

The Impact of Sanitary, Phytosanitary, and Quality-related Standards on the Trade Flow between CAREC Countries and Georgia

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Background

- There is an increasing policy interest and academic debate on **food safety regulations** and their effect on the agri-food trade
- Food Safety standards are perceived as non-tariff measures (NTM) that are alternative to tariffs – they serve as a policy instrument and can affect trade flows ([Santeramo & Lamonaca](#), 2018)
- Some authors ([Kareem et al.](#), 2015; [Arita et al.](#), 2015; [Song & Chan](#), 2010) discuss “**standards as barriers**” and argue that food safety standards have an adverse effect on trade
- Other studies ([Cardamone](#), 2011) support the “**standards as catalysts**” view and claim that food safety regulations have positive effects on agri-food trade due to the demand-enhancing effect of standards

Study Objectives

The foremost goal of this study is to analyze the potential impact of Georgia's food safety regulations and standards on country's agricultural trade with CAREC countries

- The study determines the extent of harmonization as **perceived by exporters** with respect to the major SPSs and quality measures which Georgia has been implemented since the Association Agreement (AA) with EU:
 - 1) Quality-related technical regulations
 - 2) Phytosanitary
 - 3) Labeling, marketing and packing requirements
 - 4) Border-Quarantine Control



Methodology

- Analyze **trade flows between Georgia and CAREC** members to identify Georgia's key CAREC trade partners and the respective major export-import commodities of those countries
- Identify **the main SPSQ and standards** affecting trade (desk research, expert interviews)
- Calculate the **stringency index**
 - We developed a simple, closed-ended questionnaire, tested, and applied to the corresponding export firms, key experts, and associations, to measure their perceptions of the stringency of the selected regulations and standards among Georgia and CAREC countries
 - The stringency perception scale is from 0 to 7, where 0 represents a lack of stringency and 7 represents a very high level of stringency
 - We calculated the aggregate stringency index as a simple average of the scores assigned by each respondent to regulation or standard n of destination country i
- Employ a **Gravity Model** approach
 - We estimated the Gravity model ([B. Miran, 2013](#)) using a disaggregated stringency index by different regulation dimensions

Georgia's Agricultural Trade with CAREC countries: An Overview



Currently, CIS countries and CAREC countries represent Georgia's major trade partners

For the past years, **Azerbaijan, Kazakhstan, and China** have been the three main agri-food trade partners of Georgia in CAREC region

- Georgian agriculture product imports were more evenly divided between Azerbaijan, Kazakhstan, and China
- The total imports of agriculture products from the same three countries were below 70 mln. USD in the last year, and about 47% of it were originated from Azerbaijan
- **Cereals** (HS code 10) were leading the **imports** (21 mln. USD) from abovementioned three partners in 2018, while the second biggest import group (8 mln. USD) was edible vegetables and certain roots and tubers (HS code 07)

Georgia's Agricultural Trade with CAREC countries: An Overview

- As for the **exports**, export value of agri-food products directed to **Azerbaijan** accounted for more than 49 mln. USD - more than the combined exports in Kazakhstan and China in the same year in 2018
- In 2018, the most important product group in terms of Georgia's exports with these countries turned out to be **beverages, spirits, and vinegar** (HS code 22) with corresponding export value exceeding 56 mln. USD.
- **Wine** is the one of the major export commodities accounting for 21% of total agricultural exports of Georgia (Geostat, 2019)
- Parallel to already established export destinations, **China is becoming increasingly** important market for Georgian wine:
 - In 2010, less than a **half percent** of total wine exports were designated for China's market, while in the last year Georgian wine generated almost **10%** of total export revenue in this Asian county's market
- Kazakhstan is gradually losing its importance as an export destination for Georgian wine since 2012 (19% in 2010 versus 5% in 2018)
- Azerbaijan has always been of lesser importance trade partner in terms of wine for Georgia

Overview of Sanitary, Phytosanitary and Quality-related Standards in Georgia and selected CAREC countries

- SPS measures in CAREC countries have yet to be considered a priority in most national development strategies of CAREC countries ([ADB](#), 2019)
- The main challenges to foster agricultural food trade in the region
 - Outdated legislation
 - Poor laboratory capacity
 - Lack of coordination among border controls

Overview of Sanitary, Phytosanitary and Quality-related Standards in Georgia and selected CAREC countries

