

Study on the Impact of Free Trade Agreement between Mongolia and Eurasian Economic Union

U. Nomintsetseg (Ph.D)

Senior Lecturer, Commerce Program, School of Business, NUM, nomintsetseg_o@yahoo.com

V. Enkhbold (Ph.D)

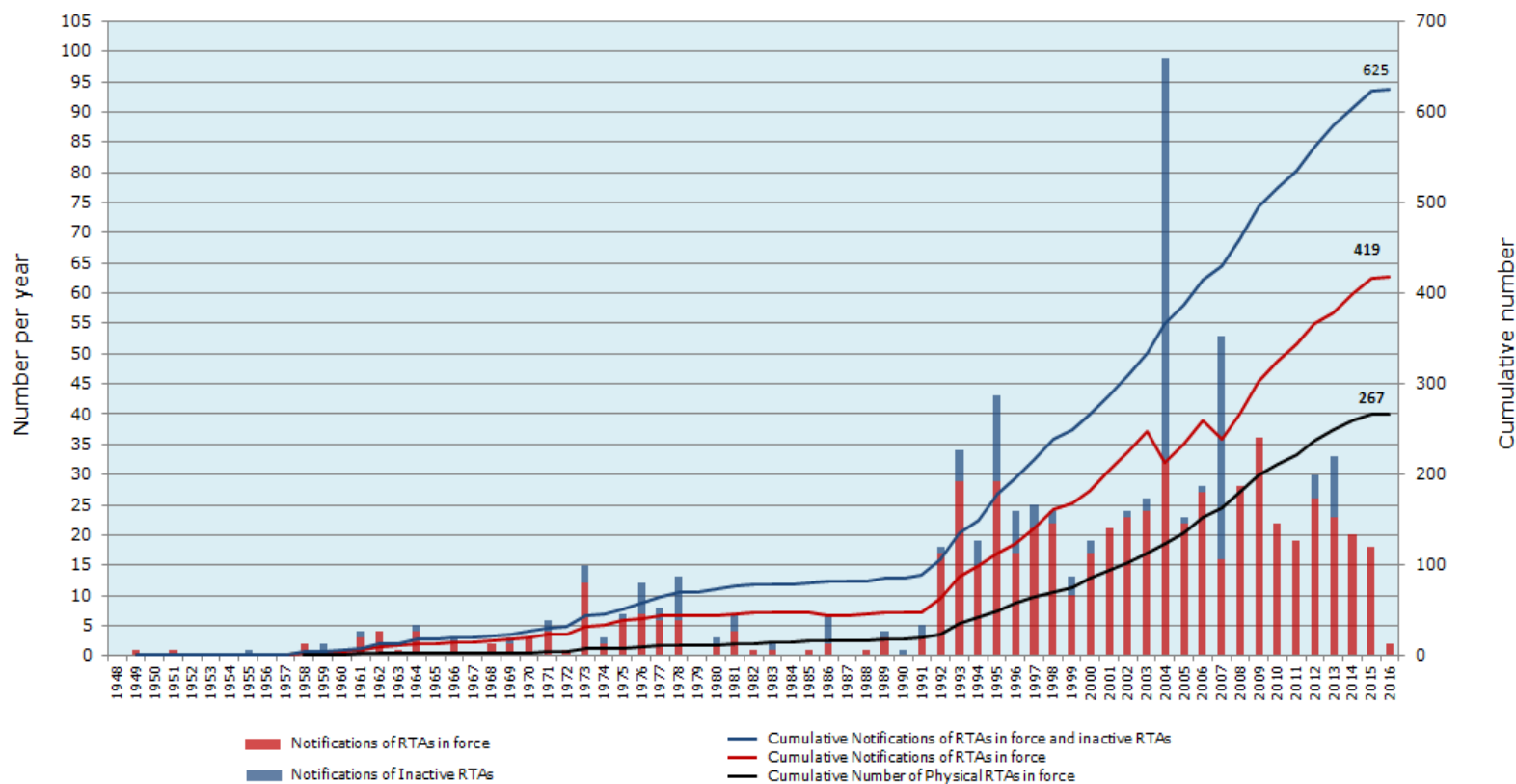
Trade Consultant, GIZ Monterrey Project, venkhbold@yahoo.com

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 - **Literature review**
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Objective of the study

