compare Spotify availability of our sample songs between U.K. and U.S. geographic markets
  - ▶ Control for: artist, original release year

$$Y_{im} = \alpha_0 + \alpha_1 UK\_Market_{im} + \delta UK\_Market_{im} \times pre1963_i + \sum \beta_t release\_year_t + \sum \gamma_j artist_j + \varepsilon_{ijmt}$$

- ▶  $UK\_Market_{im} = 1$  for observations in the U.K. geographic market (=0 for U.S. observations)
- ▶  $pre1963_i = 1$  if recording was released before 1963
  - ▶ i.e., in U.K. public domain



# Digital availability unaffected by copyright expiry

- ▶ Compare streaming availability in UK vs. US markets for songs released before 1963

	Available in Market (1/0)					
UK-market	0.0474*** (0.010)	0.0474*** (0.010)	0.0367*** (0.012)	0.0367*** (0.012)	0.0474*** (0.010)	0.0367*** (0.012)
Pre-1963		0.0911*** (0.032)	0.0749** (0.031)		0.0631** (0.029)	
Pre-1963* UK			0.0323 (0.021)	0.0323 (0.021)		-0.0538 (0.076)
ObscureArtist					-0.0713*** (0.014)	
Obscure*Pre-1963*UK						0.0216 (0.020)
Release Year	No	No	No	Yes	No	Yes
Artist	Yes	Yes	Yes	Yes	No	Yes

Linear probability models

N. obs: 32,704.

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

# How do rightsholders react to copyright expiry & threat of competition?

- ▶ Patented drug producers attempt to deter entry under threat of:
  - ▶ generic competition (Ellison and Ellison, 2011)
  - ▶ parallel trade (Kyle, 2008)
  
- ▶ How do copyright holders react to expiration?
  - ▶ Term extension during lifetime of artist
  - ▶ Clearly, performances not restricted by recording copyrights
  - ▶ To the extent that live performances promote album sales...
  - ▶ Are artists using public performance to promote protected recordings?

# Public performances decline when copyright expires

	# Public Performances				
	Poisson	Poisson	Poisson	Poisson	Poisson
PublicDomain	0.792 (0.270)	0.140*** (0.0423)	0.477*** (0.119)	0.123*** (0.0383)	0.529** (0.142)
UK Artist * PublicDomain				1.044 (0.491)	0.265*** (0.125)
UK Artist				0.418* (0.193)	
Age	No	Yes	Yes	Yes	Yes
Year	No	Yes	Yes	Yes	Yes
Artist	No	No	Yes	No	Yes

Incidence rate ratios (IRR) displayed for Poisson regressions

N. obs: 103,792.

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

Results robust to dropping top 5 artists, restricting sample to touring years

# Conclusions

- ▶ Copyright expiry results in significant boost in availability of music
  - ▶ ... via physical media
  - ▶ Digital platforms (and blanket licensing practices) limit this restriction from copyright
  - ▶ Future implications given structure of music distribution?
- ▶ Term extension did meaningfully impact the incentives of living artists
  - ▶ Original recording falls into the public domain ↓ live performances
  - ▶ However, this increase in the supply of performances for copyrighted works almost certainly short lived

# Thanks!

**Thanks!**  
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