

Abuse of Dominance under China's AML:

The Case of Tetra Pak (2016)

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Disclaimer:

- The views expressed herein are not purported to reflect those of the enforcement agency.

- On November 16, 2016, the State Administration for Industry and Commerce (SAIC) issued its Administrative Penalty Decision against Tetra Pak, a multinational company supplying liquid food packaging products.
 - found that Tetra Pak abused its dominant market position in three relevant product markets in China.
 - imposed a fine of approximately \$97 million, constituting the second highest fine to date since the AML came into effect in 2008.

- The Tetra Pak case is a significant milestone in SAIC's antitrust enforcement activities:
 - This is the first major case in terms of the size of the business operator and the complexity of abusive strategies.
 - Economists and economic analysis played a significant role in this case. The SAIC team consulted with external economists on many important issues at various stages of the investigation.
 - A key issue is **the complex loyalty rebate scheme** that Tetra Pak offered to its customers. This is the first antitrust ruling involving loyalty rebates in China.

Industry Overview:

- Back in 2009, China was already the world's largest single country market for aseptic cartons.
- Aseptic cartons were used for a wide range of liquid food. As of 2013, 80% of white milk and more than half other liquid dairy products in China were packaged in aseptic cartons.
- During the period of 2009-2013, Tetra Pak was the largest aseptic packaging material supplier in China, with over 60% market share.

Market Structure:

- A local competitor, Greatview, was the second-largest supplier of aseptic packaging materials in China, with about 14% market share in 2013.
- Besides the top two players, SIG, based in Switzerland, held about 9% market share, and about 11% of the market was supplied by a number of smaller local companies.
- Due to a lack of product variety and production capacity, Tetra Pak's competitors were not able to satisfy all the demand of each of the major liquid dairy food manufacturers.

Defining Relevant Product Markets:

- To define relevant markets, SAIC conducted extensive market surveys and interviews and relied primarily on the patterns of demand and supply substitutability.
- The relevant product markets were defined as
 - (1) the sale of filling machines for paper-based aseptic packaging (the “equipment” market),
 - (2) the provision of technical service for paper-based aseptic packaging equipment (the “service” market), and
 - (3) the supply of paper-based aseptic packaging materials (the “materials” market).

Assessing Market Power (dominant market position):

- To assess Tetra Pak's market power in each relevant market, SAIC considered many factors including the following major four:
 - (i) Tetra Pak and its competitors' market shares and profitability,
 - (ii) Tetra Pak's ability to control the market, in particular discount policies and sales conditions,
 - (iii) the reliance of downstream customers on Tetra Pak's products and services, and
 - (iv) the barriers that potential entrants may encounter.

Assessing the Market Power of Tetra Pak in the Relevant Markets

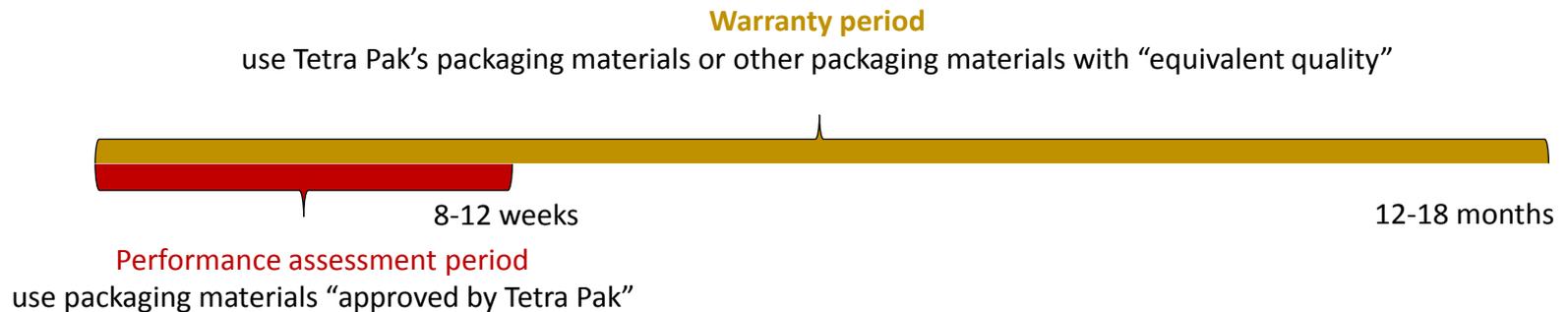
Relevant markets	(i) Market share	(ii) Ability to control the market	(iii) Reliance of downstream firms	(iv) Barriers to entry
Equipment	Tetra Pak had over 50% market share calculated according to the total number of equipment in operation, the total production capacity of equipment in operation, and sales volume, respectively.	Tetra Pak had the ability to determine discount policies and lease terms.	Liquid food producers, in particular large-scale customers and users of high-speed filling machines, had a strong reliance on Tetra Pak's products.	Barriers in the areas of technology and capital investment could deter potential entrants.
Service	Tetra Pak had over 80% market share calculated according to sales amount.	Tetra Pak had the ability to set service fees and conditions.	Tetra Pak was the only service provider for its filling machines, so customers highly rely on its technical services, in particular major repair works.	Tetra Pak controlled the supply of spare parts and accessories for its filling machines, preventing third-party service providers from entering the market.
Materials	Tetra Pak had over 60% market share calculated according to both sales amount and sales volume.	Tetra Pak had the ability to control market prices, while competitors were often price takers.	Liquid food producers, in particular large-scale customers, had to rely on Tetra Pak's product diversity and production capacity.	Besides technological barriers, Tetra Pak could take advantage of economies of scale, which would make competition difficult for entering firms.

