

Market failure in aviation? The relevance of the empty core theory

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(based on a joint work with Sascha Lukac and Kay Mitusch)

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Agenda

- Introduction
- What is a core?
- Shortcomings of the perceived theory
- An alternative approach
- Conclusions

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Introduction

- Market failure is used to argue against competition
- Prominent example: shipping industry
- Theoretical background is the “Theory of the Core” and the concept of an “Empty Core”
- This has been adapted to the air transport industry

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What is a core?

- There is a group of individuals
- Individuals are free to form any coalition and to jointly maximize pay-offs inside coalitions
- A core is a distribution of individual pay-offs such that no individuals can be better off by forming new coalitions
- The core is empty if such a distribution of individual pay-offs does not exist
- An empty core leads to instabilities

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Shortcomings of the perceived theory

1.

The notion of individuals who are

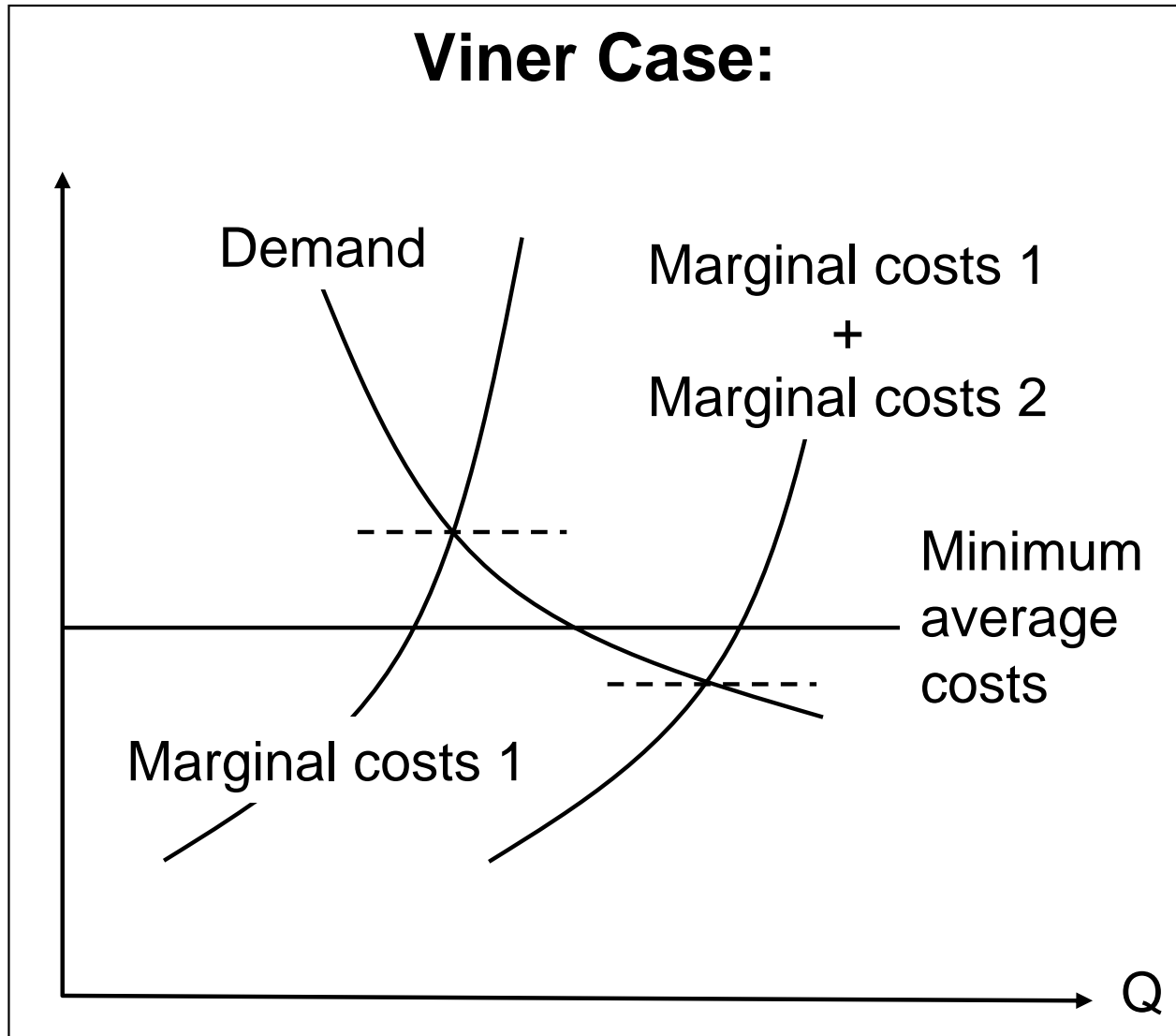
“free to form any coalition and to jointly maximize pay-offs inside coalitions”

is not consistent with the idea of competition and not compatible with competition law.

2.

Examples used to describe the idea of an empty core are not convincing.

Shortcomings of the perceived theory



- Why marginal cost pricing?
- Why market entry?

Source: Sjostrom 1989, Button 1998.

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An alternative theory

- Bertrand competition between firms
- Lumpy supply / Capacity limits
- Market entry (Symmetry)
- High fixed / low variable costs

⇒ Market entry is stable

⇒ Price strategies might not be stable

⇒ Equilibrium solution is close to the welfare optimum

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Conclusions

- The concept of an “Empty Core” doesn’t seem to be appropriate to analyze the outcome of competition
- Alternative (Industrial Organization) theories don’t indicate market failure in air transport markets

Thank you!