

# The Measures and the loss - Case Study on non-tariff barriers related to veterinary export certificates in Dutch exports

Achterbosch T.J.<sup>1</sup> and Rau M.-L.<sup>1</sup>

<sup>1</sup> Agricultural Economics Research Institute (LEI), Den Haag, The Netherlands

*Abstract*—Case study research into the mandatory veterinary requirements on Dutch exports of live animals and animal products provides empirical evidence on the trade effects of nontariff measures (NTMs). The paper discusses the analytical approach to assess how veterinary health attestation may create (temporary) obstacles for Dutch exports, what these obstacles are, and whether competing exporters in EU countries have encountered similar barriers. We have a dataset on 166 cases in 2004-06 where the process of issuing veterinary certificates for Dutch exports to non-EU destinations was disrupted. Products covered are animal-based products, live animals and feed. We use a sample of 30 cases that continued after 2006, the ‘long-lasting problems’, and 39 cases that came up and got solved between 2004 and 2006, the temporary problems. The main challenge is to link the available record of recognition problems to the disruptions in exports. In order to assess trade disruptions, statistical tests of outliers and trend breaches are performed on detailed monthly trade data, and the issue of not-observed trade needs to be addressed. This raises the need to address disruption patterns around the imposition of measures in trade. The alternative patterns under examination are (i) measures that have an immediate trade impact, (ii) measures due to which trade gradually expands or reduces, and (iii) measures that divert trade to alternative export destinations. Finally, we want to examine whether the impact of veterinary health attestation on trade can be specified towards the type of trade barrier. For that, we suggest to introduce a distinction between three different types of barriers, based on whether obstacles relate to the non-conformity of products to import requirements or a failure in the conformity assessment or both.

*Keywords*— non-tariff measures, conformity assessment, animal products

## I. INTRODUCTION

Governments use various measures ranging from import bans, quarantine to food safety requirements as import conditions in order to minimise food safety and health risks associated with imports of agri-food products. Such risks relate to the possible health hazards caused by foreign products, including the importation of invasive species or diseases that are harmful or perceived harmful from a health point of view and can cause damage for domestic producers. While protecting health of humans, animals and plants in the importing country, food safety requirements also help to globally manage and eradicate infectious diseases, thereby contributing to a global public good. These motives provide rationale for governments to require that both domestic and foreign products satisfy certain food safety and health standards.

As opposed to traditional trade policy measures, food safety requirements are non-tariff measures (NTMs), and their potentially trade-restricting effect is often emphasised. Trade impediments are likely to occur if the requirements of importing countries are tighter than national ones and vary across importing countries such that exporters have to meet several different requirements to supply foreign markets. However, the trade effect is difficult to ascertain, and it has only recently been acknowledged that requirements for exporting agri-food products can also promote trade (see for example [1]). Opening the door for controlled imports, they can be considered to facilitate the exchange of agri-food products, and in their absence, quarantine measures and import bans are the only alternative to effectively reduce or rather eliminate food safety and health risks.

Import requirements play a particularly important role in trade of products of animal origin that can present serious health hazards. In international trade of meat, dairy products and live animals, import

requirements refer to the health status of the herd, handling as well as processing of raw animal products into consumer goods. While meeting additional quality specifications according to the demand and preferences of buyers, firms dealing with animal products apply sanitary control and monitoring measures so as to satisfy the food safety and health requirements necessary. For exporting, firms usually have to obtain official certificates that attest compliance with the respective governmental requirements.

This paper focuses on trade impediments that Dutch exporters of animal products face with regard to export certificates. The Dutch case study presented refers to on-going work on the quantitative analysis of the trade effect of NTMs. With empirical evidence by large missing, the goal of the paper is to discuss the analytical approach to measure the trade effect of NTMs and its application to the Dutch case study of export certificates for products of animal origin.

