4.6 Pricing-to-market

In section 4.5, the simulations are carried out assuming all firms behave competitively, i.e. the CES demand system leads to a monopolistically competitive industry, where the slope of the residual supply function is not affected by a firm's actions or any action of its competitors. In particular, we have assumed that Canadian exporters do not take the response of foreign competitors into account when they decide how much to lower their price following a tariff cut. While this is probably a good assumption given the small Canadian market share overseas, we verify here how sensible this assumption is.

Using the methodology developed by Goldberg and Knetter (1999)[57] we estimate the slope of the residual demand Canadian firms face in the markets abroad considered in the previous Section. The idea is to identify the slope of the residual demand exploiting exchange rate variability as an indicator for cost changes. Note that these will differ from the demand elasticities estimated earlier. Residual demand elasticities include supply responses by competitors, which will depend on the type of market equilibrium the industry is in—which is not specified explicitly. The estimating equation is as follows:

$$\ln p_{mt}^{ex} = \lambda_m + \eta_m \ln Q_{mt}^{ex} + \alpha' \ln Z_{mt} + \beta' \ln W_{mt} + \varepsilon_{mt}$$

The residual demand for exporter *ex*, to destination market *m*, at time *t*, expresses the price the exporter charges (in the importing market's currency) as a function of its own quantity, demand shifters for the overseas market (*Z*) and cost shifters for its competitors (*W*).

Given that we only have 11 years of data to estimate the equation, we have to be extremely parsimonious in the specification. The only demand shifter we include is a time trend and as cost shifters we use the exchange rate of the two largest importers, apart from the country under investigation. As

[57] Goldberg, P. K and M. M. Knetter (1999), "Measuring the intensity of competition in export markets", *Journal of International Economics*, 47, pp. 27-60.