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A PRICE CONSCIOUS MARKETPLACE AND MARKET EFFICIENCY: AN ANALYSIS OF GERMANY'S INVESTIGATION INTO MARKETPLACE PRICING POLICIES

Abstract: On June 2, 2025, Germany's Federal Cartel Office (the Bundeskartellamt) issued a preliminary legal assessment alleging that Amazon's price-control mechanisms for marketplace sellers potentially violate both European and German competition law. On February 5, 2026, the agency issued (an outline of) a preliminary decision stating that Amazon must cease or adapt the behavior within nine months with specified requirements. One concern of the Bundeskartellamt regards Amazon's policy that third parties whose offers are "classified as 'significantly high prices' or 'uncompetitive prices' are excluded from appearing in the Buy Box; their display in the search results list is also restricted, and they may be excluded from advertising on Amazon." The Bundeskartellamt argues that Amazon's policy "restrict[s] the visibility of the sellers' offers and [] interfere[s] with their freedom to set their own prices." But does Amazon's policy, rooted in maintaining its reputation as a low-priced online marketplace, actually harm consumers? To answer this question, this BULLETIN develops a formal economic model to analyze the welfare implications of marketplace pricing policies in markets with heterogeneous consumers and demonstrates that a policy of excluding or downgrading excessively high prices directs purchases toward efficient firms and enhances economic welfare.

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I. Introduction

The regulation of digital marketplaces has emerged as one of the most contentious areas of competition policy around the globe. For example, on June 2, 2025, Germany's Federal Cartel Office (the Bundeskartellamt) issued a preliminary legal assessment challenging Amazon's pricing mechanisms for third-party sellers on its marketplace.[1] The Bundeskartellamt contends that Amazon's policy "may restrict the competitive process on the Marketplace," that "these restrictions are not based on any objective, verifiable principles," and they "interfere with the freedom of Marketplace sellers to set their own prices." On its face, it is odd that a competition authority would oppose a policy of shielding consumers from excessive prices, or to claim that doing so would reduce competition. An outline of a decision was released on February 5, 2026, requiring Amazon to cease or adapt its pricing policies within nine months within specified requirements.[2] Amazon has thirty days to appeal the decision.

Amazon's reputation as a low-price source for a wide array of products is well established. Reliance on that reputation forms consumers' expectations, and such expectations may be exploited by unscrupulous third-party sellers to charge high prices or even gouge consumers. That is, unscrupulous or high-cost sellers may seek to "free ride" on Amazon's reputation with uncompetitive or exploitive offers, something Amazon sensibly prefers to avoid. Competition is a means to end—the enhancement of economic welfare. So, the question is, does a policy of pointing customers to low-priced (or low-cost) sellers improve economic welfare? To answer the question, this BULLETIN provides a theoretical analysis of excluding or limiting exposure to high-priced sellers in markets characterized by consumer heterogeneity—specifically, markets containing both price-sensitive consumers with standard downward-sloping demand curves and price-insensitive consumers with reservation price demands. The model demonstrates that marketplace interventions encouraging purchases from high- to low-cost sellers enhance economic welfare. Also, the Bundeskartellamt's claim that Amazon's restrictions are "not based on any objective, verifiable principles" is incorrect. Amazon has incentives to shield its customers from uncompetitive prices—it's consumers, and Amazon itself, are better off for it doing so.

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[1] *Bundeskartellamt Has Concerns About Amazon's Use of So-Called Price Control Mechanisms*, Bundeskartellamt, Press Release (February 6, 2025) (available at: https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2025/2025_06_02_Amazon.html?nn=219148).

[2] *Bundeskartellamt Prohibits Amazon from Applying So-Called Price Control Mechanisms and Orders the Disgorgement of 59 Million Euros in Economic Benefits*, Bundeskartellamt, Press Release (February 5, 2026) (available at: https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2026/26_02_05_Amazon.html?nn=48916).

