LANDLOCKEDNESS – INTERNATIONAL TRADE – FOOD SECURITY:

Do landlocked countries suffer from food insecurity?

Khurshid ZAFARI
Azamat ISMAILOV
LANDLOCKED COUNTRIES

48 landlocked countries, including partially recognized states; 2 double-landlocked countries (Uzbekistan and Liechtenstein).
Central Asia

The whole Central Asian region is landlocked and there is a general concept that distance from the global sea routes has a negative effect on international trade relations of landlocked countries. The distance from Central Asian countries to the closest port is (Snow et al., 2003):

- Kazakhstan – 3750 km;
- Kyrgyzstan – 3600 km;
- Tajikistan – 3100 km;
- Turkmenistan – 1700 km;
- Uzbekistan – 2950 km.
HYPOTHESES

**H1:** Landlocked countries have poor international trade performance;

**H2:** Poor international trade affects food security;

**H3:** Landlocked countries suffer from food insecurity.
METHODOLOGY

Literature review was chosen to assess the current state of research.

As a separate research method literature review helps us to:

• avoid repeating researches that have already been done;
• collect, evaluate and integrate studies on linkages;
• identify missing joints in our cause and effect chain;
• determine future research topics.
LANDLOCKEDNESS AND TRADE: Supporting

• Gravity model has become a workhorse for assessing and interpreting trade flows between countries;

• For explaining the negative effect of landlockedness on trade performance of geographically trapped countries several scholars applied gravity model (Limao and Venables, 2001; Rose, 2002; Raballand, 2003; Carrere, 2006; Grigoriou, 2007).

The shorter the distance between two objects, and the greater the mass of either (or both) objects, the greater the gravitational pull between the objects.
Findings of many authors who used gravity model are almost similar. Landlocked countries versus coastal ones:

- Import 22% less and export 34% less (Grigoriou, 2007).
- Trade about 28% less (Carrere, 2006);
- Landlockedness reduces country’s trade by more than 80% (Raballand, 2003);
- Cost of overland transportation is 1380 USD per 1000 km while for overseas transportation is 190 USD (Limao and Venables, 2001).
LANDLOCKEDNESS AND TRADE: Arguing

- Most landlocked countries also suffer from poor policies, namely restrictive trade policies and inefficient macroeconomic and monetary policies, inter alia exchange rate regulation (OECD, 2011).

- Besides distance and the size of economies such variables like colonial relations or common past under one colonizer, common or close official languages are also significant for developing landlocked countries (Kharel and Belbase, 2010).
H1: Landlocked countries have poor international trade performance

Supporting
- Limao and Venables, 2001
- Carrre, 2006
- Raballand, 2003
- Grigoriou, 2007

Arguing
- OECD, 2011
- Kharel and Belbase, 2010
TRADE AND FOOD SECURITY: Supporting

• World agricultural supply is relatively stable than in national level as countries may suffer from seasonal disasters, droughts or excessive rainfalls (FAO, 2003).

• Comparative advantage will enhance world agricultural production volume. More food nationally and globally will eventually lead to reducing price of food in the market (World Bank, 2012).

• Protectionist measures deprive agricultural producers of market opportunities that will lead to poor production performance and high prices (Martin and Anderson, 2011).
TRADE AND FOOD SECURITY: Arguing

• In long-term food importing countries may become heavily dependent on world markets that will make them more vulnerable to price fluctuations (De Schutter, 2009).
• Food security is not only about food availability. Nutrition must also be taken into account and trade has little effect on it (Clapp, 2014).
• The role of agricultural trade in providing food security might be overhyped as agricultural goods constitute only 9.2% of all merchandise trade in the world (WTO, 2014).
• About 90% of cereal produced in the world is consumed domestically (World Bank, 2012).
H2: Poor international trade affects food security

Supporting

- FAO, 2003
- Martin and Anderson, 2011
- World Bank, 2012

Arguing

- De Schutter, 2009
- Clapp, 2014
- WTO, 2014
- World Bank, 2012
LANDLOCKEDNESS AND FOOD SECURITY: Supporting

• Central Asian landlocked countries face limited market access, weak regional trading, uncertainty in crop productions, vulnerability to breakdowns in food trade (Chabot and Tondel, 2011).

• Agricultural industry of landlocked countries is often characterized by inflexibility of production structure and low productivity making them dependent on global food market that are not easily accessible for them (Greb and Rapsomanikis, 2015).
LANDLOCKEDNESS AND FOOD SECURITY: Arguing

• Standard deviation of logarithmic returns showed not much volatility in food markets of landlocked countries compared to those of coastal developing countries (Greb and Rapsomanikis, 2015).

• Price spikes in world food markets have limited effect to landlocked countries as their market is hardly integrated to world trade network (Greb and Rapsomanikis, 2015).
Global Food Security Index 2016

Source: EIU, 2016
The FAO Hunger Map 2015

2 landlocked countries with very high level of hunger;
8 landlocked countries with high level of hunger;
5 landlocked countries with moderately high level of hunger.
H3: Landlocked countries suffer from food insecurity

Supporting

Chabot and Tondel, 2011
Greb and Rapsomanikis, 2015
EIU, 2016
FAO, 2015

Arguing

Greb and Rapsomanikis, 2015
Conclusion

- A huge literature studying linkages between landlockedness international trade and trade openness vs food security;
- Direct correlation between landlockedness and food security is scarcely studied;
- Group statistics exhibit low performance of landlocked countries to ensure food security compared to coastal ones;
- Situation with food security in some landlocked countries is much better than in selected coastal countries;
- Differences among landlocked countries must be examined to find out which factors play crucial role in ensuring food security.
Reference

• Carrere, C. (2006), Revisiting the effects of regional trade agreements on trade flows with proper specification of the gravity model, European Economic Review.


• Chabot, Ph. and Tondel, F. (2011), A Regional View of Wheat Markets and Food Security in Central Asia. With a Focus on Afghanistan and Tajikistan. USAID FEWS NET.


• FAO (2003), Trade Reforms and Food Security. Conceptualizing the Linkages.


• Kharel, P. and Belbase, A. (2010). Integrating Landlocked Developing Countries into international trading system through trade facilitation


• Raballand, G. (2003), Determinants of the Negative Impact of Being Landlocked on Trade: An Empirical Investigation through the Central Asian Case. Comparative Economic Studies


• The Economist Intelligence Unit (2016), Global Food Security Index 2016.


• OECD (2011), Estimating the Constraints to Developing Countries Trade. A taxonomy of the binding constraints to trade expansion of landlocked countries, small and vulnerable economies, and commodity exporters.