Economic Issues in the Schwenk/Opterra Merger

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Overview

- Understanding Substitution: What is the Role of Market Definition?

- Geographical market definition
  - How to define markets so they capture substitution
  - The issue of aggregation when there is individual contracting
  - The missing competitive analysis in this case

- The Design and Effectiveness of Quasi-Structural Remedies
  - When are virtual plants structural remedies?
  - What went wrong with the remedy design?
  - What went wrong with the assessment of the remedy?

- Theories of Harm do not seem to reflect the market conditions
  - Why did this not raise vertical issues?
  - No sensible basis for a coordinated effects based theory of harm

# Understanding Substitution: What is the Role of Market Defintion?

- The traditional view of market definition

  - You first need to define the market so that you can analyse the merger effect on the market

  - We know this is wrong: you need more information to actually define a market than to determine the relevant substitution relationships. To do it right you get all the information about substitution and then reconstruct the market shares. But those say less about incentives to increase prices than the substitution analysis (Beispiele in jüngster Zeit).

- Market definition as a qualitative screen

  - Description of competition in market, identity of competitors, identifying main issues for effects analysis

  - Why do we then ever look at market shares?
    - Often easily available and contain information when they are collected by firms anyway
    - If you have to painfully reconstruct market shares, you are doing something wrong

Two Market Definition issues in Schwenk/Opterra

- How do you determine the geographic boundaries of the market when there is uniform pricing?

  - Circles, Intersections, and the like

  - Can we do such an analysis in a way that reflects substitution better?

- What changes when every customer is quoted its own price?

  - When there is no arbitrage, a single customer is economically a different market

  - We want to aggregate customers that face the same market conditions into a single market

  These two issues get somewhat mixed up in the discussion of circles and micro areas

Going in circles on substitution
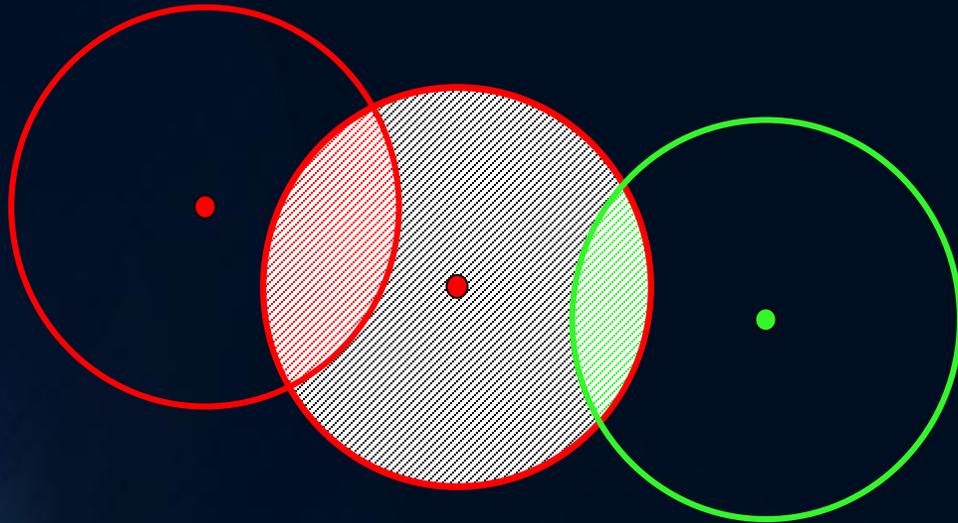
- What does this have to do with substitution?
- Does this give insight about the pricing constraint faced by each one of the plants?

