# Digital Disintermediation and Efficiency in the Market for Ideas

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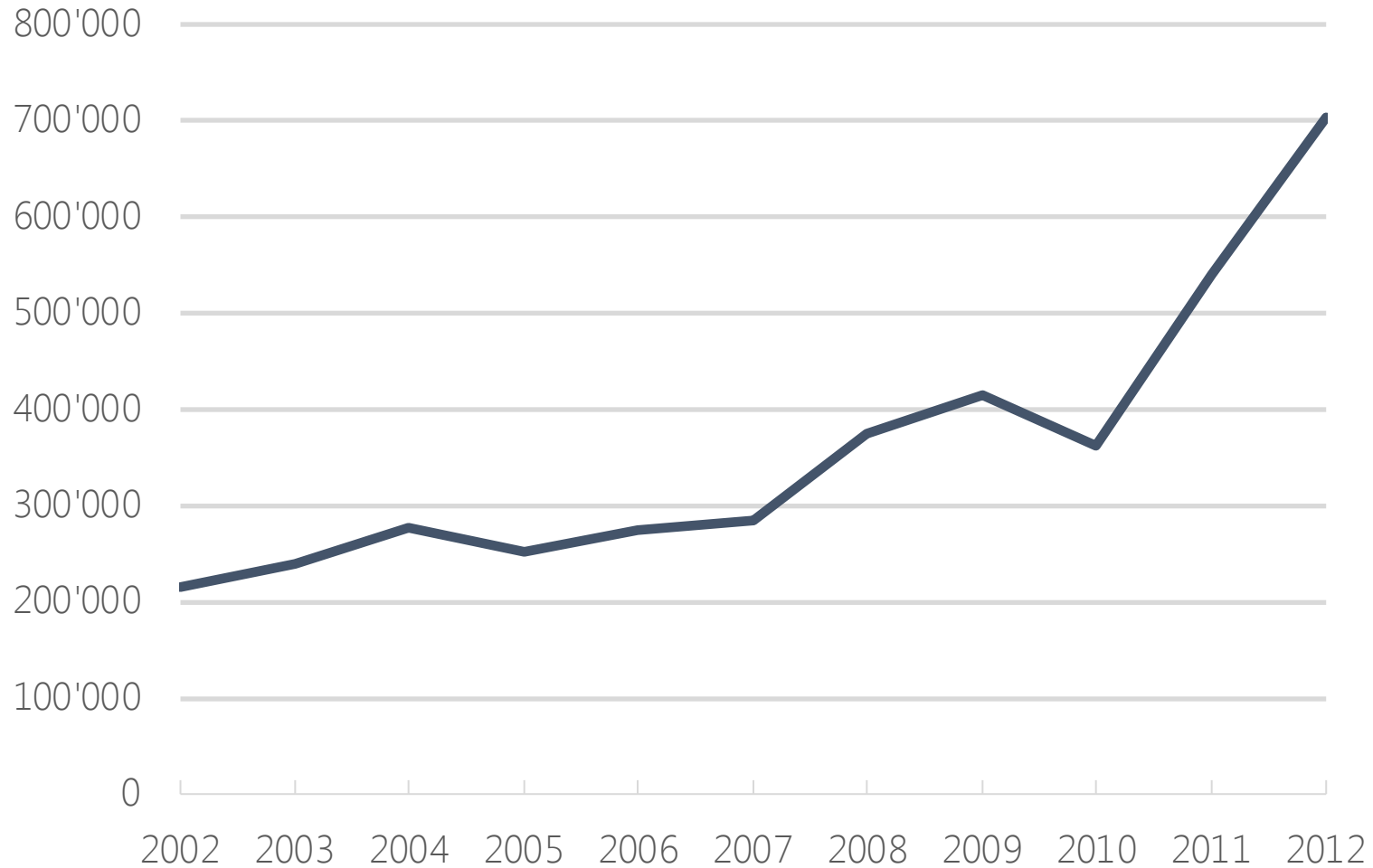
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University of Glasgow

Digital renaissance

- Online piracy (modestly) harms sales
  - Literature estimates displacement rates between 3.5%-20%
  - Positive externalities offset the negative effects (sampling, word-of-mouth)
- Additional revenue sources from advertising enabled by 'automatic licensing'
- Lower fixed costs to bring products to the market
  - Production
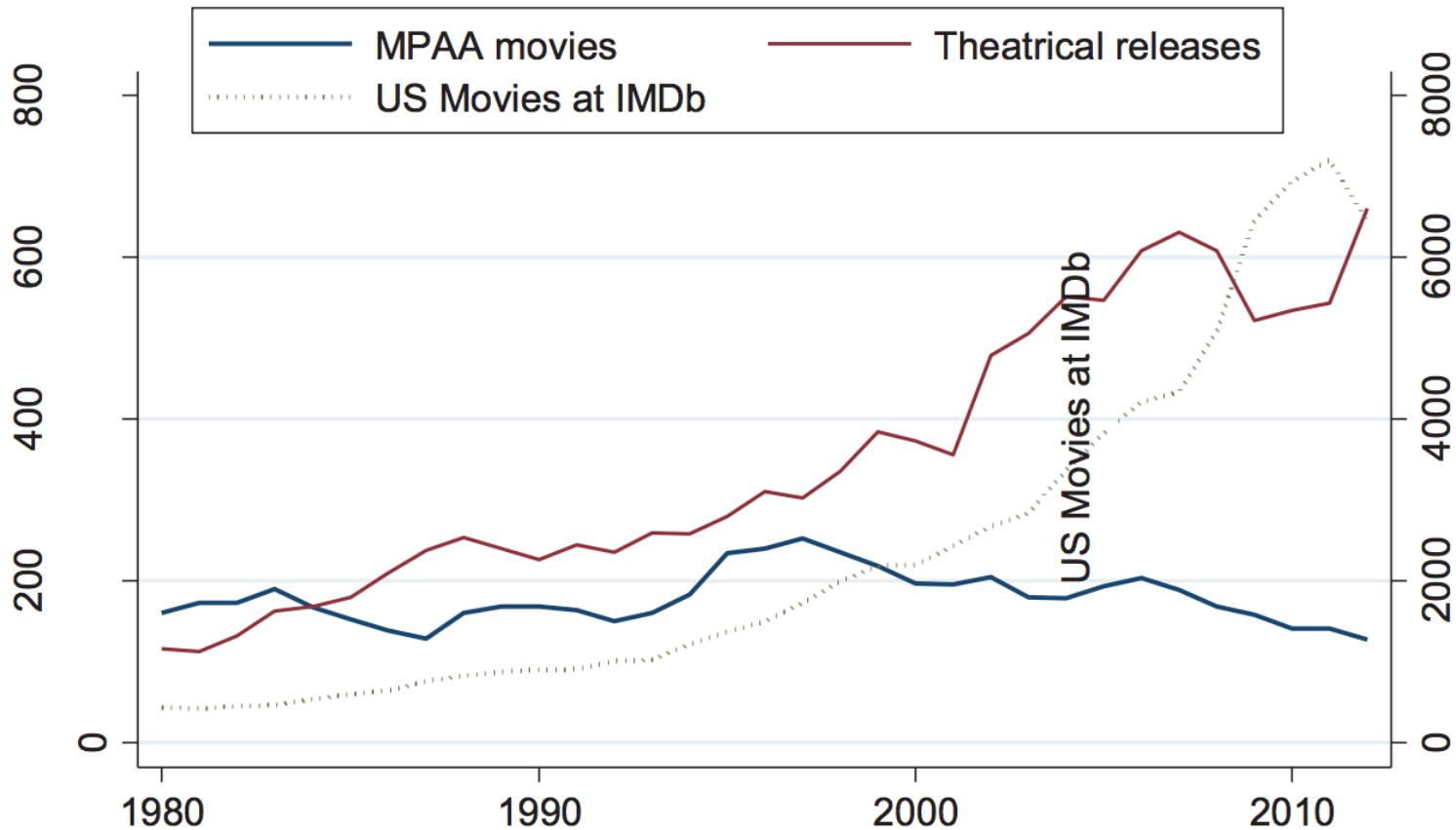 - Promotion
  - Distribution

DIGITAL
RENAISSANCE
What Data and Economics Tell Us about the Future of Popular Culture
JOEL WALDFOGEL
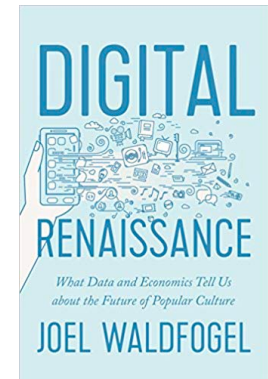
Many more books come to the market

Source: Bowker
Number of newly issued ISBN numbers in the U.S.
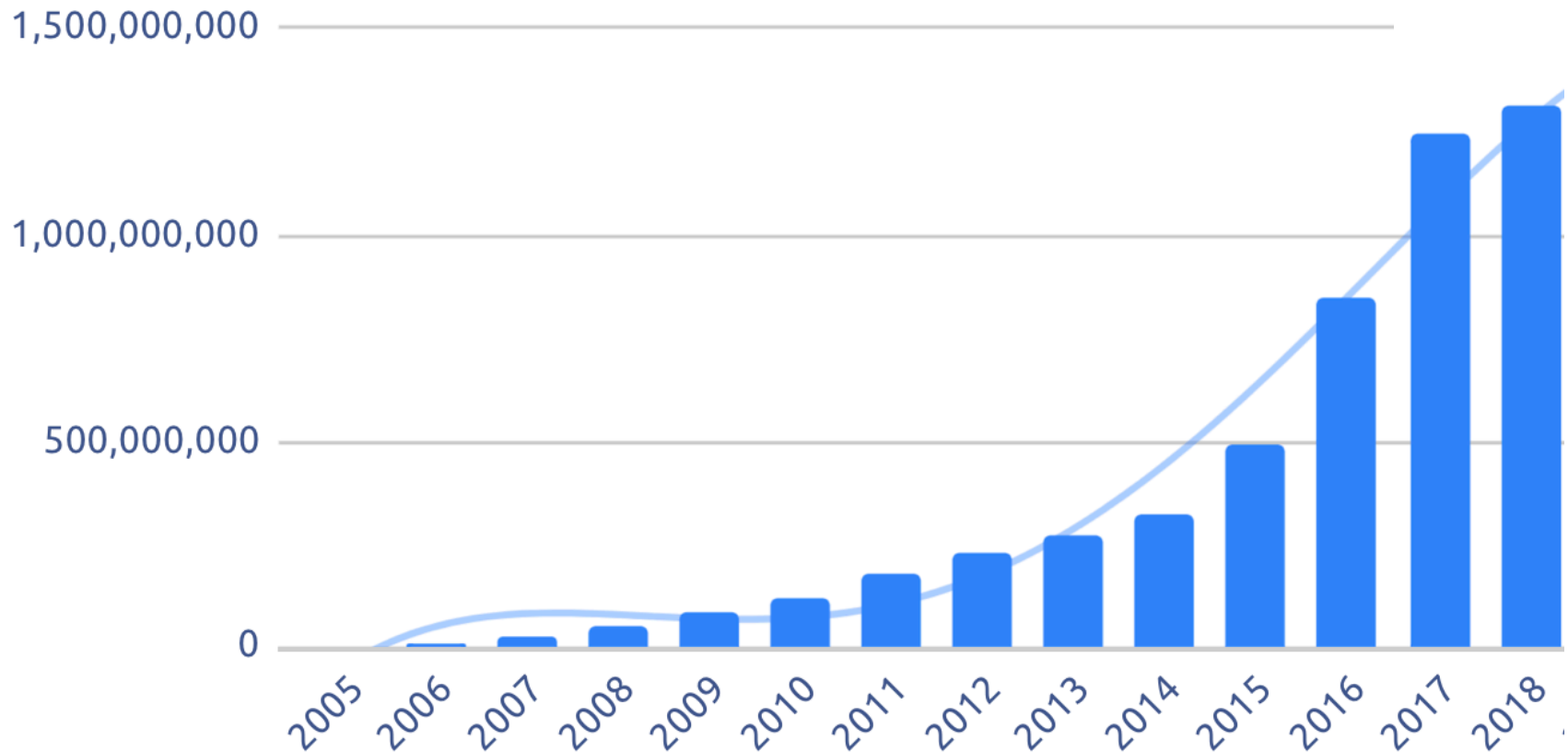
Many more movies come to the market

Source: Waldfogel (2016)
MPAA movies is the number of movies released by MPAA members per year.
Theatrical releases shows the number of movies appearing in the U.S. Box Office Mojo data for each year.
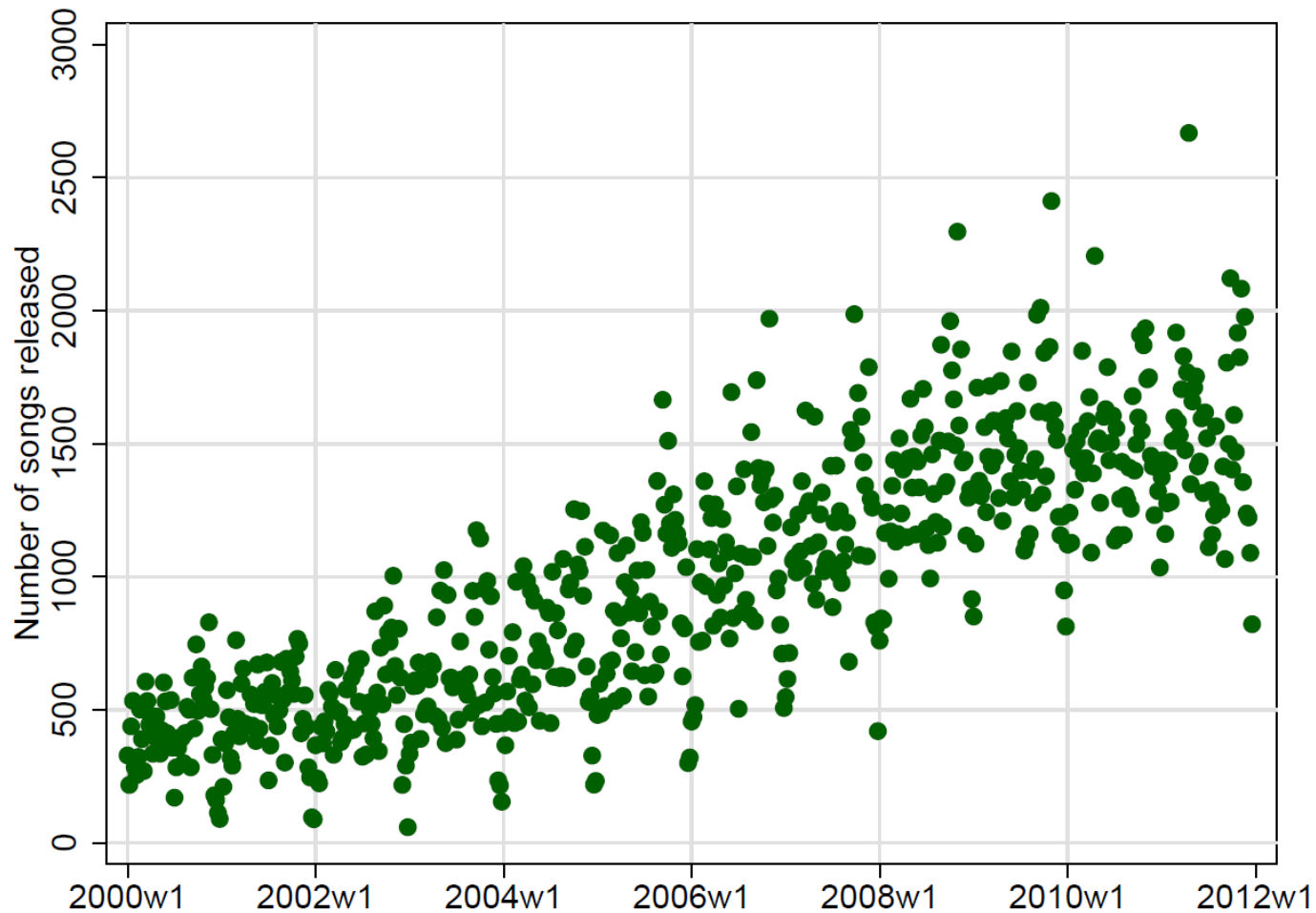U.S. Movies at IMDb shows the number of U.S.-origin features and documentaries included in the IMDb database.

