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**Armenia's accession to the Customs Union:  
Gains of Losses?**

*Master thesis*

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## **Bibliographic note**

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## **Abstract**

Armenia is going to join the Customs Union of Belarus, Kazakhstan and Russia (the Eurasian Customs Union) in the coming months. The author uses partial-equilibrium model to investigate and calculate trade diversion, trade creation and net welfare effects of accession on the Armenian economy. The thesis concludes that the membership in the customs union would lead to welfare losses and negative static effects. The main reason is the pure trade diversion effect on Armenia resulting from the increased external tariff rate. Adopting the common external tariff of the Eurasian Customs Union would raise the prices of those imported goods which flow from outside the customs union. As the majority of Armenian imports come from outside the Eurasian Customs Union, the increase in import prices would carry high social costs for the Armenian consumers. In addition, the absence of shared border with the customs union member-states substantially diminishes the potential benefits from possible non-tariff barrier facilitation. Therefore, the thesis strongly recommends against the accession.

## **Abstrakt**

Arménie se již o několik měsíců chystá připojit k celním uniím Běloruska, Kazachstánu a Ruska (Euroasijská ekonomická unie). Tvůrce užívá částečně vyvážený model na zjištění a vypočítání odklonu obchodu, tvorby obchodu a čistý sociální dopad vstupu na Arménskou ekonomiku. Diplomová práce dochází k názoru, že členství v celních uniích by vedlo ke ztrátám blahobytu a negativním statickým dopadům. Hlavním důvodem je čistý dopad odklonu obchodu na Arménii vyplývající ze zvýšení vnější celní kvóty. Osvojení si společného vnějšího celního sazebníku Euroasijské ekonomické unie by zvýšilo ceny importovaného tovaru zvenku celní unie. Protože většina Arménského importu pochází zvenku Euroasijské ekonomické unie, zvýšení ceny importu by znamenalo vysoké sociální náklady pro Arménský konzum. Navíc, absence společné hranice s celní unií členských států podstatně snižuje potenciální benefity z možných necelních překážek facilitace. Z těchto důvodů je má diplomová práce jednoznačně proti vstupu.

## **Klíčová slova**

Arménie, Euroasijská ekonomická unie, Rusko, Bělorusko, Kazachstán, odklon obchodu, společný vnější celní sazebník, ztráta blahobytu, statické dopady

## **Keywords**

Armenia, Eurasian Customs Union, Russia, Belarus, Kazakhstan, trade diversion, common external tariff, welfare loss, static effects

## **Declaration of Authorship**

1. The author hereby declares that he compiled this thesis independently, using only the listed resources and literature.
2. The author hereby declares that all the sources and literature used have been properly cited.
3. The author hereby declares that the thesis has not been used to obtain a different or the same degree.

Prague 16.05.2014

**Sevan Ghazaryan**



<b>Institute of International Studies</b> <b>Master Thesis Proposal</b>
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## Bibliography

<b>Key Research Questions (20 words)</b>	Does participation in the Eurasian Customs Union increase the welfare of Armenia compared to the existing free trade regimes with Belarus, Kazakhstan and Russia?
<b>Brief Description of Theory (50 words)</b>	The theory of customs union discusses the potential effects of a customs union on a country in terms of static and dynamic effects. Static effects relate to the short-term welfare impact in terms of trade creation and trade diversion. Dynamic effects include long-term effects of a customs union on output growth in a country over time.
<b>Brief Description of Methodology (50 words)</b>	The methodology is based on the Vinerian partial equilibrium model which discusses static welfare gains and losses of a potential accession. Tarr elaborates on the issue and applies the model to the CIS framework. For calculating trade creation, trade diversion and total net welfare effects we use the suggestions made by Cline in his analysis of the Central American Common Market. Trade pattern for the year 2013 is used as benchmark.
<b>Conclusions (50 words)</b>	Membership in the customs union would inflict considerable welfare losses on Armenia. As a result of trade diversion effect, the accession would imply wealth transfer from the Armenian consumers to the producers in Belrus, Kazakstan or Russia. Increased import prices would increase the social costs and, therefore, the author strongly recommends against the accession.



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## Introduction

On 3 September 2013, after his meeting with Russia's President Vladimir Putin in Moscow, the Armenian President Serzh Sargsyan announced that Armenia is going to join the Customs Union of Belarus, Kazakhstan, and Russia<sup>1</sup>. This decision has been one of the most important political developments since Armenia gained its independence in 1991. The EU immediately announced<sup>2</sup> that this shift in Armenia's trade policy is incompatible with the free-trade deal (Deep and Comprehensive Free Trade Agreement<sup>3</sup>) with the EU. After 4 years of extensive talks with the EU<sup>4</sup> and the successful completion<sup>5</sup> of the negotiations it was expected that Armenia is going to sign a free trade agreement with the EU during the EU Eastern Partnership Vilnius<sup>6</sup> Summit in November, 2013.<sup>78</sup>