## II. EXPORT CERTIFICATES IN TRADE OF ANIMAL PRODUCTS

The regulatory framework to control food safety and health issues can generally be divided into the main elements of requirements, conformity assessment and enforcement, Figure 1 gives examples of the three elements of the regulatory system. As illustrated, export certificates can be considered to involve all three elements. That is export certificates contain requirements, and for those consignments of products that satisfy the necessary tests of requirements exporters receive export certificates.

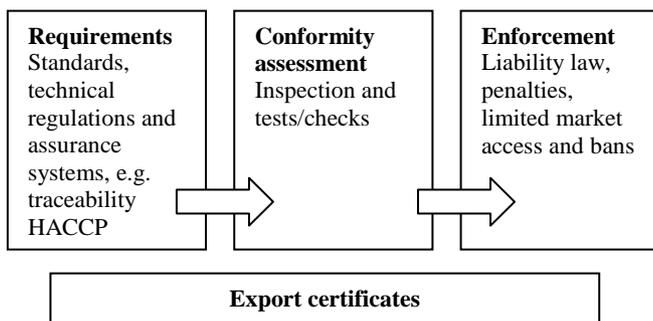


Fig.1 Certificates in the regulatory framework for food safety and health.

With the border checks, exports products have to be accompanied by valid export certificates in order to be allowed on the market of the importing country. This paper thus uses the regulatory framework presented in order to elaborate on export certificates in the international trade of animal products.

Export certificates refer to both product and process standards, including management and monitoring systems along the entire food supply chain that are increasingly implemented and aim at reducing the probability that the production and consumption of products result in hazard for humans, animal and plant health. The requirements stated in export certificates can be those of the importing country, the exporting country or a mixture of both. Most importantly, export certificates stipulate that the exporting country must be free of certain infectious animal diseases, such as foot and mouth disease, Rinderpest or BSE in order to protect the disease-free status in the importing country, or to accommodate other animal health and food safety objectives. This makes export certificates specific to pairs of trading partners, and exporters may have to qualify for several different export certificates according to their export destinations.

While negotiated by the respective authorities of importing and exporting country, the contents and format of certificates is mainly determined by the importing country, and thus reflect the domestic requirements of the importing country. According to the WTO trade rules, import requirements are not to exceed domestic requirements. However, importing countries can impose further reaching and different food safety and health standards under the Sanitary and Phytosanitary Agreement, and include them in the respective export certificates. Based on scientific information and international agreement, the World Organisation for Animal health (OIE) provides guidelines for devising export certificates for animal products. The OIE's Terrestrial Animal Health Code, for example, recommends procedures to prepare, formulate and implement veterinary and health certificates required for exporting [2]. The OIE also provides templates of model certificates for different types of animal products that trading partners can adapted to their specific agreement on requirements.

Conformity assessment verifies compliance with respective food safety and health requirements that

either do not show in product characteristics or are difficult to ascertain without specific testing. In order to obtain the necessary export certificate, firms who wish to export may have to undergo additional tests if the requirements of the importing country are different from those in the exporting country. The governmental veterinary service in the exporting country or other competent authorities, sometimes involving approved third party conformity assessment, conduct the necessary tests and subsequently issue export certificates on consignments of compliant products. Alternatively, firms may be approved for exporting, and receive general export licenses via certification or pre-listing. While both export certificates and licenses mean costs for exporters, obtaining export certificates seems to be more expensive due to the batch-wise system.

Officials in the exporting country usually sign the export certificates, and thus assume the responsibility for the claims of compliance made. For the importing country, the governmental stamp supplies the certificate with the necessary trustworthiness and signals the integrity of the foreign product. Export certificates thus enable trust between both the respective governmental authorities and firms in the exporting and importing country, thereby facilitating trade. In comparison to other food safety and health control measures applied in international trade, export certificates may also be trade promoting since they bundle the information necessary for controlled imports. Based on negotiations between country pairs, they on the one hand involve two-way information flows and reduce transaction costs for governments in both the importing and exporting country. On the other hand, export certificates also lead to lower transaction costs of firms that wish to export and do not separately have to proof compliance with import requirements.