There are 1.3 billion videos on YouTube

Source: Pex, https://blog.pex.com/what-content-dominates-on-youtube-390811c0932d
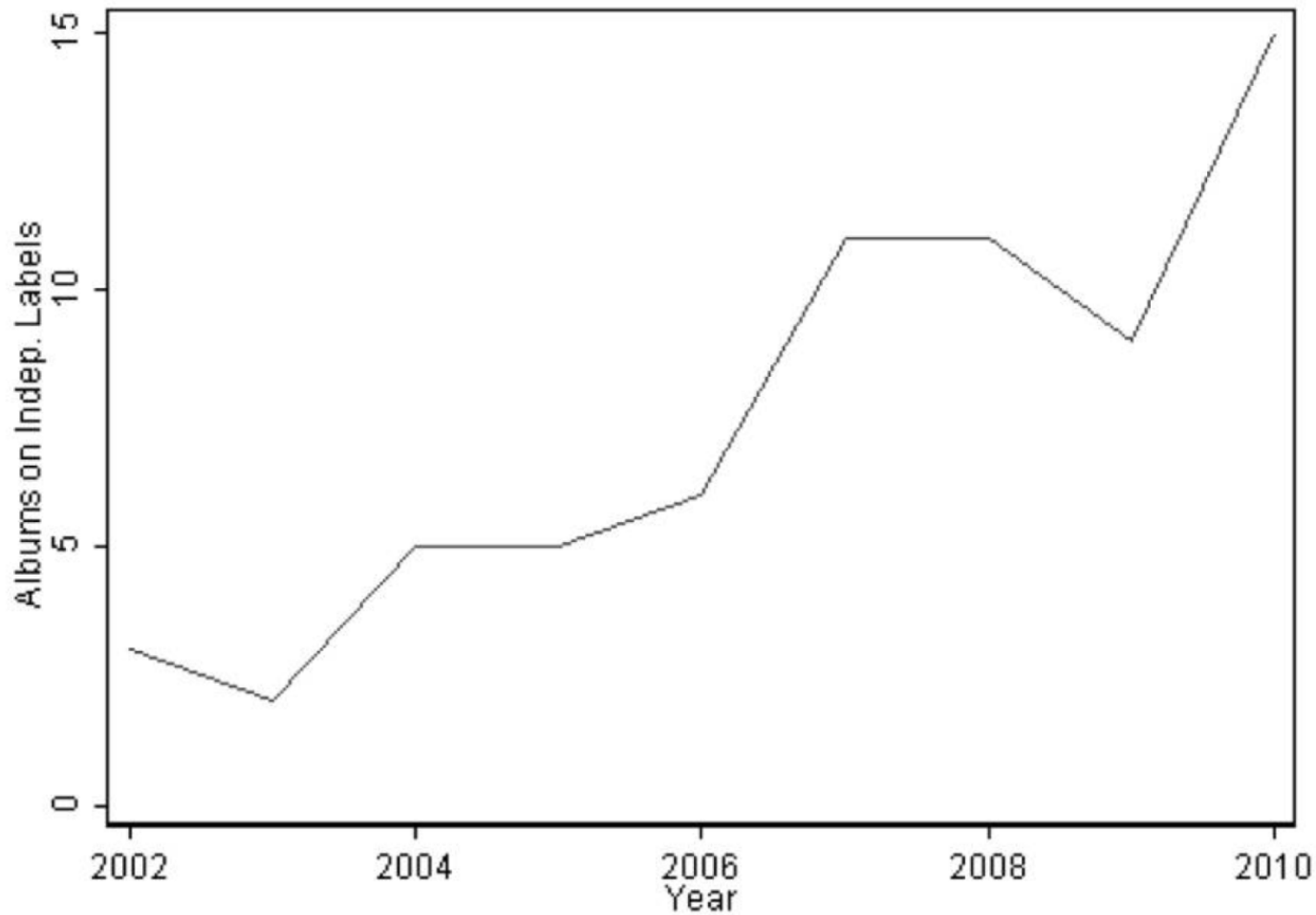
Many more songs come to the market

Source: Musicbrainz
Number of songs (singles and albums, all formats) released per day, U.S.

Lower fixed costs allow more entry of small firms

Source: Waldfogel (2012). Independent label share among annual Billboard 200 charts.

Lower fixed costs allow more entry of small firms

Traditionally published books

800'000
700'000
600'000
500'000
400'000
300'000
200'000
100'000
0

2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012

Source: Bowker
Number of newly issued ISBN numbers in the U.S.

How does more entry affect the market for ideas?

