

# Entry in Parcel Markets: Applying Fudenberg and Tirole's Taxonomy

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Julius Caesar



Let me have men about me that  
are fat, Sleek-headed-men, and  
such as sleep o'nights; Yond  
Cassius has a lean and hungry  
look; he thinks too much; such  
men are dangerous.

Shakespeare (1599)

[The fat-cat effect, the puppy-dog ploy, and the lean and hungry look](#)

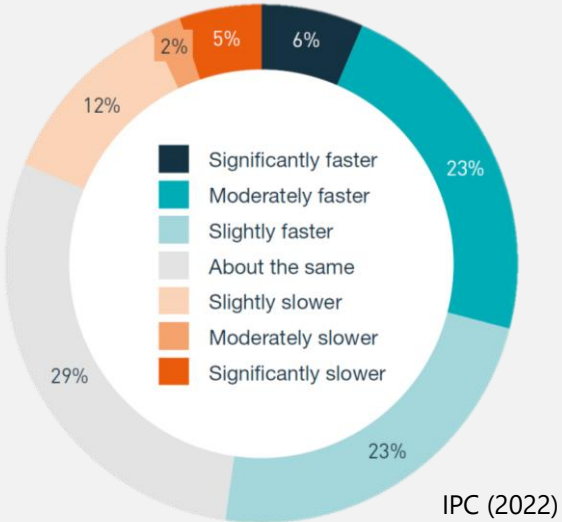
[D Fudenberg, J Tirole](#) - [The American Economic Review](#), 1984 - JSTOR

The idea that strategic considerations may provide firms an incentive to "overinvest" in "capital" to deter the entry or expansion of rivals is by now well understood. However, in some ...

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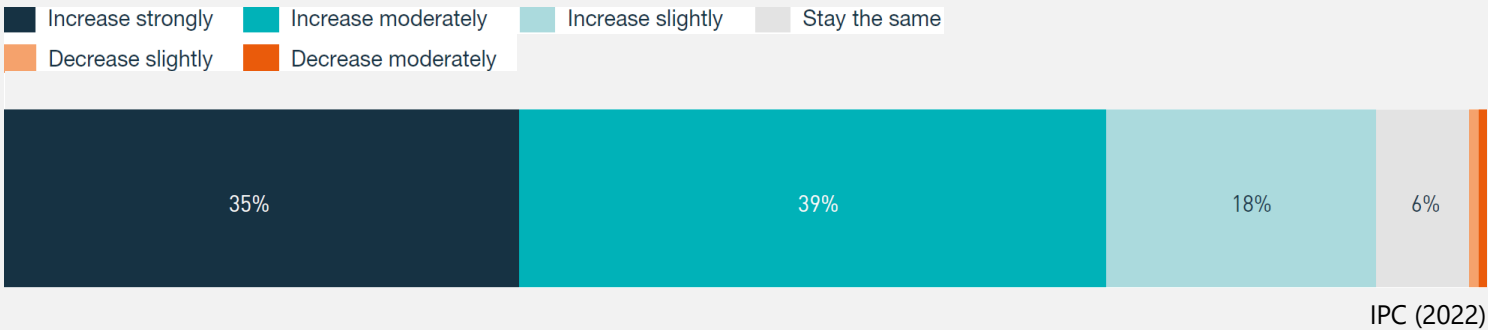
# Despite increasing competition many industry professionals believe their USP to maintain or gain volumes in growing parcel market

Question: Compared to the B2C e-commerce delivery market in my country, in the next five years volumes for my post will grow...



Majority of industry professionals expect their USP to either gain (52%) or maintain (29%) market share

Question: In the next five years competition in my domestic B2C e-commerce delivery market will...



92% of industry professionals expect that **competition** in their domestic parcel market will **increase** in the next five years

**No contradiction**

competition includes contestability, i.e., the threat of market entry

- **What strategies should a postal USP follow when facing entry?**
- **What role does the USO play?**

# Literature on entry deterrence in postal markets often builds on renowned theories in industrial organization



Vast literature on entry in postal markets, for instance,

- **Crew and Kleindorfer (2007).** *Approaches to the USO under Entry.*
- **Jaag (2011).** *Entry Deterrence and the Calculation of the Net Cost of Universal Service Obligations.*
- **Valletti et al. (2002).** *Universal Service and Entry: The Role of Uniform Pricing and Coverage Constraints.*



We study whether the USO supports or confines a USP's strategies when facing entry by applying Fudenberg and Tirole's (1984) taxonomy to parcel markets.

## Timing

- 1<sup>st</sup> stage  
Incumbent decides on investing in strategies to deter or accommodate entry
- 2<sup>nd</sup> stage  
product market competition takes place

## Optimality of USP's strategy depends on





Type of product market competition

- **Strategic substitutes:** best response is to take contrary decision than opponent (e.g., Cournot **quantity** competition)
- **Strategic complements:** best response is to take same decision than opponent (e.g., Bertrand **price** competition)





Effect of investments on entrant's profit

- Decreasing (strategy makes incumbent «**tough**»)
- Increasing (incumbent looks «**soft**»)

# Fudenberg and Tirole (1984) show that intimidating the entrant is not always the optimal strategy for the incumbent

	Deterrence (ex ante entry)	Accommodation (ex post entry)
Strategic substitutes (quantity competition)	<p>Incumbent's best strategy is to <b>look intimidating</b>:</p> <ul style="list-style-type: none"> <li>– <b>Top dog</b>: Overinvest in «tough» strategies that emphasize dominant market position (e.g., sorting capacity that lowers marginal cost)</li> <li>– <b>Lean and hungry</b>: Underinvest in «soft» strategies to signal efficiency and agility (e.g., vehicle fleet powered by hydrogen)</li> </ul>	
Strategic complements (price competition)		<p><b>Look inoffensive</b> to avoid price war:</p> <ul style="list-style-type: none"> <li>– <b>Puppy dog</b>: Underinvest in tough strategies</li> <li>– <b>Fat cat</b>: Overinvest in soft strategies</li> </ul>  

# Applying the taxonomy to parcel markets shows that the USO is ambiguous for the incumbent's strategy

	Deterrence (ex ante entry)	Accommodation (ex post entry)
<p><b>Rural parcel markets</b> (high fixed cost → capacity commitment credible → compete in quantity)</p>	<ul style="list-style-type: none"> <li>– <b>Top dog («tough»):</b> USO (geographical coverage) stipulates USP to overinvest and maintain capacity</li> <li>– <b>Lean and hungry («soft»):</b> Political attention may prevent underinvestment in, e.g., environmental sustainability targets</li> </ul>	 
<p><b>Urban parcel markets</b> (low fixed cost → capacity commitment not discouraging → price competition)</p>	<p>USO (geographical coverage, uniform price) prevents USP from being an aggressive price competitor → <b>USP cannot deter entry</b></p>	<p><b>USO already mitigates price competition, but:</b></p> <ul style="list-style-type: none"> <li>– puppy dog might be possible (when regulated prices can be adjusted upwards) </li> <li>– investment to become fat cat is ambiguous (soft strategy credible, but still profitable?) </li> </ul>

# Conclusion

- Old model provides **insights to USP's strategic issues** in the markets of the future
- Shed light **on role of USO on the feasibility of strategies** in submarkets
- Raises **questions on regulation of parcel markets** (and does not answer them)
  
- **USO as an strategic advantage** (but not necessarily profitable) in rural areas, but limits strategic options in cities
- May observe «**puppy-dog**» or «**fat cat**» -**USPs in cities** (accomodation-case)
- For more precise recommendation derived from model, we **need more precise assumptions** and calibrations (left to future research)

# References

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