Evolution of Regional Trade Agreements in the world, 1948-2016

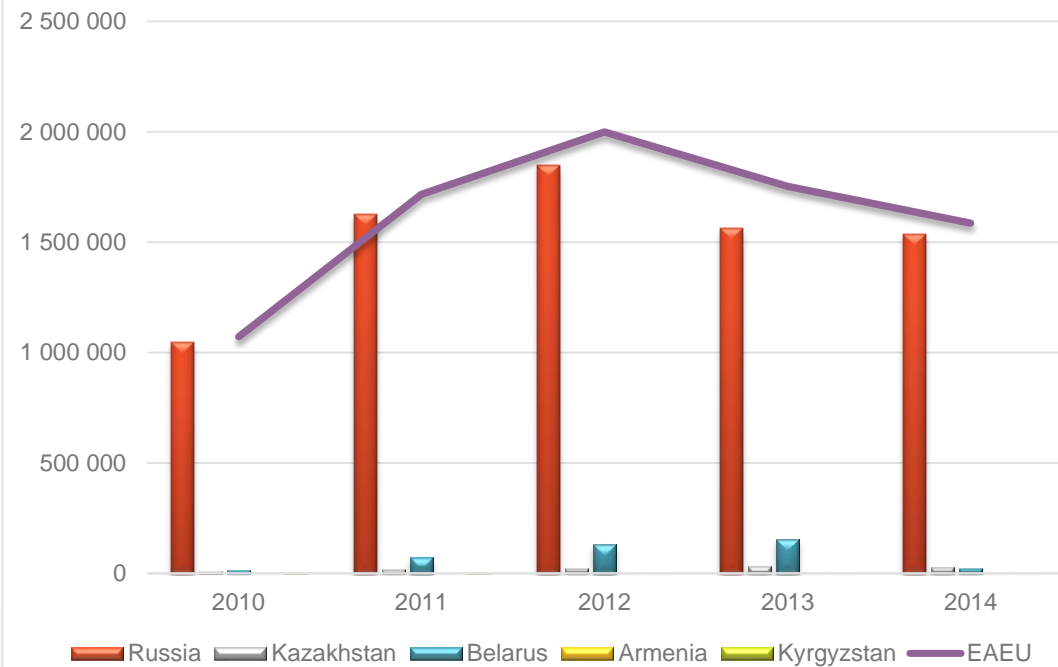


Note: Notifications of RTAs: goods, services & accessions to an RTA are counted separately. Physical RTAs: goods, services & accessions to an RTA are counted together.
Source: WTO Secretariat.

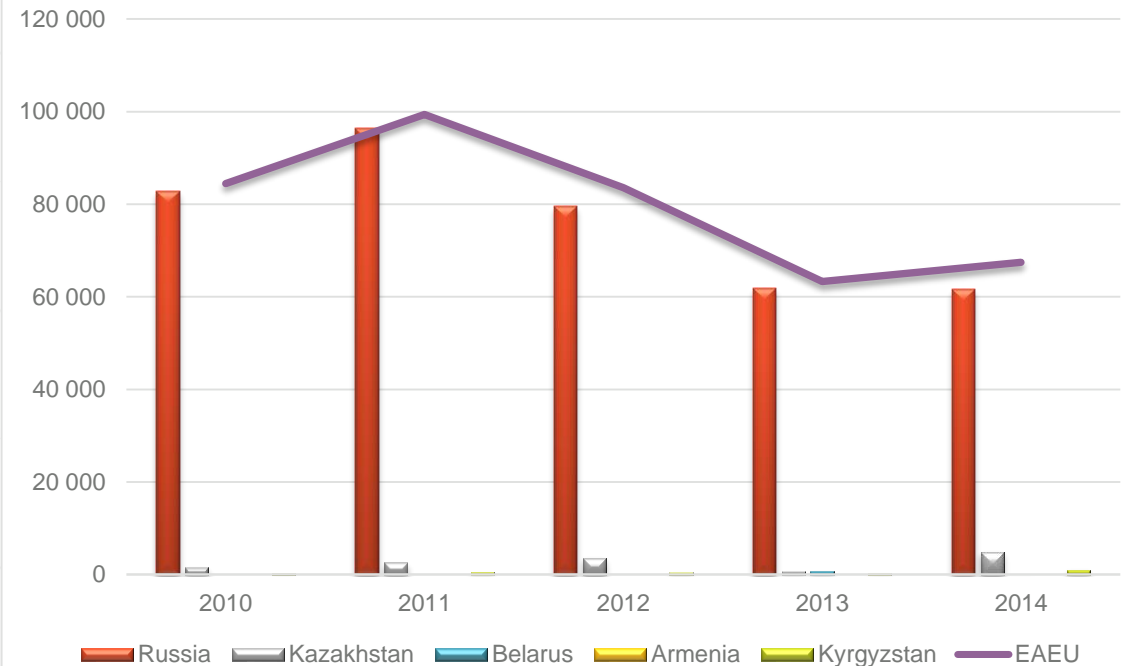
- The regional integration is becoming main tendency in international relations and global economy. Currently, more than half of world trade occurs within the frameworks of the regional trade agreements.
- Around 625 regional trade agreements were signed, 419 agreements are in force (*WTO RTAs database*).
- The Mongolian Foreign Policy Concept states that Mongolia will take appropriate steps to get engaged into the regional integration.
- **First EPA entry into force: 2016-06-07** – Agreement between Mongolia and Japan for an Economic Partnership

