4-13-2022

Something Fishy in Seafood Trade?

Kathy Baylis

Lia Nogueira

Linlin Fan

Kathryn Pace

AGRICULTURAL ECONOMICS

April 13, 2022

agecon.unl.edu/cornhuskereconomics

Cornhusker Economics

Something Fishy in Seafood Trade?

The safety of food imports continues to be in the spotlight. Globally, each year, contaminated food causes almost 1 in 10 people to fall ill and 420 thousand people to die (WHO, 2017). Protecting consumers from unsafe foods is complicated by the increased role of international trade in our food system. The U.S. Centers for Disease Control and Prevention found that disease outbreaks associated with imported food increased from 1996 to 2014, with fish and produce being the main culprits (Gould et al., 2017). For example, in 2019, two separate cases of tuna from Vietnam were found to have sickened over 60 people in the United States (FDA, 2020), and two years before, over 40 people were sickened by an outbreak of histamine poisoning in France caused by tuna imported from Reunion Island (Velut et al., 2019). Although increased scrutiny at the border has the laudable goal of protecting health, food import rejections may be subject to pressure for import protection. Given that border inspections are limited, if food inspections are directed to products that threaten the domestic industry, they may not be optimally targeting products that threaten domestic health. In the article titled "Something Fishy in Seafood Trade? the Relation between Tariff and non-Tariff Barriers" recently published in the American Journal of Agricultural Economics, we ask whether the application of food import rules has been influenced by demand for protection.

As the use of tariff barriers is restricted by trade agreements, domestic pressure for import protection may shift to demand for less transparent non-tariff barriers (NTBs) (Copeland, 1990).[1] To limit the protectionist use of food safety standards as NTBs in agriculture and food trade, the World Trade Organization (WTO) established sanitary and phytosanitary (SPS) rules to require that any food import standards must be justified by scientific evidence that proves the barrier is necessary to protect human, animal, or plant health. That said, previous work demonstrates that SPS standards can act as barriers to trade. Although flexibility is necessary for creating rules around SPS standards, this flexibility also leaves room for protectionist motives to influence the implementation of NTBs. This article explores the motives behind NTBs, asking whether NTBs increase as tariff rates fall, and whether they are more intensively used by countries and products that have a large domestic demand for protection. We explore these questions by considering the seafood trade with the European Union (EU).

We use detailed information on EU import notifications and refusals for seafood products from 2005 to 2018 at the six-digit Harmonized System (HS) code product level to estimate the effect of a change in tariff rate on the number of notifications imposed by an importer on a specific product.[2] Notifications occur when a member state of the EU determines that a product does not meet EU standards, and the product is either flagged, pulled from the market, rejected at the border or destroyed. We then consider the stated reason for the notification and split mild hazards, such as faulty labeling, from more severe health concerns, such as salmonella. We also split the notification data by those products that were finally allowed entry into the EU and those that were not. We

[1]We define non-tariff barriers to include trade restrictions, such as an import quota, an import ban, or product standard that may or may not have a protectionist intent but that has the potential to reduce trade flows.

[2]Import notifications include outright import rejections, recalls and information notices on import food products.

find that a decrease in tariffs brought about by a trade agreement is associated with an increase in NTBs as measured by import notifications. Further, we find this effect is much larger for those notifications where the health hazard is small and the products are denied entry into the EU. In summary, we find that although food notifications are correlated with product and exporter characteristics that reflect risk, they also appear to be influenced by the demand for import protection.

Previous empirical research has found that standards and the resulting food import rejections or notifications act as trade barriers especially in the short run and for small, developing countries. What previous research fails to address is the reason behind these rejections and notifications. This article contributes to the literature by empirically examining the relationship between tariff rates and NTBs in seafood trade, specifically by asking whether NTBs are used as a substitute form of protection when trade agreements drive tariff rates down.

The EU, one of the world's largest seafood importers, tracks import notifications through the RASFF system. Using a count of these notifications by the importer, exporter, product code, and year, we find that as trade agreements mandate decreases in tariff rates, the number of notifications increases.

We include explanatory variables related to risk and protectionist characteristics to separate the effects that risk and demand for protection have on notifications. Importer and exporter country fixed effects are included to control for characteristics not explicitly included in the other explanatory variables. We find evidence that exporters that have lower income and received notifications last year, which one might believe is associated with having a higher probability of a safety problem, get more notifications than low-risk exporters. Similar results are found for high-risk products, determined primarily by perishability. Thus, we see evidence that EU import notifications do target risky products.