Idea:
- There is a transport range beyond which no significant sales can be made
- Circle crude approximation of that range
- Consumers in the range are addressable

But how get to market shares from here?
- Shares in overlaps?
    - No: size of the non-overlap regions matters
- Including everything in overlapping circles?
- Chain of substitution then puts everything with some overlap in the same market

Adapting market share analysis to differentiated goods

A1

B3

B2

A2

A3

B1 C

Market for plant C

Market for plant A₃
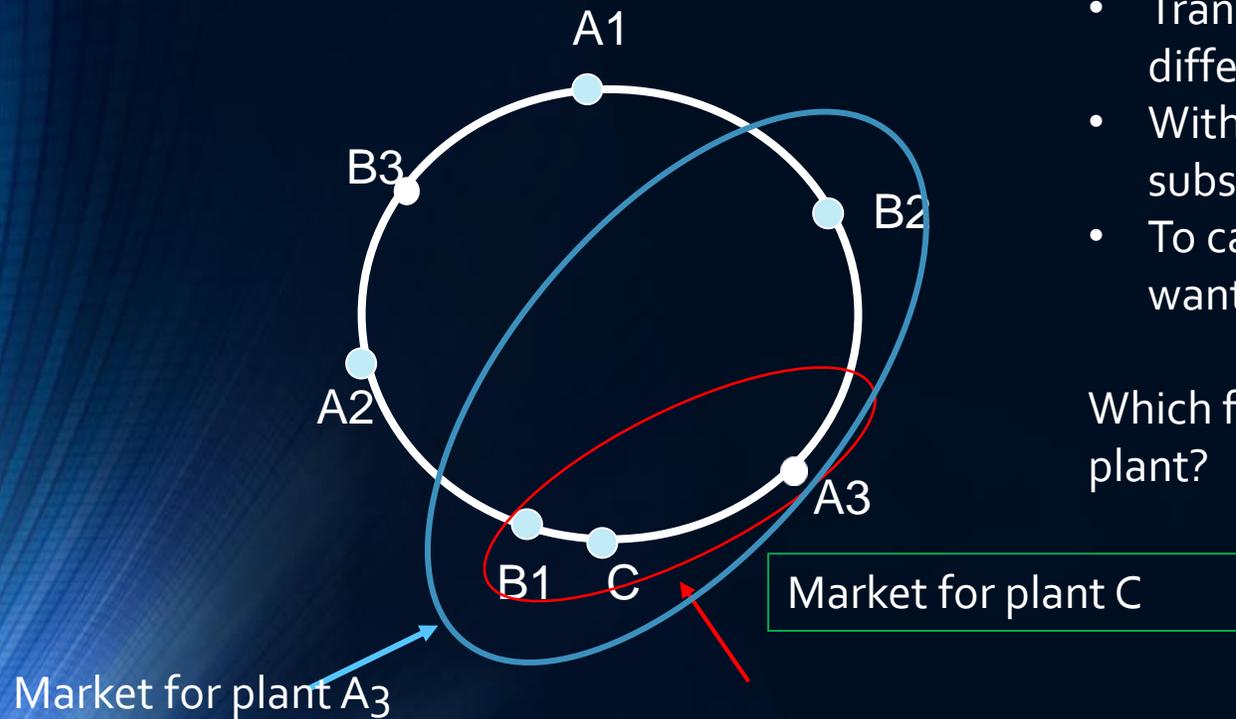
- Transport costs lead to locational product differentiation
- With differentiated goods the relevant substitutes are different for every plant
- To capture substitution with market shares you want to define plant specific markets:

Which firms constrain to what extent that specific plant?

Problems with geographic market definition arise because we assume that the market definition has to be the same for all plants within the market

Geographic market definirion as a diagnostic for competitive constraints

- Step 1– Data on total turnover and turnover of each merging firm by postal code

- **Total turnover by postal code**: Expenditure of all customers located in PLZ (z.B. total purchasing power in retail – data that is sometimes available in public statistics or industry data providers)

- **Turnover of a firm participating in the merger in each postal code that it has turnover.**

- Step 2 – Determination of market area of a specific plant P

- **Market area for plant P**: rank turnover in postal codes of served by plant P by turnover. Include postal code areas until you reach x% of turnover of plant P

- Step 3 – Determine market shares of each merging firm in market area of plant P

- Calculate market share of merging firm A (B) in market area of plant P: Sales from all plants of firm A (B) that sells into the market area of plant P divided by the total expenditure on the product in the market area.

Why does this capture substitution in a better way?

- From the point of view of the merging firm:

    - „Imports" from plants outside the market area of plant P compete with the output from plant P.