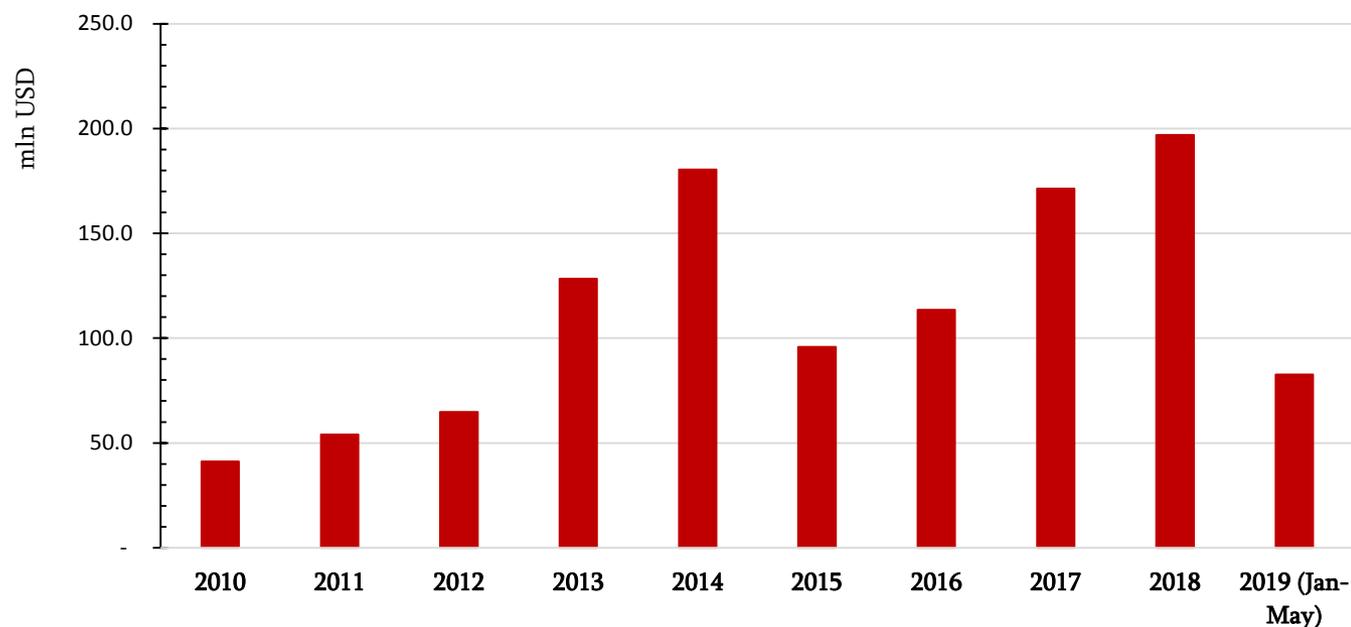
- On 27 June 2014, the **EU-Georgia Association Agreement** was signed, including the Deep and Comprehensive Free Trade Area (DCFTA)
- As part of the obligations under the DCFTA, Georgia has to ensure a high level of food safety and animal and plant health within the country and **harmonize its food safety legislative basis with EU standards**
- The DCFTA is different from other Free Trade Agreements and implies regulatory approximations, **not only for exports, but equally domestically:**
 - *The DCFTA will have consequences not only on Georgia's trade with EU but also with other countries including the CAREC region*

Summary of Main Findings

Based on the statistical analyses following crops were selected for the study purposes: **wheat, live animals** and **wine**

- No limiting SPSQ regulations for wheat and live animals
- **Wine** accounts for 21% of total agricultural exports of Georgia (Geostat, 2019).

Exports of the Wine of fresh grapes from Georgia



Wine: Stringency Index

- To address the effect of SPSQ regulations and standards that have had on export of wine, we employ theoretically motivated gravity model that incorporates multidimensional **stringency index**.

Disaggregated indices for SPS and quality-related measures

Year	Quality Standards	Phytosanitary	Labeling, marketing and packing requirements	Border Quarantine Measures
2018	7.00	6.33	6.67	6.33
2017	7.00	6.33	6.67	6.33
2016	6.33	6.33	6.33	6.33
2015	6.33	6.33	6.00	6.00
2014	5.67	6.00	5.67	6.00



Wine: Stringency Index



- The **perceived stringency** has **either increased, or remained the same for all four SPSQ-related regulations** in wine trade, which in turn might be the effects of newly introduced, or more restrictive regulations tied with the DCFTA and Georgia's commitment to comply with them.
- All four types of regulations **quite restrictive** (average perceived stringency equaled to **5.83** in 2014, and **6.58** in 2018), the Border Quarantine Measure requirements seem to be dealt with the most ease, while Quality Standards are the most problematic to deal with.