II. A Theoretical Model of the Price Conscious Marketplace and Welfare

Amazon operates a comprehensive digital marketplace in Germany (amazon.de). Amazon operates its proprietary retail business ("Amazon Retail") that provides a marketplace ("amazon.de Marketplace") where Amazon and third-party sellers offer products directly to consumers, and these 47,000 small and medium-size businesses account for more than 60% of products sold on Amazon.[3]

Amazon's stated mission is "to offer the best shopping experience possible, which includes helping customers find great offers at fair prices."[4] Amazon's large selection and low prices reflect, in part, the company (voluntarily) opening its marketplace to thousands of third-party sellers. This open-access marketplace model, while expanding consumer choice, introduces adverse selection problems: alongside efficient sellers offering competitive prices, the marketplace attracts inefficient high-cost sellers, and some uncompetitive sellers, seeking to exploit information asymmetries by charging supracompetitive prices to non-searching consumers. Recognizing the potential harm to consumers from those sellers that offer uncompetitive or egregiously priced offers that exploit non-searching customers—thus harming Amazon's consumers and its earned reputation as a low-price marketplace that consumers benefit from[5]—Amazon employs its *Marketplace Fair Pricing Policy* to survey prices to avoid highlighting offers that contain errors or deviate significantly from competitive benchmarks so that "consumers can shop with confidence."[6]

In implementing its *Marketplace Fair Pricing Policy*, Amazon employs algorithmic price-control mechanisms on its marketplace. These mechanisms utilize statistical models that draw on various price data—including historical prices on Amazon, current prices on Amazon, and prices from external competing retailers—to establish reasonable pricing. The policy guards against pricing errors, abuse pricing, and atypically high prices. Absent such a policy, "customers would be less likely to shop [on Amazon], which would impact both Amazon and Selling Partners."[7] Price offers in the "pricing error" category (*e.g.*, $899 instead of $8.99) are paused from appearing in the marketplace until the price is confirmed with the seller. The "abusive price" category aims

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3 *How Pricing Mechanisms Help Customers Find Great Deals and Benefit Selling Partners*, Amazon.com (December 10, 2025) (available at: https://www.aboutamazon.eu/news/policy/how-pricing-mechanisms-help-customers-find-great-deals-and-benefit-selling-partners).

4 *Id.*

5 G.S. Ford, *Amazon: A Monopolist That Undersells Its Competitors?*, PHOENIX CENTER POLICY BULLETIN No. 67 (March 2024) (available at: https://phoenix-center.org/PolicyBulletin/PCPB67Final.pdf).

6 *How Pricing Mechanisms Help Customers, supra* n. 3.

7 *Id.*

to avoid price gouging for essential products during periods of high demand. If the price is "abusive," then the offer is temporarily removed from the marketplace. When an offer has an atypically high price, Amazon does not promote the offer as a "Featured Offer," though the offer remains available to consumers for purchase. In some cases where no seller offers the typical competitive price, then no "Featured Offer" appears for a product, though the offer remains available.

From an economic perspective, Amazon's *Marketplace Fair Pricing Policy* addresses pricing errors, which might lead to costly returns, and a fundamental market failure arising from consumer heterogeneity in search behavior that may be exploited by sellers not offering competitive prices. Consumers that prefer not to engage in comprehensive price comparison across all available sellers, a price-conscious marketplace offers consumers a "safe place" to shop. This "safe place" reputation is critical to a marketplace's success, both for Amazon and its third-party sellers. As noted by Antonio Moreno, Associate Professor of Business Administration at Harvard Business School:

> Customers will hold the retailer accountable for poor experiences with third-party sellers, making it essential to partner with reliable sellers and closely monitor their performance. As the assortment becomes more complex, with multiple sellers potentially offering the same product at different prices and fulfillment options, operators must decide how to present these choices to maintain an intuitive shopping experience.[8]

This is exactly what Amazon's pricing policy does. Naturally, with many sellers of a searched product, offers must be ordered in some way, and that order is sensibly targeted at offers that have low prices, fast shipping, and from reliable sellers. When unscrupulous or inefficient high-cost sellers exploit this "safe space" by charging prices substantially above competitive levels—prices these sellers can sustain only by capturing non-searching consumers—the result is allocative inefficiency, with resources misdirected toward high-cost rather than low-cost production. Amazon's pricing policy functions to mitigate this inefficiency by preventing high-price sellers from exploiting price-insensitive consumers, effectively reallocating demand toward more efficient marketplace sellers.