Serzh Sargsyan's abrupt decision to join the Customs Union was unexpected even for his own government. In fact, Armenian authorities had never announced their intention to join the Customs Union. They had always said that they saw no obstacles to the conclusion of an agreement with the EU<sup>9</sup>, and joining the Customs Union could be considered in case of a common border with the member countries. Literally hours before Sargsyan-Putin meeting in Moscow the Deputy Chairman of the ruling party was confident that the meeting would not yield any "sensations"<sup>10</sup> and reiterated that Armenia is a country having no common borders with the Customs Union. Moreover, few hours before the meeting the Deputy Foreign Minister Shavarsh Kocharyan highlighted that joining the CU will reduce Armenia's sovereignty over its trade policy and, thus, it's totally unacceptable for the country. The Deputy Foreign minister then noted that while Russia is Armenia's military-security choice; DCFTA (free-trade agreement with the EU) is Armenia's economic choice<sup>11</sup>. The Prime Minister of Armenia Tigran Sargsyan gave 3 interviews<sup>12</sup> to the Russian media in which he stated that Armenia is not interested in joining the union and was convinced that it doesn't make any economic sense for Armenia to join the CU as the country doesn't share any border with the member states. The Armenian Prime minister argued prior to the decision in Moscow: "The whole point of a customs union is to have commercial exchanges without customs control. In our case, that is impossible as we have to pass through the territory of a neighboring state and twice undergo customs administration."<sup>13</sup> Further, Tigran Sargsyan stated: "The Customs Union makes no sense for us, as the world has no such a precedent that a country without borders would become a member of the Customs Union".<sup>14</sup> Recently Prime Minister Tigran Sargsyan revealed: "Customs duties in the Customs Union are almost twice as higher than our customs duties with

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<sup>1</sup> <http://www.rferl.org/content/armenia-customs-union/25094560.html>

<sup>2</sup> <http://asbarez.com/113868/eu-will-not-sign-agreement-with-armenia-commissioner-says/>

<sup>3</sup> <http://trade.ec.europa.eu/doclib/press/index.cfm?id=952>

<sup>4</sup> [http://www.consilium.europa.eu/uedocs/cms\\_Data/docs/pressdata/EN/foraff/138404.pdf](http://www.consilium.europa.eu/uedocs/cms_Data/docs/pressdata/EN/foraff/138404.pdf)

<sup>5</sup> <http://trade.ec.europa.eu/doclib/press/index.cfm?id=951>

<sup>6</sup> <http://www.neurope.eu/article/armenia-eu-come-association-agreement>

<sup>7</sup> <http://www.euractiv.com/europes-east/eu-loses-armenia-russia-customs-news-530224>

<sup>8</sup> <http://www.rferl.org/content/customs-union-present-russias-neighbours-with-stark-choice/24818232.html>

<sup>9</sup> <http://en.aravot.am/2013/05/01/154057/>

<sup>10</sup> <http://news.am/eng/news/169471.html>

<sup>11</sup> <http://commonsplace.eu/eng/news/6/id2754>

<sup>12</sup> <http://www.kommersant.ru/doc-y/1908052>

<sup>13</sup> <http://www.azatutyun.am/content/article/24537432.html>

third countries. We will run into certain difficulties but on the whole Armenia will benefit from membership to the Customs Union and the united economic area.”<sup>15</sup>

Although Armenian officials had always announced their intention to develop strong ties both with the EU and Russia, Armenia was forced to make an "either-or" decision. Although the main arguments supporting this decision are related with security concerns, opinions are divided over the economic benefits of the Customs Union membership. While some Armenian analysts find the membership advantageous for Armenia, others are overly critical of the Armenia's prospects in this Russian-led organisation. Some analysts believe that the accession will reinforce Armenia's economic dependency on Russia even further.<sup>16</sup>

The economic justification of the accession is still under question. It's widely believed that the idea of the Eurasian Union is a purely political project. Tough negotiations over the customs duties are still going on. Armenia seeks to retain the current lower duties over the number of goods. The outcomes of the talks are not revealed yet. Although the Armenian officials have kept reiterating that the most important issues were resolved during the talks, uncertainty is still huge. According to the most recent reports, Armenia implemented 70 % of the CU accession roadmap.<sup>17</sup>

Armenia moves towards the ECU as rapidly as possible. Although some degree of uncertainty still exists associated with the terms and conditions of the official accession, decision itself has substantial socioeconomic implications for the country. Although the accession negotiations have started since September 2013, Armenia has made quick progress towards the accession agreement expected to be signed in upcoming months.<sup>18</sup> In fact, it is obvious that the parties disagree over terms and conditions of the accession and there are certain difficulties in reaching an agreement during the accession talks.<sup>19</sup> There is a wide consensus in the Armenian society that the main driver leading to the accession decision is political rather than economic. Allegedly, the decision was made under the strong Russian pressure.<sup>20</sup> However, the political reasons and implications of this decision are beyond the scope of our research.

The main concern of the Armenian economic analysts is that the CU membership would push up the cost of key goods imported to Armenia given the absence of shared border. Additionally, it would reduce vital proceeds from customs duties collected by the Armenian tax authorities. Moreover, many Armenian consumers and entrepreneurs believe that joining the Customs Union will inevitably cause inflation and will push up living costs. Many Armenians have mounting concerns over the price increases resulting from the accession to the Customs Union. Indeed, rising prices can potentially fuel political and social instability in the country. For example, Armenian car importers voiced their concerns over the increased customs duties resulting from the CU accession.<sup>21</sup> The problem is that Armenians have to import the vehicles through Georgia. