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?

- ► May **restrict** entry by producers who could distribute reproductions without paying for licenses

- ► Longer copyrights may create incentives to **maintain and promote** existing works

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
  - ▶ Availability: e.g., re-releases of tracks, digital streaming
  - ▶ 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), Reimers (2017)
- ▶ Copyright expiry has been found to be associated with price declines
  - ▶ Reimers (2017), Li, MacGarvie, and Moser (2017), Pollock, Stepan, and Valimaki (2010)
- ▶ Reuse of copyrighted material
  - ▶ Heald (2008), Nagaraj (2017), Watson (2017)

Term Extension - "Cliff's Law"

- ▶ Motivated by "income gap"

- ▶ 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

Dataset construction

- ▶ Sample based on all Top 10/20 UK Album charts from 1960 through the end of 1965 (OfficialCharts.com)
- ▶ Collected all tracks released by these artists in the MusicBrainz database
  - ▶ Information on country of release – we focus on UK artists
  - ▶ ⇒ 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

Re-issues before/after term extension

Average number of reissues of tracks
by age and type of release
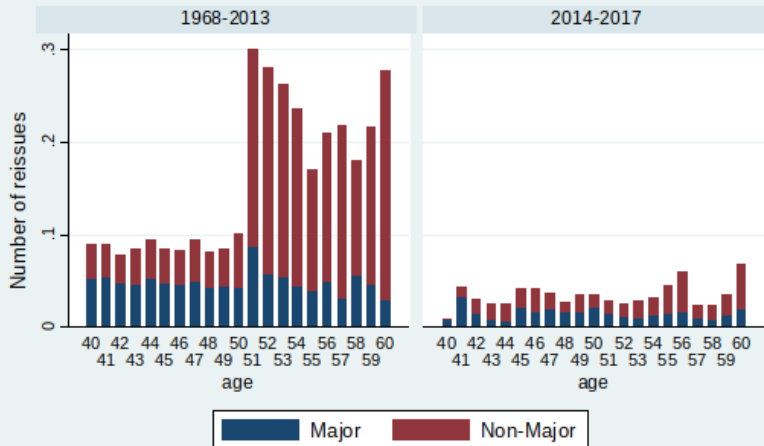
Recording right expiry boosts availability

			# UK Releases		
	Poisson	Poisson	Poisson	Poisson	OLS
PublicDomain	2.939***	9.965***	2.405***	3.468***	0.146***
	(0.465)	(2.494)	(0.593)	(0.858)	(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.
***$p < 0.01$, **$p < 0.05$, *$p < 0.1$

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***	0.0474***	0.0367***	0.0367***	0.0474***	0.0367***
	(0.010)	(0.010)	(0.012)	(0.012)	(0.010)	(0.012)
Pre-1963		0.0911***	0.0749**		0.0631**	
		(0.032)	(0.031)		(0.029)	
Pre-1963* UK			0.0323	0.0323		-0.0538
			(0.021)	(0.021)		(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.
$^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$

Robust results, with little difference across artist types

- ▶ 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)

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	0.140***	0.477***	0.123***	0.529**
	(0.270)	(0.0423)	(0.119)	(0.0383)	(0.142)
UK Artist * PublicDomain				1.044	0.265***
				(0.491)	(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

No consistent evidence of expiry's effect on creativity for compilations and re-releases

- ▶ Does rights expiry allow labels to bundle novel combinations of prior works?

- ▶ Construct Jaccard indices for album/compilation releases at *artist* and *song level*
  - ▶ $J(A, B) = \frac{|A \cap B|}{|A \cup B|}$
  - ▶ For any release i, calculate *max* $J(i, j)$ over previous releases j
  - ▶ Captures novel combinations of artists, songs that have not been previously released together

- ▶ Ultimately, we observe limited evidence of copyright expiry on the creativity + novelty of new works

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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