

A large audience of people is seated in a cinema, all wearing 3D glasses and looking towards the screen. The audience is diverse in age and appearance. The cinema has red seats and a red wall. Three small, dark rectangular objects are visible on the wall above the audience.

# Film Success in China

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Project 2  
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A large, dense crowd of people is seated in a cinema, all wearing 3D glasses. The audience is diverse in age and appearance. The cinema seats are red, and the walls are a dark red color. The lighting is dim, typical of a movie theater. The text "What explains the success of films in the Chinese market?" is overlaid in white, bold, sans-serif font in the center of the image.

What explains the success of  
films in the Chinese market?

# Collect Chinese Box Office Data from Box Office Mojo using BeautifulSoup



Pair with Kaggle  
IMDB dataset

→ 1177 titles

Box Office Mojo

by IMDbPro

Search for Titles

IMDbPro

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Domestic

International

Worldwide

Calendar

All Time

Showdowns

Indices

Chinese Box Office Weekends For 2019

By Year

2019

China

Data as of Oct 8, 2:28 PDT

Dates	Top 10 Gross	%± LW	Overall Gross	%± LW	Releases	#1 Release	Week
Dec 27-29	\$62,768,348	-37.9%	\$65,586,895	-36.2%	50	Ip Man 4: The Finale	52
Dec 20-22	\$101,064,887	+34.7%	\$102,768,685	+32.3%	50	Ip Man 4: The Finale	51
Dec 13-15	\$75,008,063	+9.4%	\$77,686,681	+11.7%	46	Sheep Without a Shepherd	50
Dec 6-8	\$68,570,691	-4.5%	\$69,538,755	-6.4%	41	Jumanji: The Next Level	49
Nov 29-Dec 1	\$71,816,243	-9.2%	\$74,281,875	-9.5%	47	Frozen II	48
Nov 22-24	\$79,107,132	+43.1%	\$82,096,308	+39.6%	44	Frozen II	47
Nov 15-17	\$55,282,607	-16.1%	\$58,797,610	-13.1%	42	Somewhere Winter	46
Nov 8-10	\$65,912,707	-34.2%	\$67,633,361	-33.6%	40	Better Days	45
Nov 1-3	\$100,127,077	-16.1%	\$101,869,627	-15.8%	36	Better Days	44
Oct 25-27	\$119,298,186	+24.8%	\$120,968,762	+25.4%	38	Better Days	43
Oct 18-20	\$95,584,901	+5.6%	\$96,493,893	+6.2%	36	Maleficent: Mistress of Evil	42
Oct 11-13	\$90,520,722	-62.5%	\$90,866,673	-62.5%	34	The Captain	41
Oct 4-6	\$241,572,010	+651.9%	\$242,107,312	+566.4%	29	The Captain	40
Sep 27-29	\$32,127,648	+230.8%	\$36,333,305	+252.8%	46	The Captain	39

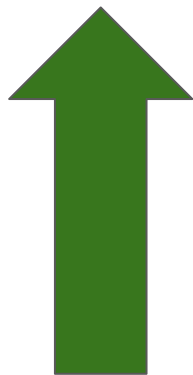
# What Makes a Film Successful in China?

- Genre?
- Chinese production?
- International production?
- Domestic (Chinese) only release?
- US box office success?
- Film runtime?
- Time of year released?



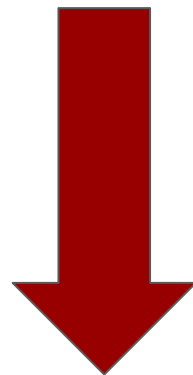
## Used in Model

- USA gross revenue
- Released only in China
- Chinese production
- Runtime
- Release Period
- Release Month
- Genres:
  - Action
  - Adventure
  - Animation
  - Biography
  - Comedy
  - Crime
  - Documentary
  - Drama
  - Fantasy
  - Mystery
  - Romance
  - Thriller
  - War



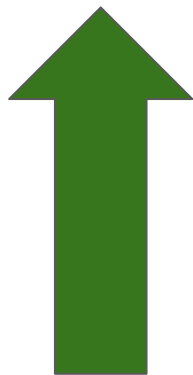
## Low or No Importance (not used)

- Genres:
  - Family
  - History
  - Horror
  - Musical/Music
  - Sci-Fi
  - Sport
  - Western



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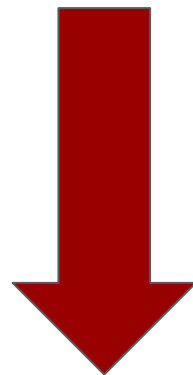


