Holding Platforms Liable

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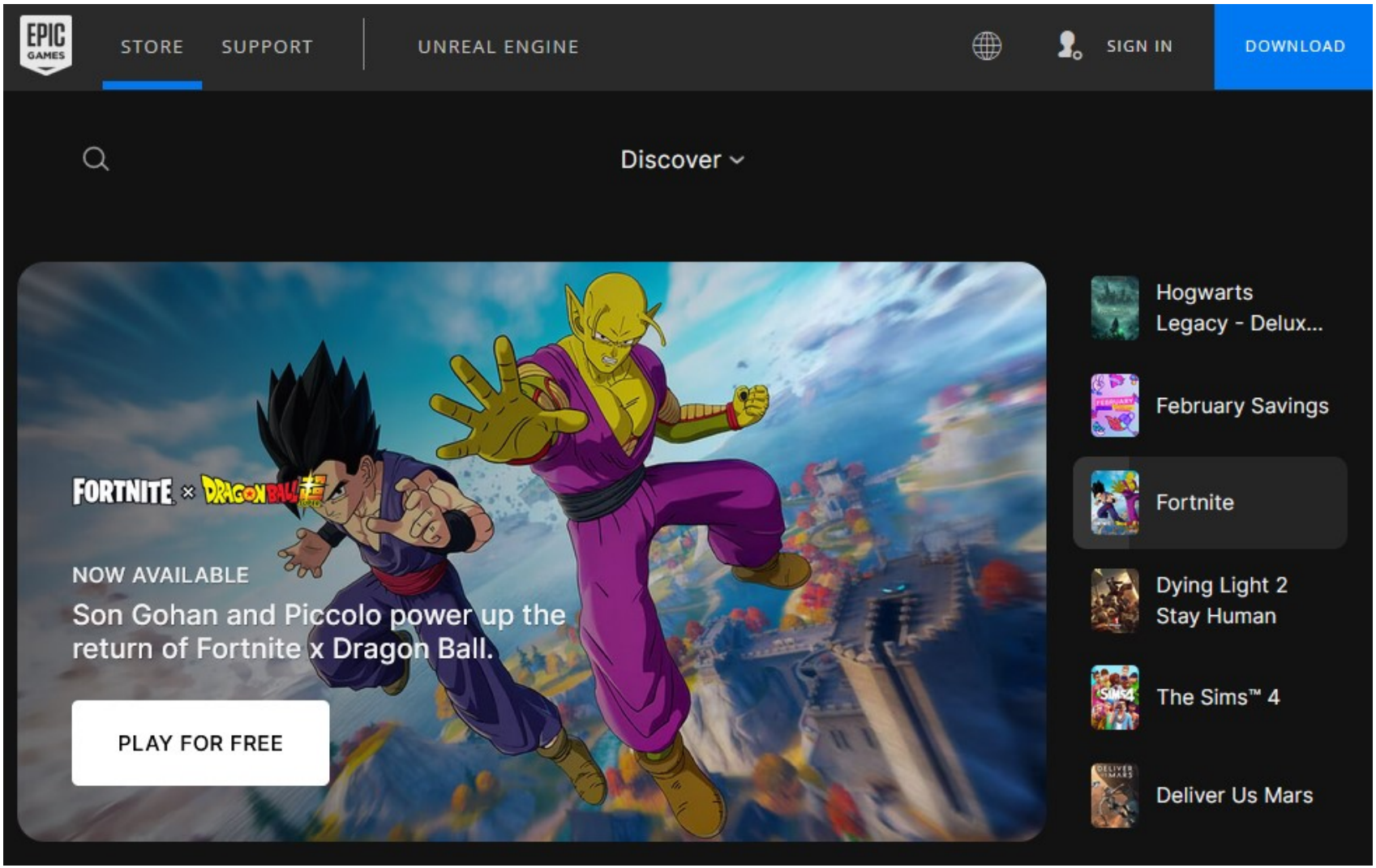
Introduction

- Although platforms create significant benefits, they also expose users to potential harms:
  - Breaches of privacy and personal data
  - Misinformation, cyberbullying, hate speech
  - Fraudulent or unwanted advertising
  - Dangerous, defective, or counterfeit products
- Platforms have had notable success avoiding liability.
  - Section 230 & digital content created by participants
  - Retail platforms versus traditional sellers
- These issues are playing out in legislatures and courts.

Example: Facebook

Example: Epic Games



to fraud that started on social media.

Example: Amazon & Hoverboards

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"Amazon is well situated to take cost-effective measures to minimize the social costs of accidents."

Overview of Model and Results

- Should platforms be held liable when participants are harmed?
- Two-sided platform with users on one side & firms on other.
  - Users get utility from being on the platform.
  - Firms get benefits from interacting with users
- Some firms are bad actors and may cause harm to users.
- If firms have deep pockets then just hold the firms liable.
  - Bad firms are deterred
- If firms judgment proof and under-deterred, then should hold the platform liable.
  - Incentive to detect and remove bad firms
  - Incentive to raise interaction price to deter bad firms
- Relevant factors include the type of platform, consumer information, market structure, litigation costs, etc.

