

Fair Gatekeeping in Digital Ecosystems

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 - Non-price conditions of access: Absence of self-preferencing
 - Access charge level: “FRAND” access
- Question:

How can antitrust authorities enable business users to get their fair share of their contribution to a digital ecosystem?

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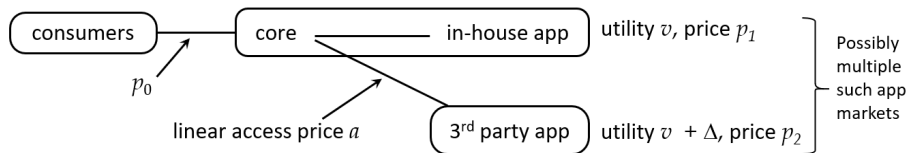
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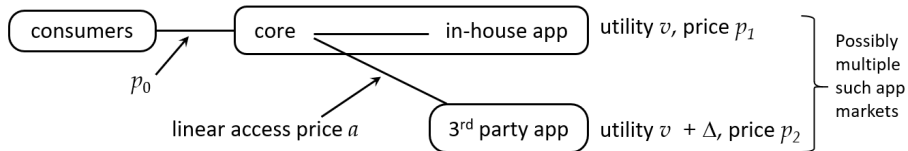
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 - Implementation under regulator's lack of information

Setting

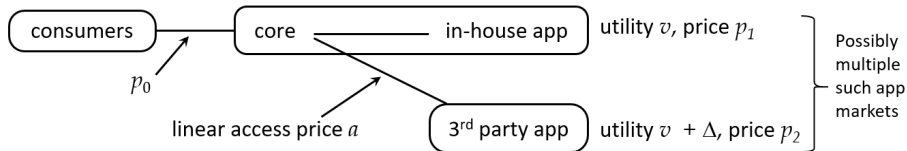


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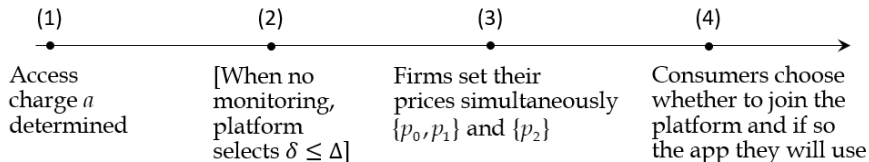
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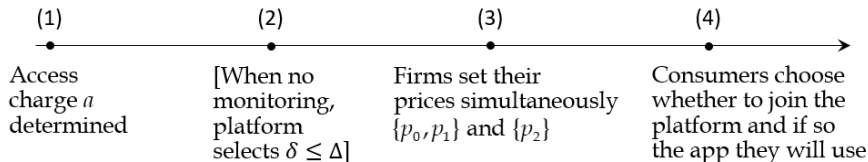


- Benefit $b > 0$ per consumer: Ad-revenues, merchant fees, data...
- Both apps have opportunity cost $a - b$

Timing and Profits



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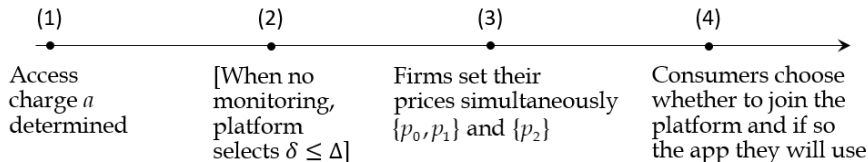
Let $x = 1$ (resp. $x = 0$) if 3rd party (resp. in-house) app is sold

Given access conditions (a, δ) :

$$\pi_1 \equiv p_0 + a + (1 - x)[p_1 - (a - b)]$$

$$\pi_2 \equiv x[p_2 - (a - b)]$$

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Select *platform pivotality equilibrium*

Equilibrium (1): Supranormal Profit and Foreclosure

- $a < b$: marginal/opportunity cost is negative: App ZLB binds:

$$p_1^* = 0, \quad p_2^* = \Delta, \quad p_0^* = v$$

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- The platform has incentives to foreclose:

$$\pi_1^*(a) = v + a < v + b \equiv \pi^F$$

Equilibrium (2): Competitive Neutrality and Fair Reward

- $a \in [b, b + v]$: No ZLB binds:

$$p_1^* = a - b, \quad p_2^* = a - b + \Delta, \quad p_0^* = v - (a - b)$$

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- Chicago School's argument holds

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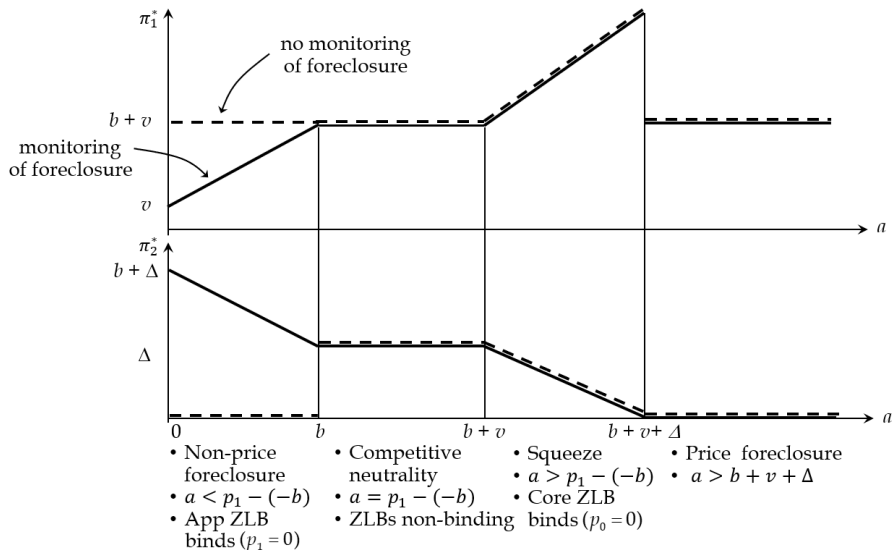
- $a > b + v$: 3rd party app constrained by consumers' wtp: Core ZLB binds:

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- 3rd party margin is squeezed:

$$\pi_1^* = a > \pi^F, \quad \pi_2^* = v + \Delta + b - a < \Delta$$

Impact of the Access Charge



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- 3rd party app steals b from platform when taking a consumer away from it

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- ⇒ Need to regulate/cap access charges

Platform Competition

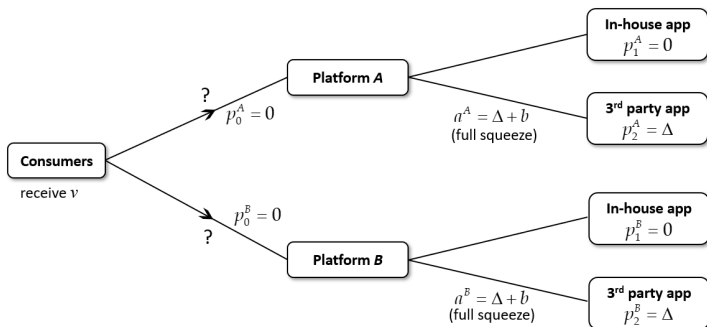
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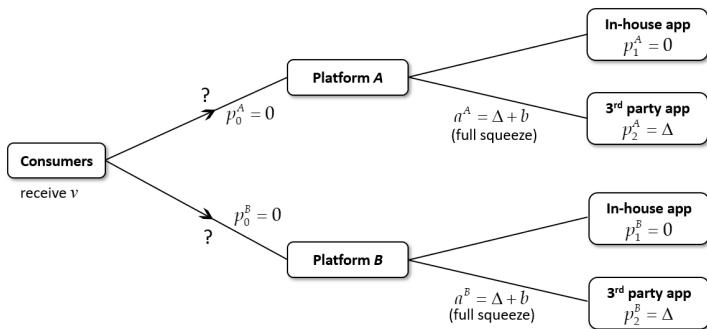
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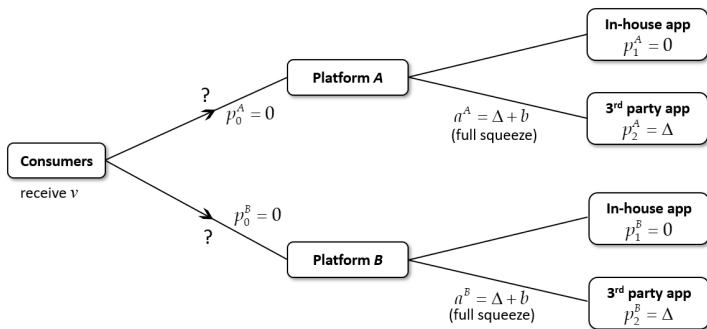
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- \implies Pigouvian rule still needed to ensure fairness

App-Store Competition

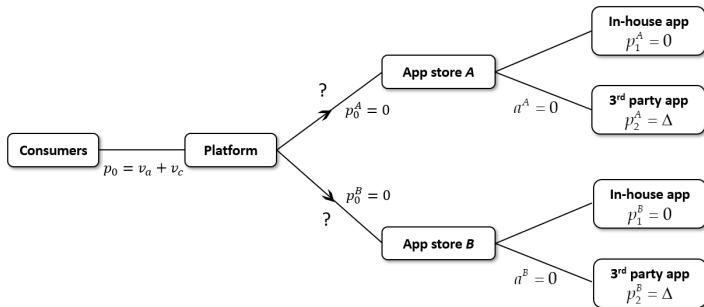
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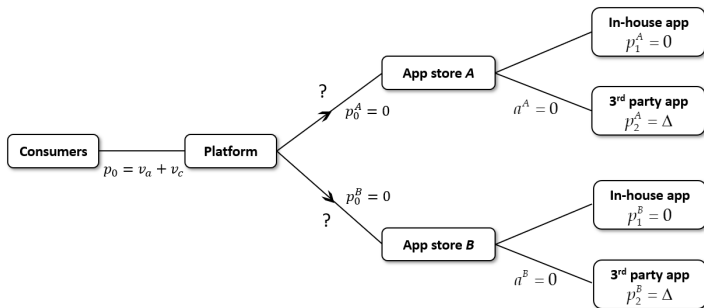
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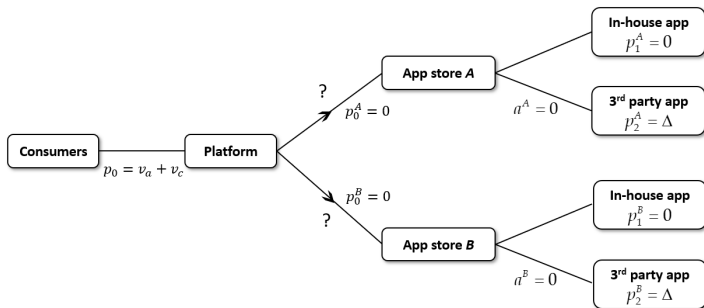
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- FRAND access to competing app or app-stores: Pigouvian rule

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- ⇒ The Pigouvian rule can be implemented in all markets

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