

A large, diverse audience is seated in a cinema with red seats, all wearing 3D glasses and looking towards the screen. The scene is dimly lit, with a bright light source visible at the top center of the frame, likely from the projector. The text 'Film Success in China' is overlaid in white serif font in the center of the image.

Film Success in China

Amanda Cheney
Project 2
October 9, 2020

Why consider the success of films in the Chinese market?

- In the past 20 years the Chinese box office grew from \$1 billion USD in annual sales to over \$9 billion USD.
- In Feb 2019 China's National Film Bureau called for China to become a “strong film power” on par with US by 2035.
 - Aim to produce 100 movies annually earning \$15M+
 - Yet in 2019, only 46 Chinese films earned more than \$15M

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

→ 1086 titles

Box Office Mojo

by IMDbPro

Search for Titles

IMDbPRO

f

t

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
Sen 27-29	\$32,127,648	+230.8%	\$36,333,305	+252.8%	46	The Captain	39

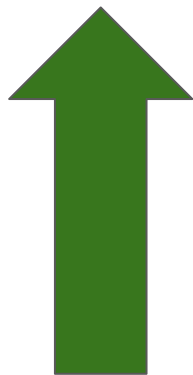
What Makes a Film Successful in China?

- 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
- Genres:
 - Action
 - Adventure
 - Animation
 - Comedy
 - Crime
 - Documentary
 - Drama
 - Fantasy
 - Thriller



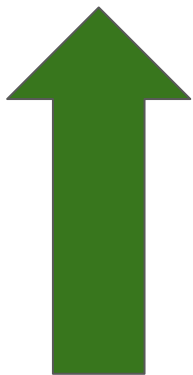
Low or No Importance (not used)

- Release Month
- Genres:
 - Biography
 - Family
 - History
 - Horror
 - Musical/Music
 - Mystery
 - Sci-Fi
 - Sport
 - Western
 - Romance
 - War



Used in Model

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



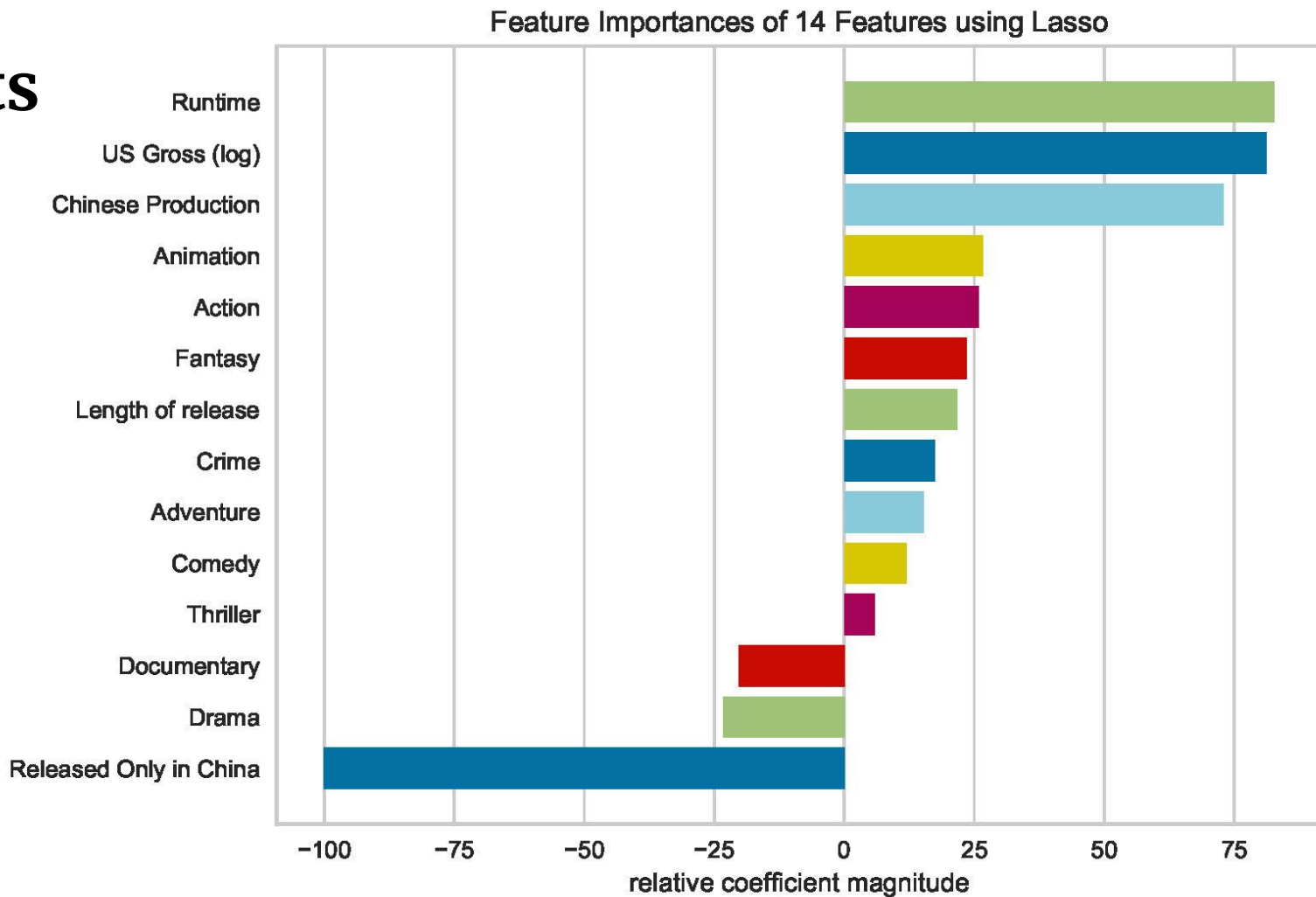
Target

- Chinese gross revenue

Low or No Importance
(not used)

- Release Month
- Genres:
 - Biography
 - Family
 - History
 - Horror
 - Musical/Music
 - Mystery
 - Sci-Fi
 - Sport
 - Western
 - Romance
 - War

Results



Conclusions

- Paradox:
 - Release only in China is strongest (negative) feature

Conclusions

- Paradox:
 - Release only in China is strongest (negative) feature
 - Chinese production next strongest (positive) feature

Conclusions

- Paradox:
 - Release only in China is strongest (negative) feature
 - Chinese production next strongest (positive) feature
- Best performing genres:
 - Animation, Fantasy, Action