How digitization interacts with traditional institutions in the book industry

- Digital self-publishing platforms challenge traditional gatekeepers
- (1) How does this affect license payments in the market for book ideas?
- (2) Can it improve efficiency with which good ideas are picked up?
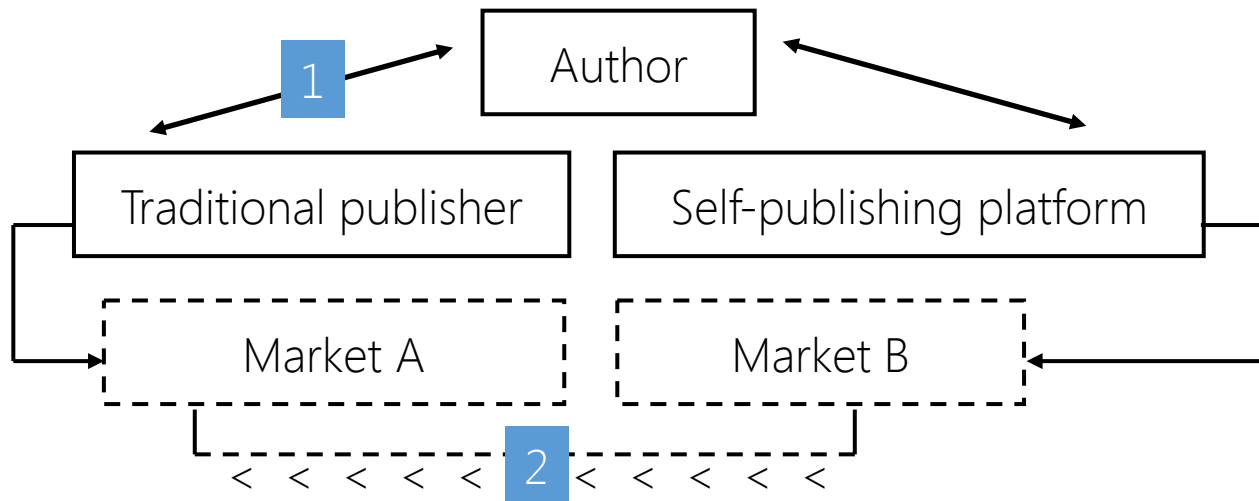
Data

Data on expected and realized appeal

License deals reported by PublishersMarketplace

- 2002-2015, 90k deals, 55k authors

- Author, working title, editor, publisher, genre

- Book deals and rights deals

- 5 size categories (<49k to >500k)

Unit sales from Nielsen Bookscan

- Weekly snapshots of sales data, 2002-2016

- Publisher, genre and (for some years) most popular format

- 8,500 authors, 23,000 titles
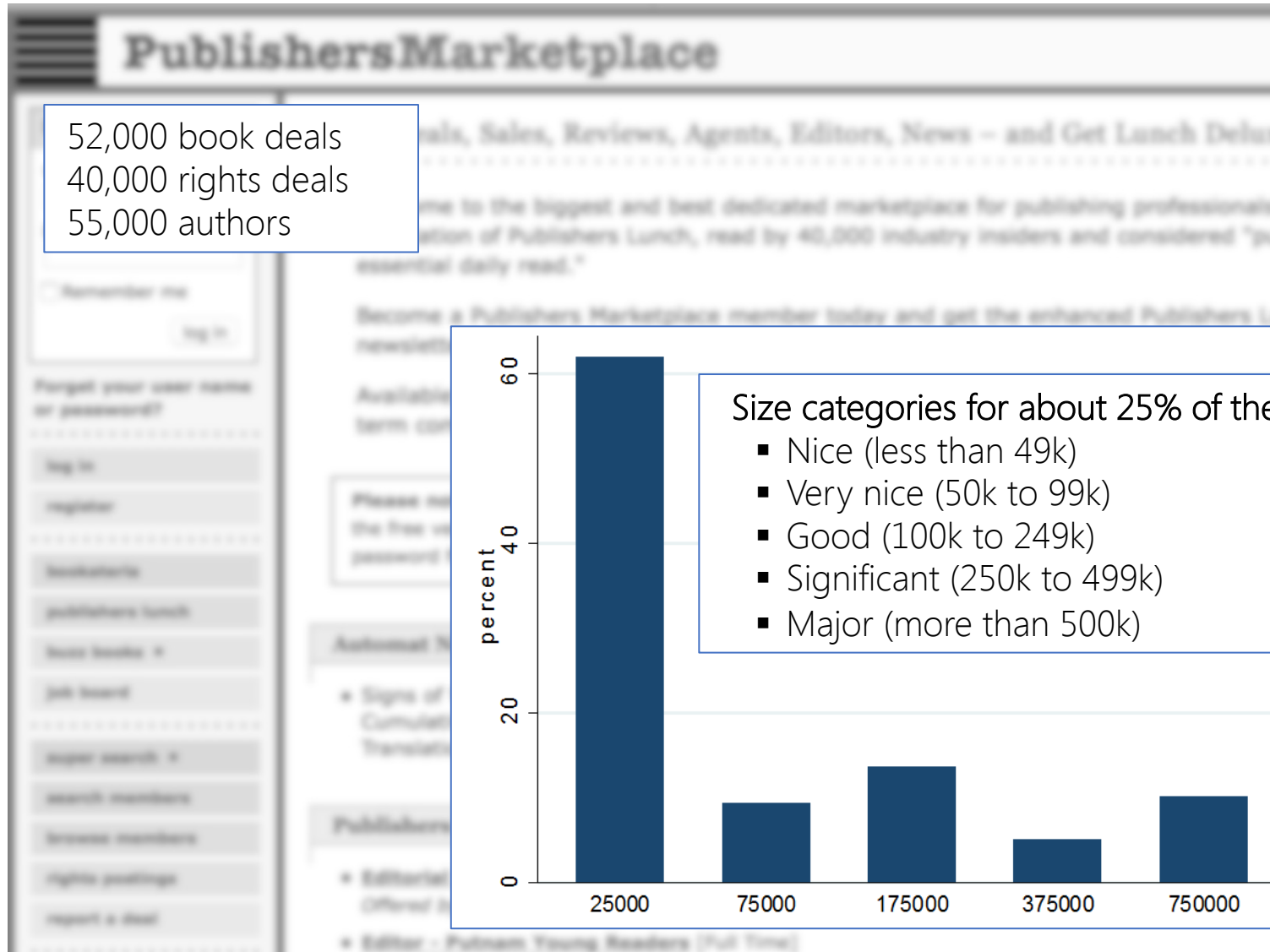
Unique data on 90,000 license deals, 2002-2015

PublishersMarketplace

Track Deals, Sales, Reviews, Agents, Editors, News – and Get Lunch Delux

12/04/2006. Fiction: General/Other

Lynn York's second novel, a follow up to her debut The Piano Teacher, to Trena Keating at Plume, in a very nice deal, by Suzanne Gluck at the William Morris Agency.

09/15/2014. International rights

German rights to Karin Slaughter's COP TOWN, the latest novel from the #1 international bestselling author, to Nicola Bartels at Blanvalet, in a major deal, for publication in 2015, by Victoria Sanders & Chris Kepner at Victoria Sanders & Associates.

Unique data on 90,000 license deals, 2002-2015

PublishersMarketplace

als, Sales, Reviews, Agents, Editors, News – and Get Lunch Deliv

me to the biggest and best dedicated marketplace for publishing professionals
ation of Publishers Lunch, read by 40,000 industry insiders and considered "p
essential daily read."