### III. THE DUTCH CASE STUDY

The specific aim is to assess how veterinary health attestation may create (temporary) obstacles for Dutch exports, what these obstacles are, and whether competing exporters in EU countries have encountered similar barriers. We have a dataset on 166 cases where the process of issuing veterinary certificates for Dutch exports to non-EU destinations was disrupted. The

data is derived from the proceedings of the Veterinary Export (VEX) committee of the Dutch ministry of agriculture, nature and food quality (LNV), for 2004-06.

Products covered are animal-based products, live animals and genetic material and feed. Interestingly, the data record a strong overrepresentation of live animals and genetic material (Fig.2). This is particularly striking in relation to the small share of live animals and genetic material in total exports that require veterinary export certificates.

Out of the total of 166 cases we select two samples for further analysis: a sample of 30 cases that continued after 2006, the ‘long-lasting problems’, and 39 cases that came up and got solved between 2004 and 2006, the ‘temporary’ problems.

The information reported on Dutch exports shows that two types of problems exist. At the firm level, problems occur in the compliance of the respective requirements of the export certificate, and they could be related to compliance costs, including the fees for obtaining the export certificate. Less important in the Dutch case, expected that recognition failure – langue of certificate, finding agreement and lack of recognising testing methods - much more important and time-consuming. Problems relate to governmental level.

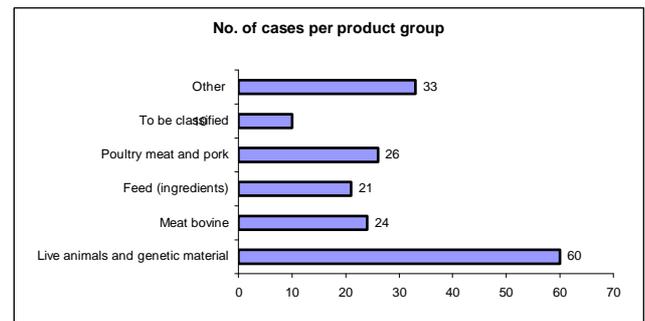


Fig. 2, Frequency of cases reported by the Dutch exporters according to product group, 2004-2006.

#### IV. ANALYTICAL APPROACH TO MEASURE TRADE EFFECT

With the use of statistical and econometric analysis the dataset is analyzed to answer the following questions:

1. To what extent have the recognition problems related to veterinary export certificates impeded Dutch exports to third countries?
2. For problems related to export certificates that affected not only Dutch trade but also several other EU exporters, were Dutch exports more or less impeded by problems than their EU competitors?

The main challenge is to link the available record of recognition problems to the disruptions in exports. In order to assess trade disruptions, statistical tests of outliers and trend breaches are performed on detailed monthly trade data, and the issue of not-observed trade needs to be addressed. This raises the need to address disruption patterns around the imposition of measures in trade. The following alternative patterns are under examination:

- (i) Measures that have an immediate trade impact;
- (ii) Measures due to which trade gradually expands or reduces;

- (iii) Measures that divert trade to alternative export destinations.

The patterns themselves are important contributions to the NTM literature. Finally, we want to examine whether the impact of veterinary health attestation on trade can be specified towards the type of trade barrier. For that, we introduce a distinction between three different types of barriers, based on whether obstacles relate to the non-conformity of products to import requirements or a failure in the conformity assessment or both.

#### REFERENCES

1. World Bank (2005) Food safety and agricultural health standards: challenges and opportunities for developing country exports. Report no. 31207, Poverty Reduction & Economic Management Trade Unit and Agriculture and Rural Development Department, The World Bank, Washington DC
2. OIE (2007) Terrestrial animal health code, World Organization for Animal Health, Geneva, at <http://www.oie.int/eng/normes/mcode/en.htm>
  - Author: Thom Achterbosch
  - Institute: Agricultural Economics Research Institute LEI
  - Street: Alexanderveld 5
  - City: 2585 DB The Haag
  - Country: The Netherlands
  - Email: Thom.Achterbosch@wur.nl