Abuse of Dominant Market Position:

- SAIC held that Tetra Pak violated the AML by
 - (1) tying the sale of packaging materials to the provision of filling machines and technical services without any justifiable causes (tied-in selling),
 - (2) restricting an upstream supplier from supplying third parties without any justifiable causes (exclusive dealing), and
 - (3) offering retroactive rebates, customized volume target rebates, and other types of loyalty discounts in the sale of packaging materials (loyalty rebates) .
- Tetra Pak accepted the fine and agreed to make necessary adjustments to its business practices.

Tied-in Selling:

- Between 2009 and 2011, Tetra Pak required users of its filling machines to use its packaging materials or packaging materials “approved by Tetra Pak” during the so-called “*performance assessment period*” and also to use its packaging materials or packaging materials with “equivalent quality” during the so-called “*warranty period*” .

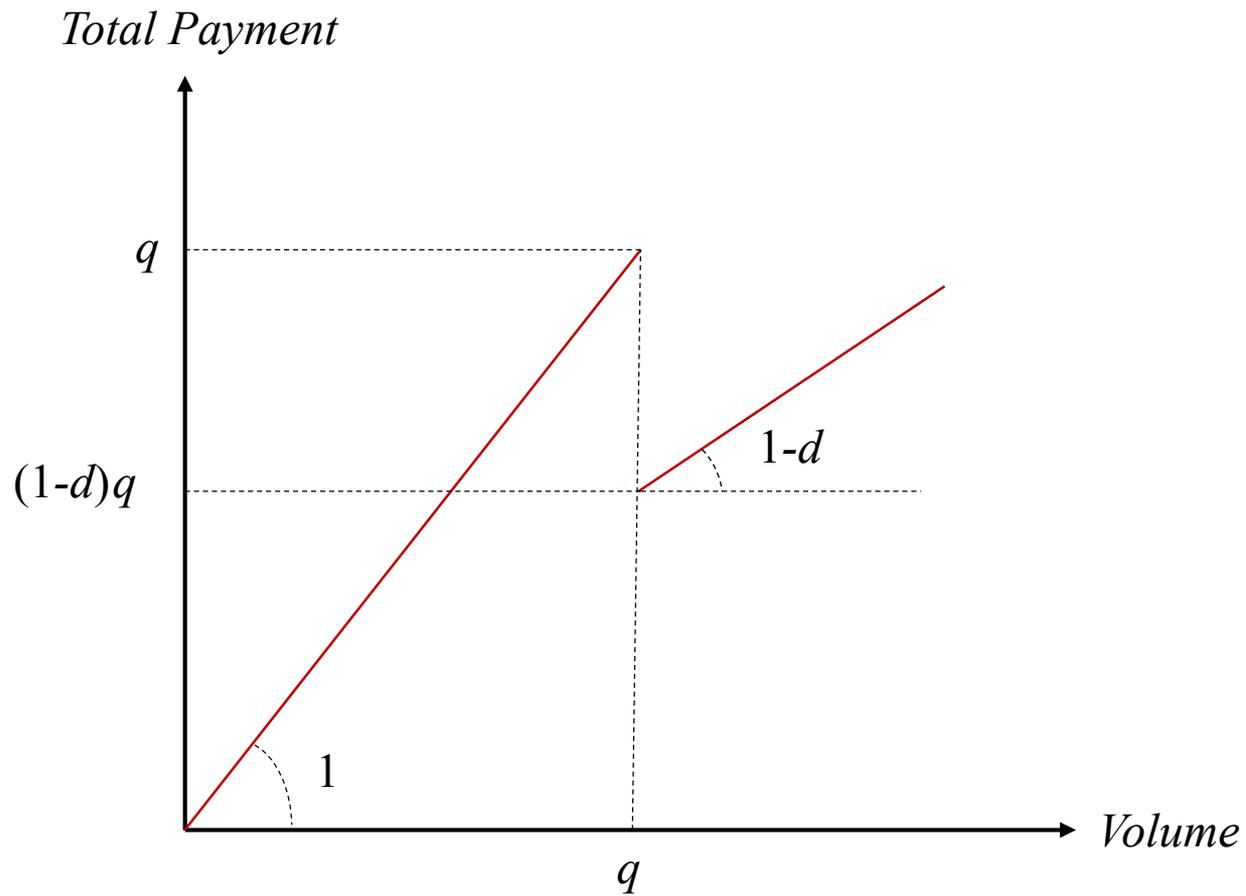


Exclusive Dealing:

- In an agreement that Tetra Pak signed in 2011 with an upstream supplier of raw paper (“Hongta”), Hongta agreed to produce brown paper exclusively for Tetra Pak within the term of three years.
- In another agreement signed in 2012, Tetra Pak required Hongta not to provide any third party with raw paper that were produced by using “Tetra Pak’ s technical information” .
- SAIC found that the set of restricted information was not solely owned by Tetra Pak but actually contained a large amount of commonly-used technical specifications for making aseptic packaging materials.