Conclusions

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

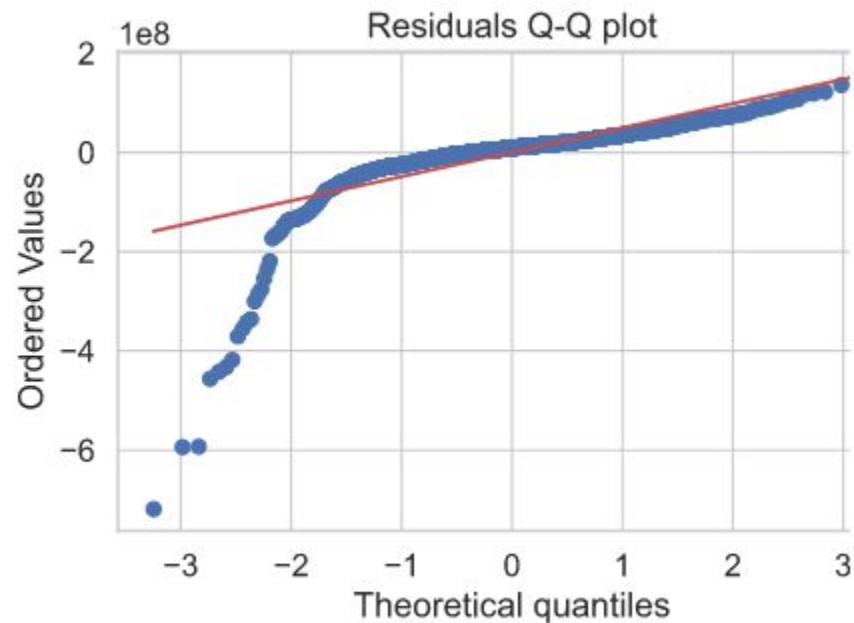
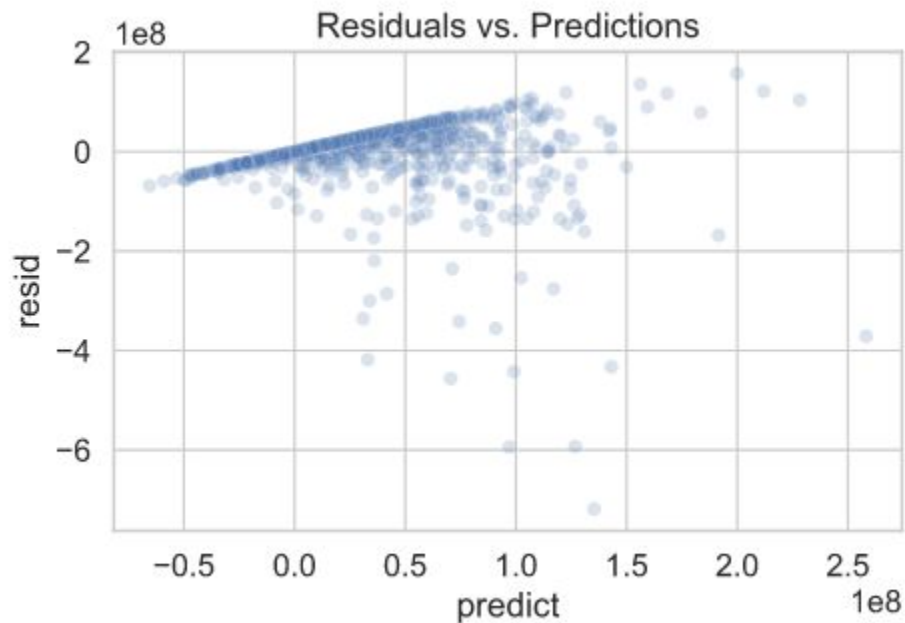
Future Work

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

A large, diverse audience is seated in a movie 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.

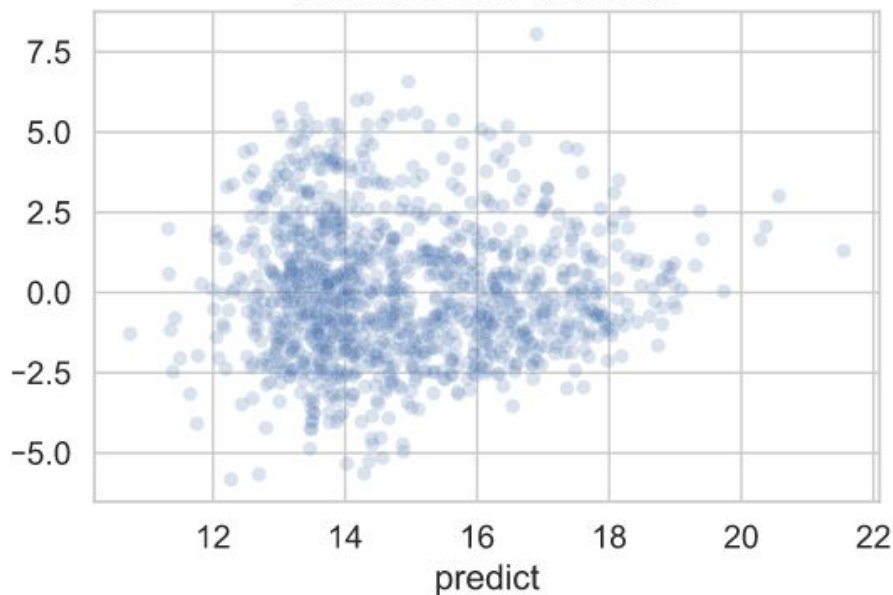
Thank You!

Appendix – Residuals: original target



Appendix – Residuals: log transformed target

Residuals vs. Predictions



Residuals Q-Q plot