    - Sales from plants of competing firms in the market area of plant P enter the market share calculations only to the extent that they are actually sold in the market area of plant P

- If there are overlaps in the market areas the sales appear both in the market shares in the market area of plant A as well as the market area of plant B

    - This is economically correct because the market shares are supposed to capture the degree of competitive constraint imposed in the market area.

- Since all sales of all plants of competitors into the market area of plant P are included (and other sales are not), this precisely maps the competitive constraints on pricing from that plant.

- This captures implicitly differences in transport costs and other relative preferences between producers that will be expressed in market shares. (If one producer sells into the area but has higher transport costs into that area, it will have lower market share). The circle approach and determination of overlap does not capture this.

- This still does not fully capture competitive constraints, but it is a much more informative screening device to identify locations with potential competition problems

The aggregation problem: how to determine "markets" with individualized pricing

- When pricing is individualized (and there is no possibility of arbitrage), then in strict economic terms every customer constitutes a different market.

- What we effectively do routinely in market definition is to aggregate over different customer specific "markets" as long as these customers face the same market conditions
  - Suppose they have access to the same suppliers at essentially the same costs
  - But another customer who can only buy from a subset of suppliers will face different market conditions and therefore will be in a different market

- It then makes no sense to do market definition based on plant perspective because the price charged to the east of the plant may be very different to the price charged in the west. Hence, the firm is facing different competitive constraints depending on the direction it sells into.
  - This is the reason why one needs a customer centric approach to define customer groups for competitive conditions are similar.
  - One could then proceed by looking at customer groups with similar relative distance to different producers and look at market shares among that set of customers

- But again there is not one way or one method to calculate market share. One has to choose the one that gives the best information to screen for specific local competitive concerns

Identification of horizontal overlap

Legend:
- S & O each ≥ 20%
- S ≥ 20% & O < 20 %
- O ≥ 20% & S < 20 %
- Only S+O ≥ 20%
- S + O < 20%

Plant S
Plant O

- Arbitrary cut offs at 20%
- A consistent method without any economic content
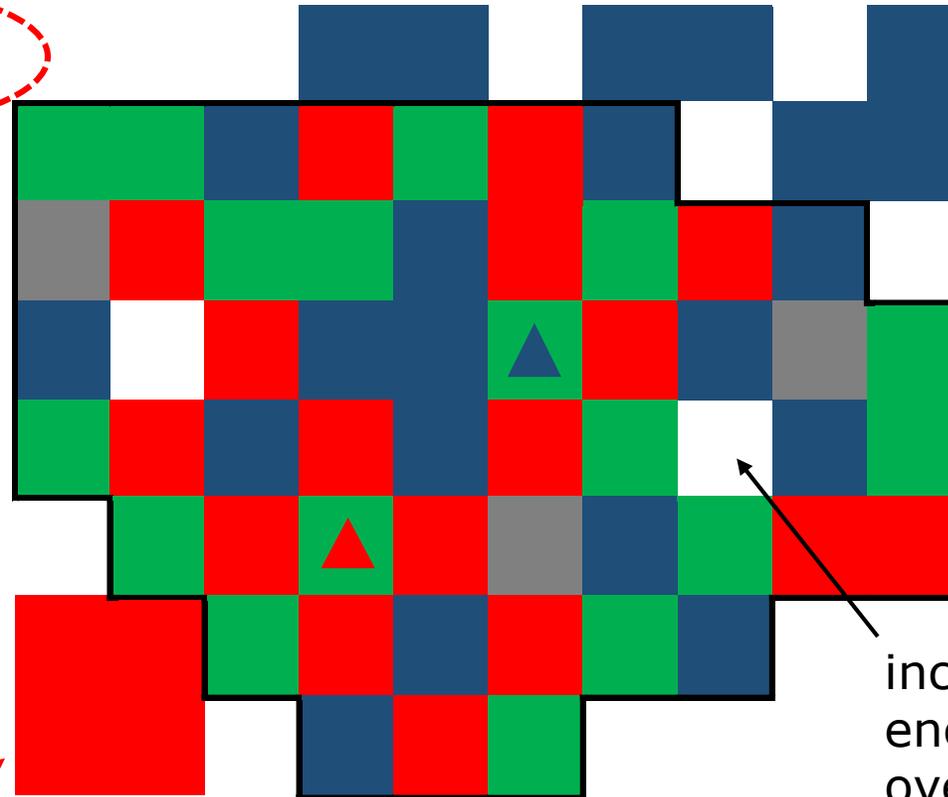
not included because O is not a rele-vant source of supply

