

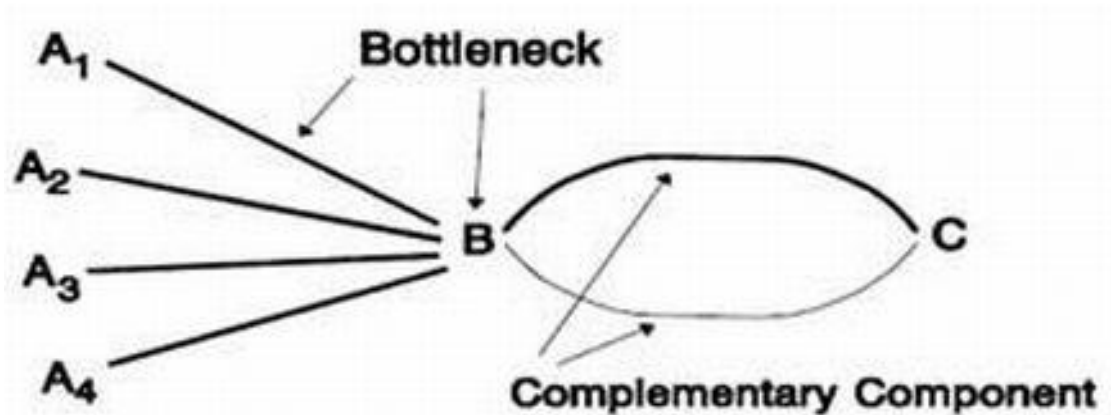


Modelling the Optimal Access Pricing Policy under Cost Uncertainties

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The one-way access pricing problem



[Source: Economides and White (1995)]

- One-way access (or the access model) concerns the provision of bottleneck inputs by an incumbent network provider to new entrants (Vogelsang, 2003)
- Regulator's problem: Setting the access price that
 - encourages the right amount of entry
 - encourages efficient network investment
 - maximizes social welfare

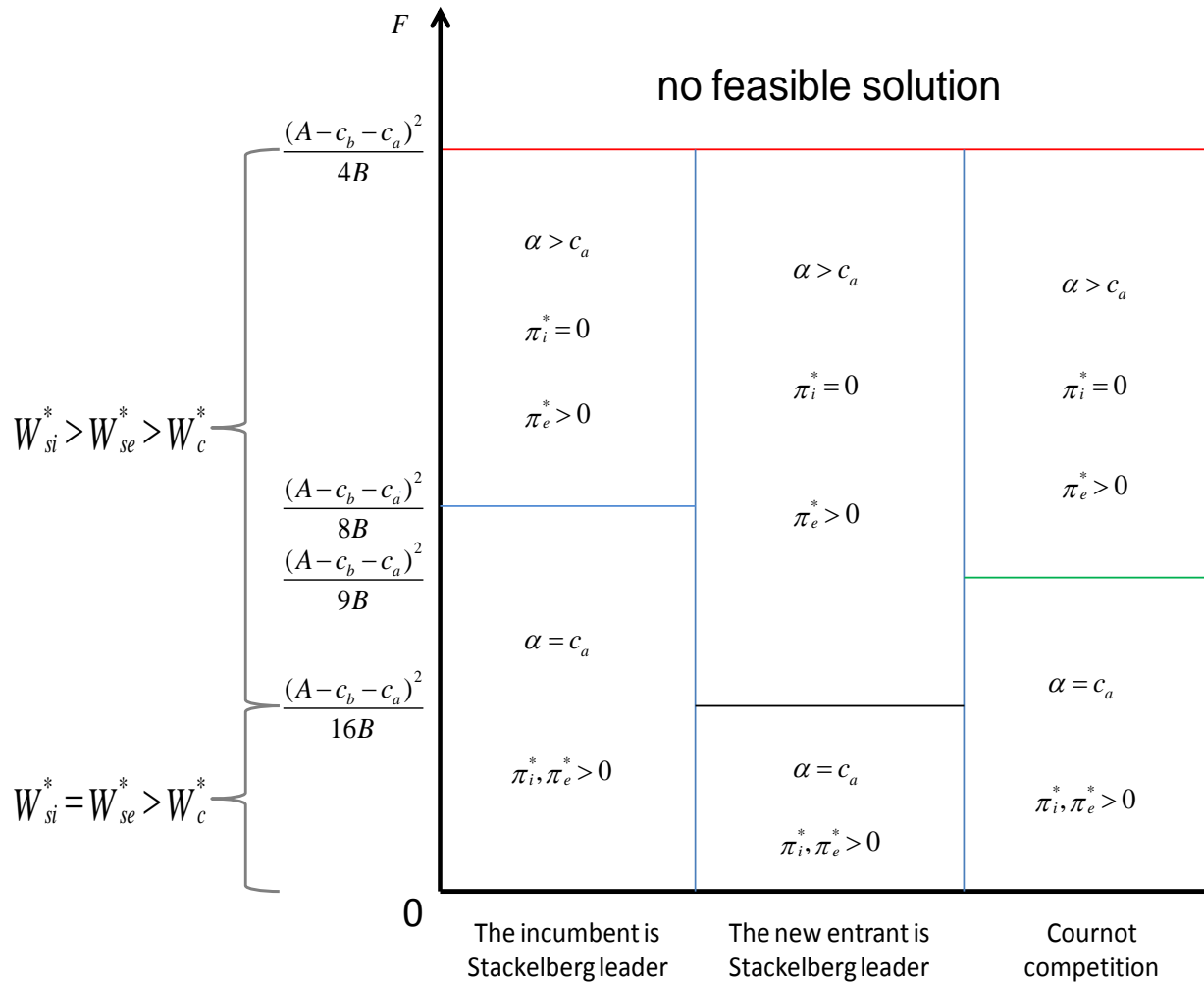


The best theoretical situation

- The best theoretical situation (the first best) maximizes social welfare. The regulator should follow a marginal rule: $P = c_b + c_a$ and $a = c_a$
- Hence, $\pi_i^* = (a^* - c_a)q_e^* - F = -F$ and $\pi_e^* = (c_a - a^*)q_e^* = 0$
- The first best cannot be attained!!!
- This result applies to every type of competition between the providers in the retail market
- If the government does not subsidize the incumbent for its loss, the regulator should seek for the next best situation (second best)
- The second best maximizes social welfare subject to the non-negativity of the incumbent's profits

