

Extended Abstract

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Paper/Poster Title	Survival of agri-food exports. Firm-level evidences from Hungary
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Abstract prepared for presentation at the 98th Annual Conference of The Agricultural Economics Society will be held at The University of Edinburgh, UK, 18th - 20th March 2024.

Abstract	200 words max
<p>The study explores the often-overlooked aspect of trade relationship duration, highlighting a discrepancy between observed export data and predictions from trade models based on monopolistic competition. Existing models fail to account for the frequent market entries and exits and the short duration of export spells. The new trade theory suggests that more productive firms, facing fixed costs associated with exporting, are likely to persist in the export market despite initial challenges. However, empirical data reveals a substantial rate of discontinuation in the early years of export endeavours.</p> <p>Focusing on the agri-food sector, particularly the Hungarian agricultural industry post-European Union accession, the study addresses the lack of detailed examinations in this area. Utilizing a comprehensive Hungarian firm-level database covering the years 2005 to 2019, the research employs survival analysis techniques, including Kaplan-Meier estimators and discrete-time logit models. The findings indicate that businesses with parent companies in other countries are more likely to have long-term trade survival. The study considers product-level, regional, and county fixed effects, revealing that economic conditions, neighbouring countries, and regional trade agreements impact trade duration. Notably, distance negatively affects survival probability, while EU membership alone has no significant impact. The study provides a nuanced understanding of trade dynamics in the Hungarian agri-food sector, offering reliable estimates based on a detailed dataset with firm-product destination-level observations.</p>	
Keywords	Trade, Survival analysis, Product-region-country fixed effect
JEL Code	C10, C41, F10, Q17
Introduction	100 – 250 words
<p>The duration of trade relationships has received less attention (Peterson et al., 2017). Yet, the implications of new trade theory are not consistent with observed data related to export duration. duration. Trade models that rely on monopolistic competition, whether with symmetric or heterogeneous firms, fail to account for the frequent occurrence of entries and exits in the market, as well as the short duration of export spells. According to the new trade theory, firms that are more productive and have a greater chance of surviving in the export market are favoured when there are fixed</p>	

costs associated with exporting (Melitz & Redding, 2015). Despite encountering temporary adverse impacts, exporters may choose to continue their export operations in order to avoid incurring fixed re-entry expenses. Nevertheless, empirical data indicates that there is a substantial rate of discontinuation within the initial years of engaging in export endeavours.

With the increasing availability of detailed firm-level data, researchers are increasingly utilising this information to examine the factors that influence the duration of trade. However, a limited number of studies have examined the trade dynamics of agri-food products using such detailed data. These studies have a distinct characteristic of focusing on a specific sector, such as seafood (Straume 2017; Asche et al., 2018; Straume et al., 2020; Yang et al., 2021) or wine (Landaruzi-Tveetras, 2021). Nevertheless, the paper primarily centres on the agri-food sector, which is essentially non-existent.

The study intends to address this deficiency by utilising Hungarian firm-level data. Specifically, we focus on the period after Hungary joined the European Union. Given its historical background, the Hungarian agricultural sector exhibits a distinct market structure and development, making it imperative to scrutinise the export activities of Hungarian firms.

Methodology

100 – 250 words

We use a detailed Hungarian firm-level database. Our database consists of the universe of Hungarian firms with more than 5 employees in years between 2005 and 2019. It combines data from the firms' balance sheets and earnings statements and detailed export data from the Hungarian Customs Statistics. In the balance sheet and earnings statement data we observe sales, employment, fixed assets, various cost measures including expenditures on labour and materials, as well as ownership structure (foreign-owned, domestic state-owned, domestic privately owned). The Customs Statistics report data on essentially all export and import flows, both as value and quantity, of each firm by 8-digit HS (Harmonized System) product category, partner country and year. We also merged our dataset with the CEPII Gravity database to employ in the models the variables usually used in the trade literature.

Duration analysis of export is estimated by the survival function, using the nonparametric Kaplan-Meier product-limit estimator (Cleves et al., 2010). Beyond a descriptive analysis of the duration of trade, we are interested in the factors explaining survival. Following Hess & Persson (2011), we estimate a discrete-time models logit model into which product-level, region and county fixed effects are incorporated to control for unobservable heterogeneity.

Results

100 – 250 words

According to the Kaplan-Meier estimators, businesses that have parent companies located in other countries have a greater chance of long-term survival in terms of trade duration. In light of the fact that there are distinct variations among products, regions, and counties, it is essential that the models take into account these

heterogeneities. Through the utilisation of discrete-time logit models, we investigate the factors that are responsible for the duration of the trade. The duration of trade at the product-firm level is lengthened by factors such as the economic situation (GDP) of the partner country, the countries that are neighbouring the partner country, and regional trade agreements (RTAs). In the complete model, when controlling for fixed effects at the product and county levels, distance has a negative impact on the probability of survival, while membership in the EU has no effect in and of itself.

Discussion and Conclusion

100 – 250 words

The duration of trade in a region that has been less extensively studied is the primary focus of our current study, which, in comparison to earlier studies, features a more comprehensive data structure. In the Hungarian agri-food sector, we determine the length of time that trade has been going on. When compared to earlier studies, we have firm-product destination level observations for the entire industry, not just for a single product. This enables us to generate estimates that are more reliable than those obtained from earlier analyses.

Companies that have parent companies located in other countries have a greater chance of surviving for the duration of the trade. This may imply that there is a more extensive network of trading relationships for companies. If they withdraw from their relationship with a previous partner, there is a greater possibility that they will be able to find a new partner for their products in the country that they are targeting.