Trade with EAEU

Pic 2. Mongolian Imports from EAEU

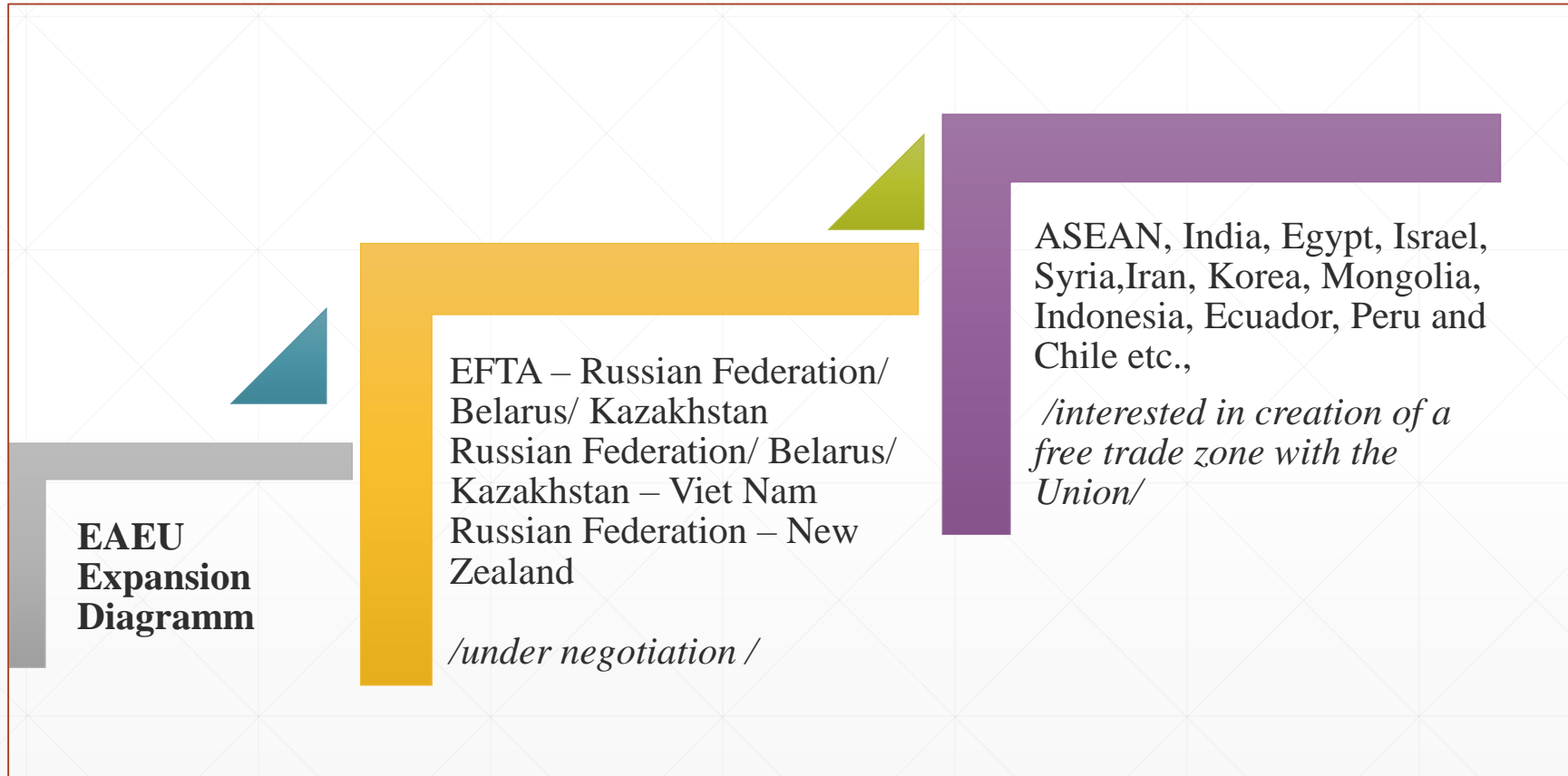


Pic 3. Mongolian Exports to EAEU



Author's calculation based on www.trademap.org

EAEU Expansion



Source: Author's evaluation

Memorandum of Understanding- Mongolia & EAEU

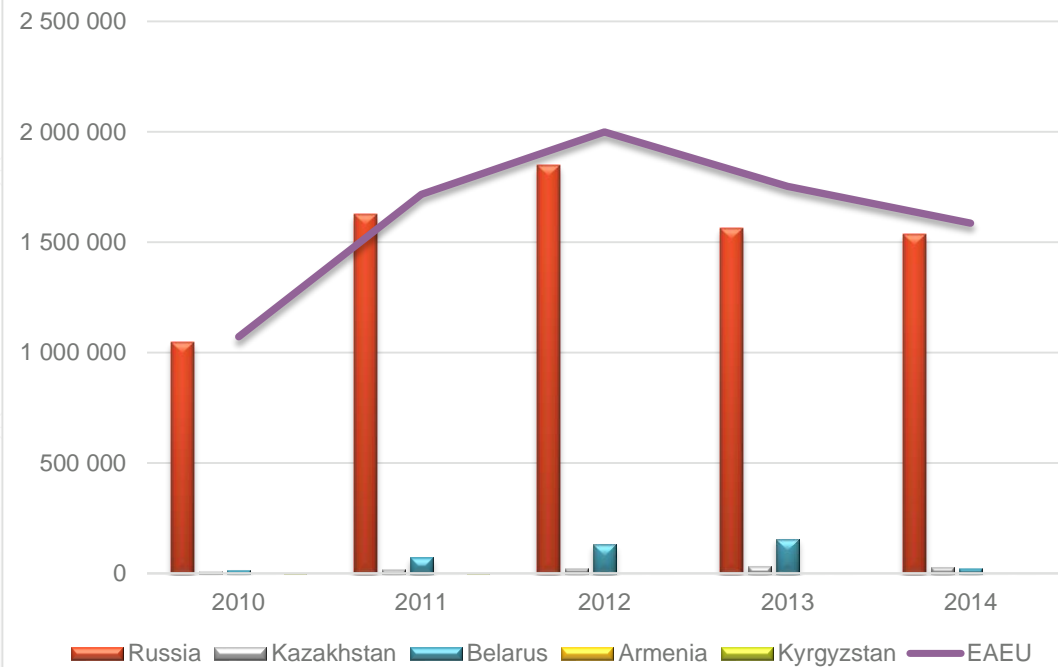
- Mongolia's signing of Memorandum of Understanding on Cooperation between the Eurasian Economic Commission and the Government /2015 – 05 – 17/
 - The goal of the signed document is promotion of development of comprehensive cooperation between the Member States of the Eurasian Economic Union (the EAEU) and Mongolia, increase of efficiency of mutual trade and implementation of measures aimed at eliminating barriers preventing trade development.
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Objective of the study