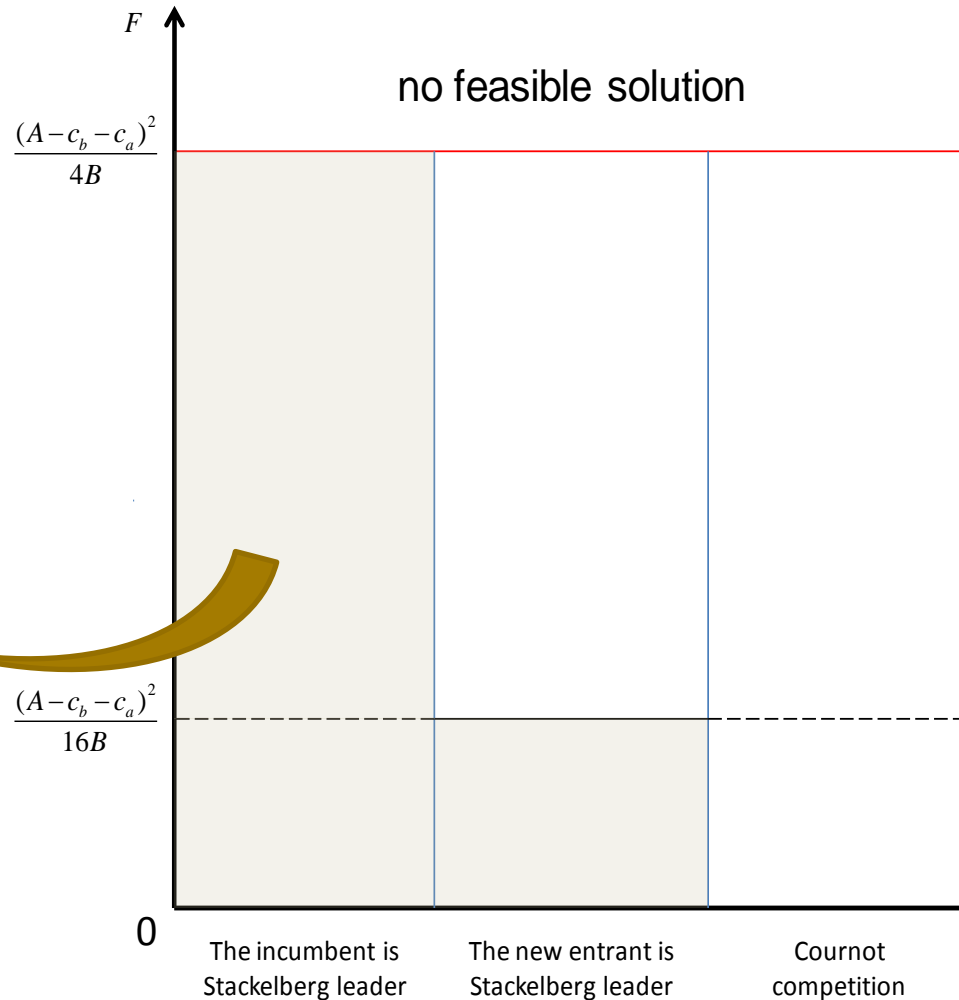


Second best



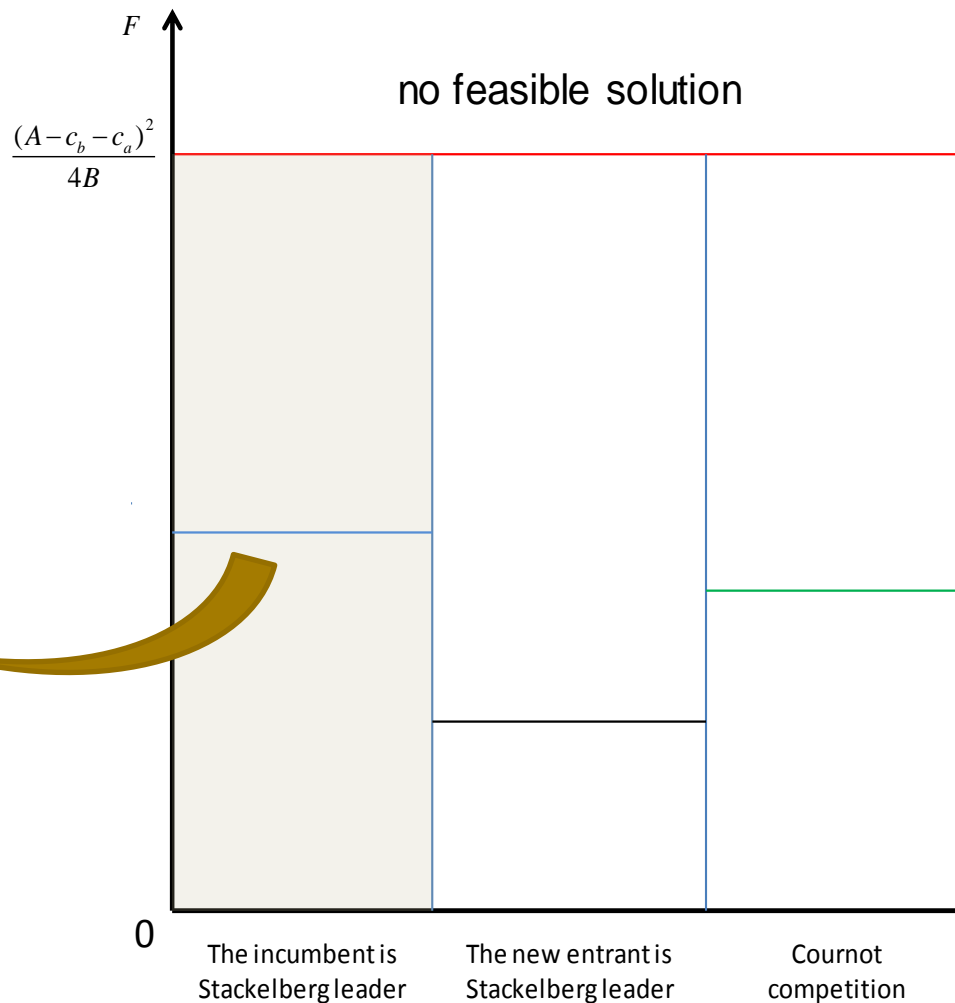
Regulatory implications (1)

Optimal access pricing policy when the regulator has perfect information about costs



Regulatory implications (2)

**Optimal access pricing
policy under cost
uncertainties**



Conclusions

- The first best cannot be attained
- The type of competition does not affect the results derived by the first best
- The optimal access price is affected by
 - the height of the fixed cost
 - the marginal cost of production
 - demand parameters
- Under cost certainty
 - if the regulator knows that $0 \leq F \leq \frac{(A-c_b-c_a)^2}{16B}$, it should allow either the incumbent or the new entrant to be the Stackelberg leader
 - if the regulator knows that $\frac{(A-c_b-c_a)^2}{16B} < F \leq \frac{(A-c_b-c_a)^2}{4B}$, it should allow the incumbent to be the Stackelberg leader
- Under cost uncertainties the regulator should allow the incumbent to be the Stackelberg leader



Q & A

Thank you !!!

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