Outline

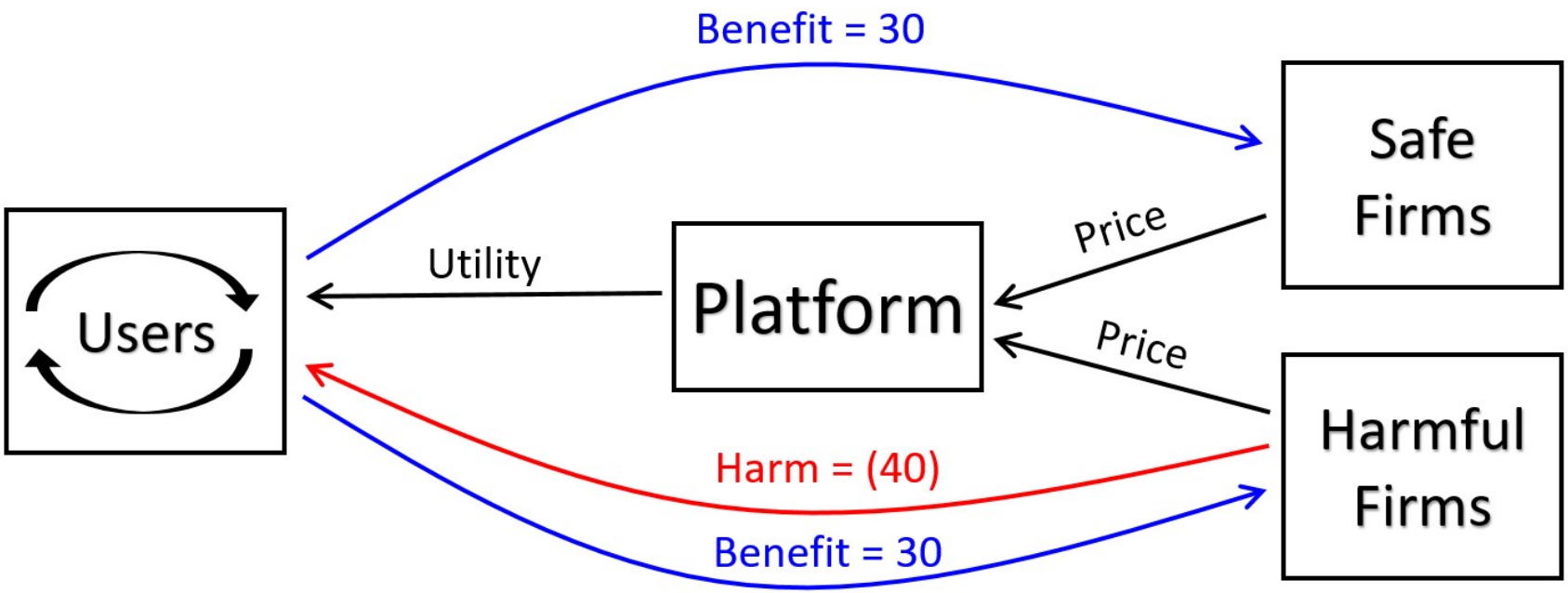
1. Introduction
2. Brief Literature Review
   - Law and Economics
   - Platform Economics
3. Numerical Example
4. Baseline Model
5. Three Extensions
   - Heterogeneous Users
   - Retail Platforms
   - Platform Competition
6. Concluding Thoughts

Brief Literature Review

- The "judgment proof" problem.
  - If injurers are immune from (or can evade) liability then effort too low, activity level too high (Shavell, 1986)
- Rationale for extending liability to third parties.
  - Manufacturers (Hay & Spier, 2005)
  - Lenders (Pitchford, 1995)
  - Managed Care (Arlen and MacLeod, 2005)
- Economics of multi-sided platforms.
  - With cross-side externalities, one side may pay nothing (Rochet & Tirole, 2003, 2006; Armstrong, 2006)
  - Seller exclusion (Hagiu, 2009), control rights (Hagiu & Wright, 2015, 2018), governance (Teh, 2022)
  - Policy pieces (Buiten et al., 2020; Lefouili & Madio 2021)
  - Working papers on copyright (De Chiara et al., 2021; Jeon et al., 2022) and retail (Zennyo, 2023; Yasui, 2022)