Become a Publishers Marketplace member today and get the enhanced Publishers L
newslett

52,000 book deals
40,000 rights deals
55,000 authors

Size categories for about 25% of the deals
- Nice (less than 49k)
- Very nice (50k to 99k)
- Good (100k to 249k)
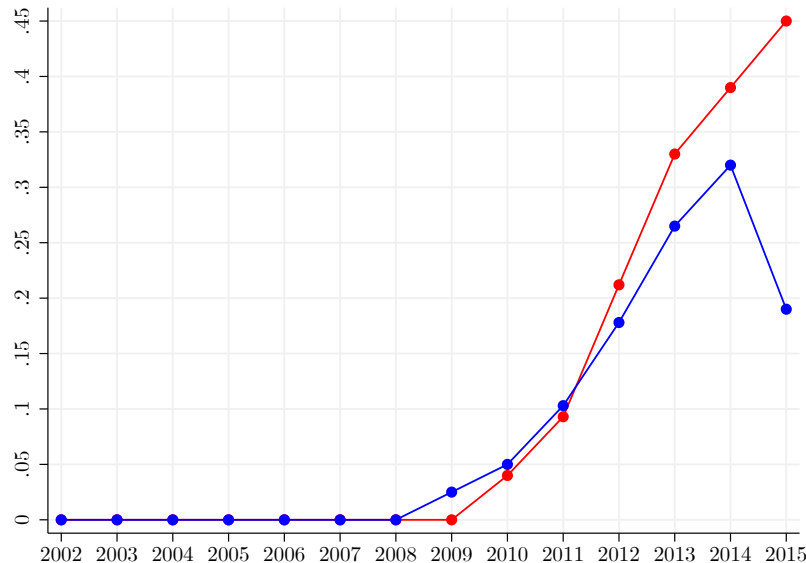- Significant (250k to 499k)
- Major (more than 500k)

Identification strategy

Identifying the effect of self-publishing

Problem: Digitization happened for all authors at the same time

- Amazon's Kindle: November 2007

- Apple's iPad (and iBooks platform): April 2010

- Selfpublishing/E-book platforms: Lulu, Createspace, Smashwords, ...


- Share of US adults owning an e-book reader
- Share of US adults owning a tablet computer

Source: Pew Research, `http://tinyurl.com/q2lt5ou`

Identifying the effect of self-publishing

Some book types are more appealing for self-publishing than others...
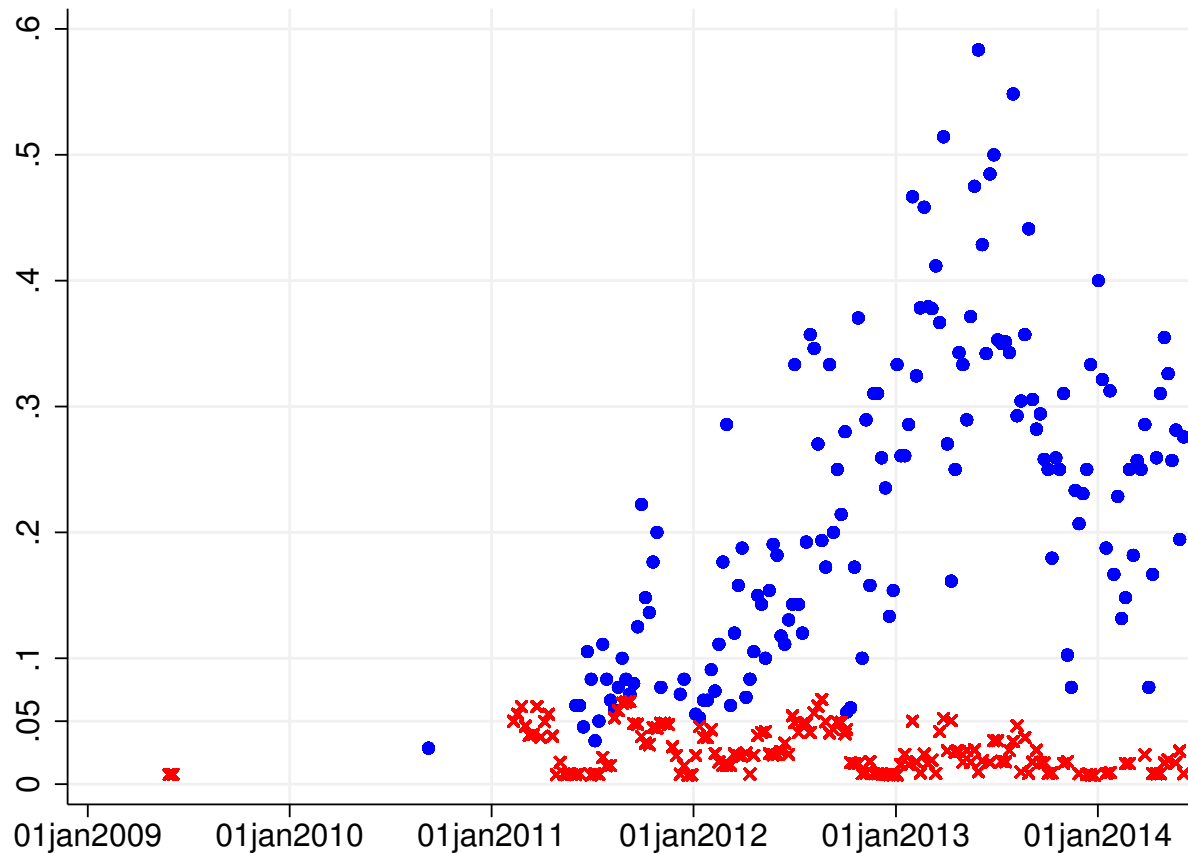
- Low costs of entry into self-publishing

