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Discounts and their Effects - Economic and Legal Approach

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#### Abstract

The present article discusses the economic and legal effects of single-product loyalty discounts. It is clear that arguments concerning the "pro-competitive" effects of such discounts must be judged with skepticism. This applies in particular to the assumed effects of loyalty discounts resulting from double profit surcharges or falling average costs, as well as in the context of price discrimination. I argue that many of the alleged effects could also be achieved with discount forms where the risk of restrictive effects on competition should be lower. Also, the assumed anti-competitive effects of loyalty discounts must be better justified economically. This article suggests using a form-based approach for the assessment of discount schemes. However, this should not amount to a restrictive assessment of certain discount schemes. For the development of such a form-based approach, it is necessary to review the theories about pro-competitive and anti-competitive effects. Therefore, this article attempts to identify which positive effects are more likely to be achieved by means of which discount forms and under which circumstances.


## Keywords

Discounts, Economies of Scale, Predatory Competition, Pro-competitive Effects

## I. Introduction

When discussing Article 102 TFEU (Svoboda, 2010; Kallaugher, Sher, 2004), the focus of attention is, along with other abusive practices by dominant undertakings, primarily on the abuse of some discount schemes. One of the problematic forms of discount is the socalled loyalty discount. These are discounts that will lead to a situation where a customer has to cover its needs for one or more products as a whole or to a large extent from the manufacturer or dealer who granted the discount. In the literature we can find reference to "loyalty discounts" and "fidelity rebates" (Funta, 2011a, b). There is a distinction between "loyalty discounts" and "loyalty rebates" (Elhauge, Geradin, 2007), where in the first

[^1]case the price to be paid is lowered, i.e. the customer pays less, while in the second case, the customer pays the full price, but receives a check for the amount saved. Unlike in the English literature, in the U.S. the literature uses the term "first-dollar discount" (Crane, 2013). A simple example can allow us to distinguish between them. In the case of loyalty discounts, if a "supplier's nominal price for its product is 100 , the supplier might offer customers a discount of 15 on all units in excess of 50 percent of the customer's requirements. In this example, a customer whose total requirements are 100 units would pay the supplier 7,550 for 80 units, saving 450 from the nominal price ( 15 a piece on the incremental 30 units). The same supplier using this sort of discount would offer the 15 price break on all units purchased provided that the customer obtains at least 50 percent of its requirements from the supplier. Using the same example, the customer buying 80 units would pay 6,800 . The loyalty devices that most frequently encounter antitrust scrutiny are these "first-dollar" discounts, and the discussion below will focus on them" (Jacobson, 2010).

Anti-competitive effects may occur if such discounts evolve strong "pull" effects which result in a situation where other suppliers or potential competitors have no chance to make an attractive and cost-covering offer. The fear that loyalty discounts have such displacement and market foreclosure effects means that loyalty discounts, if they are offered by undertakings in a dominant position, will be judged very strictly by courts. This approach has been criticized in recent years, especially from an economic perspective. Many economic, but also legal papers refer to the positive aspects of loyalty discounts (Kobayashi, 2005). They constitute a "classical form of price competition, an effective commercial tool" (Faella, 2008). Loyalty discounts reduce efficiency losses that occur due to so-called "double profit surcharges", or allow more efficient pricing in the case of decreasing unit costs. In this article, we will confine ourselves to situations in which loyalty discounts are given to undertakings and not to end users. This seems justified in view of the case law (e.g. Michelin II, British Airways/Virgin or Tomra). The arguments relating to the pro-competitive aspects of fidelity discounts must therefore be assessed with healthy skepticism. A critical view makes economic analysis relevant for antitrust practice, because only a sufficiently differentiated examination allows the elaboration of a catalog of circumstances under which certain forms of discounts can deploy the alleged pro-competitive effects. But the supposedly restrictive effects of loyalty discounts must also be subject to critical examination, as there is often a lack of a convincing theoretical economic basis. Although we can undertake only a short critical analysis, due to the limited space of the paper, this ultimately allows for a more differentiated assessment of discounts.

## II. Discount schemes and their effects

With a few exceptions, the first economic analyses (McGee, 1958) of discount schemes were made in connection with the Robinson-Patman Act ${ }^{2}$ of 1936 prohibiting price

[^2]discrimination. A basic distinction can be made between discounts that are granted when buying just one product, and those that are granted in the case of the purchase of several different products. Thus, when discussing the case of a single-product discount, the problem is mostly seen in the displacement of a competitor who is already present on the market or when it will make market access more difficult for a potential competitor. Multi-product discounts will be not considered in the following. However, although the term "discount" or "rebate" are used as synonyms, we have to distinguish between the term "discount" in the case of individual transactions, versus rebates in the case of deductions or cash payments made to customers. With fidelity rebates ("loyalty" or "fidelity discounts" or "rebates"), it is about quantity discounts, which are based on the total amount taken off within a period, and which take effect when a certain predetermined amount is exceeded (Harris, 2001). Our interest in the following is especially focused on the distinction between incremental (or "classical") discounts and non-incremental discounts that are simply referred to as fidelity discounts. The competitive effects of loyalty discounts will be discussed below, using the market structure in which the pro-competitive effects may appear. This is a vertical structure with three levels, where on the top level there are one or several manufacturers selling the product to one or more distributors, who are ultimately selling it to end users. In the following we will first discuss the alleged pro-competitive effects before we discuss theories about the fraudulent use of discounts.