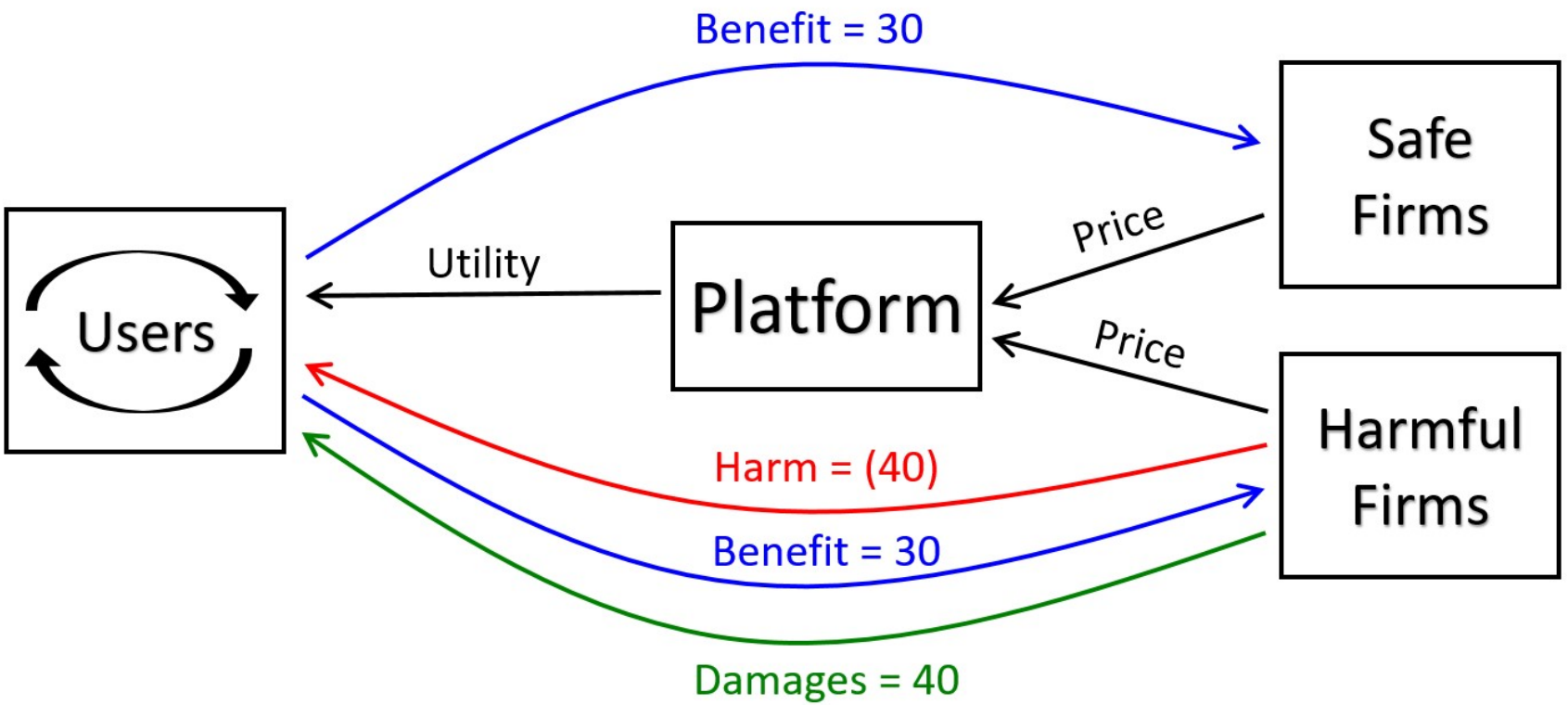
Numerical Example

Bystanders Users & Monopoly Platform



Firms Have Deep Pockets

Firms 100% Liable



