

# *Too* Big to Fail

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# Key Questions

- Are we able to minimize risk to the investors while still being profit oriented?
- How does budget affect a movie's performance, and is this different across different genres?
- Do certain genres have a greater ROI than the others?
- Do certain genres have a higher risk/reward (std/mean) than the others?

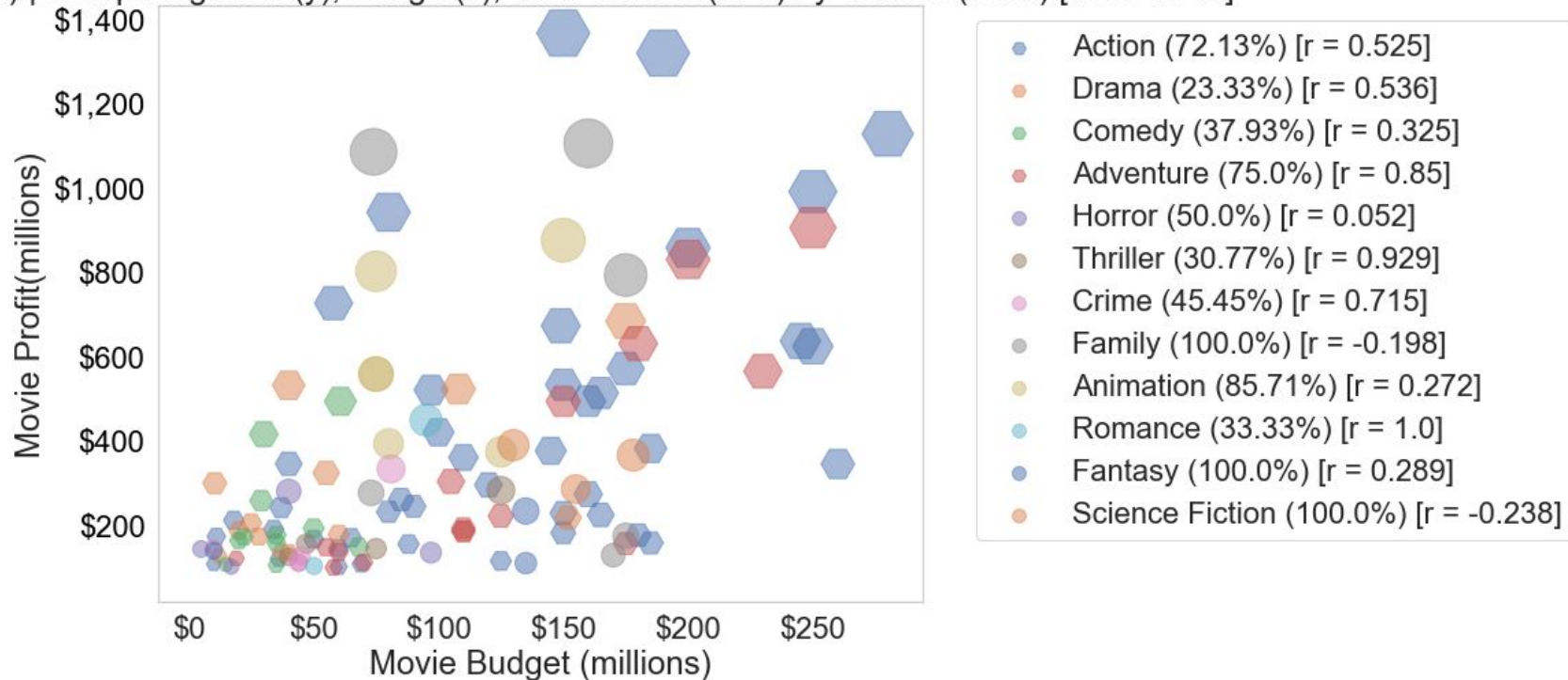
# Data sourcing

- Datasets:
  - IMDB
  - TMDB
  - MovieLens



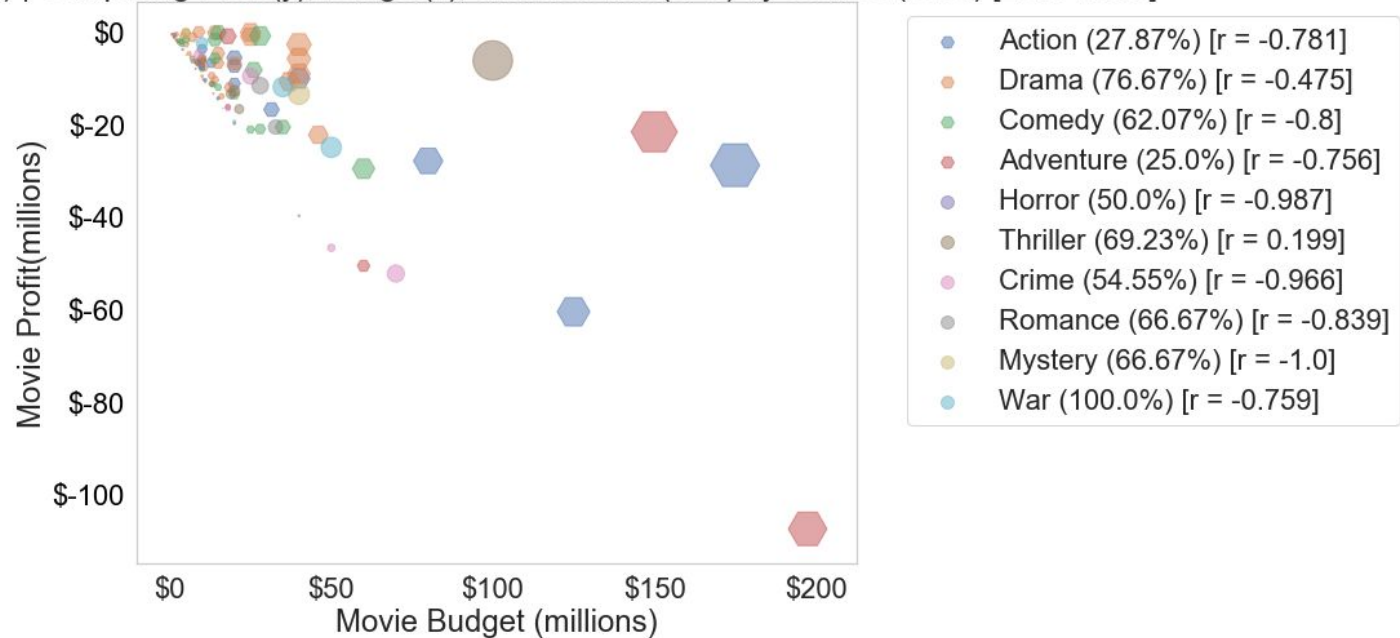
# Profitable Movies: Budget vs. Profit (2015-2019)

(POSITIVE) | Comparing Profit(y), Budget(x), and Revenue(size) by Genres (color) [2015-2019]