## III. Possible pro-competitive effects

The possible pro-competitive effects of discounts will be presented and criticized in the following sections. Moreover, when assessing the possible pro-competitive effects, we will focus our discussion on the role of buyer power. Especially when market power is present both for the manufacturer and the dealer, a minimum level of coordination between various levels of the value chain is necessary in order to optimize overall performance.

## Efficiency increase by selecting a suitable discount system

## Double mark-ups ("double marginalization")

Quantity-independent prices at the wholesale level can lead to inefficiencies which are minimized by the choice of a suitable discount system. This applies for example in the case of so-called "double marginalization". This phenomenon always occurs when there is only imperfect competition on the relevant market, i.e. if oligopolistic or monopolistic market structures are present at the various stages of the value chain. As mentioned above, the problem of "double marginalization" occurs only if the customers possess market power on the downstream level. Otherwise, competition prevents a situation in which a surcharge may be charged on the additional incurred marginal costs. Of course, the problem of "double marginalization" can also be eliminated by means of non-incremental discounts. Since a strong price reduction will be made from a particular volume, the manufacturer is in fact providing the quantity (specifically, the minimum quantity), which has to be taken off by the buyer.

## Falling average costs

Regardless of whether the consumer is the final customer or is only an interstage in the value chain, there may be inefficiencies in quantity-independent prices if the manufacturer produces on a basis of falling average costs. This is the case, for example, with high fixed costs. For constant costs, unit price must, in order to cover these fixed costs or higher incremental costs because of small quantities, be strictly above the marginal costs of the last discharged unit. If the manufacturer has the option of choosing quantity-dependent unit prices, he can deliver the last unit at a price equal to his marginal cost, but fully cover, by means of higher prices for small quantities, its fixed and variable costs and even make a profit. It should be noted that, even in this case, an efficient solution can be achieved through incremental discounts. These discounts must reflect only the steadily falling average costs of the manufacturer. For loyalty discounts, due to efficiency reasons, there is no special justification.

## Economies of scale ${ }^{3}$ at downstream levels

By choosing suitable discounts, the manufacturer can specify minimum purchasing volumes and thereby limit the number of retailers supplied. By this means he can save on distribution costs. However, it is highly controversial as to whether efficiency can be achieved. Moreover, intra-brand competition between dealers is thereby significantly limited, which leads to higher retail prices. But with regard to the form of discounts used, it is not clear why any economies of scale (Funta, 2011a, b), which rest on the dealer, cannot be achieved through incremental discounts. Thus the importance or even the necessity for discounts is highly questionable.

## Loyalty discounts as incentives for the downstream levels

There is the view that loyalty discounts, especially in trade, reflect the bonus structure, as undertakings use them for the remuneration of their field staff. We can illustrate this with the following example. The dealer pays the manufacturer with a fixed franchise fee and can buy the respective goods for the (incremental) costs of the manufacturer. Consequently, the manufacturer generates a positive profit by means of the fixed fee. The dealer may affect the sales volume, by choosing the retail price, but also by means of his personal effort. Since the products are delivered to the dealer at the (incremental) costs of the manufacturer, it is also ensured that the dealer has the best incentives to maximize the total profit in the value chain. The goal of an efficient discount system should be to "delegate" the sale and therefore the provision of additional services to the dealer so that the decisions taken by the distributor, including the choice of the retail price, will maximize the entire gain in the value chain. From the need to give adequate incentive to the distributor, there is no need to provide the dealer with an additional "bonus" from a certain sales threshold, as would be the case for a loyalty discount. Establishing certain quantities or sales targets can therefore lead to inefficiencies, in particular with regard to uncertainty about future

[^3]demand. To better understand the role of discounts in optimal incentive systems, it is necessary to briefly explain the principal-agent model. In the economic literature on incentive systems, non-incremental bonus payments may be optimal if the incentive system serves not only for an agent to maximize the profit, but at the same time to absorb the income by the principal. In the principal-agent theory, relationships are characterized by the asymmetric distribution of information between the parties involved. The agent has an information advantage versus the principal. In order not to perform tasks alone, the principal is transferring tasks and decision-making powers (Kalesná, Hruškovič, Ďuriš, 2012) to the agent. The actions of the agent are thus affecting not only its own utility level, but also the level of the principal. The aim of the approach is to move the agent to deal in the interest of his principal.