Amazon's pricing policy articulates a coherent economic rationale for examining prices that directly motivates our theoretical framework. The theoretical model that follows abstracts from the full complexity of search behavior and adverse selection, instead directly analyzing the welfare effects of marketplace interventions that reallocate price-insensitive consumers from high-cost to low-cost sellers. Despite its stylized nature, the model captures the fundamental

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[8] A. Moreno, *Why Retailers Are Turning to Third-Party Marketplaces*, HARVARD BUSINESS REVIEW (January 8, 2025).

economic tension underlying Amazon's pricing policy. We do not model "opportunistic" pricing behavior but rather treat this concern as an inefficient seller.

A. *Model Setup and Assumptions*

Consider a market with two distinct types of consumers differentiated by their price sensitivity. The first group exhibits standard price-sensitive behavior with downward-sloping demand curves. The second group displays price insensitivity, purchasing a fixed quantity provided the price remains at or below their maximum willingness to pay. These consumer types can be formally represented by the following per-consumer demand functions:

$$q_d = A - P, \quad \text{if } P \le A \ , \tag{1}$$

$$q_0 = r, \qquad \text{if } P \le A \ , \tag{2}$$

where q_d represents the quantity demanded by price-sensitive consumers, q_0 represents the fixed quantity demanded by price-insensitive consumers, A denotes the maximum willingness to pay (the demand intercept for price-sensitive consumers), P represents price, and r denotes the fixed quantity purchased by price-insensitive consumers when price does not exceed their reservation value.

Let $\{M, M_0\}$ denote the number of consumers of each type. We assume most of the consumer population has standard demand compared to those with no price sensitivity ($M_0 \ll M$) and individual quantities demanded are of similar magnitude ($r \le A$). These assumptions ensure that the price-sensitive segment dominates market demand while the price-insensitive segment remains economically significant.

The supply side comprises two distinct firm types. There exist n large, low-cost firms that compete in Cournot fashion. For analytical convenience, we normalize their marginal costs to zero, though this assumption can be relaxed without altering the fundamental results. Additionally, one or more high-cost firms operate with significantly higher marginal costs, denoted by c. These high-cost firms cannot profitably compete with the low-cost firms for price-sensitive consumers but can profitably serve price-insensitive consumers at their reservation price. In other words, if P^* denotes the Cournot equilibrium price of the low-cost firms, then we assume that $P^* < c < A$. Lacking marginal price sensitivity, the group of consumers with inelastic demands indifferently distribute between the two types of firms with m_0 purchasing from the low-cost Cournot firms and the remaining $(M_0 - m_0)$ purchasing from the high-cost firms. Hence, the market demand curve for the low-cost efficient firms is given as follows:

$$Q = M(A - P) + m_0 r, \quad \text{if } P <= A \, . \tag{3}$$

This demand function aggregates the linear demand from M price-sensitive consumers with the inelastic demand from m_0 price-insensitive consumers who have chosen to purchase from the low-cost firms. Inverting this market demand curve, we have,

$$P = A - \frac{1}{M}[Q - m_0 r]. \tag{4}$$

An individual low-cost firm engaged in Cournot competition with the other low-cost firms will choose quantity to maximize profit given the supply choices of the other low-cost firms:

$$\max_{q_j}\left\{\left(A - \frac{1}{M}\left[\sum_{i=1}^{n} q_i - m_0 r\right]\right) q_j\right\}, \tag{5}$$

where the summation runs over all n firms.