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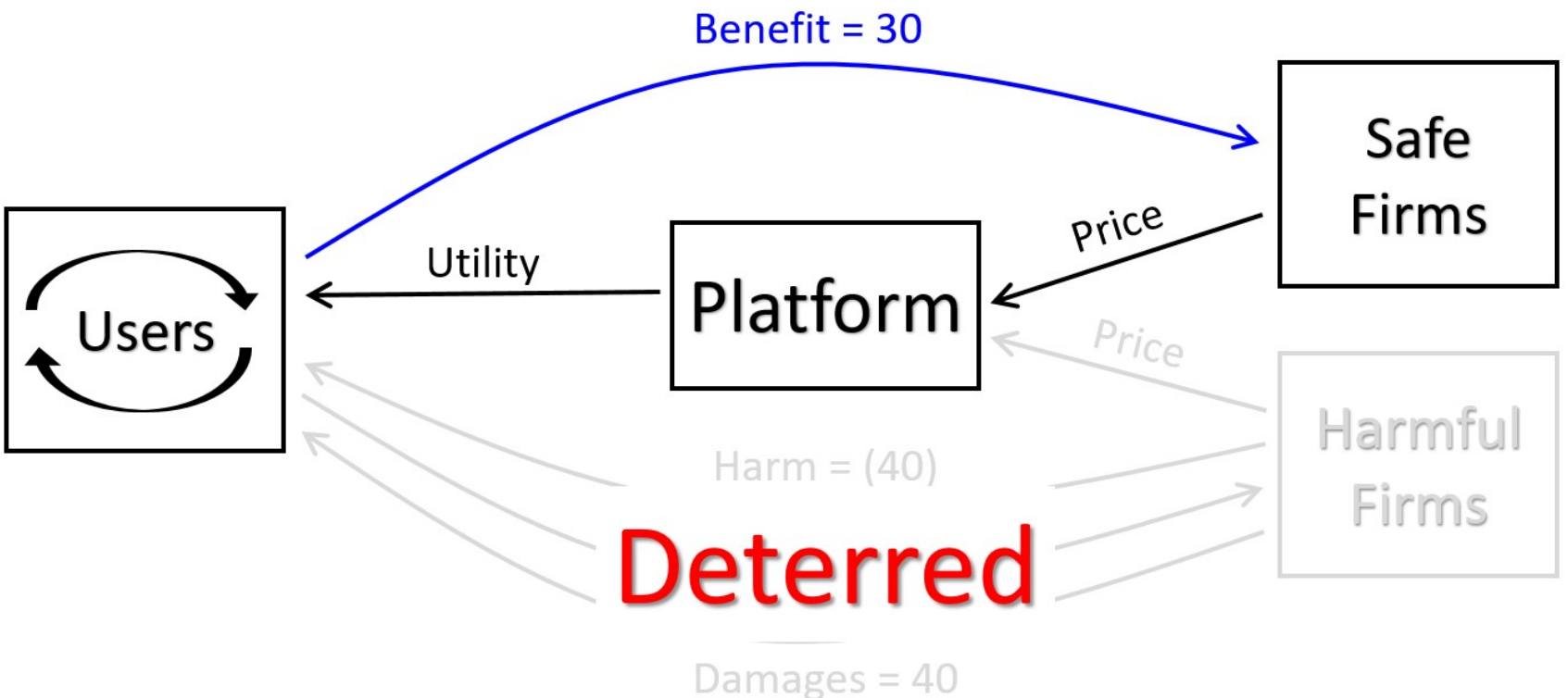
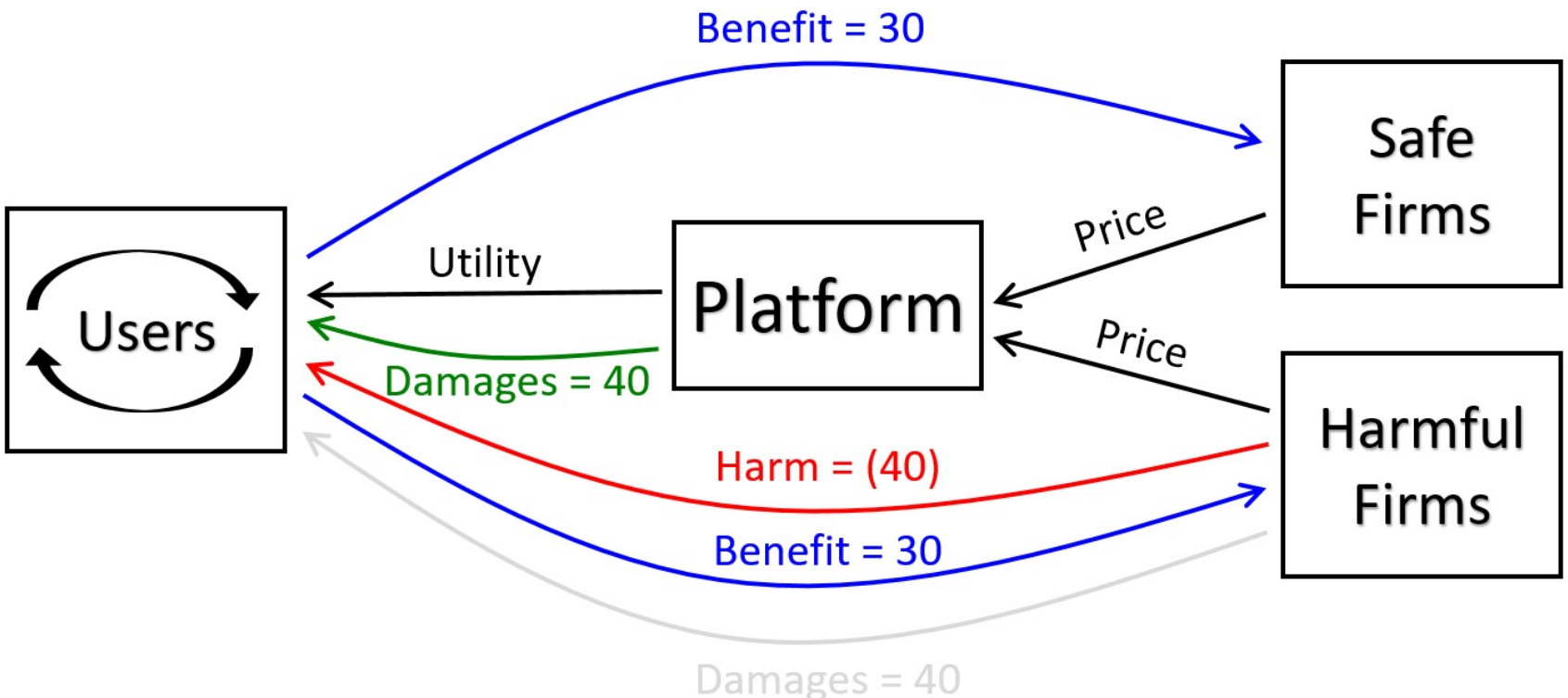