## Effective incentives for upstream level

Loyalty discounts secure fixed volumes for the manufacturer unless they have a "binding" effect. This applies at least proportionately, provided that the additional discount is based on the proportion of the total turnover of the distributor. Overall, the manufacturer protects himself against opportunistic behavior on the part of customers and other manufacturers that use the same distribution channels. The promotional activities of the manufacturer can serve as an example of how dealers and other manufacturers benefit if this also increases sales of their products. The indirect determination of minimum revenue through loyalty discounts guarantees the manufacturer that he receives an adequate return for his "specific investment" in the dealer. In particular, this avoids the possibility that the dealer will focus on another product. In this case, an efficiency-boosting incentive will be created in order to make it difficult for the dealer to engage in opportunistic behavior.

## IV. Discount systems as pro-competitive price discrimination

Even if all consumers have access to the same discount system, we can discriminate between individual customers according to their size. To illustrate this, we can assume that an undertaking supplies two different types of consumers, but cannot directly distinguish between these two. A group of consumers wants to purchase only one unit of the good. The second group of consumers has a positive, but lower, willingness to pay for a second unit. If the undertaking can choose only a single, independent quantity price, it may be profit-maximizing to choose a price so high that the second group of consumers purchase only one unit. As a result, sales will be reduced, but the undertaking will overall achieve greater profit. If the undertaking can grant a discount, it may give the second unit at a lower price, provided that it will be prevented that customers will carry out arbitrage transactions with each other. As a result, consumers pay different unit prices in the two groups, where in this case the price discrimination (Karas, Králik, 2012) increases the total quantity sold and welfare increases. So far, the optimality of certain discount forms, from the perspective of the manufacturer, has been considered. In the discussion about the possible pro-competitive effects of certain discount schemes, it is noted that manufacturers offer these only at the request of buyers with considerable power. In fact, economic theory
shows that buyers benefit not only from the discount gained, but may have preferences for certain forms of discounts.
There are several reasons why pro-competitive effects do not necessarily occur when it comes to relationships between undertakings. First, in those cases where there is already a long supply relationship, it should be assumed that the manufacturer knows the customer type, i.e. the average amount ordered by each customer. Manufacturers could deliberately choose the same discount frame for all buyers in order to prevent antitrust complaints due to abusive price discrimination. We can distinguish between three levels of price discrimination. In the case of the first level, price discrimination, an individual price is required from each consumer, i.e. the maximum price the customer is willing to pay. First-level price discrimination is also called perfect price discrimination. Second-level discrimination refers to cases when the price depends on the quantity purchased, but not on the buyer, and is also called quantity discrimination. Third-level price discrimination means that the price depends on the group of buyers to which the buyer belongs, but is at the same level for each member of the group. The question of the distribution of bargaining power entails criticism of the application of the theory of price discrimination in contractual relationships between undertakings that are not end-users. The theory of price discrimination in retail markets assumes that the price-setting undertaking unilaterally submits a proposal and thereby tries to maximize its own profit. In principle, price discrimination is more successful when the freedom of choice is lower.

## V. Abusive effects of loyalty discounts

As noted in the introduction, antitrust enforcement practice means that there is the possibility of displacement and market foreclosure, although there are claims (Hovenkamp, 2005), that loyalty discounts should be considered pro-competitive if the price is above the discounted cost. In the following, we will focus on exclusionary conduct against competitors on the same market level. A discussion about the theories of the abusive effects of discount schemes cannot be avoided for the following reasons. First, it is clear that the analysis of the abusive effects of various discount schemes needs a significantly better economic basis. Furthermore, it is necessary to develop manageable rules for antitrust enforcement practice in the context of both pro-competitive as well as restrictive effects.

## Theories of market foreclosure effects and predatory competition

## Market foreclosure

A fundamental objection to all theories of exclusionary abuses through market foreclosure has been raised by the "Chicago School" (Posner, 1976). It cannot be in the interest of distributors to simply exclude manufacturers with better or cheaper products wholly or partially from the market. The new industrial economic literature ("post-Chicago") has, however, shown that, contrary to this "fundamental criticism", there may still be situations in which the (incumbent) undertaking in the market can, at the expense of at least some manufacturers and of course customers, close market entry. This is one of the most influential theories pointing to the possible coordination problem between manufacturers.

