Quality Competition Versus Price Competition Goods: An Empirical Classification

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Abstract

Based on theoretical distinctions suggested by the heterogeneous firms trade model and the quality heterogeneous firms trade model, we classify exports at the HS 6-digit level as being characterised by either quality or price competition. We find a high proportions of quality-competition goods for the major EU countries and lower proportions for Canada, Australia and China. However, the overlap of these quality-competition goods is not large which suggests that the HS-6 digit data is too aggregate; firm-level data may be needed. Our findings suggest that dumping investigations must pay careful attention to the exact definition of products, and the study of technological gaps across nations by analysing composition of their export basket (Hausman, Huang and Rodrik 2007) should be interpreted with caution.

- JEL Classification: F14
- Keywords: Quality vs Price Competition, Heterogeneous Firms Trade Model.

I. Introduction

Recent work on the theory and empirics of firm heterogeneity and trade provides

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new and wide ranging insights. In the mainstay model in this ‘new new trade theory’ – the heterogeneous firms trade model of Melitz (2003) – competitiveness of a firm’s product depends upon price; the cheapest goods are the most competitive. A minor twist on this model (which was foreshadowed by a footnote in Melitz 2003) turns the standard heterogeneous firms trade (HFT) model into the quality heterogeneous firms trade (QHFT) model where the price-competitiveness link is reversed. If consumers care enough about quality, goods with the highest observed prices will be the most competitive because their quality-adjusted price is lower.1

This observation provides a simple way of empirically separating the HFT and QHFT models in trade data. Since trade costs rise with distance, the HFT model predicts that products with the lowest price get sold in the most distant markets while the opposite holds in the QHFT, i.e. the highest priced goods travel furthest. These diametrically opposed implications provide the foundation of a test of the models by Baldwin and Harrigan (2006), BH henceforth; that paper, however, pools across all categories of US exports thus implicitly assuming that all US exports are characterised either by a falling price-distant link (HFT) or by a rising price-distance link (QHFT).

Our paper follows up on the BH by estimating the price-distance relationship separately for each product using panel data. Our paper’s main value-added is to establish a list of three types of products. Those where competition appears to be based on price, those where it is based on quality, and those that cannot be confidently placed in either category. Specifically we use export data for nine large exporting nations at the HS 6-digit2 level of disaggregation. Our key findings are:

i) Of the HS 6-digit codes that can be clearly classified as quality or price competition, 50 to 60% of HS 6-digit codes exports of large European nations can be classified as ‘quality goods’, while about 40% of US and Japanese exports fall into this category.

We believe that the difference may lie in pervasive trade in parts and components stemming from US and Japanese companies’ offshoring strategies that means nearby customers (the offshored factories) are a different type of buyers than the far away customers (arm’s length purchasers).

ii) For commodity exporters like Canada and Australia, the fraction of quality goods is much lower, only 15-25%. The share of quality goods in China’s exports

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1See Baldwin and Harrigan (2010).
2In the text below, the terms ‘HS 6-digit’ and ‘HS 6’ are used interchangeably.