- Relatively high demand for e-book versions
  (self-publishing market is mostly about e-books)
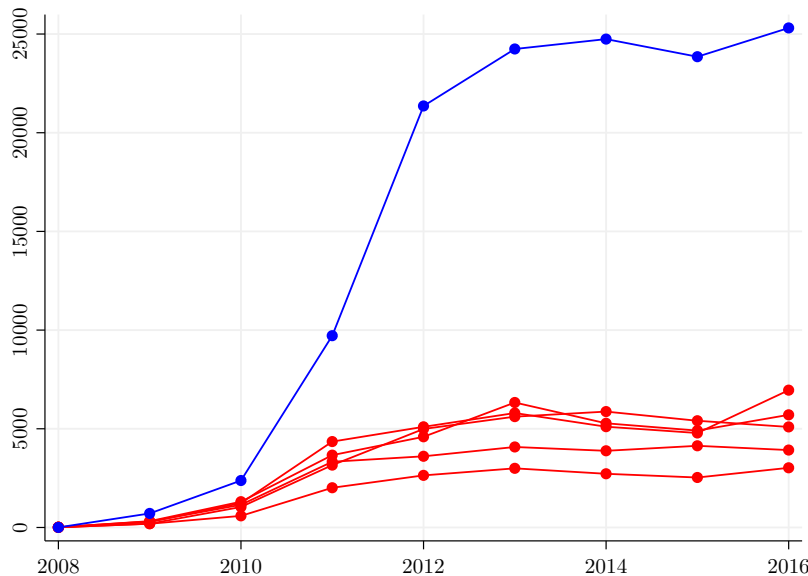
- Number of romance titles per year
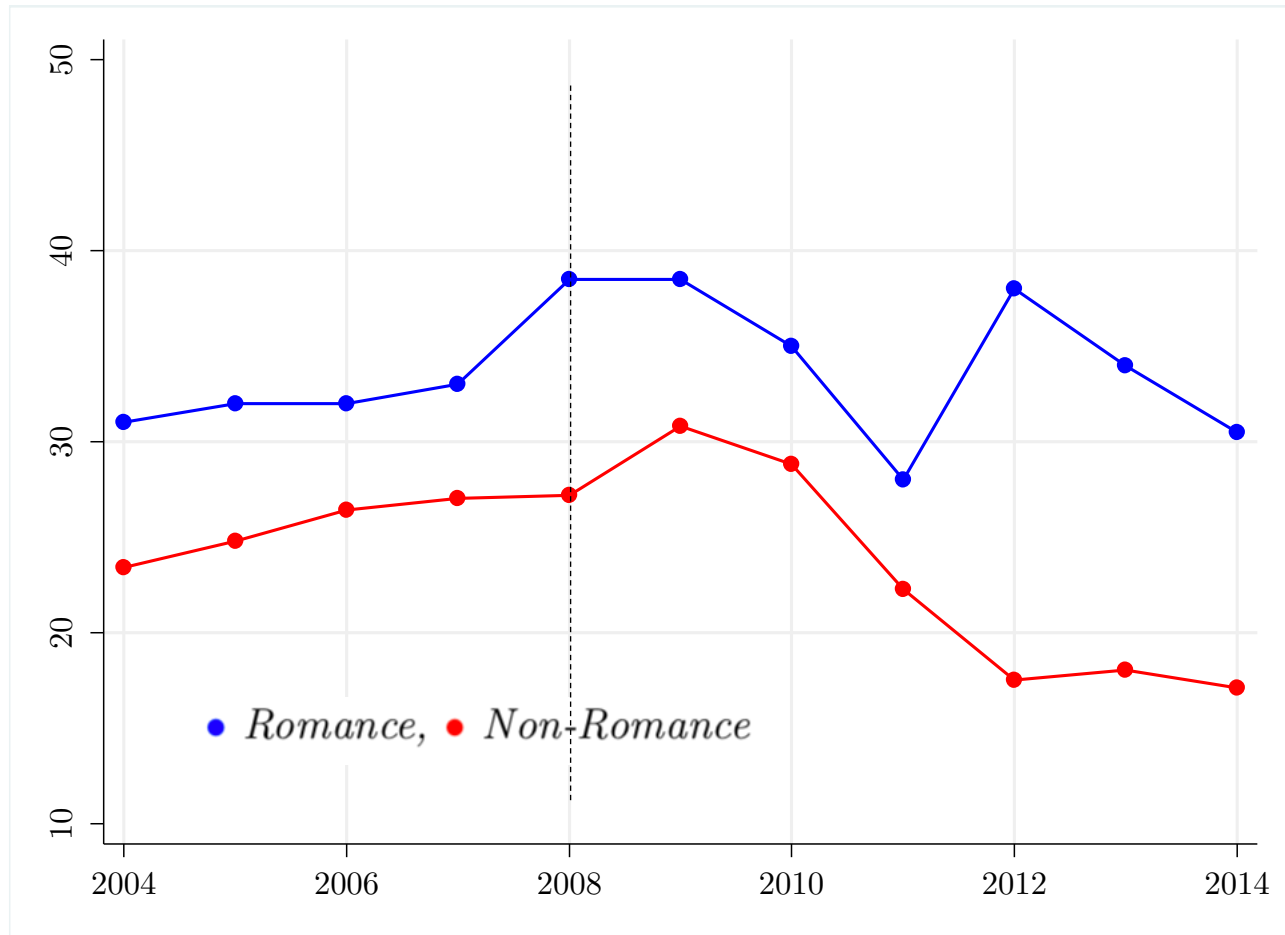- Number of titles in other genres per year

Source: Smashwords

Self-publishing is most successful in Romance

Share of originally self-published books in Top 150

• *Romance,* ✕ *Non-Romance*

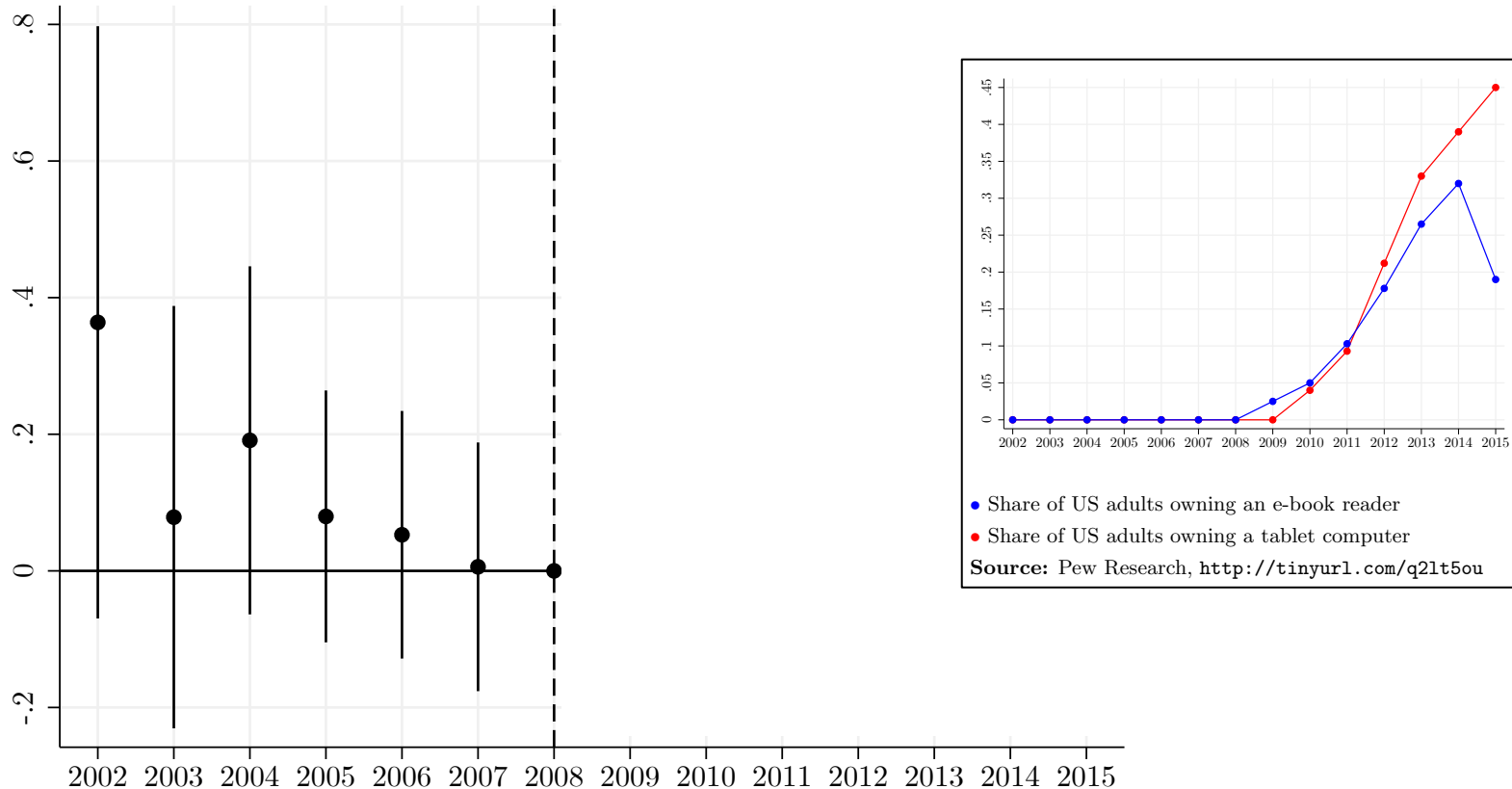# Traditionally published Romance is not becoming more successful

Total unit sales (in millions, according to Nielsen)

Results

Hypothesis 1:
License deals increase

(Non-)romance deals follow similar trends

Note: OLS estimates of the δ^τ coefficients obtained from a regression of equation (10), i.e. yearly differences in *LogSize* between the treatment group (Romance authors) and the control group (non-Romance authors). The omitted year is 2008, standard errors clustered on the editor-level, and bars indicate 90% confidence bands.