In the "post-Chicago" literature we find the concept of the incumbent having a monopoly position. This is because the incumbent has a so-called first-mover advantage (being the first to enter a new market) when drawing up contracts. If a potential competitor were already present, it could participate in the competition (Škrinár, Nevolná, 2012) for the market. However, that ability may be disabled by the dominant undertaking. From antitrust cases dealing with discount issues, especially loyalty discounts, we can find that competitors hindered by the dominant undertaking are already active in the market. It should be examined why the already active competitors cannot equally compete for the entire market (Funta, 2007). One possible explanation could be insufficient capacity and inadequate financial resources for the investments necessary to operate on a larger part of the market. If the quality of a product and the manufacturer reputation is of high importance to the end customer, it is often too risky for the dealer to rely fully on the new product and the new manufacturer. High loyalty discounts can thus hinder market entry. On the other hand, one might ask where the incumbent advantage comes from. These considerations already surrendered a number of market characteristics in which an exclusionary abuse is to be expected. These include capacity constraints at smaller competitors, uncertainty about product quality and overall performance, especially for new competitors, existing discount schemes with long and possibly overlapping reference periods for each merchant, as well as strong end-customer loyalty in a sufficiently large part of the market.

## Predatory competition

In its extreme form, predatory competition (Funta, Nebeský, Juriš, 2014) tends to achieve a monopoly which must be defended by the establishment by means of increased barriers to entry. The standard case of predatory competition comprises the setting of predatory prices. Competitors who do not have sufficient financial resources, because of financing problems, can be forced to exit the market. If the market can be sufficiently closed to new entrants, the remaining undertaking can generate supra-competitive profits through which any losses caused by predatory pricing will be compensated (recoupment). However, it should be noted that often neither market foreclosure nor predatory pricing in their pure form can be identified by means of discounts. In many cases, there are number of small manufacturers that operate for many years alongside a dominant undertaking, but may be hindered by its discount system in generating growth (barrier to expansion). In these cases, the market is neither completely closed nor is systematic predatory competition in place. Instead, a certain market division will be created by the dominant undertaking. In this case, the dominant undertaking (Procházka, Čorba, 2006) benefits from the disruption caused by such competitors and not only during the recoupment phase. Unlike during the predatory pricing phase, the dominant undertaking (Munková, Kindl, Svoboda, 2012) has no losses in the displacement phase, since usually only a small part of the total volume is sold at a price (after discounts) below cost.

## VI. Some preliminary observations on the effectiveness of discounts in case of abuse

In order to drive out a competitor from the market, both loyalty discounts as well as incremental discounts, such as quantity discounts, can be used. However, the practical relevance of this type of abuse, in connection with discounts, is of little importance. Far more important is the case of a possible complete or partial foreclosure of the market. The possible anti-competitive effects of certain forms of discounts can both weaken as well as strengthen demand-side uncertainty. If a dealer has to set his own retail price in the long term and with great uncertainty, it is (if not impossible) not only difficult but also more expensive for him to reach a certain fixed volume. From the ex-ante perspective (from the perspective of the dealer), this leads to uncertainty about the final demand to the consolidation of the price-quantity scheme offered by the manufacturer: A more competitive offer towards end users always leads to an incremental increase of the probability through which the discount threshold is achieved. A pure ex-post evaluation of the discount system cannot, therefore, adequately capture the optimization calculus of the dealer in its own price-quantity choice.

## VII. Conclusion

This article is intended to focus on discounts and their effects from an economic and legal perspective. With regard to pro-competitive effects, we arrived at the judgment that loyalty discounts are, because of demand uncertainty, not necessarily effective in solving incentive problems. Instead, these discount forms can, under high levels of uncertainty, lead to high losses in efficiency. Only in the absence of market power at a downstream level should some of the pro-competitive theories be reflected. The application of a form-based approach by the assessment of discount schemes should not lead to a restrictive assessment of certain discount schemes. For the development of such a form-based approach, we reviewed theories about pro-competitive and anti-competitive effects. As mentioned above, this article attempted to identify which positive effects are more likely to be achieved by means of which discount forms and under which circumstances. We identified the role of market power on the customer side and showed that some of the pro-competitive theories should be considered only in the absence of market power in the downstream level. This finding is somewhat unusual because demand power is normally used (e.g. in merger control procedures between manufacturers) as a defense argument. But because of market power on the other side, some of the theories concerning pro-competitive effects should have less importance. In summary, it seems that, on the basis of the current state of knowledge in economics, there is no robust relationship between demand uncertainty and the abusive use and effects of certain discount schemes. The further development and application of discount schemes will not stand in the way of competition law economization in the sense of the so-called new economic approach. The objective of the use of economic thinking should be the development of justiciable rules for the practice. Such rules are economically meaningful, methodologically justified and are more appropriate for practical application.

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[^2]:    ${ }^{2}$ The aim of the Robinson-Patman Act is to protect only those price discriminations made "to meet an equally low price of a competitor".

[^3]:    ${ }^{3}$ The opposite of economies of scale is when the average unit costs of production increase beyond a certain level of output.