Firms Totally Judgment Proof

Platform 100% Liable



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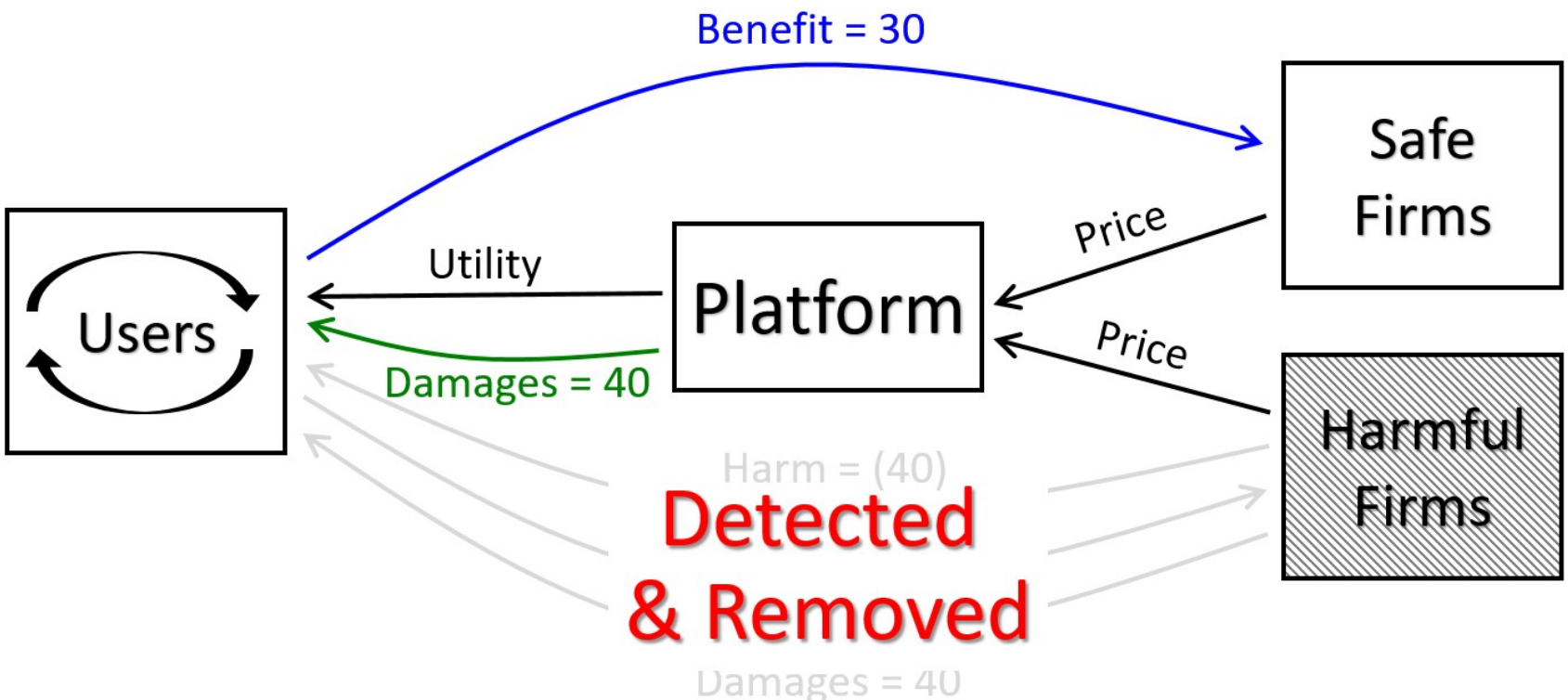
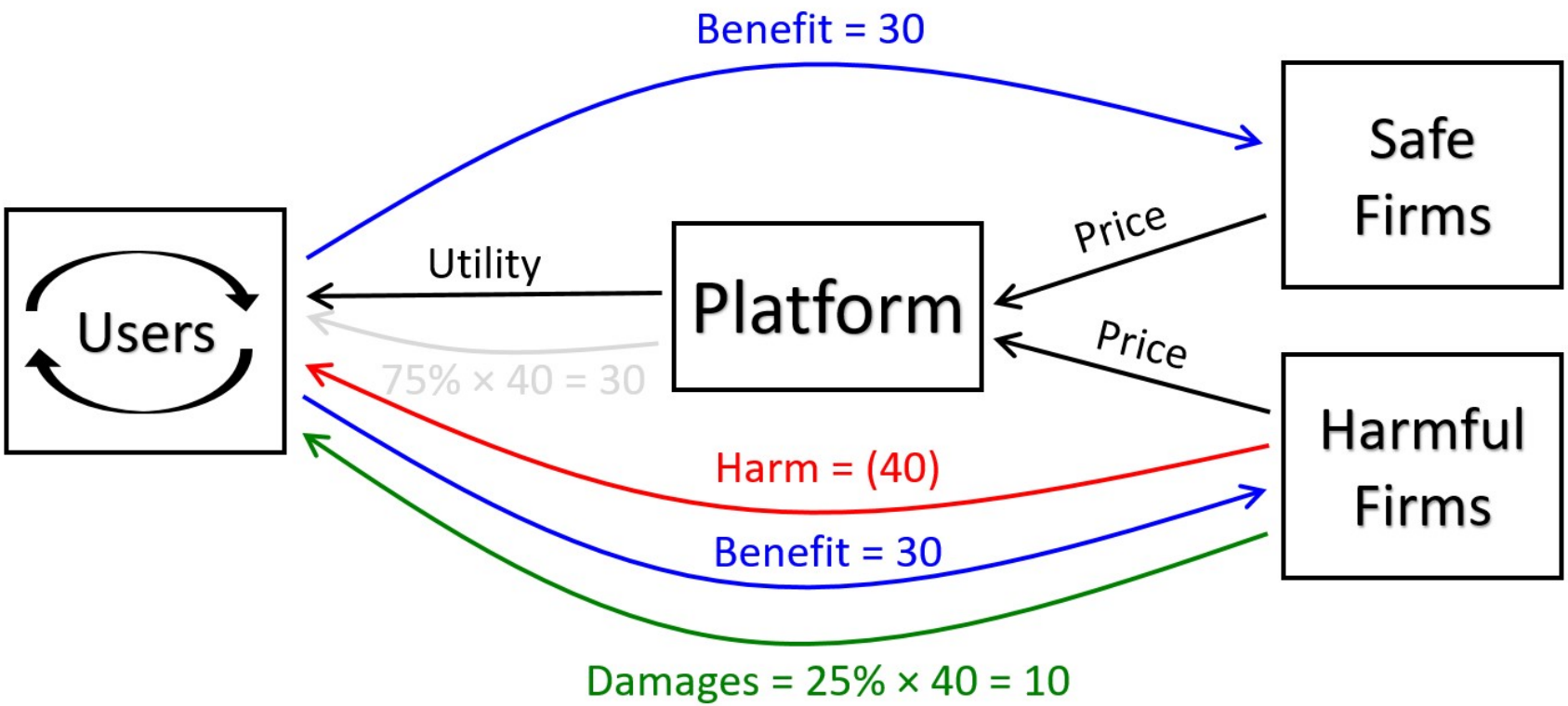