B. *Equilibrium Quantity and Price*

The first-order necessary condition for profit maximization yields:

$$A - \frac{1}{M}\left[\sum_{i=1}^{n} q_i - m_0 r\right] - \frac{1}{M} q_j = 0. \tag{6}$$

Imposing symmetry across firms ($q^* = q_j$ for all j) and solving this first-order condition yields the equilibrium supply per firm:

$$q^* = \frac{1}{n+1}\left[MA + m_0 r\right]. \tag{7}$$

Aggregating to the market equilibrium quantity and price for the low-cost firms yields:

$$Q^* = \frac{n}{n+1}\left[MA + m_0 r\right], \tag{8}$$

$$P^* = \frac{n}{n+1}\left[A + \frac{m_0}{M} r\right]. \tag{9}$$

It is important to note that the presence of consumers with inelastic demand tends to slightly increase the equilibrium price resulting from the Cournot assumption.[9] Specifically, the margin with respect to an increase in their number is given by:

$$\frac{\partial P^*}{\partial m_0} = \left(\frac{1}{n+1}\right)\frac{r}{M} > 0 \ . \tag{10}$$

This positive price effect occurs because price-insensitive consumers increase market demand without providing the competitive discipline that price-sensitive consumers supply. The magnitude of this effect, reflecting the Cournot Competition assumption, depends on the relative size of the price-insensitive segment (r/M) and the degree of competition among low-cost firms ($1/(n+1)$).

C. *Social Welfare Analysis*

With m_0 price-insensitive consumers purchasing from efficient low-cost firms and the remaining ($M_0 - m_0$) purchasing from inefficient high-cost firms, total social welfare (W) can be expressed as:

$$W = \frac{M}{2}\left[A^2 - (P^*)^2\right] + r\left[M_0 A - (M_0 - m_0)c\right] \ . \tag{11}$$

The first term represents consumer surplus from price-sensitive consumers plus producer surplus from low-cost firms. The second term captures the net welfare from price-insensitive consumers: their total valuation (M_0Ar) minus the production costs incurred by high-cost firms serving (M_0 - m_0) consumers.

Now consider a marketplace intervention that increases the fraction of price-insensitive consumers purchasing from efficient low-cost firms—precisely the type of intervention the Bundeskartellamt challenges. The marginal impact on social welfare from such an intervention can be determined by differentiating the welfare expression with respect to m_0:

$$\frac{\partial W}{\partial m_0} = rc - MP^*\left(\frac{\partial P^*}{\partial m_0}\right) \ . \tag{12}$$

This expression reveals two offsetting welfare effects. The first term (rc) represents the positive welfare gain from cost efficiency: each price-insensitive consumer shifted from high-cost to low-cost firms saves cost c. The second term ($-MP^*(\partial P^*/\partial m_0)$) represents the negative welfare effect

[9] Under Bertrand Competition, price may not increase.

from the induced price increase as the price-insensitive customers shift to the efficient competitors (increasing their demand), which harms price-sensitive consumers. The second term is, in part, a consequence of the assumption of Cournot Competition (where price is directly related to n) and sellers have at least some pricing power. When n is sufficiently large, this effect will be small. Moreover, consumers face minimal costs in purchasing from competing online retailers rather than Amazon—a type of competition not considered here. If those retailers offer lower prices, then consumers can and do switch outlets to find lower prices.

Substituting our earlier expression for $\partial P^*/\partial m_0$ and simplifying, we have:

$$\frac{\partial W}{\partial m_0} = r\left[c - \left(\frac{P^*}{n+1}\right)\right]. \tag{13}$$

This key result compares the cost-efficiency gain against the competitive price impact. Given our structural assumption that high-cost firms cannot compete in the Cournot equilibrium ($c > P^*$), the welfare derivative is unambiguously positive. The marketplace intervention enhances social welfare despite causing a modest price increase for efficient firms, though with a large n, the term $(P^*/(n+1))$ may be trivially small.

The theoretical model yields several important insights for marketplace regulation of the sort proposed by the Bundeskartellamt. First, interventions that steer consumers toward more efficient sellers can be welfare-enhancing even when the shift in demand to more efficient sellers might encourage a small price increase by these efficient firms. The critical comparison is between the magnitude of cost savings (c) versus the competitive price effect $(P^*/(n+1))$. When the efficiency gap between high-cost and low-cost firms is substantial—as our assumption $c > P^*$ ensures—the welfare gain from improved allocation dominates the welfare loss from the modest price increase (which arises from the Cournot Competition assumption).

