

The Effect of Globalization on International Trade: The Black Sea Economic Cooperation Case

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Abstract

Globalization including political, social and economic processes is frequently associated with multinational companies and investment, international trade and regionalism, global finance and money. While globalization process reduced activity and control of national governments on their economy and trade their place is substituted by international companies. The national economies on the other hand try to keep pace with the change in economic system by deregulating their international trade barriers via regional trade agreements and economic integrations.

Based on the assumption that the globalization has liberalized their infrastructure of trade, this study investigates the balance of trade in the member countries of The Black Sea Economic Cooperation Organization (BSEC). The data is collected from international trade database of UNCTAD and globalization index of KOF Swiss Economic Institute. The variables are evaluated using panel data analysis and the results have shown that globalization has a significant impact on international trade and the globalization process had a positive effect on the liberalization of trade in the member countries of the BSEC.

1 Introduction

One of the widespread definitions of globalization takes it as an irreversible force, which is being imposed upon the world by some countries and institutions through which an increasingly free flow of ideas, people, goods, services, and capital leads to the integration of economies and societies (IMF, 2002). Economic aspect of the phenomenon refers to the increasing interdependence of world economies as a result of the growing scale of cross-border trade of commodities and services, flow of international capital and wide and rapid spread of technologies. It reflects the continuing expansion and mutual integration of market frontiers, and is an irreversible trend for the economic development in the whole world at the turn of the millennium (Shangquan, 2000: 1).

As an inevitable result of this process the global trade flows benefited from this process substantially. According to the data from WTO merchandise exports grew more than 8% a year by 1950s. Although fluctuations and recession were experienced in this expansion period the increase went on to a degree and the average expansion of world merchandise exports averaged 6% by 2000s. Although the global figures seems appealing, individual performances of the countries aren't so clear because of the deepening in the globalization process which resulted in national governments' losing control over their economy and trade which they tried to keep pace with the change in economic system by deregulating their international trade barriers through regional trade agreements and economic integrations.

Regional integration includes a multitude of steps that increase the competitiveness of participating countries, not just preferential trade access and helps small and remote countries scale up supply capacity in regional production networks which in turn, allows these countries to access global markets (Deichmann and Gill, 2008: 45). However the consequences of the globalization and joining free trade agreements or economic integration are varies from country to country due to their geographical position, the natural resources they have, their level of economic development, etc. In this framework considering that it is formed completely by developing economies, how the globalization process affected international trade performance of BSEC member states is questioned in this study.

2 Globalization and Trade

A radical transformation of economic life is presented with the process of globalization which resulted in the generalization of market economy, increase in production, circulation of information, products, people and capital, implementation of technical systems becomes more efficient (Dăianu, 2009: 211). Nations are no longer self-sufficient in the global economy and they are included in trade at different levels to sell what they produce to obtain what they are in need. The countries usually produce more efficiently in some economic sectors than its trade partners. As supported by conventional economic theory, eventually trade promotes economic efficiency and it can be concluded that the globalization of production is contributing to the globalization of trade (Rodrigue et.al., 2006: 144).

The increase and expansion of the globalisation process were the result of a number of factors. These include the advances in the liberalisation of world trade and capital movements, technological progress that implied a

significant decrease in transport and communication and co-ordination costs. The growing openness of developing and emerging market economies with special emphasis on large economies such as China and India and countries of Central and Eastern Europe is also reflected by the acceleration in globalisation process. The strong increases in both activity and international trade flows practiced the developing and emerging economies reflected this phenomenon to global level (Manteu 2008: 73-74).