## Target

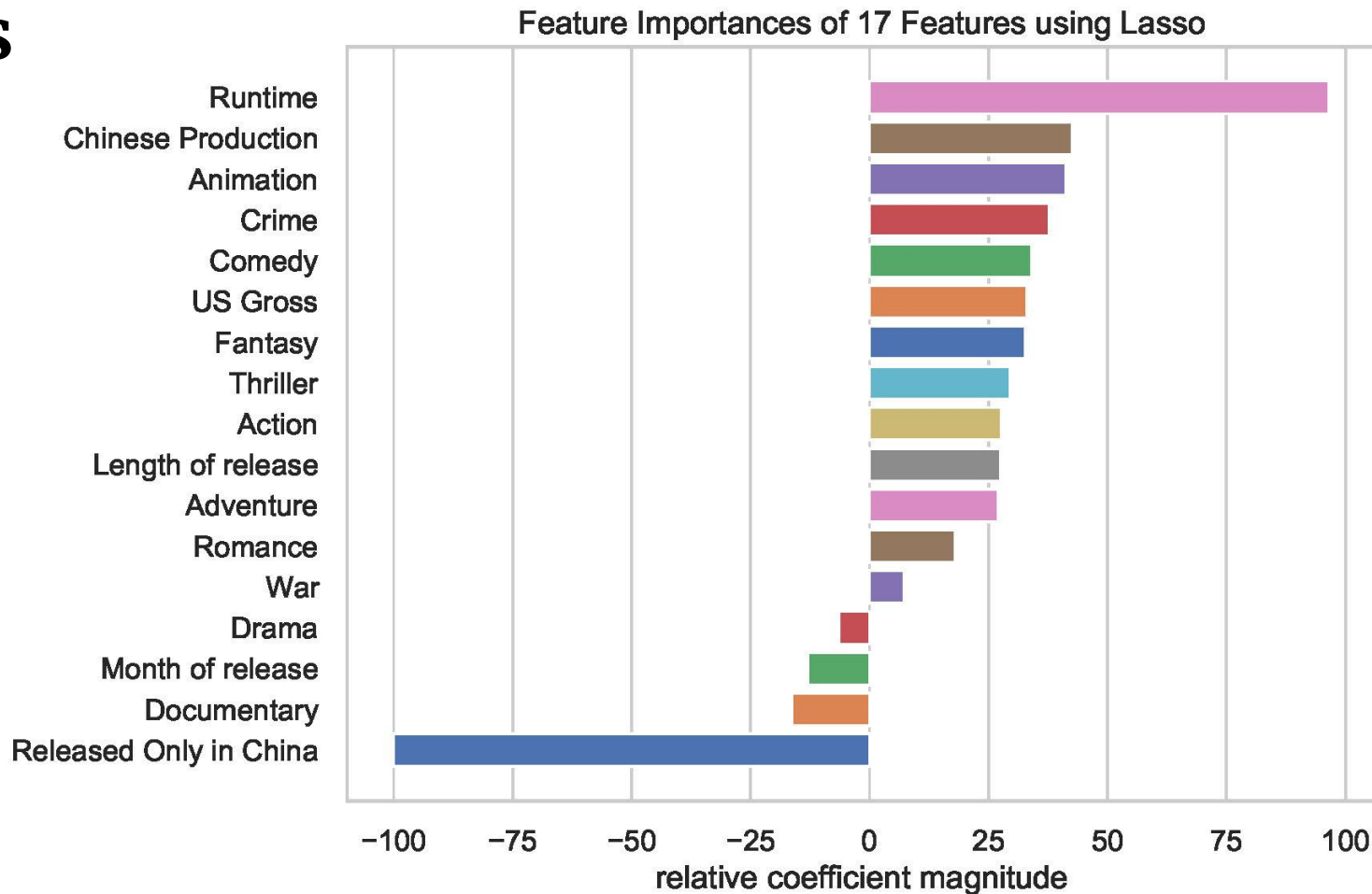
- Chinese gross revenue

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# Results





# Conclusions

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- Paradox:
  - Release only in China is strongest (negative) feature
  - Chinese production is strong positive feature
- Best performing genres:
  - Animation, Crime, Comedy
- Worst performing genres:
  - Documentary, Drama

# Future Work

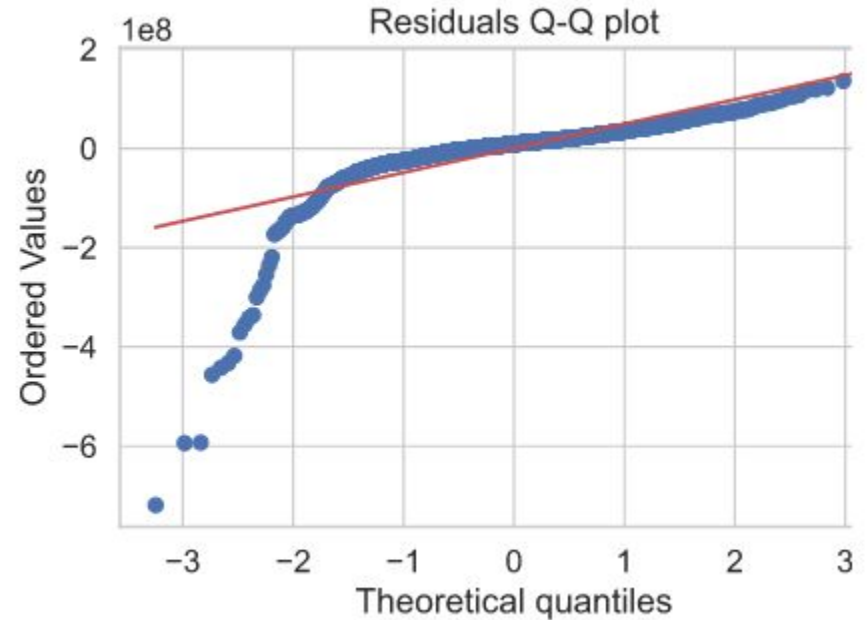
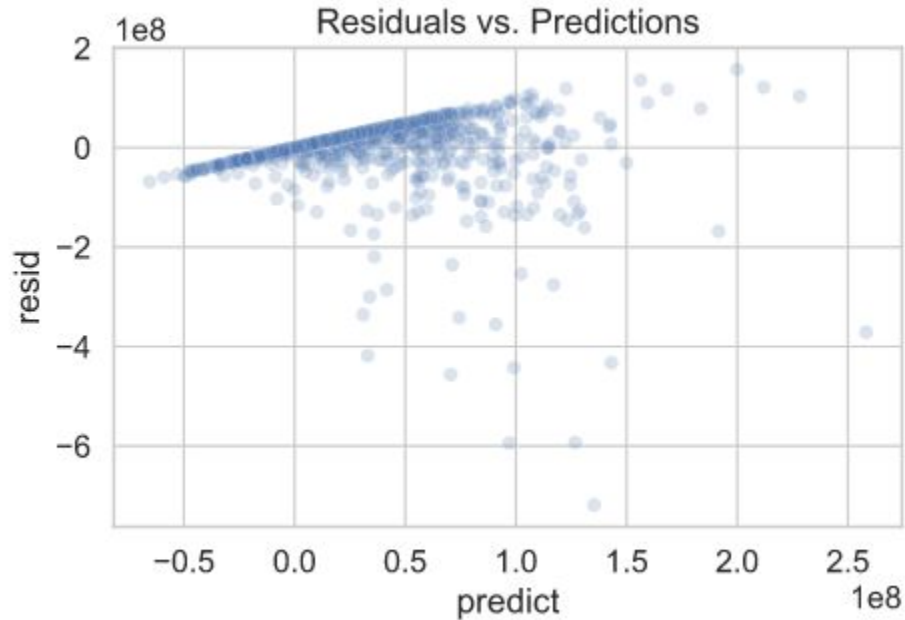
- More and better data
  - Ideally using Chinese sources
- Investigate performance of Chinese films in international market



A large, diverse audience is seated in a theater, all wearing 3D glasses and looking towards the screen. The theater has red seats and a red wall. Three small, brightly lit rectangular openings are visible on the wall above the audience. The text "Thank You!" is overlaid in the center of the image.

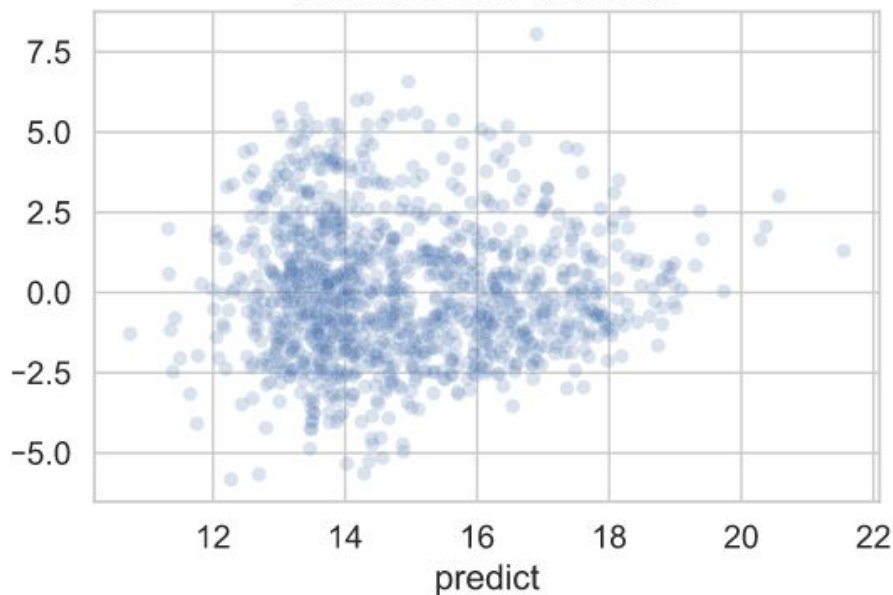
Thank You!

# Appendix – Residuals: original target



# Appendix – Residuals: log transformed target

Residuals vs. Predictions



Residuals Q-Q plot