Wine: Gravity Model

- Estimated results of gravity model

Variable	Estimated Coefficient	Robust Standard Error	P-Value
lnDIST	-2.80***	0.20	0.000
SINDEX	-3.66	3.06	0.231
DEV	-1.94***	0.48	0.000
TREND	0.56	0.74	0.446
Constant	-1090.65	1467.32	0.457



Wine: Gravity Model

- The standard gravity model variable **distance** is significant. The further the trading partner from Georgia, fewer wine is exported there from Georgia, and the effect is statistically significant at any conventional levels for significance.
- Despite the effect of stringency of SPSQ standards/regulations is not significant, however the sign is as expected. **Stringency** has a sizable **negative** effect on wine trade.
- Georgia's wine **exports** are **lower in high-income countries**, indicating that the county, at the moment, sells relatively cheap wine, and targets low-income consumers. The effects are statistically significant even at 1% level of significance, indicated the strong need for promotion on rich markets;
- The **trend**, although not statistically significant, shows that Georgian wine exports are increasing year by year.



Conclusion and Recommendations (1)

- Study revealed that the Georgia's major trade partners by the volume of exports and imports within CAREC countries are: **Azerbaijan, Kazakhstan and People's Republic of China.**
- Based on the statistical analyses for recent 5 years, study revealed the one of the major export-import agricultural commodity between Georgia and the selected countries appeared to be **wine, live animals and wheat.**
- At this stage for wheat and live animals there are no limiting SPSQ regulations. However, the upcoming regulation on wheat might tighten the control and improve control for imported wheat. This regulation might hinder unregulated trade. As for export of live animals, there are no restrictive regulations in place.

Conclusion and Recommendations (2)

- In case of **wine** study showed that **quality standards** are most problematic to deal with and are most restrictive for trade.
- **Stringency is perceived** but has **not significant effect on trade flows**, however the study showed the negative effect of regulations on wine trade, indicating further need for trade development.
- Study also showed that there is a **need to target on high-income counties**, while now export is more oriented in low-income counties and sell relatively cheap wine.

*Due to the **DCFTA**, in the following years **increasing stringency** on SPSQ standards might affect agricultural trade*

→ government agencies and sectoral associations should tailor their policies to develop their capacities to comply with the collective requirements in order to reduce the potentially negative effects of the regulations.

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Annex

Overview of Sanitary, Phytosanitary and Quality-related Standards in Georgia and selected CAREC countries

- Georgia has gradually developed its national regulatory system in line with the EU standards and its SPS-related legislation is more closely aligned with the WTO SPS Agreement than any other CAREC country
- The People's Republic of China (PRC) has also adopted relatively advanced SPS principles and standards
 - Before their commercialization in or exit from the PRC all imports and exports are listed subject to statutory inspection by the entry and exit inspection and quarantine authorities
 - The PRC has also implemented an e-certification system ([ADB,2019](#))
- Despite Kazakhstan has formally included SPS Agreement principles into their national legislation, country's SPS requirements and practices do not comply with international SPS standards ([ADB,2019](#))
- From selected countries, only Azerbaijan is still not a member of the WTO and its legislation is not aligned to the barest minimum standards recognized by the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) under the WTO

Overview of Sanitary, Phytosanitary and Quality-related Standards in Georgia and selected CAREC countries

Membership in the WTO and International Organizations or Conventions

	WTO	IPPC	OIE	Codex
Georgia	Yes (2000)	Yes	Yes	Yes
Azerbaijan	Observer	Yes	Yes	Yes
People's Republic of China	Yes (2001)	Yes	Yes	Yes
Kazakhstan	Yes (2015)	Yes	Yes	Yes

Source: [ADB](#), 2019

Overview of Sanitary, Phytosanitary and Quality-related Standards in Georgia and selected CAREC countries

