Demands for Imported and Domestically Produced Wine in the United States

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Objectives and Background

Wine is the major group of imported alcoholic beverage to the United States. From 1992 to 2012, the U.S wine imports increased 366% in value and 350% in quantity. In 2012, the U.S imported 1.17 billion liters of wines at a value of five billion dollars. France, Italy, Australia, and Chile are the major wine exporters to the United States. These countries accounted for more than 74% of total U.S wine import by value (USDA/FAS, 2013). Few studies focused on demands for U.S domestically and imported wine. To fill this gap, this paper studies relationship among domestically produced and imported wine.

Data and Method

The U.S import expenditure, quantity, and price data from 1992-2012 are collected from the United States Department of Agriculture, Foreign Agricultural Service (USDA/FAS, 2103). U.S. national population annual data are adopted from the United States Census Bureau to conduct analysis on a per capita basis.

When estimating import demand for by source of production, an important question is to include or exclude domestically produced goods in the analysis. Most papers, method one, assume domestic production is separable from imports (Lee, Seale, and Jierwiriypant 1990; Schmitz and Seale 2002; Seale et al. 2005; Nazku, Houston, and Fonsah 2010; and Tshikala and Fonsah 2012; Seale, Zhang, and Traboulsi 2013a). In this method, one estimates the import demand for a number of countries. If one is interested in the effects of imports on demand for the domestic good, this method is lacking.

Winters (1984) questions the assumption of separability between domestic and imported goods and provides evidence that the domestically produced good is not separable from imports. If so, one way, method two, is to include the domestically produced good along with imports in the demand system (Seale, Zhang, and Traboulsi 2013b). Method two can measure the effects of imports on the domestic good, but at the cost including a smaller number of imports. This is because the quantity of the domestically consumed good is often so much larger than the quantity of imports from any given country, and the domestic data literally swamps that of the import data.

The third method, emphasized by this paper, accounts for domestic production in import demand analysis with the two-stage analysis. In the first stage, a Rotterdam model is fit to the U.S. domestic consumption data and to total imports of the good. It consists of two equations, demand for the domestically produced wine and demand for the imported wine as a whole. In the second stage, total import expenditure is allocated among the different country sources. For each stage, conditional expenditure and price elasticities are calculated. Those of the second stage are directly comparable to method one. By proper multiplication between the elasticities of stages one and two, conditional elasticities are calculated that are directly comparable to those of method two. With emphasis on the third method, this paper presents the results from the three methods for the same set of commodities. Results are presented, and comparisons among the three methods are drawn.
Reference