What do we learn about competitive constraints form this picture?

included because enclosed by overlap areas

not included because S is not a relevant source of supply

What is the meaning of market share differences when there is competition for customers. Does not capture ex-ante probability.

What do market shares tell us in this case?

- Two features of the market:
  - Relative transport costs vis-à-vis a customer
  - Local demand relative to Capacity
- Costs:
  - Competition for one customer with different costs: lower cost wins, but price constraint despite zero market share
- Capacity:
  - Suppose Opterra and Schwenk lowest cost (including transport costs). If these are at capacity constraint, then no impact of merger on prices.
  - The right questions when caoacities matter: how much average excess capacity is consolidated?
  - Market shares say little about competitive constraint
- Consequence for analysis: market share analysis as simple as possible but further analysis of excess capacity and relative costs is necessary

Supplier	Market share
Opterra	40-45%
Schwenk	20-25%
Combined	**60-65%**
Combined	**60-65%**
Cemex	<10%
Thomas	<10%
Dyckerhoff	<10%
LafargeHolcim	<10%

A "virtual plant" as a structural remedy

- Virtual plant remedies are structural remedies when correctly designed
  - Further example Glencore/Xterra: divestment of a 10 year supply contract for mining output

- What are the design elements
  - Access pricing conditions
  - Maintaining incentives for cost reduction
  - Maintaining incentives for product improvement

- The design has to take into account:
  - Constant marginal costs up to capacity
  - homogeneous good (little product innovation),
  - but large potential for cost improvements

- Ideal remedy:
  - Divestiture of fixed virtual capacity with obligation to supply (this is HIGHLY appropriate)
  - No access fee
  - Consequence: lump sum bidding for capacity means owner of plant remains residual claimant relative for benefits of cost reduction. Therefore optimal cost reduction incentives
  - Consequence: no access fee: devisted capacity is bid in first. Implies maximal competitive constraint

The Actual remedy

- Multiple Problems
  - You do not want to have an access price at variable costs. Essentially like a cost-plus price in regulation, which reduces the incentives for cost reductions in the plant
  - Non-compete for two years: the remedy to a competition problem is that the merging parties are prohibited to compete. Uhm.
  - Divestment of customers to fill 90% of divested (virtual) capacity:
    - How does this generate competitive constraint? (we are not trying to achieve a market share doistribution but to generate pricing constraints)
    - Viability issue: assure viability of divestment business to have bidding advantage with switching costs and demonstrated ability to deliver. Ok, but then 90%. A customer contract remedy has to be justified and be proportional to a well specified goal. That is not the case here
- What does it mean that the remedy was rejected in the market test??
  - Viability and risk can be dealt with. Risk would be compensated in divestment price
  - Customer response:
    - The capture of competition authorities by customer response, even when these responses are not valid
    - The low quality of market test questionaires (leading questions, and terminology that is not understood by firms)

And now to the depth of despair: the things nobody talked about

- There is extensive discussion of how to calculate market shares and remedies. But none of the economists appeared to be interested in the first question one should ask:
  - What was the motivation for the merger?
  - This must *necessarily* influence the analysis.
- Why did nobody seem to discuss vertical foreclosure issues?
  - Merger between two parties that apparently have jointly 65% of the market and one of them is downward vertically integrated. But this is not even mentioned as a theory of harm
- Why is coordinated effects mentioned as a theory of harm
  - The merger massively increases asymmetry between the remaining competitors. That eliminates coordinated effects
  - No, also becoming vertically integrated does not significantly impact asymmetry, but massively consolidating relevant capacity in the local market does!!