In the last period three trends in world economy can be mentioned to shape globalization flows. The value of international trade has grown by a factor of 16 times since the late 1970s. In this regards ongoing growth of international trade, both in absolute terms and in relation to global national income can be taken as the first trend. The growing role of multinational corporations is the next since they are taking the lead in international trade particularly in terms of the share of trade taking place within corporations. And the last is higher relative growth of trade in Pacific Asia as many economies developed an export-oriented development strategy that has been associated with imbalances in commercial relations (Rodrigue et.al., 2013: 19). Empirical evidence suggests that globalization has significantly boosted economic growth in East Asian economies such as China, the Republic of Korea, and Singapore. However not all developing countries are equally engaged in globalization and it can't be said that all of them are benefitting from it equally. In fact, except for most countries in East Asia and some in Latin America, developing countries have been rather slow to integrate with the world economy (Soubotina, 2000: 66). Regarding that the inequalities between the developed, developing and less developed countries the influence of globalization can be questioned.

Current globalization literature cites that pressure of capital mobility, technological progress and intense market competition describes an irreversible force beyond the influence of domestic policy makers. In this policy context globalization is often used as a synonym for greater openness and closely linked to the liberalization of domestic and foreign transactions (Bairoch and Wright, 1996: 3-4). Trade between the countries considering comparative advantage promotes growth, which is attributed to a strong correlation between the openness to trade flows and the effect on economic growth and economic performance. Likewise capital flows and their impact on economic growth adhere to each other with a significant relationship (Pologeorgis, 2010).

International trade is regarded as the engine of growth for long, even going back at least to Adam Smith. However, during the 20th century, it has not been a very popular one and instead protectionist theories became dominant and the majority of the developing countries implemented industrialization policies based on a very limited degree of international openness for a long time (Edwards, 1993: 1358). Conversely after the end of the Second World War international trade get into a new era in which world merchandise exports grew more than 8% a year. By 1973 this expansion slowed down a little bit due to the oil price shocks, the burst of inflation caused by monetary expansion and inadequate macroeconomic adjustment policies, By 1990s the developments in information technology sector led world trade to a second expansion period. The average expansion of world merchandise exports averaged 6% in 2000 - 2007 period (WTO, 2008: 15).

3 Black Sea Economic Integration

Although globalization influence world economy both direct and indirect ways, some of the most common impression of it is related with international trade. Rodrigue et.al., (2006: 145) summarizes these impressions as follows;

- Production systems are more flexible and embedded, which encourages exchanges of commodities and services. Foreign direct investments are commonly linked with the globalization of production as corporations invest abroad in search of lower production costs and new markets.
- There is a growing availability of goods and services that can be traded on the global market.
- Transport efficiency has increased significantly because of innovations and improvements in the modes and infrastructures. As a result, the transferability of commodities has improved.
- Integration processes, such as the emergence of economic blocs and the decrease of tariffs at a global scale, promoted trade. The higher the level of economic integration, the more likely the concerned elements are to trade. The transactional capacity is consequently facilitated with the development of transportation networks and the adjustment of trade flows that follows increased integration.

Taken collectively it is clear that globalization is triggering formation of economic integrations. A vast amount of capital is circulated within the investment system in the globalizing market system in a relatively short amount of time. Because states lose control over exchanges and economic development, they hold a reduced its role in its own economy. Regional trade agreements help nations gradually work towards global free trade through allowing countries to increase the level of competition slowly and give domestic industries time to adjust. The increasing membership of less economically developed countries within the European Union, Southern Common Market, and Asia-Pacific Economic Cooperation is testament to the economic stability offered by regional

economic integrations (Collins, 2010). Another good example for this progress is the establishment of Black Sea Economic Cooperation (BSEC).

The Black Sea region which hosts crossroads between Asia and Europe, people of different nationalities, trades, cultures and religions has been the cradle of different civilizations since ancient times. Being on a specific geography periods of peace and tranquillity were followed by protracted conflicts and wars in the region. However even in that climate the Black Sea area was well-known for its developed trade relations and contacts (Coutsoukis, 2013). Collapse of the Soviet Union due to particularly globalization, beside political structure, economic concept is also changed rapidly and these relations turned into more realistic attempts. BSEC is found in 1992 and The BSEC Headquarters - the Permanent International Secretariat of the Organization of the Black Sea Economic Cooperation was established in 1994. Aiming at fostering interaction and harmony among its members, as well as to ensure peace, stability and prosperity, encouraging friendly and good-neighbourly relations in the Black Sea region, today BSEC serves as a forum for cooperation in a wide range of areas such as agriculture and agro-industry, banking and finance, combating organized crime, culture, customs matters, education, emergency assistance, energy, environmental protection, exchange of statistical data and economic information, healthcare and pharmaceuticals, information and communication technologies, institutional renewal and good governance, science and technology, SMEs, tourism, trade and economic development and transport for its 12 Member States: Albania, Armenia, Azerbaijan, Bulgaria, Georgia, Greece, Moldova, Romania, Russia, Serbia, Turkey and Ukraine (BSEC, 1992).