More than risk appears to be at play, however. We find evidence that a reduction in tariff rates is associated with an increased use of non-tariff barriers. Analysis also shows that when importers are threatened by relatively lower-priced goods, they are more likely to issue a notification. These results suggest that the demand for protection plays an important role in the number of notifications issued.

We further test our hypothesis by comparing those notifications of specific low-risk claims against high-risk diseases, such as salmonella, E. coli, and shellfish poisoning, on the assumption that low-risk notifications may be more subject to protectionism. We find that of notifications that result in products blocked from entering the EU, mandated decreases in tariffs are associated more closely with low-risk notifications. We also run a number of tests to explore the veracity of our tariff data, our sample, and our functional form assumptions, and find that our results are robust. Although it is true that SPS standards must have valid and testable backing in science, we show that NTBs may still be used to suppress competition in the EU.

WTO requirements are set in place to ensure SPS standards are only used for scientifically backed health and safety protection but do not appear to be working as intended. The results for this article show that the implementation of standards may be used directly for protectionist purposes. Policymakers should take the flexibility in standard implementation into consideration when designing trade rules. As they stand, rules for the implementation of SPS standards are not strong enough to prevent the intentional use of NTBs.

We see clear benefits to having NTBs in the form of import standards and notifications. Even if they are directed purely at unsafe imports, one would expect these barriers to limit trade, but if they benefit domestic health, then the benefits could well exceed their cost. Our concern in this article surrounds the appropriate use of these notifications. We acknowledge that protectionism may not necessarily pose a public health concern. However, with limited inspection budgets, the consumer welfare gains could conceivably be improved at the margin by taking efforts currently directed to those imports that threaten domestic production and moving them to target a few more risky products.

In the case of the EU, allowing individual member states to interpret and implement standards may be a problem. All EU members must meet minimum EC standards (set by the European Commission), but it appears that countries with stronger protectionist motives are using a stricter interpretation and implementation of EC standards to block imports. Because we observe this effect for different countries within the EU, it raises the concern that countries outside the EU that have more latitude in setting individual standards might be even more likely to use food safety regulations as trade barriers.

This article is based on:

Baylis, Kathy, Lia Nogueira, Linlin Fan, and Kathryn Pace. 2022.

"Something Fishy in Seafood Trade? the Relation between Tariff and non-Tariff Barriers."

American Journal of Agricultural Economics 1–23. https://doi.org/10.1111/ajae.12303

References

Copeland, Brian R., 1990. "Negotiable and Non-Negotiable Trade Barriers." *Canadian Journal of Economics* 23(1): 84–108.

FDA. 2020. "Outbreak Investigation of Scombrotoxin Fish Poisoning: Yellowfin/Ahi Tuna (November 2019)." https://www.fda.gov/food/outbreaks-foodborne-illness/outbreak-investigation-scombrotoxin-fish-poisoning-yellowfinahi-tuna-november-2019, Accessed February 2021.

Gould, L. Hannah, Jennifer Kline, Caitlin Monahan, and Katherine Vierk. 2017. "Outbreaks of Disease Associated with Food Imported into the United States, 1996-2014." *Emerging Infectious Diseases* 23(3): 525–8.

Velut, G., F. Delon, J.P. Mérigaud, C. Tong, G. Duflos, F. Boissan, S. Watier-Grillot, M. Boni, C. Derkenne, A. Dia, G. Texier, P. Vest, J.B. Meynard, P.E. Fournier, A. Chesnay and V.P. de Santi. 2019. "Histamine Food Poisoning: A Sudden, Large Outbreak Linked to Fresh Yellowfin Tuna from Reunion Island, France, April 2017." https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2019.24.22.1800405, Accessed February 2021.

World Health Organization (WHO). 2017. "The Burden of Foodborne Diseases in the WHO European Region." https://www.euro.who.int/__data/assets/pdf_file/0005/402989/50607-WHO-Food-Safety-publicationV4_Web.pdf, Accessed February 2021.

Kathy Baylis
Department of Geography
University of California Santa Barbara

Lia Nogueira
Department of Agricultural Economics
University of Nebraska-Lincoln
402-472-4387
lia.nogueira@unl.edu

Linlin Fan
Department of Agricultural Economics,
Sociology and Education
Pennsylvania State University

Kathryn Pace
School of Social Work
Columbia University