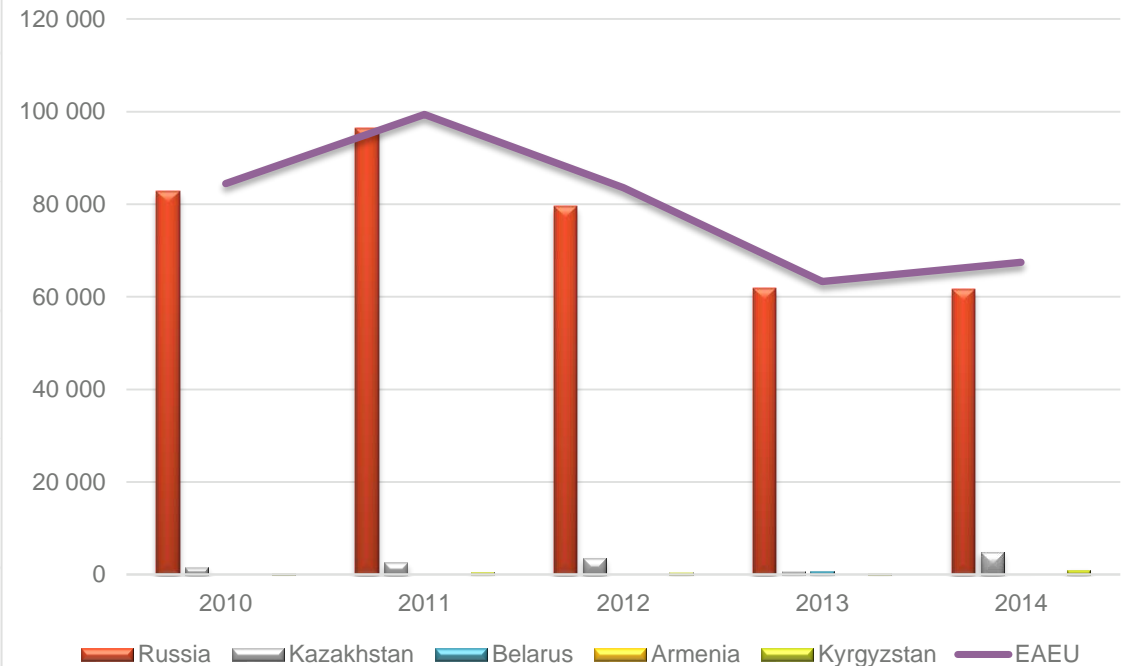
- It is necessary to conduct economic evaluation studies of an FTA both before its negotiation and after its implementation.
 - A clear and accurate understanding of the potential effects of an FTA before its negotiation (ex-ante evaluation) is necessary in deciding the overall negotiation position of the country (*ADB, 2010*)
 - The study tries to shed a light on the possibilities of welfare and macroeconomic implications, which will facilitate policymakers to assess the actual situation in terms of quantitative side.
 - Ex ante: Computable General Equilibrium Model (CGE)
 - GTAP Database version 9.0 (the latest)
-