In the establishment phase establishment of a free trade zone in BSEC was projected which would eventually evolve the organization into a stronger form of integration. However the uncertainties encountered by the ex-Soviet Bloc members and newly independent states, the BSEC did not start off by requiring strong commitments from its members towards any kind of economic integration and it was later agreed that the BSEC would lead to the formation of a regional organization for economic cooperation in a loosely defined sense. Keeping in view that many of the member states were centrally planned economies with practically no private sector development at the time the BSEC was formed and with no well-established links to global markets, this could be considered natural (Sayan, 2005: 336). On the other hand regarding the deepening in globalization and the current economic structure of the region much can be expected.

Although the aims set by the BSEC is comprehensive and appealing whether it fulfils them is questionable. At this point some basic assumptions lying behind economic integration theory may be helpful. Incekara (1995) summarized the common impact of economic integrations on national economies under two main categories as static and dynamic effects;

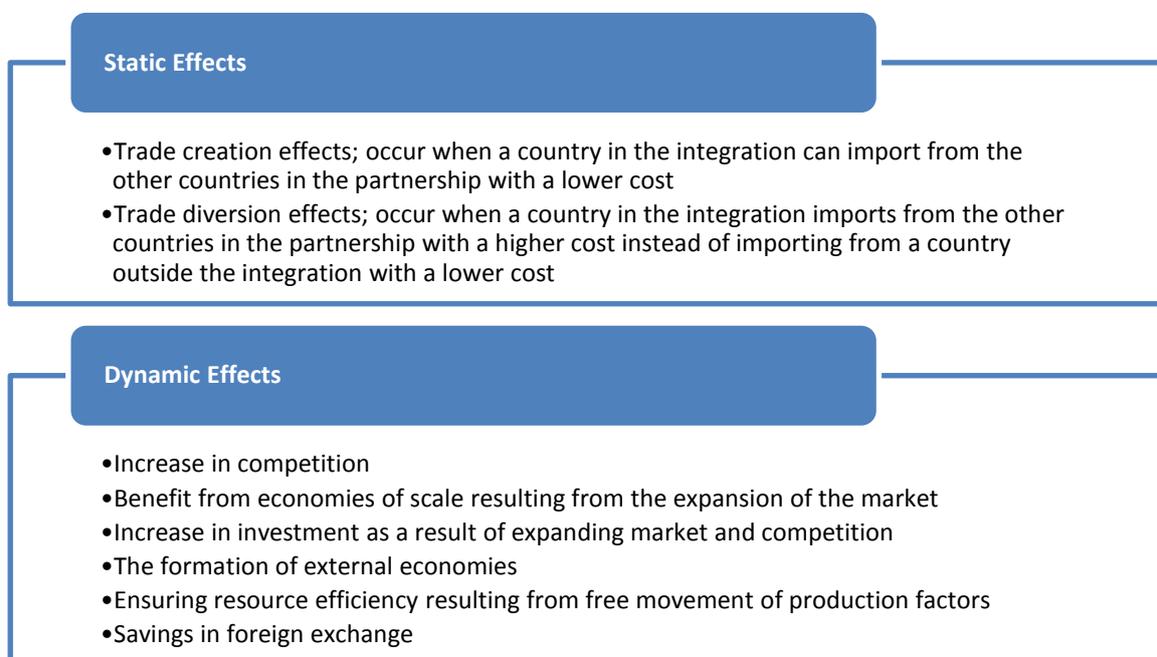


Figure 1. *The Impact of Economic Integrations on National Economies*

Taking the assumptions into consideration, it is evident that the BSEC countries are benefitting from the organization however the degree of it is controversial since there are significant differences between the economies of the members of BSEC. However the main motivation behind the establishment of the organization is regional proximity, which would in turn lead to gains from trade. The production capabilities of the member states are divergent both in manufacturing and service sectors, and factors of production to enjoy such gains as

well as the natural resources that are unevenly distributed among them. There are cases where the basic need of a member country can be met by the factors owned by another member country (Dikkaya and Orhan, 2004: 67).