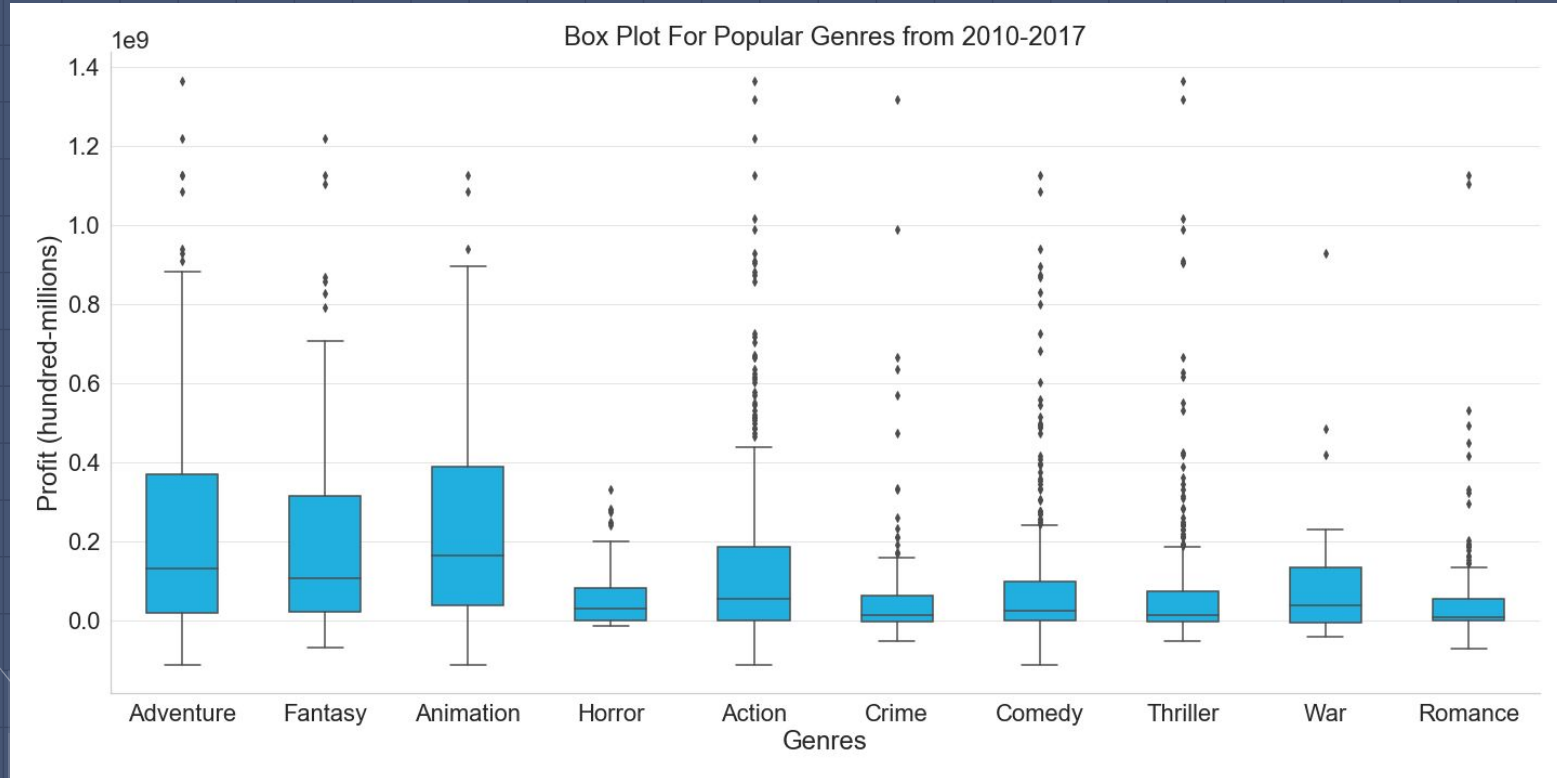


# Unprofitable Movies: Budget vs. Profit (2015-2019)

(NEGATIVE) | Comparing Profit(y), Budget(x), and Revenue(size) by Genres (color) [2015-2019]



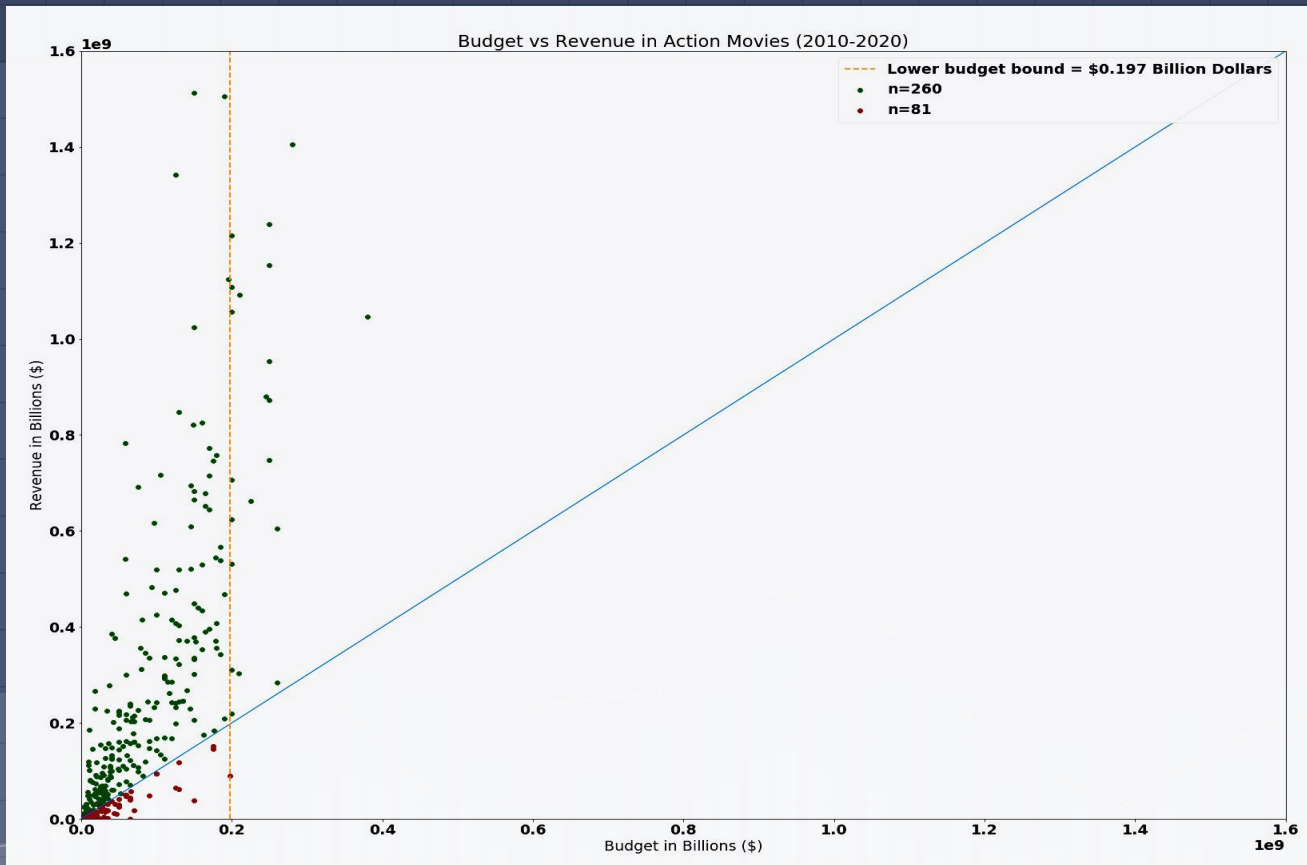
# Profit Distributions Across Genres (2014-2017)