Second, the welfare gain is strictly increasing in the cost differential $(c - P^*)$ and in the quantity demanded by price-insensitive consumers (r). Larger efficiency gaps and larger segments of price-insensitive consumers magnify the benefits of directing purchases toward efficient firms. This finding directly contradicts the Bundeskartellamt's suggestion that a marketplace should not influence where price-insensitive consumers make their purchases.

Third, the model reveals why Amazon's pricing filters may serve legitimate efficiency purposes. If the amazon.de marketplace hosts both efficient sellers (who can profitably serve the market at competitive prices) and inefficient sellers (whose costs exceed competitive market prices but who can profitably serve non-searching consumers), then Amazon's pricing policies function to direct non-searching consumers toward efficient sellers. This mechanism enhances allocative efficiency and increases social welfare.

Fourth, the positive welfare derivative ($\partial W/\partial m_0 > 0$) demonstrates that Amazon's dual role—as both marketplace operator and competitor—does not necessarily create anticompetitive effects. Amazon's retail division does not offer all products available on the marketplace, yet the policy is uniform. Also, even if Amazon's own retail division benefits from the equilibrium price increase, the first-order effect from improved cost efficiency dominates. The net welfare impact remains positive.

Fifth, the exit of high-cost sellers enhances social welfare by directing purchases toward efficient firms. Indeed, the competitive process, at least when consumers are fully informed, eliminates inefficient sellers, driving sales to efficient firms, thus enhancing allocative efficiency. The appropriate economic interpretation of Amazon's pricing policy is that is accomplished what fully competitive markets do in the presence of search costs and information asymmetries. The Bundeskartellamt's characterization of this efficient reallocation of sales as anticompetitive "exclusion" reflects a category error: not all exit from markets constitutes anticompetitive exclusion. Exit that results from competitive pressure to operate efficiently is the foundation of competitive markets.

Empirical research suggests, in fact, that Amazon's pricing policies may actually increase seller participation rather than reduce it, and that the policy reduces prices and increases seller quality. Gallino, *et al.* (2024) studied the staggered implementation of buy box algorithms across products in a leading marketplace and found that buy box activation *increased the number of sellers* offering a product.[10] This increase likely reflects reduced friction on the seller side—the standardized product catalog and listings created for buy box implementation substantially lowered the effort required for sellers to post products. The study further demonstrates that buy box implementation generated significant welfare benefits: conversion rates increased by approximately 23%, average prices paid by customers decreased, and average seller quality increased. These findings directly contradict the Bundeskartellamt's narrative of harmful exclusion. Efficient marketplace operation naturally directs sales toward competitive sellers through consumer choice when information is adequate. Amazon's pricing policy accomplishes what fully competitive markets achieve in the presence of search costs and information asymmetries by channeling transactions to efficient firms rather than allowing high-cost sellers to exploit uninformed consumers.

Finally, this regulatory approach to Amazon's pricing policies is inconsistent in German economic policy. While condemning Amazon for protecting consumers from exploitative pricing, Germany simultaneously operates extensive price control regimes across multiple sectors. Under the Arzneimittelmarktneuordnungsgesetz ("AMNOG") pharmaceutical pricing

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[10] S. Gallino, N. Karacaoglu, and A. Moreno, *Algorithmic Assortment Curation: An Empirical Study of Buybox in Online Marketplaces*, 27 MANUFACTURING & SERVICE OPERATIONS MANAGEMENT 917-34 (2025).

system implemented in 2011, Germany mandates centralized price negotiations for new drugs and reference pricing for established medications.[11] Such regulation involves a two-step process. First, the government determines if the new drug adds an additional benefit to current therapies. Second, upon passing the first step, a drug with significant additional benefits may command a higher price than existing drugs, but if there is no such addition benefit, then the price of the drug must fall within the existing reference pricing system (that is, it cannot cost more than existing drugs). This policy explicitly excludes inefficient competitors that offer prices higher than those observed in the market. AMNOG, therefore, is a pricing policy, and one that affects inefficient competitors. This policy is analogous to what Bundeskartellamt condemns Amazon for doing, yet Amazon's pricing policies are less restrictive to sellers as the offers remain available but are not featured to customers.