Firms Moderately Judgment Proof

Firms 25% Liable, Platform 75% Liable



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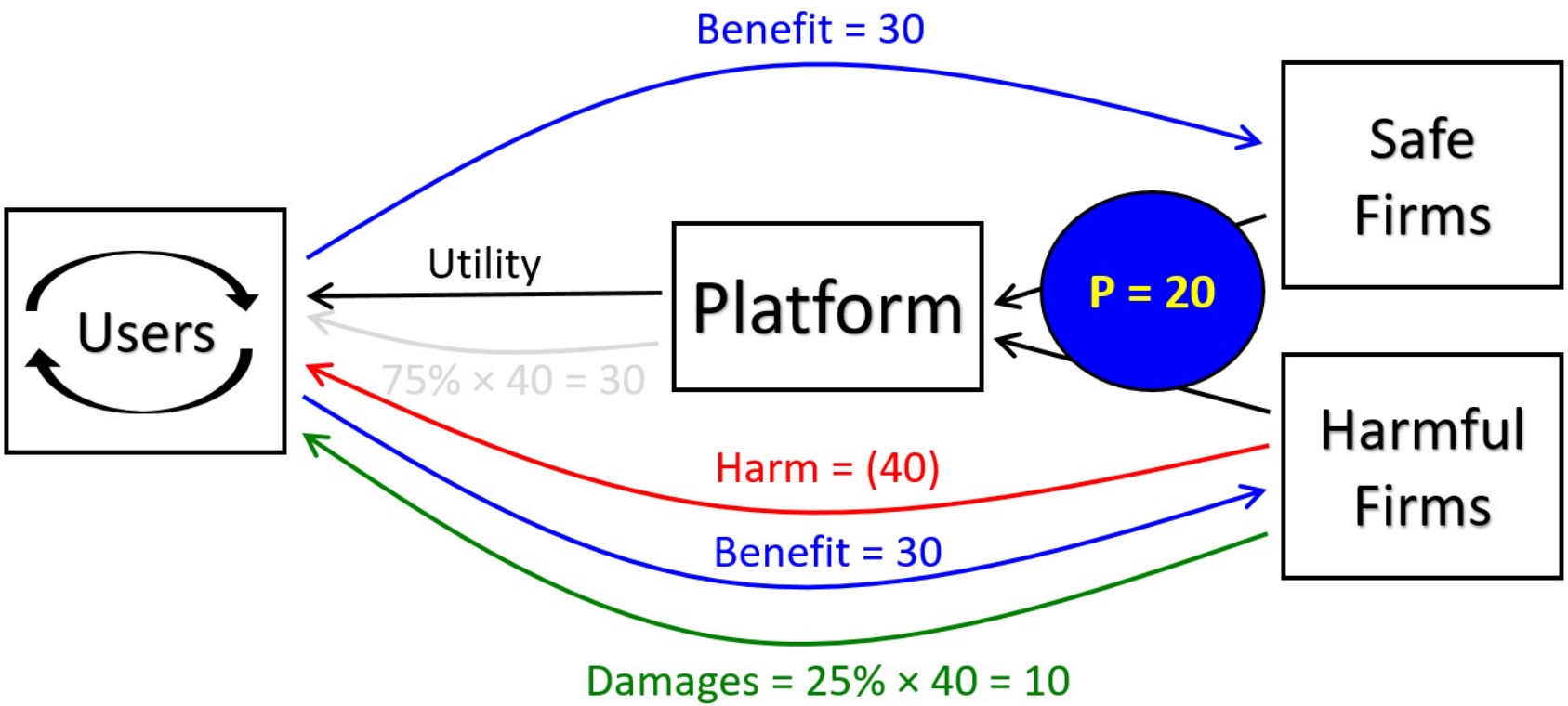

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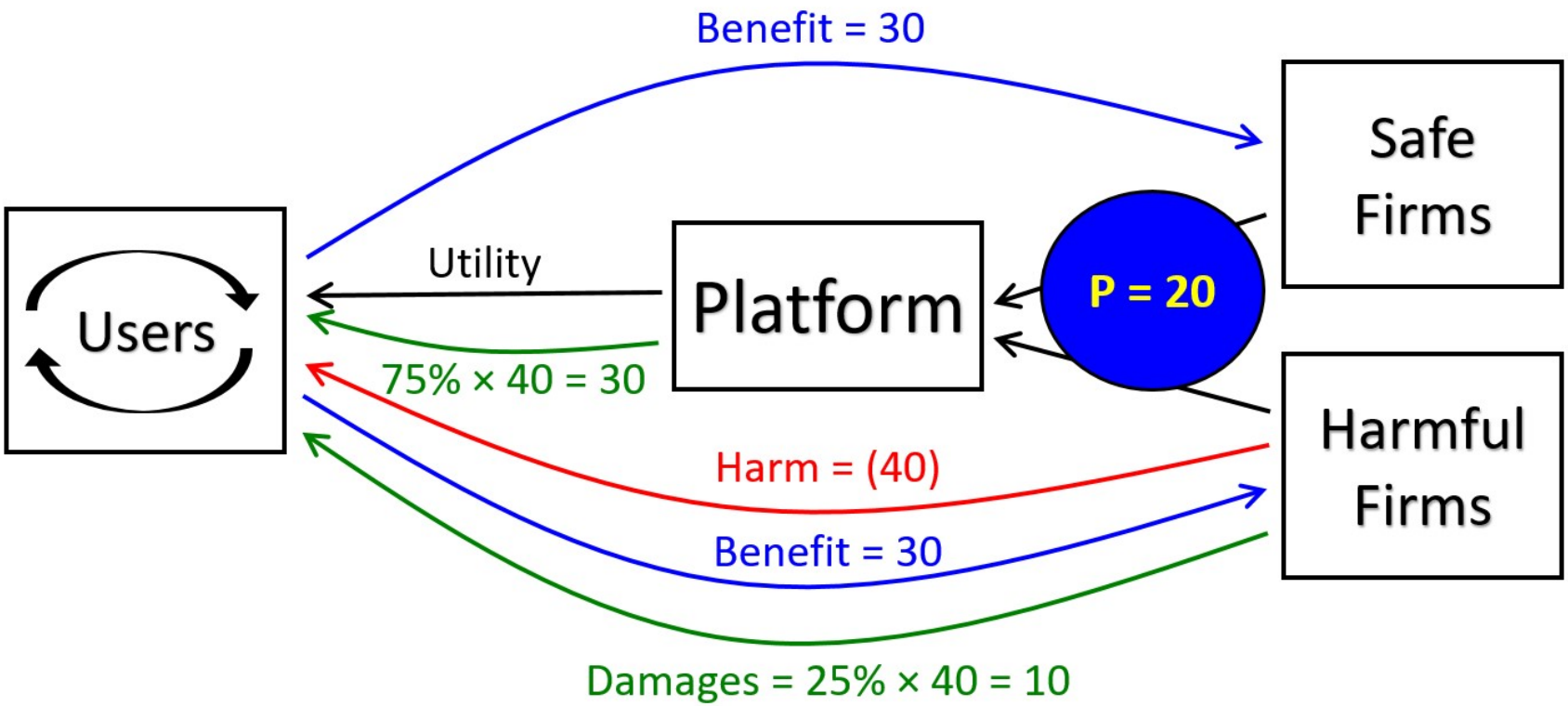

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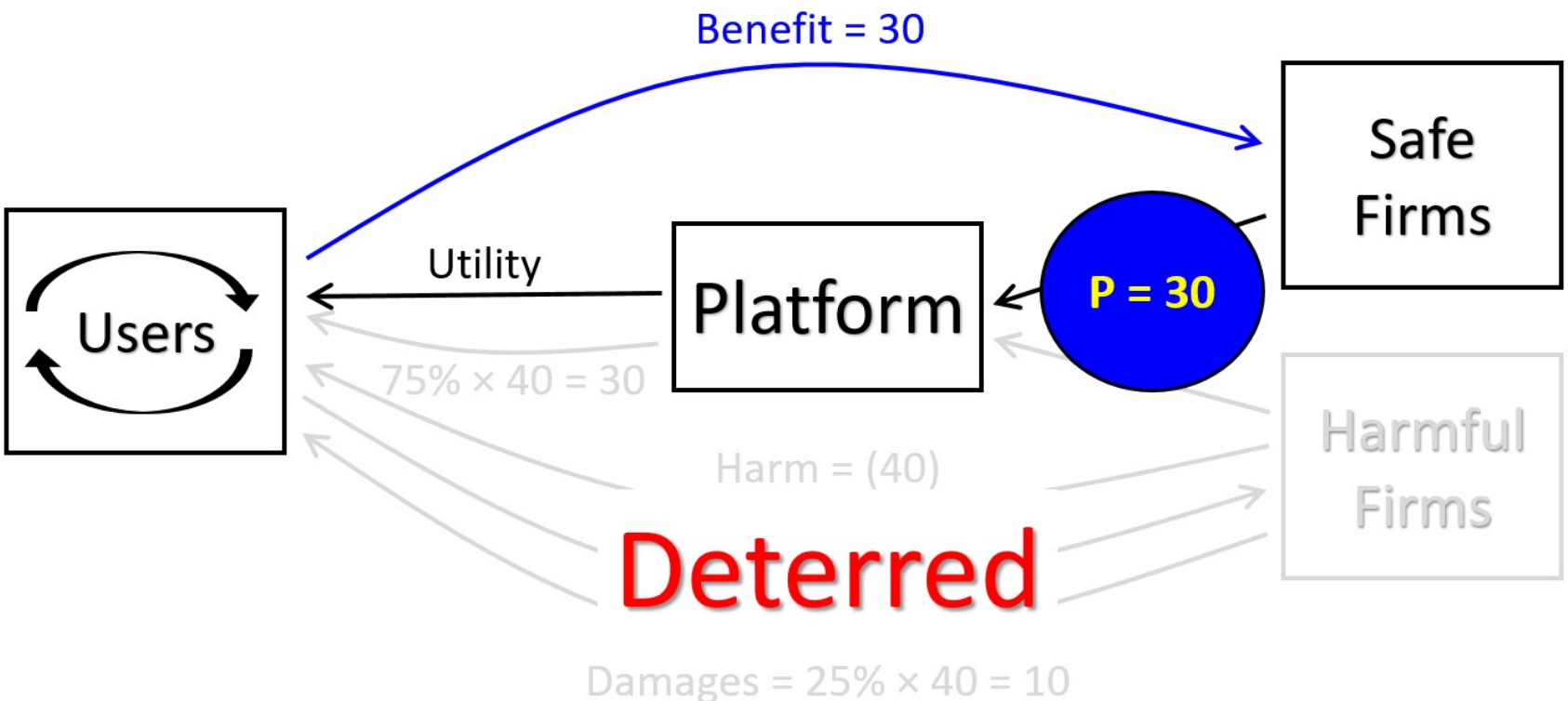

The Baseline Model

- Users are bystanders. Consent not required for interactions.
- Some firms are harmful (H-types), some are safe (L-types).
  - $\lambda \in (0,1)$ is fraction of H-types
  - H-types enjoy higher interaction benefits: $\alpha_H > \alpha_L$
  - H-types cause harm d with higher frequency: $\theta_H > \theta_L$
- H-types are socially inefficient:

$$\alpha_H - \theta_H d < 0 < \alpha_L - \theta_L d$$

- Platform can prevent social harm in two ways:
  - Raising interaction price p to deter harmful firms
  - Investing to detect and remove harmful firms (auditing). Probability of detection $e \in [0,1)$ and $c(e)$ is cost.
- If user suffers harm, responsible firm and platform pay damages $w_s \geq 0$ and $w_p \geq 0$ where $w = w_s + w_p \leq d$.

The Baseline Model

Equilibrium Analysis

- Type-i firm seeks to join platform if

$$\alpha_i - \theta_i w_s - p \geq 0$$

- H-type may have higher or lower rents. Rents equal if:

$$w_s = \widehat{w} = \frac{\alpha_H - \alpha_L}{\theta_H - \theta_L} < d.$$

- If $w_s < \widehat{w}$ then safe firms are marginal.
  - If L-types join platform then H-types join
  - Auditing necessary to remove H-types
- If $w_s > \widehat{w}$ then harmful firms are marginal.
  - Platform may deter H-types by raising price p
  - Auditing unnecessary

The Baseline Model

Case 1: $w_s < \widehat{w}$

- Safe firms are marginal.
  - Platform sets $p^* = \alpha_L - \theta_L w_s > 0$
  - H-types capture information rents
- Social planner's auditing effort:

$$S'(e^{**}) = -\lambda(\alpha_H - \theta_H d) - c'(e^{**}) = 0$$

- Platform's auditing effort:

$$\Pi'(e^*) = S'(e^*) - \lambda\theta_H(d - w) + \lambda(\theta_H - \theta_L)(\widehat{w} - w_s) = 0$$

- Private and social incentives for auditing diverge.
  - Auditing confers positive externality on user-bystanders
  - Auditing imposes negative externality on H-type firms

Optimal platform liability is less than full:

$w_s + w_p^* < d$

The Baseline Model

Case 2: $w_s > \widehat{w}$

- Harmful firms are marginal.
  - Price $p^* = \alpha_L - \theta_L w_s > \alpha_H - \theta_H w_s$ deters the H-types
  - Auditing is unnecessary!
- Will the platform charge p^* and deter the H-types?
- Not necessarily. Platform accommodates the H-types if:

$$\lambda(\alpha_H - \theta_H w) > (1-\lambda)(\theta_H - \theta_L)(w_s - \widehat{w})$$

  - Net revenue from accommodating marginal H-types
  - Information rents captured by inframarginal L-types
- Absent platform liability, the platform's private incentive to raise the price and deter the H-types is too low.

Full residual liability on platform aligns incentives:

$w_s + w_p^* = d$.

1. Heterogeneous Users

- Baseline model assumed homogeneous users.
  - Platform usage didn't vary with risk of harm
- Not everyone participates in social media, even though free.
  - Personal preference
  - People vary in perceived benefits and risks
- Platform liability stimulates user participation. Two reasons:
  - Users rationally anticipate that platform is safer
  - Future damage award acts as a "rebate"
- Optimal level of platform liability is weakly higher than baseline model.
  - Platform does not consider marginal social gain from increased user participation

2. Retail Platforms

- Users are sophisticated consumers and firms are sellers.
  - Transactions require consumer consent
  - Consumers pay retail price to firm
  - Firms pay transaction fee to platform
- Retail price reflects consumer beliefs. If safety $\uparrow$ then
  - retail prices $\uparrow$, transaction fees $\uparrow$, platform profits $\uparrow$
- If harmful firms marginal then platform liability unnecessary.
  - Platform raises transaction fee to deter harmful firms
  - Retail price and platform profits rise
- If safe firms are marginal then platform liability is positive but lower than in baseline model.
  - Uncompensated harm now relative to expectations
  - Platform liability and firm liability are now complements

3. Platform Competition

- Two platforms compete head-to-head for users.
  - Users distributed symmetrically on Hotelling line
  - Firms can join both platforms
  - Users care about "distance" and safety
- If harmful firms marginal then raising interaction price deters bad actors and attracts users.
  - Low differentiation: platform liability unnecessary.
  - High differentiation: platform liability necessary
- If safe firms marginal then platform liability is same as baseline model.
  - Platform liability is less than full
- Policies/laws that change the nature of platform competition should be complemented by changes in platform liability.

Concluding Thoughts

- Should platforms be held liable for harms suffered by users?
  - Strong case to be made if injurers are judgment proof
- Broader applications for newspapers and offline retailers, but particularly salient for online platforms
  - More severe judgment proof problems
  - Capability to detect and remove harmful firms
- Future avenues:
  - Safety regulation: substitute or a complement?
  - Strict liability versus negligence
  - Competition between asymmetric platforms
  - Indemnification and side contracting