

Extended Abstract

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Paper Title	The impact of the temporary VAT reduction in Germany: A study on price effects in online grocery retail with a focus on differences between manufacturer and retailer brands
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Abstract prepared for presentation at the 98th Annual Conference of The Agricultural Economics Society will be held at The University of Edinburgh, UK, 18th - 20th March 2024.

Abstract	<i>200 words max</i>
<p>This paper investigates the impact of the temporary reduction in the German value-added tax (VAT) in July 2020 on online grocery prices, focusing on both traditional manufacturer brands and private labels. Using a fixed-effects estimation and daily price data from a major German online grocery retailer, we examine price effects for four key product categories and tracking the entry into the VAT reduction period. Our analysis reveals a significant initial price decrease during the first week of the VAT cut, maintaining a lower level throughout the reduction period but experiencing a slight rise by the end of August. On average, prices are 1.58% below pre-announcement levels, with an 84.5% pass-through rate. Notably, differences emerge among product categories, and private labels exhibit a more than complete pass-through rate of 152%, while manufacturer brands only pass on 63% of the VAT change. An incomplete transfer is below the expectations of politicians and the announcements of the retailers. At the same time, a more than complete transfer contradicts the expectations for private labels. The study can provide evidence to assess the effect in future measures.</p>	
Keywords	Temporary VAT reduction, online grocery retail, private labels
JEL Code	H25, L81
Introduction	<i>100 – 250 words</i>
<p>In July 2020, the German government lowered the value-added tax (VAT) rate for six months to stimulate private consumption and thereby relieve the economy, which had been weakened by the Corona pandemic. For the measure to work, passing it on in the form of lower prices for consumers is essential. We look at online grocery retail, which has become increasingly important products for daily use in recent years, especially during the Corona pandemic¹. In addition to the traditional manufacturer brands, the online retail range consists of private labels, most of which are in the lower price range. In addition to the general effects of the VAT rate reduction, differences between the brands will be highlighted.</p>	

¹ Engels, B., 2020. Corona: Schub für den Onlinehandel [online]. Institut der deutschen Wirtschaft. IW Kurzbericht. 29. Verfügbar unter: https://www.iwkoeln.de/fileadmin/user_upload/Studien/Kurzberichte/PDF/2020/IW-Kurzbericht_2020_Corona_Onlinehandel.pdf

Methodology	100 – 250 words
<p>We use a fixed-effects estimation to examine the price effects initiated by the VAT cut. Daily price data from May to September 2020 from a major online grocery retailer in Germany² is used as the data basis. We look at four important product categories, namely bread products, meat products, eggs and dairy products as well as coffee and tea, and consider the entry into the VAT rate reduction.</p> <p>To analyse the course of the reduction, dummy variables are included in the model for the individual days of the observation period. The coefficients then indicate the average price difference to the reference day, the day on which the VAT reduction was announced. In addition, promotional sales are included as a control variable. In order to illustrate the overall effect, the days in the reduction period are summarised in a dummy variable. It shows the average price differences compared to the period before the announcement. The categories analysed are weighted with the weightings used to calculate the German Consumer Price Index.</p>	
Results	100 – 250 words
<p>Prices have decreased as a result of the VAT cut. Prices fell significantly in the week the cut came into effect. They remained at a lower level over the course of the cut, but rose again slightly until the end of August. On average, prices are 1.58 per cent below the prices before the VAT rate reduction was announced, which corresponds to a pass-through rate of 84.5 per cent. In general, differences can be identified between the individual product categories.</p> <p>In addition to differences between the product categories, the degree of pass-through varies between manufacturer brands and private labels. With average price changes of -2.84 per cent, the effect of the VAT rate reduction is significantly greater for private labels. This corresponds to a more than complete pass-through rate of 152 per cent. Prices for manufacturer brands only fall by -1.18 per cent. Consequently, only 63 per cent of the VAT rate change is passed on.</p>	
Discussion and Conclusion	100 – 250 words
<p>The VAT rate reduction had an effect on the prices of the online retailer analysed. Fuest et al.³, who also analysed the online retailer, came to a similarly high price effect. Failure to fully pass on the VAT rate reduction is below policy expectations and food retailer announcements. A more than full pass-through rate for private labels also contradicts expectations, as they are usually sold without a profit margin⁴. The results supplement the investigations that have taken place and provide insights into the pricing policy of online food retailers using the example of the supermarket in the study. As the measure was associated with considerable costs for the German state, an evaluation is important. The study can provide evidence to assess the effect in future measures.</p>	

² Fedoseeva, S. und E.van Droogenbroeck, 2023. Pandemic pricing: Evidence from German grocery e-commerce. Agribusiness. Verfügbar unter: doi:10/kxbrn

³ Fuest, C., Neumeier, F. & Stöhlker, D. (2021). The Pass-Through of Temporary VAT Rate Cuts: Evidence from German Supermarket Retail. CESifo Working Papers ,9149. doi: 10.2139/ssrn.3872388

⁴ Barsky, R., Bergen, M., Dutta, S. & Levy, D. (2003). What Can the Price Gap between Branded and Private-Label Products Tell Us about Markups? In R. C. Feenstra (Pub.), Scanner data and price indexes (S. 165-225). Chicago, Ill.: Univ. of Chicago Press.