- Amongst the selected CAREC countries, Georgia has the most recent legislation on Safety of Foodstuffs and Animal Feed, Veterinary Services and Plant Protection adopted in 2014
 - The law covers both plant protection and veterinary-related legislation
- China's "Law of the People's Republic of China on the Entry and Exit Animal and Plant Quarantine" also comprises plant protection, phytosanitary and veterinary-related legislations
- Azerbaijan and Kazakhstan have separated legislation to control plant and animal health

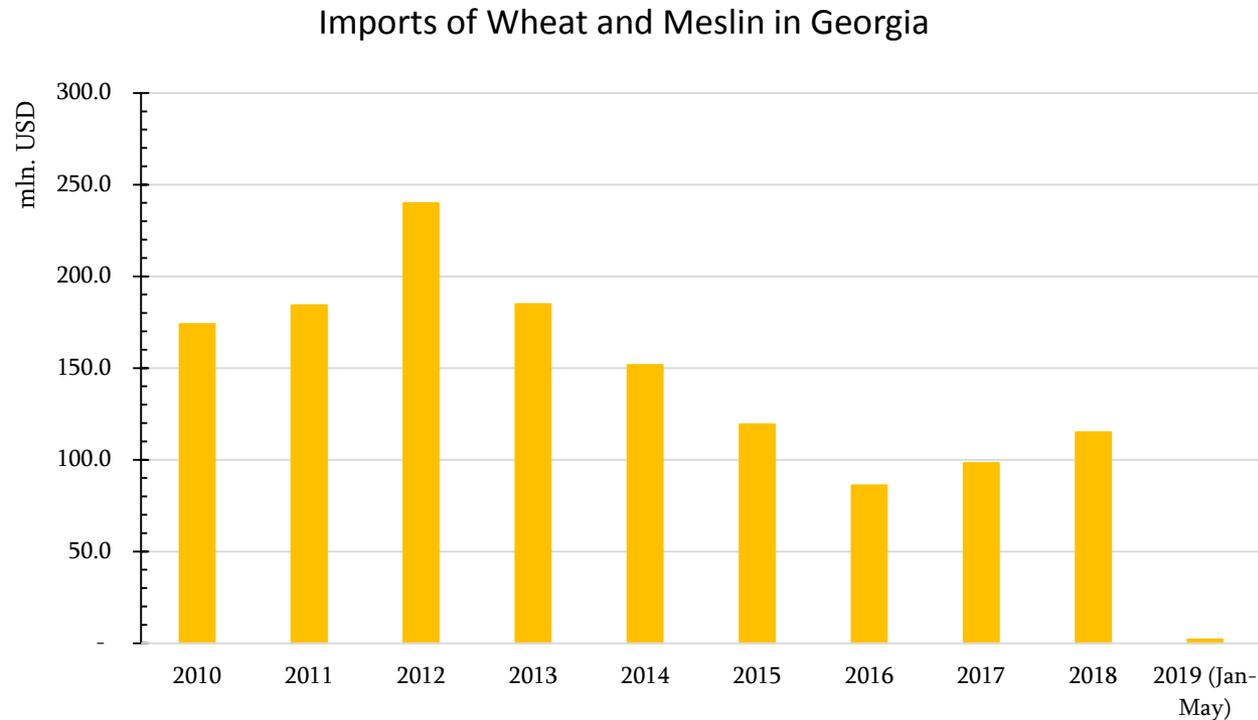
Overview of Sanitary, Phytosanitary and Quality-related Standards in Georgia and selected CAREC countries

Food safety laws vary considerably in the selected countries:

- In Georgia, there is a risk-based approach to food safety, and mandatory hazard analysis and critical control points (HACCP)
- The Law of the Republic of Azerbaijan on Foodstuffs does not directly make reference to HACCP or a HACCP-like system for process control, but follows the ***farm-to-fork approach*** and requires registration of entities and individuals participating in all stages of the food supply chain
- As for PRC, food safety principles are not stated directly in the Food Safety Law; HACCP is not required under this law unless an entity plans to export food
- Similar to PRC, Kazakhstan's Law on Safety of Foodstuffs also does not make a reference to mandatory application of HACCP, but it indicates that the export food products have to comply with the requirements of the importing country

Wheat and meslin

- Wheat and meslin group is among the biggest item in terms of Georgia's international trade with agriculture products.



