

Introduction

What impact do changes in commodity costs have on retail food prices? This question has been the subject of interest to policymakers, academic researchers, food producers, and industry analysts. The extent to which cost increases are passed through in a vertically organized production process plays a crucial role in determining how the economy responds to exchange rate fluctuations, and to price changes for imported commodities. This report uses unique coffee industry data to provide insight into how cost changes affect retail prices.

For U.S. consumers, coffee is an interesting case study since it is a major consumer product in the United States. Some 80 percent of U.S. adults drink coffee regularly, and over half drink coffee every day, at a rate of 18.6 gallons per capita per year (Brazil Information Center, 2002). As these consumers shift a greater share of coffee consumption to away-from-home and “on the go” eating occasions, price variation in retail coffee prices has increased, spurring greater interest in the dynamics of retail coffee prices.

For economists, coffee is an interesting case study because it is one of the world’s most widely traded commodities and coffee beans are important components of the marginal costs in this industry. In addition, coffee is a publicly traded commodity with rich price data at different levels of production. The large amount of available coffee industry data—particularly manufacturer and retail price data—makes the industry well suited for an analysis of the magnitude of cost pass-through.

In this report, we use coffee industry data to estimate the impact of changes in costs on coffee prices. We regress current changes in prices on current and past changes in costs to estimate the effects of changes in commodity prices on manufacturer and retail prices for over 30 U.S. markets over the past decade. Our analysis provides estimates of the magnitude of cost pass-through and shows how firms adjust to changes in marginal cost.

A number of previous studies have analyzed the coffee industry. Gomez and Koerner (2002), Frey and Manera (2005), and Aguiar and Santana (2002) studied asymmetric price transmission in the coffee market. Azzam (1999) analyzed the implications of different models of competition for cost pass-through and price rigidity when retailers face barriers to adjusting their prices. Krivonos (2004), Shepherd (2004), and Durevall (2003) studied the coffee market.

A key difference between this study and previous studies is the use of coffee-price micro-data instead of food price indexes. A disadvantage of using price indexes to study pass-through is that the indexes are affected by changes in the composition of coffee products as well as changes in the prices of individual products. Our study is not subject to this. By analyzing wholesale prices for individual products, we are able to investigate price rigidity—i.e., the tendency of prices to remain fixed for long periods of time. By contrast, it is not possible to analyze price rigidity using food price indexes since the averaging inherent in price indexes smoothes over lumpy adjustments in individual price series.