Trade with EAEU

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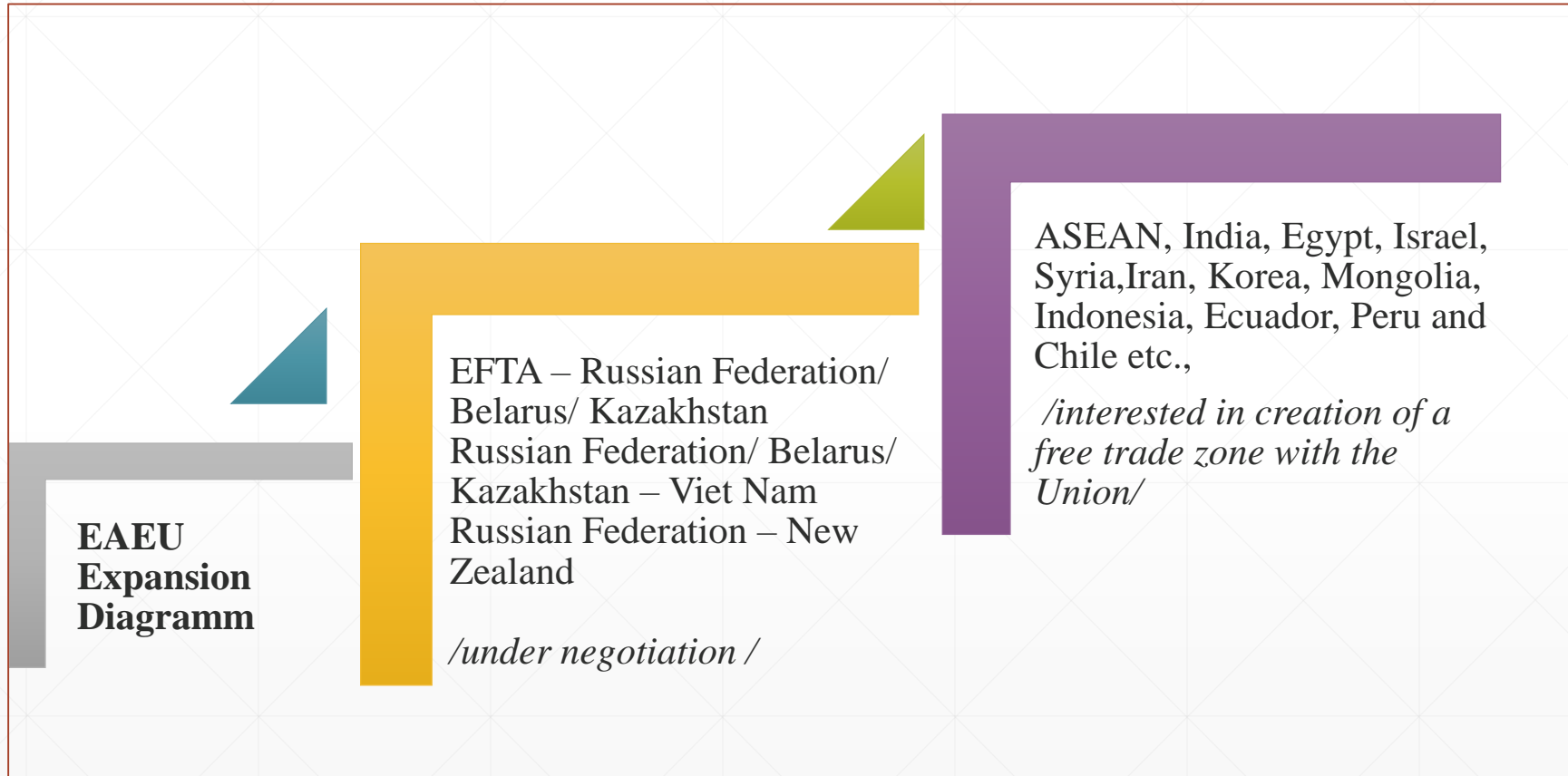


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CGE model :

Clarifying “who gains & who loses”

This method is able to answer the following questions:

- How does real gross domestic product (GDP) change in a country that joins an FTA?
 - How does the country's trade balance change?
 - How do the country's terms of trade change?
 - How do import and export prices in a particular sector change?
 - How do output and trade in different sectors within the country change?
 - Is there trade diversion?
 - How does the country's welfare change?
 - Where do these welfare effects come from?
-

GTAP sectors, version 9: /57/

1	PDR	Paddy rice	31	PPP	Paper products, publishing
2	WHT	Wheat	32	P_C	Petroleum, coal products
3	GRO	Cereal grains nec	33	CRP	Chemical, rubber, plastic products
4	V_F	Vegetables, fruit, nuts	34	NMM	Mineral products nec
5	OSD	Oil seeds	35	I_S	Ferrous metals
6	C_B	Sugar cane, sugar beet	36	NFM	Metals nec
7	PFB	Plant-based fibers	37	FMP	Metal products
8	OCR	Crops nec	38	MVH	Motor vehicles and parts
9	CTL	Bovine cattle, sheep and goats, horses	39	OTN	Transport equipment nec
10	OAP	Animal products nec	40	ELE	Electronic equipment
11	RMK	Raw milk	41	OME	Machinery and equipment nec
12	WOL	Wool, silk-worm cocoons	42	OMF	Manufactures nec
13	FOR	Forestry	43	ELY	Electricity
14	FSH	Fishing	44	GDT	Gas manufacture, distribution
15	COL	Coal	45	WTR	Water
16	OIL	Oil	46	CNS	Construction
17	GAS	Gas	47	TRD	Trade
18	OMN	Minerals nec	48	OTP	Transport nec
19	CMT	Bovine meat products	49	WTP	Water transport
20	OMT	Meat products nec	50	ATP	Air transport
21	VOL	Vegetable oils and fats	51	CMN	Communication
22	MIL	Dairy products	52	OFI	Financial services nec
23	PCR	Processed rice	53	ISR	Insurance
24	SGR	Sugar	54	OBS	Business services nec
25	OFD	Food products nec	55	ROS	Recreational and other services
26	B_T	Beverages and tobacco products	56	OSG	Public Administration, Defense, Education, Health
27	TEX	Textiles	57	DWE	Dwellings
28	WAP	Wearing apparel			
29	LEA	Leather products			
30	LUM	Wood products			