The private sector is regarded to play a major role in the development of the member economies of the BSEC and so that it aims provide a favourable economic environment for business. Economically, BSEC countries had more than 5% of total world trade amounting to US \$300 billion in 2000. Strategically, over 5% of the world population lives in the BSEC countries and many of them, such as Turkey, are geo-politically important given their proximity to Europe, the Middle East and Asia. The countries of BSEC are also rich in strategic resources such as oil, coal and natural gas (Sriram and Bilgin, 2002: 140).

A short summary presents that emergence and deepening of globalization contribute to world trade on a large scale. Evidences show that although the developed economies with sophisticated economic infrastructure were benefited from globalization process well enough, the status of developing and less developed ones is variable. The same point is eligible for economic integrations which is already a consequence of globalization. In this framework although it is clear that establishment of BSEC is beneficial for its member states to a degree, considering that it is formed completely by developing economies, how the process of globalization affected BSEC can be questioned.

4 Literature Review

Kim and Hangshin (2002) investigated the consequences of globalization and regionalization on world economy. They used longitudinal data on international commodity trade using the social network approach in their study. The result of their study presented that the world became increasingly globalized between 1959 and 1996 and countries joined trade partnerships in this period further than the previous periods. As a result the world trade network became denser. On the other hand another finding of the study presented that all countries weren't integrated into the world economy equally. While developed and developing countries integrated to each other more and more the less developed one stayed behind of the process.

In their study Sriram and Bilgin (2002) investigated foreign trade flows between Turkey-BSEC and Turkey-EU covering the 1991-2001 periods. Their study presents that although fluctuations occurs in general Turkey's both imports and exports towards BSEC is in a rising trend while the volume of trade with EU is more constant.

Mukherjee (2008) investigated the impact of globalization on international trade taking historical perspectives of global economic integration into consideration. The study presents that the trend is towards free trade among all over the world, driven primarily by international trade which is an outcome of competitive liberalization. In this framework globalization plays an important role in enhancing cross-border trades by reducing or removing international trade barriers.

Karagoz Kadir and Karagoz Murat (2009) studied how the gravitational factors affected bilateral trade in BSEC covering a period of 16 years. The study they conducted using panel gravity model introduced that economic size and population of the importer countries have a positive impact on trade volume, where as the distance between them works on the opposite way.

Akram Ch. et. al (2011) investigated the impact of globalization on the world using the international trade, FDI and economic development data. The study they conducted particularly focused on the impact of the globalization process on the fastest growing industries of world. The results of the study showed that while USA was dominant in world export before the globalization process is dense Germany, Japan, South Korea and China have seriously challenged the position of USA in the following period.

Regarding the studies covered in this section it can be concluded that the impact of globalization on world economy is dealt within the framework of particularly international trade from various aspects and this study provides a different perspective of the subject.

5 Model

This study aims to analyze both time dimension with cross-sectional dimensions of various countries. Due to the presence of time and cross-sectional dimensions of the data set covered in the study, use of panel regression analysis is found eligible for the study.

5.1 Data Set

The analysis of the study uses globalization indexes and trade volume data of 12 BSEC Countries covering 1992-2014 period. While the globalization data is collected from KOF Swiss Institute, International Trade in Goods and Services Statistics is collected from UNCTAD database as an index of trade. Although data sets including international trade can go back to beginning of the century regarding the establishment of the BSEC and limitation in globalization index, 1992 is taken as the beginning year.