Source: Geostat, 2019

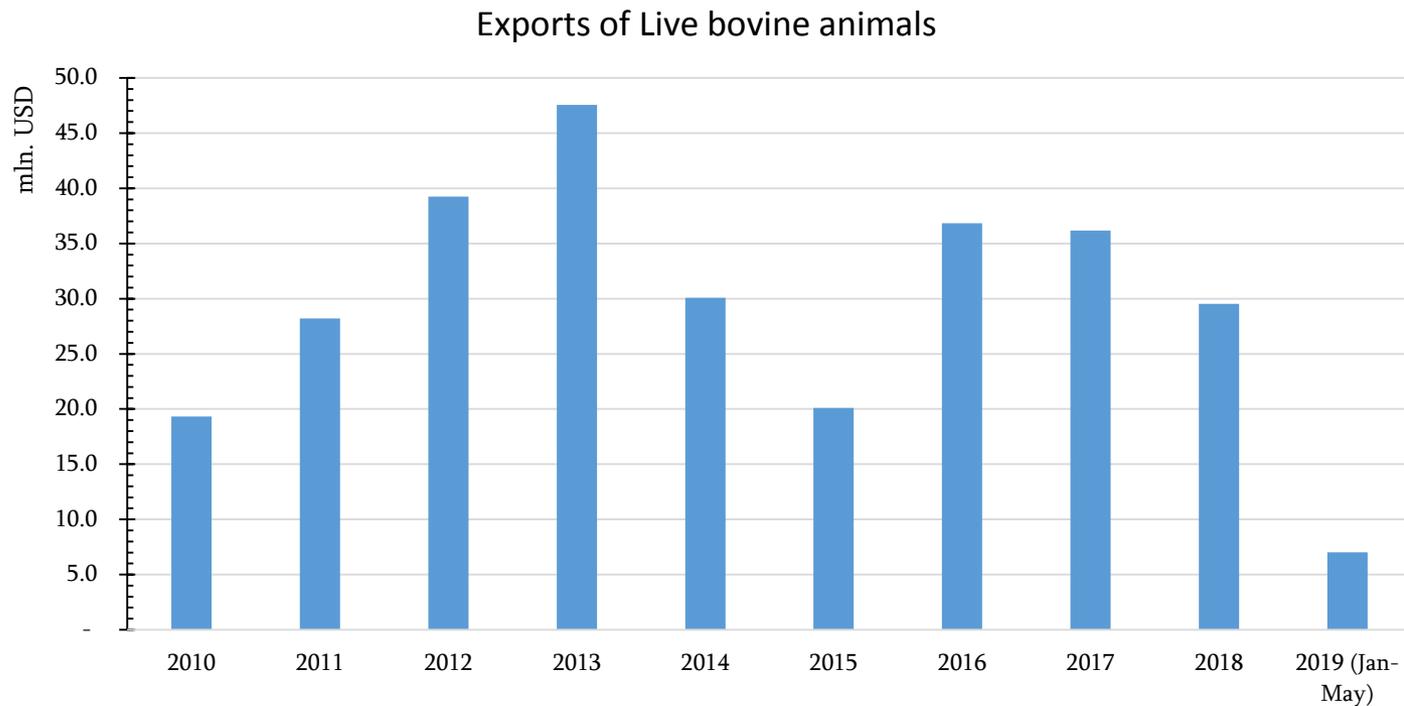


Wheat and meslin

- Decreasing import quantities from Kazakhstan in recent years is related to lower price of wheat in Russia, what makes Russian wheat attractive for Georgian importers. Furthermore, the transportation cost from Kazakhstan is higher than from Russia.
- There is no technical regulation on wheat in place in Georgia, which would set the standards for imported wheat quality and transportation conditions. The absence of regulations encourages importers to import low quality wheat to Georgia.
- Georgian wheat producers have initiated to implement [Technical Regulations on Wheat](#). This regulation will control the quality of both imported and locally produced wheat.

Live bovine animals

- Live bovine animals from live animals' group important subcategory in Georgia's exports list.



Source: Geostat, 2019



Live bovine animals



- Azerbaijan used to be the top destination for Georgia's live bovine animals exports in recent years and practically all of the exports from 2012 through 2014 were sent from Georgia to its eastern neighbor.
- There is technical regulation on meat production which defines veterinary and sanitary rules. Further, Georgia has a technical regulation on rules for labeling of meat and meat products. However, none of the mentioned regulations apply to live animals.
- It was revealed from the interviews that, buyer from Azerbaijan do not have any restrictive requirements, which will hinder the trade; exported live animal easily satisfy the requirements of Azerbaijan's' regulatory framework.