GTAP regions, version 9: /140/

Australia	Argentina	France	Kazakhstan	Rest of Western Africa
New Zealand	Bolivia	Germany	Kyrgyztan	Central Africa
Rest of Oceania	Brazil	Greece	Rest of Former Soviet U	South Central Africa
China	Chile	Hungary	Armenia	Ethiopia
Hong Kong	Colombia	Ireland	Azerbaijan	Kenya
Japan	Ecuador	Italy	Georgia	Madagascar
Korea	Paraguay	Latvia	Bahrain	Malawi
Mongolia	Peru	Lithuania	Iran Islamic Republic of	Mauritius
Taiwan	Uruguay	Luxembourg	Israel	Mozambique
Rest of East Asia	Venezuela	Malta	Jordhan	Rwanda
Brunei Darassalam	Rest of South America	Netherlands	Kuwait	Tanzania
Cambodia	Costa Rica	Poland	Oman	Uganda
Indonesia	Guatemala	Portugal	Qatar	Zambia
Lao People's Democratic Rep	Honduras	Slovakia	Saudi Arabia	Zimbabwe
Malaysia	Nicaragua	Slovenia	Turkey	Rest of Eastern Africa
Philippines	Panama	Spain	United Arab Emirates	Botswana
Singapore	El Salvador	Sweden	Rest of Western Asia	Namibia
Thailand	Rest of Central America	United Kingdom	Egypt	South Africa
Viet Nam	Dominican Republic	Switzerland	Morocco	Rest of South African Customs
Rest of Southeast Asia	Jamaica	Norway	Tunisia	Rest of the World
Bangladesh	Puerto Rico	Rest of EFTA	Rest of North Africa	
India	Trinidad and Tobago	Albania	Benin	
Nepal	Caribbean	Bulgaria	Burkina Faso	
Pakistan	Austria	Belarus	Cameroon	
Sri Lanka	Belgium	Croatia	Cote d'Ivoire	
Rest of South Asia	Cyprus	Romania	Ghana	
Canada	Czech Republic	Russian Federation	Guinea	
United States of America	Denmark	Ukraine	Nigeria	
Mexico	Estonia	Rest of Eastern Europe	Senegal	
Rest of North America	Finland	Rest of Europe	Togo	

Literature Review

- **Sh. Enkhbayar and Tomoyoshi Nakajima (2013)**
 - “The impact of Mongolian FTAs with the countries in Northeast Asia, using GTAP database”.
 - They found that Mongolia’s bilateral FTA with four NEA countries would be almost negligible in regards with Mongolia’s import tariff rates are already relatively low and partners impose zero-tariffs for Mongolia’s major export commodities (mining, livestock origin products etc.,).
-
- **N. Batnasan, N. Otgonsaikhan, D. Narandalai, and Ts. Oyunbileg (2012)**
 - “Opportunities and Risks of Establishing Free Trade Agreement with Major Trading Partners” /CGE Model/
 - They found that Mongolia’s domestic consumption and production will accelerate in terms of joining any five partner countries as mentioned above. However, it is said that GDP will not increase significantly and it estimates as less than 1% level.

- **Mongolian Academy of Science and Business School, NUM (2014)**
 - Examined “The potential impacts and risks of bilateral trade agreement between Mongolia and two neighbors, Russia and China” /CGE Model/
 - The study suggested that there is no such big impact to Mongolia’s economy in the short run. In the mid and long run, the proposed agreement might lead to significant increase in the extraction industry. As a consequence, it would be bringing “Dutch Disease” due to increase of exports in extraction sector.
- **N.Otgonsaikhan (2012)**
 - Examined the impact of trade agreement if Mongolia and Japan establish EPA.
 - Both in qualitative and quantitative sides, so called CGE analysis.

Literature Review

Regions	GTAP Database 140 regions
Russia	Russia
Kazakhstan	Kazakhstan
Belarus	Belarus
Armenia	Armenia
Kyrgyzstan	Kyrgyzstan
Mongolia	Mongolia
Oceana	Australia, New Zealand, rest of Oceana
East Asia	China, Hong Kong, Japan, Korea, Taiwan, Brunei Darussalam, rest of Asia
South East Asia	Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand Vietnam, rest of Southeast Asia
South Asia	Bangladesh, India, Nepal, Pakistan, Sri Lanka, rest of South Asia.
North America	Canada, United States, Mexico, rest of North America
Latin America	Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, Venezuela, rest of South America
EU_25	Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, United Kingdom
Rest of the World	Rest of the World

- 140 regions of the world were aggregated into 14 regions.
- 57 sectors were aggregated into 18.

Sectors	GTAP Database 57 sectors
Grains, Crops	Paddy rice, Wheat, Cereal grains nec, Vegetables, fruit, nuts, Oil seeds, Sugar cane, sugar beet, Plant-based fibers, Processed rice, Crops nec
Animal products	Raw milk, Fishing
Wool	Wool, silk-worm cocoons
Meat	Cattle, sheep, goats, horses, animal products nec, Meat: cattle, sheep, goats horse, meat products nec.
Forestry	Forestry
Coal	Coal
Oil and Gas	Oil, gas, petroleum, coal products
Other Minerals	Minerals nec
Processed Food	Vegetable oil & fats, Dairy products, Sugar, Food products nec, Beverages and tobacco products
Textiles and Apparel	Textiles, apparel
Leather products	Leather products
Wood and Paper	Wood products, Paper products, publishing
Metals	Ferrous metals, Metals nec, Metal products
Automobiles	Motor vehicles and parts
Machinery and Equipment	Transport equipment nec, Electric equipment, Machinery and equipment nec
Other manufactured products	Chemical, rubber, plastic products, Mineral products, Manufactures nec,
Electricity	Electricity
Services	Gas manufacture, distribution, Water, Construction, Trade, Transport nec, Sea transport, Air transport, Communication, Financial service nec, Insurance, Business service nec, Recreation and other services, Public administration, Defense, Education, Health, Dwellings

Results: Macroeconomic Effects

- **Under the full liberalization**

- Simulate a scenario of FTA if tariffs on all products traded between Mongolia and the EAEU members are completely eliminated.

