A tariff equivalent of non-tariff measures on European horticultural and fish imports from African countries

Nimenya, N.; Henry de Frahan, B.; Ndimira, P.F.

Research Unit of Agricultural Economics

Université catholique de Louvain

Belgium

"Europe is by far the most significant trading partner for Southern Africa…this means that decisions made in Brussels transform lives in the region, controlling whether factories close and jobs are lost, whether farmers grow maize or roses, families can earn enough to send their children to school" *(ACTSA, 2001).*

The price-wedge method: principles & applications

- Is the gap between world & import prices; correction for tariffs, internal & c.i.f transport costs (Krissoff *et al.* (1997); Calvin & Krissoff (1998, 2005); Beghin & Bureau (2001); Yue *et al. (*2006); Ferrantino (2006).

- Why then price-wedge method?

  - NTB rooted in determinants of comparative advantages: endowments, technology, income, preferences (Henson *et al.,* 1999), (Chand, 2003).

  - A tariffication effect (Roberts *et al.*, 1999) from non-discriminatory NTB with assymetric compliance costs(Wilson, 2008).

The analytical framework

- On demand side: Armington (1969) differentiation
  - a nested CES consumer utility function

$$Maximize \quad U_j = \left[\alpha_{jj} q_{jj}^{\frac{\sigma-1}{\sigma}} + (1 - \alpha_{jj}) \left(\sum_{i=1, i \neq j}^{M} \alpha_{ij} q_{ij}^{\frac{\sigma-1}{\sigma}} \right) \right]^{\frac{\sigma}{\sigma-1}}$$

$$subject \ to \quad p_{jj} q_{jj} + \sum_{i=1, i \neq j}^{M} p_{ij} q_{ij} = E_j$$

  - a Marshallian demand for imports & domestic goods

$$\frac{q_{jj}}{q_{ij}} = \left[\frac{\alpha_{jj}}{(1 - \alpha_{jj}) \alpha_{ij}} \frac{p_{ij}}{p_{jj}} \right]^{\sigma} \qquad p_{ij} = p_w + IFC_{wj} + CT_{ij} + TE_{ij}$$

  - analytical expression of the tariff equivalent

$$TE_{ij} = p_{jj} \frac{(1 - \alpha_{jj}) \alpha_{ij}}{\alpha_{jj}} \left(\frac{q_{jj}}{q_{ij}} \right)^{\frac{1}{\sigma}} - \left(p_w + IFC_{wj} + IT_j + CT_{ij} \right)$$

- On supply side: A monopolistic competition Krugman (1990): plausible instruments

Econometric results

Figure 3. Evolution of annual mean values of ad valorem tariff equivalent of NTB on fish imports
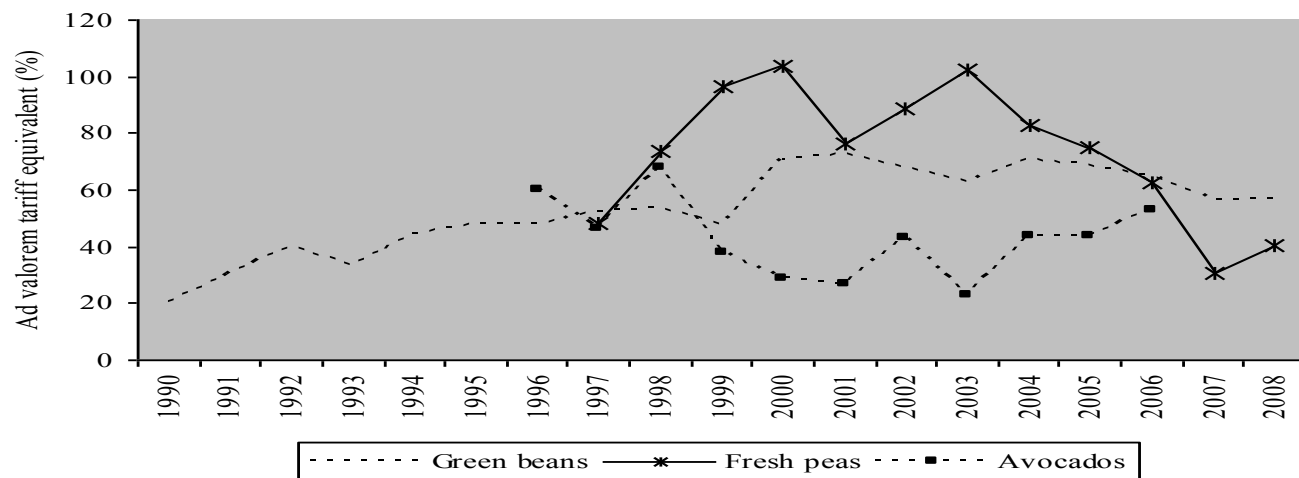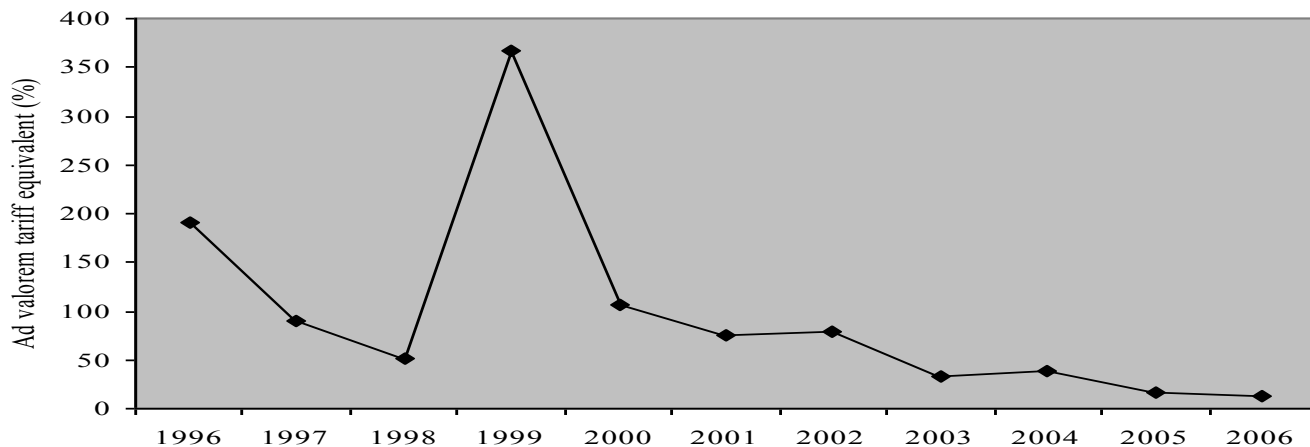

Figure 4. Evolution of annual mean values of ad valorem tariff equivalent of NTB on fish imports

AGRODEP Members' Meeting & Workshop, June 6-8, 2011, Dakar, Senegal

Concluding remarks

- -The NTMs analysed have a tariffication effect as they show assymetric compliance costs between African and European suppliers.

- - Increasing foreign aid to help alleviate compliance costs through capacity building in African countries should stimulate trade of high-value FFV & fish products.

- - Complete trade liberalization between ACP and EU countries in the framework of the Economic Partnership Agreements (EPA) has to account for also these price-effects from NTB.

- - Strong differences in tariff equivalent among EU coutries despite the single EU market. Hence, bilateral negotiations with private actors are more approprirate to deal with these trade issues.

AGRODEP Members' Meeting & Workshop, June 6-8, 2011, Dakar, Senegal