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## The COVID-19 Pandemic and the Growth of Private Labels

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Private labels, also called store brands, are owned and offered by a retailer, often carrying the retailer's name or other exclusive brand names. Retailers produce private labels by contracting with a manufacturer or in their own manufacturing facilities (Bonanno & Çakır, 2022). Private labels have steadily continued to gain market share in the United States for the past three decades. Major retailers, including Walmart (Great Value brand), Target (Market Pantry, Good and Gather), Costco (Kirkland), and Amazon (Amazon Basics brand), offer a wide range of private label products across multiple categories.

Private labels are an important source of retailer revenues and profits. They generated \$236 billion in sales across all retail segments in the United States in 2023, or 18.9 percent of total revenues (Private Label Manufacturers Association [PLMA], 2024). Private label unit sales peaked in 2023 at 58 billion, which accounts for 20.7 percent of total unit sales across all channels in the United States (Private Label Manufacturers Association [PLMA], 2024). Retailers benefit from private label sales in many ways. For example, private labels could achieve an improved quality-price value proposition to attract new customers and increase category sales. Also, prior research shows that private labels generally provide higher margins than national brands (Hoch and Banerji 1993; Sayman et al. 2002; Narasimhan and Wilcox 1998; Ailawadi and Harlam 2004; Pauwels and Srinivasan 2004) due to cost efficiencies. Furthermore, private labels help retailers build customer loyalty and reputation (Corstjens and Lal 2000; Sudhir and Talukdar 2004; Ailawadi et al. 2008; Seenivasan et al. 2009), causing retailers to use private labels as a differentiation strategy, which, in turn, helps them gain greater long-run profits. Finally, private labels increase a retailer's bargaining power when negotiating with

manufacturers and help the retailer increase its share of channel profits (Scott Morton and Zettelmeyer, 2004).

The COVID-19 pandemic changed consumers' buying behavior, making private labels increasingly popular during the pandemic. According to Charm et al. (2020), 75% of U.S. consumers had new shopping patterns during the pandemic, with 36% trying a new product brand and 25% incorporating a new private-label brand. Furthermore, 80% of customers who started using a private label during the pandemic indicate they intend to continue even postpandemic. The strongest drivers of new brand purchases are availability, convenience, and value. Financially strained consumers and those whose preferred brands were out of stock due to supply-chain disruptions switched to private labels for their availability and low price (Begley & McOuat 2020). Private-label consumer goods reported an annual increase of 11.4 percent of their retail sales value as of September 2020 in the U.S. (IRI, 2020). U.S. consumers spent \$158.8 billion on private labels in 2020, \$16.5 million (+11.6%) more than the previous year (Private Label Manufacturers Association [PLMA], 2021). In 2021, private label dollar sales of consumer-packaged goods in the U.S. amounted to around \$199 billion, up from \$197 billion recorded in the previous year (Supermarket News, 2022). Although various media accounts and industry reports have shown an increase in private label purchases during the pandemic, no research empirically examines the extent to which COVID-19 impacted the growing prevalence of private labels, how the effects vary across different product groups, and how they evolve over time. This paper addresses each of these questions in turn.

Understanding how private labels respond to external shocks such as the COVID-19 pandemic gives insights into their supply chain resilience. Private label production is organized differently than those of national brands. A private label is a brand owned or controlled by a downstream firm (retailer) and sold exclusively at a single retail chain or group, and a national brand is owned by an upstream firm (producer) and typically available at several downstream outlets. Besides distribution, vertical organizations are also different. A private label might be produced by an upstream firm (possibly a firm that produces national brand products) under a contract, or its production could be fully integrated and done in-house. Also, retailers can accelerate the production of private-label products by delegating new product lines or line extensions to third-party manufacturers (Tilley Distributio 2023). This can improve resilience to material shortages and facilitate the marketing of a viable product. When products are made-to-order and designed to specifications, private labels can better control pricing at every step of the supply chain and offer competitive prices to consumers (Tilley Distribution 2023).

Studying the impact of COVID-19 on private label purchases also has implications for retailer shelf management, profit strategy, and the supplier-retailer relationship. Producing and selling private labels allow retailers to gain product category cost information while decreasing the shelf space for national brands (Bonanno & Çakır, 2022). Strong private-label programs in retailers can successfully differentiate their stores and cement shoppers' loyalty (Corstjens and Lal 2000; Sudhir and Talukdar 2004; Ailawadi et al. 2008; Seenivasan et al. 2009), thereby strengthening their positions or bargaining power with regard to brand-name manufacturers and increasing profitability. Hence, the effects of COVID-19 on private-label sales, to the extent that they exists,

might have important implications for retailers' market power and profits in the food supply chain and their relationships with suppliers.

In this paper, we empirically estimate the impact of COVID-19 on private-label purchases using a panel of household scanner data from the largest 50 metropolitan markets in the United States. We focus our analysis on 26 product groups among primary grocery goods widely studied in the empirical literature, categorized under five departments: dry goods, dairy and eggs, perishables, non-carbonated beverages, and household supplies. Our main empirical strategy is a differences-in-differences (DID) design. Estimates reflect how much the average private label volume share has changed in the post-COVID period, compared to the same period in the previous year had COVID-19 not occurred. We also estimate an event study model to investigate the dynamic effects of COVID-19 on private-label purchases.

This research contributes in at least two ways to the extant literature on COVID-19, private labels, and the food supply chain. There is a large body of literature focusing on the pandemic's effect on the retail landscape across many food sectors (Scheitrum et al. 2023; Lusk et al. 2021; Richards and Rickard 2020; Çakır et al. 2021; Ramsey et al. 2021; Shapiro 2022; Adjemian et al. 2023; McLaughlin et al. 2023); however, little is known about the effects on private labels, which are highly prevalent in retailing. This research also contributes to the literature on private-label production and the general literature on the food supply chain, as the results shed new light on how organizing production in different ways might have differing implications for supply chain resiliency.

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