- Ch. Sikdar (2011)

- “Impact of India- ASEAN Free Trade Agreement: A cross country analysis using applied general equilibrium modeling”

- <http://www.unescap.org/sites/default/files/AWP%20No.%20107.pdf>

Full Liberalization (All EAEU members and Mongolia)				
Region/ Country	Total Welfare Effect	Change in GDP price Index	Change in Value GDP	Change in Household Income
1 Russia	0.5508	0.0006	0.0006	0.0006
2 Kazakhstan	0.1019	0.0003	0.0003	0.0003
3 Belarus	0.3632	0.0015	0.0016	0.0016
4 Armenia	-0.0052	0	0	0
5 Kyrgyzstan	0.0075	0.0002	0.0002	0.0002
6 Mongolia	6.6357	0.1438	0.1619	0.1856
7 Oceania	1.4894	0.0003	0.0003	0.0003
8 East Asia	-8.2891	-0.0002	-0.0002	-0.0002
9 South East Asia	0.3569	0	0	0
10 South Asia	-0.6177	-0.0001	-0.0001	-0.0001
11 North America	-0.7649	0	0	0
12 Latin America	0.4828	0	0	0
13 EU_25	-3.032	0	0	0
14 Rest of World	0.0491	0	0	0
Source: Based on simulation results				

Results: Trade Effects

- Under the full liberalization, the volume of exports decreases by 0.15% and the volume of import increases by 0.18% in Mongolia.
- However, there is almost no change in exports and imports for the EAEU members.
- Trade balance – decrease 18.1 million USD.
- Terms of trade – increase 0.073

Full Liberalization (All EAEU members and Mongolia)				
Region/ Country	Change in Volume of Exports	Change in Volume of Imports	Change in Trade Balance	Change in Terms of Trade
1 Russia	0.0005	0.0016	-1.16	0.0004
2 Kazakhstan	0.0001	0.0005	0.0279	0.0002
3 Belarus	-0.0001	0.0008	-0.1733	0.0006
4 Armenia	0.0002	-0.0001	0.0051	-0.0001
5 Kyrgyzstan	0.0001	0.0002	-0.0154	0.0001
6 Mongolia	-0.1564	0.1883	-18.1661	0.073
7 Oceania	-0.0002	0.0003	-0.3009	0.0004
8 East Asia	0.0002	-0.0002	8.6803	-0.0002
9 South East Asia	0	0	0.5776	0
10 South Asia	0.0002	0	0.6273	-0.0001
11 North America	0.0001	0	3.4575	0
12 Latin America	0	0	0.5227	0.0001
13 EU_25	0.0001	0	4.6563	0
14 Rest of World	0	0	0.344	0

Source: Based on simulation results, Change in trade balance - \$ US million

Results: Trade Effects

Change in Trade Balance by Sector										
Sectors	Russia	Kazakhstan	Belarus	Armenia	Kyrgyzstan	Mongolia	Oceania	East Asia	SEAsia	South Asia
Grains, Crops	-0.1898	-0.0084	-0.0128	0.0007	-0.0019	-0.202	-0.0981	0.2156	0.032	0.0688
Animal products	-0.0144	0	-0.0007	0.0001	0	-0.0032	-0.0042	0.018	-0.0018	0.0002
Wool	0.0028	0.0045	-0.0001	0.0001	0.0031	-1.597	0.6409	0.5707	0.002	0.0276
Meat	-0.6275	-0.0436	-0.013	0.0001	-0.0039	0.9131	-0.1926	0.1783	0.0173	0.0256
Forestry	-0.0277	-0.0001	-0.0048	0	0	-0.0026	-0.0098	0.0257	0.003	0.0047
Coal	0.2066	0.0182	0.0001	0	-0.0004	-1.9538	0.9102	-0.1417	0.6932	-0.1626
Oil and gas	-1.5625	0.0726	0.0473	-0.0014	-0.0046	-0.5392	-0.0552	-1.587	0.1148	-0.0084
Other minerals	-0.4385	-0.1152	-0.0003	-0.0015	-0.0008	1.0947	0.9406	-1.6182	0.1712	0.1289
Processed food	0.8729	0.12	-0.0305	0.0027	0.0047	-0.7414	-0.2475	0.0369	-0.0443	0.0442
Textiles and Apparel	-0.1438	-0.0135	-0.0484	0	-0.0014	-0.7555	-0.0661	1.2411	-0.0374	0.0902
Leather products	-0.0346	-0.0015	-0.0016	0	-0.0003	-0.341	-0.0127	0.3946	-0.0073	0.0139
Wood and paper	-0.2779	0.0901	-0.0246	0.0001	-0.0012	-0.2968	-0.1096	0.4851	-0.0159	0.0112
Metals	0.7757	-0.0531	-0.1053	0.002	-0.0054	-1.999	-0.4653	-1.0395	0.1486	0.0752
Automobiles	-0.097	-0.0036	0.5055	0.0001	0.0013	-1.3788	-0.1043	1.0738	-0.007	0.0088
Machinery and equipment	2.0964	-0.0276	-0.1407	0.0003	0.0015	-5.846	-0.5665	5.3327	-0.4034	0.0203
Other manufactured products	0.0096	0.0878	-0.2113	-0.0002	0	-0.4532	-0.3257	0.8843	-0.193	0.0528
Electricity	0.0883	-0.0019	-0.0333	0.0003	-0.0002	-0.114	-0.0038	-0.0138	-0.0031	-0.0009
Services	-1.7985	-0.0965	-0.0988	0.0015	-0.0058	-3.9505	-0.5312	2.6237	0.1088	0.2268
Total	-1.16	0.0279	-0.1733	0.0051	-0.0154	-18.1661	-0.3009	8.6803	0.5776	0.6273