Deals for romance novels get significantly bigger

Note: OLS estimates of the δ^τ coefficients obtained from a regression of equation (10), i.e. yearly differences in *LogSize* between the treatment group (Romance authors) and the control group (non-Romance authors). The omitted year is 2008, standard errors clustered on the editor-level, and bars indicate 90% confidence bands.

Deals for romance novels get significantly bigger

Table 2: Results: Changes in license deals

	(1) DV: Log(Size)	
Romance	-0.138**	(0.057)
After2008 × Romance	0.140**	(0.063)
Acclaimed	0.151***	(0.034)
Bestseller	0.984***	(0.059)
Contested	0.670***	(0.061)
Debut	0.046	(0.055)
Self-published	0.405***	(0.141)
Sequel	0.161***	(0.055)
Observations	14771	
$\overline{R^2}$	0.541	

Notes: Editor, month-year fixed effects, and constant not reported.

Standard errors, clustered on the editor-level, in parentheses. * $p < 0.10$, ** $p < 0.05$ *** $p < 0.01$

Placebo experiment: rights deals

Placebo group

- TV/movie/audio book and international rights; no competition from self-publishing

Table 4: Results: Changes in license deals, placebo exercises

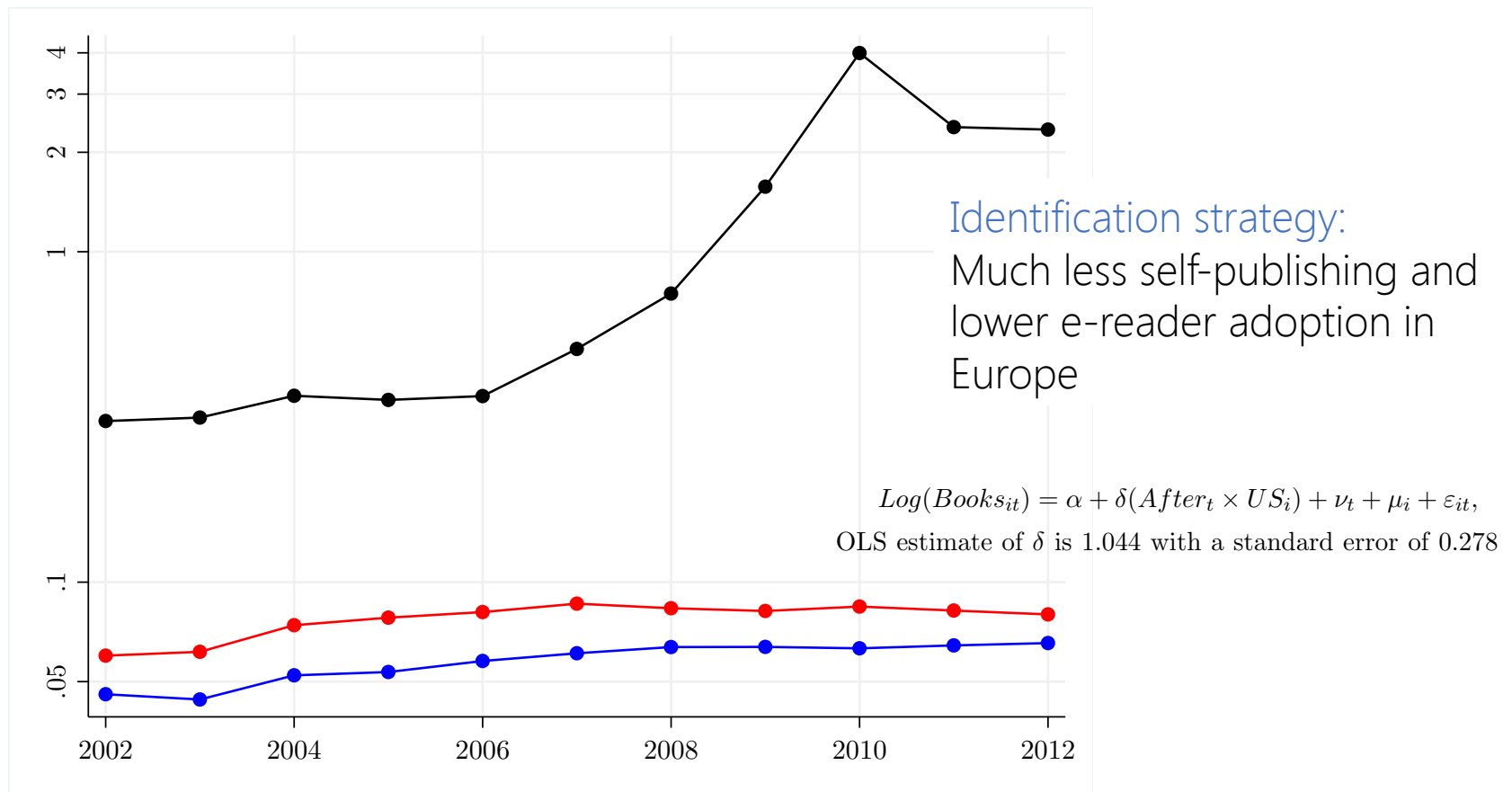|	(1) Placebo-Group DV: Log(Size), rights
After2008 × Romance	-0.061
	(0.095)
Observations	8194
$\overline{R^2}$	0.527

Dependent variables: Log(Dealsize+1) of deals concerning (audio, film, television, international) rights.

Notes: Editor, month and year fixed effects, and constant not reported.

Standard errors in parentheses, clustered on the editor-level. * $p < 0.10$, ** $p < 0.05$ *** $p < 0.01$

Hypothesis 2:
More books will be on the market

Two times more books on the market

Identification strategy:
Much less self-publishing and lower e-reader adoption in Europe

$$Log(Books_{it}) = \alpha + \delta(After_t \times US_i) + \nu_t + \mu_i + \varepsilon_{it},$$

OLS estimate of δ is 1.044 with a standard error of 0.278

● *USA,* ● *Germany,* ● *France*

Note: Total number of new titles per year (includes re-editions) in millions, vertical axis is in log-scale.

Data source: Bowker ISBN counts (US), *Börsenverein des deutschen Buchhandels* (Germany), and *Bibliothèque national de France* (France).

