

Quality-Adjusted Handicraft Estimates of NTM Price Gaps

Michele Breaux

, U.S. International Trade Commission

Yasnanhia Cabral

U.S. International Trade Commission

Michael J. Ferrantino

U.S. International Trade Commission

José E. Signoret

U.S. International Trade Commission

ABSTRACT: The NTM analysis in this paper estimates supplier-specific price gaps for a number of countries in a way that allows for both quality differences in exported products and the possibility that the NTMs may have a greater or lesser impact on prices for imports from different sources. The estimation procedure uses bilateral trade statistics and compares the destination market's import prices (c.i.f. unit values) by supplier with the various suppliers' export prices (f.o.b. unit values) to the world. These supplier-specific gaps can then be aggregated into price gaps for each good, by using quantities imported by supplier as weights. The results reveal new information about the variation in restrictiveness of NTMs across countries, products, and policies.

This paper represents solely the views of the authors and does not represent the views of the U.S. International Trade Commission or any of its Commissioners. The assistance of Julien Gourdon with data is gratefully acknowledged. Contact author: Michael J. Ferrantino, Michael.Ferrantino@usitc.gov

1. Introduction

Quantifying the restrictiveness of non-tariff measures remains a main challenge in trade policy analysis. Econometric analysis linking price dispersion with observed NTMs can provide estimates of average effects, while controlling for confounding effects. However, this type of analysis can yield unreliable estimates at the disaggregated levels often needed for policy modeling—e.g., ad valorem equivalents (AVEs) that vary by destination, product, and supplier.

The NTM analysis in this paper estimates supplier-specific price gaps in a way that allows for both quality differences in exported products and the possibility that the NTMs may have a greater or lesser impact on prices for imports from different sources. The estimation procedure uses bilateral trade statistics and compares the destination market's import prices (c.i.f. unit values) by supplier with the various suppliers' export prices (f.o.b. unit values) to the world. These supplier-specific gaps can then be aggregated into price gaps for each good, by using quantities imported by supplier as weights. Provided there is some trade, this estimation can be carried out for every product.

2. Method

The issue of controlling for quality differences is endemic to attempts to estimate price gaps for NTMs. Standard methods, as described in Deardorff and Stern (1998) and Ferrantino (2006), begin by assuming that the domestic and international prices to be compared are for a homogeneous good. However, this is unlikely to be the case. It is now well established that unit values contain both a quality effect (richer countries export products with higher unit values) and a pricing-to-market effect (richer countries import products with higher unit values) with the former effect believed to be predominant (Ferrantino, Feinberg, and Deason 2012).

(Describe formula approach, and how it does and does not deal with quality differences)

Similar “handicraft” methods of estimating price gaps were used in USITC (2009) to examine India's agricultural NTMs and USITC (2011) for China's agricultural NTMs.

3. Data Issues

Unit values are obtained from the CEPII Trade Unit Values database and traded quantities are inferred from the CEPII database by combining these data with bilateral trade data from GTIS, or by using quantity estimates inferred from the CEPII data directly. Information on existing NTMs is obtained from the Transparency in Trade (TNT) initiative. The policies in the TNT data follow the UNCTAD classification described in Basu et al (2011), and at <http://ntb.unctad.org/about.aspx>. Other uses of the TNT data include Cadot and Gourdon

(2011), who use an econometric approach to estimate price effects for a group of African countries; Nicita and Gourdon (2013), who calculate coverage ratios for NTMs by country, broad sector, and type of policy, and Cadot, Gourdon and Malouche (2013), who use an econometric approach to estimate price gaps. Since our estimates are formula-based (“mass handicraft”) and the estimates of Cadot et al. are econometric, they deal with non-NTM influences on unit values in different ways. The formula-based method used in this paper might be expected to correct for exporter effects more precisely than an econometric approach, but for importer effects not at all.

4. Results

(Jose – if you are going to do a tabulation here you might look at the ones in Nicitta and Gourdon, and try to do something a little different).

Conclusion

. In subsequent work, we hope to compare our results with those obtained by an econometric approach in order to identify the degree of robustness of estimated NTM price gaps to choice of method, and any variation in the degree of robustness according to product type, countries imposing measures, or type of measure.

References

Basu, Sudip Ranjan, Hiroaki Kuwahara and Fabien Dumesnil, “Evolution of Non-Tariff Measures: Emerging Cases From Selected Developing Countries,” Policy Issues in International Trade and Commodities, Study Series No. 52, New York and Geneva: United National, November 2011.

Cadot, Olivier and Julien Gourdon, “Assessing the Price-Raising Effect of Non-Tariff Measures in Africa,” processed, November 2011.

Cadot, Olivier, Julien Gourdon and Mariem Malouche, *NTM’s Impact on Trade Unit Values*, paper presented at 16th Annual Conference on Global Trade Analysis, Shanghai, China, June 2013.

Deardorff, Alan, and Robert Stern, *Measurement of Nontariff Barriers*. Ann Arbor: University of Michigan Press, 1998.

Ferrantino, Michael J., *Quantifying the Trade and Economic Effects of Non-Tariff Measures*. OECD Trade Policy Working Paper No. 28. Paris: OECD Publishing, 2006.

Ferrantino, Michael J., Robert M. Feinberg and Lauren Deason, “Quality Competition and Pricing-to-Market: A Unified Framework for the Analysis of Bilateral Unit Values,” *Southern Economic Journal* vol. 78 no. 3 (January 2012), pp. 860-877.

Nicita, Alessandro, and Julien Gourdon, “A Preliminary Analysis on Newly Collected Data on Non-Tariff Measures,” Policy Issues in International Trade and Commodities, Study Series No. 52, New York and Geneva: United National, 2013.

U.S. International Trade Commission, “India: Effects of Tariffs and Nontariff Measures on U.S. Agricultural Exports,” USITC Publication 4107, November 2009

U.S. International Trade Commission, “China’s Agricultural Trade: Competitive Conditions and Effects on U.S. Exports,” USITC Publication 4219, March 2011.