Source: Based on simulation results

Results: Trade Effects

Change in Value-Added Industry of Selected Region

Sectors	Russia	Kazakhstan	Belarus	Armenia	Kyrgyzstan	Mongolia	Oceania	East Asia	SEAsia	South Asia
Grains, Crops	-0.0002	-0.0001	-0.0005	0.0001	0	-0.1367	-0.0003	0.0001	0	0
Animal products	-0.0001	0.0002	-0.0003	0.0001	0.0014	-0.1352	-0.0002	0	0	0
Wool	0.0003	0.0006	-0.0009	0.0002	0.0035	-0.6321	0.0146	0.0045	0.0007	0.0005
Meat	-0.0009	-0.0004	-0.0002	0	-0.0004	0.2631	-0.0007	0	0	0
Forestry	-0.0006	0.0008	-0.0014	0	0	-0.0086	-0.0002	0.0001	0	0
Coal	0.0003	0.0001	-0.0002	0.0001	0.0001	-0.0798	0.0006	0.0006	0.0008	0.0005
Oil and gas	-0.0003	-0.0001	-0.0004	0.0009	0.0001	-0.1352	-0.0001	-0.0002	0.0001	0.0001
Other minerals	-0.0016	-0.0011	-0.0004	-0.0003	-0.0008	-0.0642	0.0004	0.0004	0.0004	0.0004
Processed food	0.0009	0.0007	-0.0002	0.0001	0.0018	-0.3225	-0.0003	0	0	0
Textiles and Apparel	-0.001	-0.0007	-0.0029	-0.0001	-0.0001	-0.2442	-0.0006	0.0002	-0.0001	0.0001
Leather products	-0.0009	0.0001	-0.0013	0	0.0002	-1.515	-0.0014	0.0003	0	0
Wood and paper	-0.0007	0.0026	-0.0017	0.0001	0.0001	-0.1451	-0.0002	0.0001	0	0
Metals	0.0011	-0.0003	-0.0039	0.0004	-0.0004	-0.5186	-0.0008	0	0.0001	0
Automobiles	0.0003	-0.0002	0.0144	-0.0001	0.0027	-0.0974	-0.0004	0.0001	-0.0001	-0.0001
Machinery and equipment	0.0024	-0.0002	-0.0016	-0.0002	0.0009	0.0004	-0.0008	0.0001	-0.0002	-0.0001
Other manufactured products	0	0.0009	-0.0036	0	0.0004	-0.2024	-0.0004	0.0001	-0.0001	0
Electricity	0.0002	-0.0001	-0.0006	0	0.0001	-0.0084	-0.0002	-0.0001	0	0

Source: Based on simulation results

Results: Trade Effects

Change in Demand for Endowment for Selected Sectors (Mongolia)

Endowment	Grains, Crops	Animal products	Wool	Meat	Forestry	Coal	Oil and gas	Other minerals	Processed food
Land	-0.1334	-0.133	-0.5511	0.1484	-0.0349	-0.1419	-0.2117	-0.0884	-0.2337
Unskilled Labor	-0.1412	-0.139	-0.6681	0.2986	-0.0205	-0.1489	-0.2432	-0.0847	-0.3756
Skilled Labor	-0.1413	-0.1391	-0.6682	0.2983	-0.0206	-0.149	-0.2433	-0.0848	-0.3761
Capital	-0.1221	-0.1238	-0.6508	0.3374	-0.0074	-0.1358	-0.2235	-0.0715	-0.3021
Endowment	Textiles and Apparel	Leather products	Wood and paper	Metals	Automobile	Machinery/equipment	Other manufactured products	Electricity	Services
Land	-0.1963	-0.7378	-0.1502	-0.3202	-0.1367	-0.0959	-0.1794	-0.0793	-0.0555
Unskilled Labor	-0.3089	-1.5272	-0.2048	-0.5884	-0.1744	-0.0821	-0.2707	-0.0447	0.0147
Skilled Labor	-0.3095	-1.5279	-0.2055	-0.5891	-0.1751	-0.0828	-0.2714	-0.0454	0.014
Capital	-0.2262	-1.4456	-0.1221	-0.506	-0.0917	0.0007	-0.188	0.0382	0.1047

Source: Based on simulation results

Conclusion

- First of all, Mongolia's welfare gain appears to be positive due to both positive allocative efficiency and positive terms of trade. While EAEU members' welfare gain seems to have any noticeable changes.
 - The real GDP growth of Mongolia slightly increased when two regions have trade agreements. However, it shows a little positive change which is less than 1% level. It is thus, Mongolia's benefit from FTAs with EAEU seems to have relatively smaller effect in to the economy. Similar to this, EAEU members' GDP growth has almost no change post-simulation.
 - Second, Mongolia's trade effect under the full liberalization appears to have negative or decreased export volume and positive or increased import volume.
 - Moreover, Mongolia's trade balance decreases 18 million dollars. The deficit of trade balance of Mongolia is mainly due to raw products. Meat sector only itself positive effect among all 18 sectors in terms of volume of export, value-added industry and change in demand for endowments. On the other side, the EAEU members have no such greater effect in terms of trade indicators.
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Thank You !