Hypothesis 3:
Predictions will become more precise

Defining prediction error (intensive margin)

- We compare license deals (ex-ante predictions) to future profits (ex-post appeal)
- We aggregate weekly unit sales to total revenues
- Anecdotal information: publisher profits are ~25% of revenues
- Because ex-ante data is categorical, we define the same categories in ex-post data

false positives

Ex ante	<$50k	$50k-99k	$100k-249k	$250k-499k	> $500k
> $500k	4	3	2	1	0
$250k-499k	3	2	1	0	-1
$100k-249k	2	1	0	-1	-2
$50k-99k	1	0	-1	-2	-3
<$50k	0	-1	-2	-3	-4

Ex post

false negatives

(Non-)romance deals follow similar trends
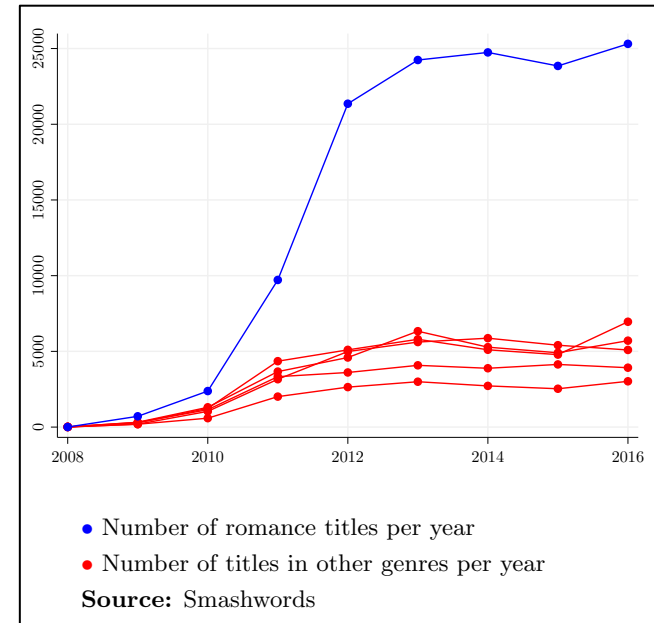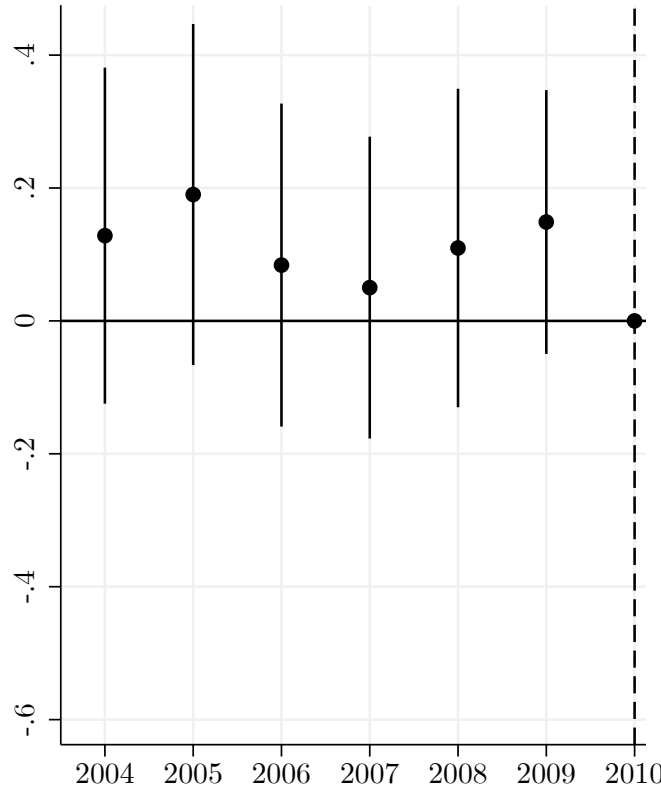
Note: OLS estimates of the δ^τ coefficients obtained from a regression of equation (10), i.e. yearly differences in *Error* between the treatment group (Romance authors) and the control group (non-Romance authors). The omitted year is 2010. Standard errors are clustered on the editor-level, and bars indicate 90% confidence bands.

Absolute prediction error decreases significantly
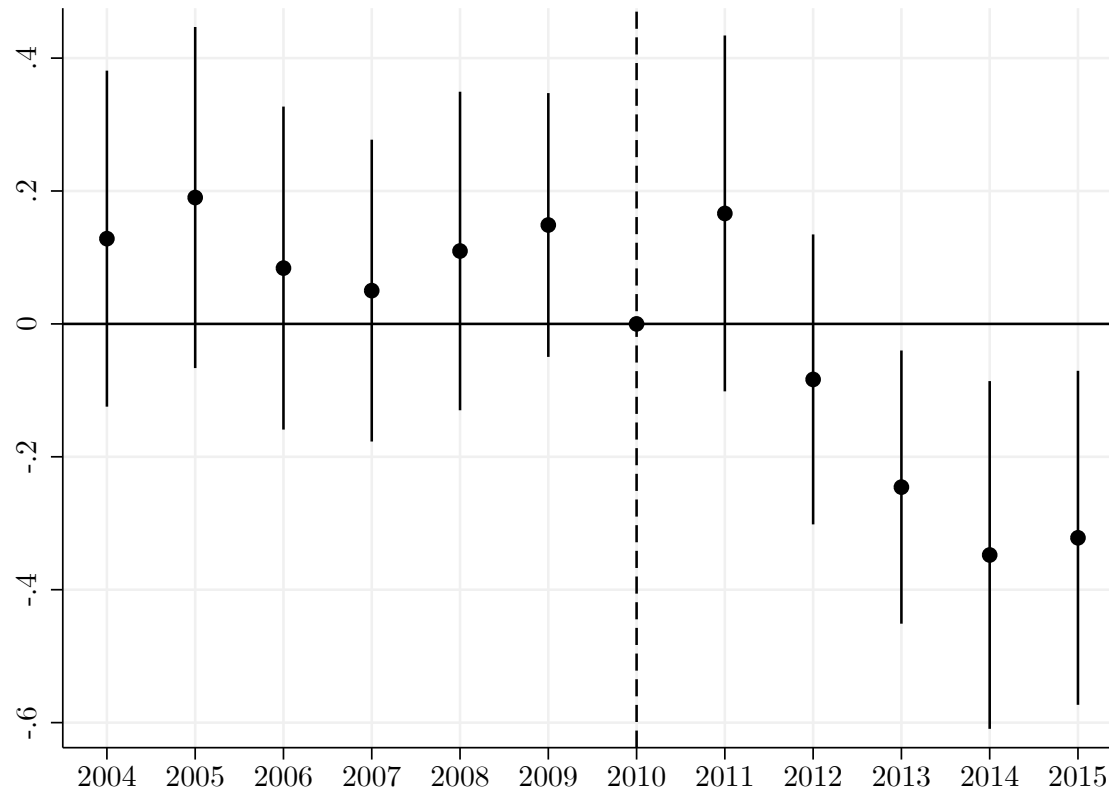
Note: OLS estimates of the δ^τ coefficients obtained from a regression of equation (10), i.e. yearly differences in *Error* between the treatment group (Romance authors) and the control group (non-Romance authors). The omitted year is 2010. Standard errors are clustered on the editor-level, and bars indicate 90% confidence bands.

Publishers make less errors

Table 5: Results: Changes in predicting ex-post appeal

	(1) Abs(Error)	(2) I(Error)
After2010 $\times$ Romance	-0.236***	-0.091***
	(0.066)	(0.030)
Observations	14771	14771
$\overline{R^2}$	0.336	0.380

Notes: Editor and month-year fixed effects. Controls, lower-level interactions and constant included but not reported. Standard errors in parentheses, clustered on the editor-level. * $p < 0.10$, ** $p < 0.05$ *** $p < 0.01$

- Fewer "false negatives"
  - 81.9% decrease at the mean
  - could be due to a shift in bargaining power: authors get better deals

- Fewer "false positives"
  - 13.4% decrease at the mean
  - can't be explained by shifts in bargaining power

Conclusions

Greater variety of available titles (at lower prices)

- Could improve consumer welfare

Larger license fees for authors

- Redistribution of income from publisher to authors
- Increased incentives to produce?

Better prediction of ex-post appeal

- Reallocation of resources could benefit (almost) everyone
- Self-publishing and traditional publishers as complements

Implications for other markets

- Similar setting in markets for more general ideas (e.g. crowdfunding)