Similarly, Germany's Mietpreisbremse (rent control law) caps rental prices in designated tight housing markets at no more than 10% above local comparative rent indices.[12] Again, the German policy sets a price cap on rents based on the distribution of "normal" activity. The parallel is unmistakable: the German government prevents transactions at prices deemed "too high," while Amazon's policy limits customer exposure to noncompetitive prices but still allows consumers to see the offers (unless the price is an error, upon which the seller is notified).

Amazon defends its practices by arguing that preventing the marketplace from "helping people find competitively priced offers" would force it to "promote uncompetitive or even abusive pricing," creating a "bad shopping experience" for consumers.[13] This consumer protection justification mirrors precisely the logic German policymakers invoke when defending pharmaceutical price controls and rent regulations. Yet, when Amazon deploys this reasoning,

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[11] J.C. Robinson and P. Ex, *Drug Price Moderation in Germany: Lessons for U.S. Reform Efforts*, The Commonwealth Fund (January 23, 2020) (available at: https://www.commonwealthfund.org/publications/issue-briefs/2020/jan/drug-price-moderation-germany-lessons-us-reform-efforts); J.C. Robinson and P. Ex, *Reference Pricing in Germany: Implications for U.S. Pharmaceutical Purchasing*, The Commonwealth Fund (February 4, 2019) (available at: https://www.commonwealthfund.org/publications/issue-briefs/2019/jan/reference-pricing-germany-implications); T.A. Abbott and J. Vernon, *The Effect of Price Controls on Pharmaceutical Research*, NBER WORKING PAPER 11114 (May 1, 2005).

[12] C. Kingston, *Extension of Mietpreisbremse Stirs Up Mixed Reactions Among Housing Investors*, REFIRE (April 14, 2024) (available at: https://www.refire-online.com/markets/extension-of-mietpreisbremse-stirs-up-mixed-reactions); K. Niemietz, #*QTWTAIN: "But haven't rent controls worked in Germany?*, INSTITUTE OF ECONOMIC AFFAIRS (June 3, 2016) (available at: https://iea.org.uk/blog/qtwtain-havent-rent-controls-worked-in-germany); P. Breidenbach, L. Eilers, and J. Fries, *Temporal Dynamics of Rent Regulations – The Case of the German Rent Control*, 92 REGIONAL SCIENCE AND URBAN ECONOMICS 103737 (2022).

[13] J. Easton, *German Regulators Warn Amazon Over Marketplace Pricing Controls*, RETAIL SYSTEMS (March 5, 2025) (available at: https://www.retail-systems.com/rs/German_Regulators_Warn_Amazon_Over_Marketplace_Pricing_Controls.php).

it becomes anticompetitive abuse; when the German government does so, it becomes justified market intervention. The German government cannot have it both ways.

III. Conclusion

The Bundeskartellamt's preliminary assessment of Amazon's pricing mechanisms exemplifies problematic trends in marketplace competition enforcement. As shown here, marketplace interventions directing purchases toward efficient sellers enhances social welfare, directly contradicting the Bundeskartellamt's suggestion that a marketplace should not influence consumer allocation between efficient and inefficient sellers. When price-sensitive and price-insensitive consumers coexist, and when efficient, inefficient, and unscrupulous sellers compete for business, marketplace interventions that reallocate purchases from inefficient to efficient sellers are welfare-enhancing. Competition authorities that fail to recognize these efficiency rationales—and instead presume anticompetitive harm from any conduct that affects seller pricing or restricts seller discretion—will systematically condemn beneficial practices while missing genuinely anticompetitive behavior or seller inefficiency. The Bundeskartellamt's preliminary assessment demonstrates precisely this analytical failure.

The fundamental insight from our analysis is that efficient marketplace regulation requires understanding the welfare tradeoffs inherent in marketplace policies. The path forward requires returning to rigorous, evidence-based welfare analysis that takes seriously both the costs and benefits of marketplace policies. Amazon's pricing policy is welfare improving and acts in the same manner as competitive markets; the policy is not anticompetitive under any reasonable assessment.

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