# Profit, Budget, Risk by Genre (2010-2020)

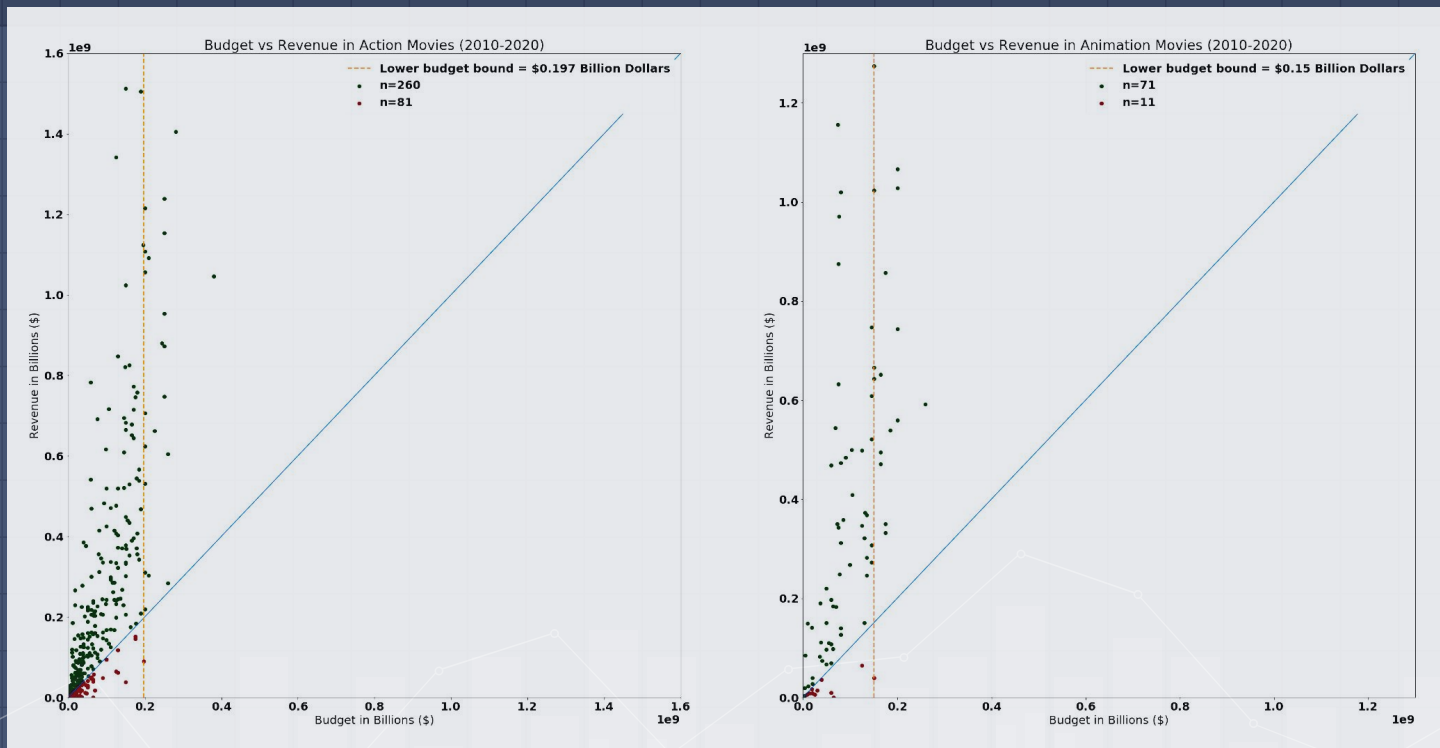
Genre	Mean Profit	Mean Budget	Risk (Std/Mean)	Genre	Mean Profit	Mean Budget	Risk (Std/Mean)
Adventure	\$109,017,580	\$257,712,196	1.21✓	Crime	\$121,025,940	\$47,576,356	2.18 !
Fantasy	\$246,687,752	\$101,152,479	1.16✓	Comedy	\$114,352,285	\$40,745,553	1.81 !
Animation	\$282,224,034	\$82,971,519	1.13✓	Thriller	\$95,771,908	\$40,265,755	2.37 !
Horror	\$52,911,908	\$24,604,762	1.38✓	War	\$46,883,659	\$30,446,961	2.39 !
Action	\$178,841,337	\$79,459,566	1.55✓	Romance	\$88,477,852	\$27,753,606	2.27 !

# Case Study: Budget vs Revenue of Action Movies





# How about other genres?



- Trend is NOT unique
- Scalability!

# Key Findings and Recommendations

## Conclusion

- Budget **over** \$200 million:
  - Fantasy (~\$175 million buy-in) (86.4% success rate)
  - Adventure (~\$197 million buy-in) (82.76% success rate)
- Budget **under** \$200 million:
  - Horror (~\$40 million buy-in) (75.75% success rate)
  - Animation (~\$150 million buy-in) (86.58% success rate)
  - Comedy (~150 million buy-in) (78.28% success rate)

# Limitations

- Data used contained movies from 1990–2017; more recent movies could have showed different results
- Many movies have unknown budgets, so they were ignored
- Within every popular movie genre, there are extreme outliers that may have contributed to exaggerated standard deviations.

# Future Directions

- Exploring international vs. domestic revenue
  - Where else in the world would a movie be successful?
  - What genres are popular within Asia?
- Comparing profit in adult movies vs. non-adult movies
- Explore populations that frequently attend movies and determine whether there are any demographic similarities
- Investigate if the budget/risk trend is applicable to a greater subset
- Risk management analysis
  - Minimizing risk in high risk places