Loyalty Rebates:

- SAIC found that a collection of complex retroactive rebates was the key part of Tetra Pak’ s loyalty rebate programs in the sale of aseptic packaging materials.
- Retroactive rebates (or in simpler cases, all-units discounts, “AUDs”) refer to discounts offered retroactively when a customer’ s annual purchase volume reaches a certain threshold.
- The total payment from a customer drops sharply once her purchase volume reaches a threshold, resulting in negative marginal prices for the units near the threshold.



The undiscounted price is normalized to 1

Competitive Impact of Loyalty Rebates:

- Tetra Pak’ s loyalty rebates had a “loyalty-inducing effect” , inducing customers to purchase more from Tetra Pak in order to reach certain thresholds. Even if rivals were willing to undercut prices, customers might still find it optimal to purchase more units from Tetra Pak at higher prices.
- Consequently, rivals were forced to under-supply at lower profit margins and their abilities to expand production capacity were restricted.
- Empirical evidence in this case indicated that even when the demand was rapidly increasing during 2009-2013, competitors consistently had low gross profit margins and low capacity utilization rates.
- SAIC argued that in the long run, such rebate scheme would consistently restrict competitors’ sales volume, preventing them from achieving economics of scale, and could harm consumer welfare.

Moreover, SAIC identified specific factors that could facilitate and enhance the loyalty-inducing effect of Tetra Pak's loyalty rebates:

- Differences in product variety and production capacity between Tetra Pak and its competitors became the key factors for the existence of the “non-contestable” volume.
- Tetra Pak tied the sale of packaging materials to the provision of equipment and technical service.
- The combination of single-product AUDs, multi-product AUDs, volume target rebates, and several other types of loyalty rebates could ultimately enhance the loyalty-inducing effect.

Remarks:

- Loyalty rebates can have both pro-competitive and anti-competitive effects.
- Does the rebate scheme by a dominant supplier raise prices? To what extent does it restrict smaller rivals and harm downstream customers and final users?
- A “rule of reason” approach: effects-based, economic analysis.

An Illustrative Example:

Quantities purchased from a dominant firm	Quantities purchased from a smaller rival	prices offered by the dominant firm	Prices offered by the rival
100	-	0.900	-
95	5	0.905	0.805
92	8	0.905	0.843
89	11	0.910	0.819
86	14	0.910	0.839
82	18	0.910	0.854
79	21	0.915	0.844
76	24	0.915	0.853
72	28	0.915	0.861
69	31	0.920	0.855
66	34	0.920	0.861
62	38	0.920	0.867
59	41	0.925	0.864
56	44	0.925	0.868

The AUDs program offered by the dominant firm

Volume thresholds	Discount rates
100	10.0%
90	9.5%
80	9.0%
70	8.5%
60	8.0%
50	7.5%

The undiscounted price is normalized to 1

- To see why the rival has to offer lower prices:

- Consider a customer with fixed demand Q and two firms (D for the dominant firm and R for a smaller rival with capacity constraint) producing identical products.
- Let q_D and q_R be the quantities purchased from D and R , respectively. Assume that D uses an AUDs scheme, while R offers a per-unit price.
- Facing both firms' offers, the customer should be indifferent between buying all her demand from D and buying from both firms. Therefore, with p_D and p_R , we have

$$Q p_D = q_D p_D + q_R p_R,$$

or equivalently,

$$Q = q_D + q_R \frac{p_D}{p_R},$$

since

- It yields that Δp , measuring the additional discounts offered by the rival when D employs an AUDs scheme.

General Demand and Costs:

- Chao, Tan and Wong (RAND, 2018), “All-units Discounts as a Partial Foreclosure Device,” show that the insights from the above illustrative example hold for a continuous downward-sloping demand curve.
- As compared to per-unit price, all-units (retroactive) discounts scheme adopted by a dominant supplier in single-product markets leads to partial foreclosure of an equally efficient or more efficient but smaller capacity-constrained rival.
- The rival’s profits, sales volume and market share are strictly reduced.
- A reduction in the buyer’s surplus when the rival’s capacity level is small.

- According to the decision, SAIC appeared to have followed the “raising rival’s cost” (“RRC”) foreclosure paradigm when analyzing the competitive effects of Tetra Pak’s loyalty rebates.
- Specifically, by restricting smaller rivals’ access to a “sufficient” customer base, loyalty rebates might have effectively raised their costs in the presence of economies of scale, forcing them to increase prices and lose sales and restricting them to expand capacity.