5.2 Method

In order to avoid spurious relationships between the variables, the variables used in the study should be stationary. Stationary of the variables has been tested with common unit root process developed by Levin, Lin and Chu (LLC) (2002) and assume individual unit root process developed by Im, Pesaran and Shin (IPS) (2003) are performed. The results are summarized in Table 1.

Method	Variable	TRADE	GLOB
Levin, Lin & Chu	stat	-9.8783	-5.1614
	p-value	0.0000	0.0000
Im, Peseran & Shin	stat	-8.5500	-6.4657
	p-value	0.0000	0.0000

Table 1. Panel Unit Root Test

The results of LLC and IPS tests show that displayed that all levels of variables are stationary at 1% significance level in their first difference and they can be used in panel data analysis. In the current analysis countries form the cross section dimension while years are the period dimension. Individual effects of both countries and the years should be estimated. These effects is summarized in equation below in which “i” units are individual and “t”s are the periods.

$$TRADE_{it} = \beta_1 GLOB_{it} \quad (1)$$

Cross-section F	Statistic	d.f.	Prob.
	1.088568	(11,251)	0.3708
Breusch and Pagan LM Test	chibar2(01)	Prob > chibar2	
	0.00	0.4986	

Table 2. F and LM Tests

The equation is estimated using FE and LM tests respectively to determine the appropriate model. Because of the $p > 0.5$ value in the Fixed Effects Test the analysis went along with the LM Test. As the LM test is also resulted in $p > 0.5$ Pooled EGLS model is found appropriate for the current data set.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	104.8612	35.22378	2.976999	0.0032
GLOB	66980.28	32372.66	2.069038	0.0395
R-squared	0.016077	Mean dependent var		70.22043
Adjusted R-squared	0.012321	S.D. dependent var		506.6657
S.E. of regression	503.5347	Akaike info criterion		15.28873
Sum squared resid	66429354	Schwarz criterion		15.31582
Log likelihood	-2016.112	Hannan-Quinn criterion		15.29961
F-statistic	4.280919	Durbin-Watson stat		2.210660
Prob(F-statistic)	0.039523			

Table 3. Pooled EGLS

The results Pooled EGLS Test presented in Table 3 show that the estimated relationship between globalization (GLOB) and international trade (TRADE) is significant ($p < 0.5$) and the direction of this relationship is positive. Finally autocorrelation and heteroscedasticity tests should be implemented to finalize the analysis.

Wooldridge test for autocorrelation	F(1, 11)	Prob > F
	2.283	0.1590
White's test for heteroscedasticity	chi2(2)	Prob > chi2
	1.87	0.3928

Table 4. Correlation and Heteroskedasticity Tests

Wooldridge test for autocorrelation and White's test for heteroscedasticity tests were carried out to test the reliability of the analysis results. The tests rejected both heteroscedasticity and autocorrelation problems and proved that the results generated by the analysis are reliable.

6 Conclusion

Although globalization phenomenon is not new, it's clear that it reasonably expanded its domain after 1980s. The economic outcome of this process set increasing interdependence of world economies forth and scale of cross-border trade of commodities and services increased remarkably. However reflection of these developments on all economies is not the same. While the developed economies with sophisticated economic infrastructure

were benefited from globalization process well enough, the status of developing and less developed ones varies from better to worse. The same topic is eligible for economic integrations which is already a consequence of globalization. In this framework although it is clear that establishment of BSEC is beneficial for its member states to a degree, considering that it is formed completely by developing economies, the impact of globalization process international trade volume of BSEC member states is investigated in this study.

The data collected from UNCTAD and KOF Swiss Economic Institute databases is analyzed using panel regression and the results of the study presented that as it is anticipated according as the economic theory the estimated relationship between globalization on international trade is significant ($p < 0.5$) and the direction of this relationship is positive. In this context it can be concluded that although many of the BSEC member states have limitations such as their being ex-Soviet Bloc members and newly independent states, globalization had positive effect on the liberalization of trade barriers in the member countries of the BSEC and the organization benefits from the process in a favourable way in the sense of international trade.

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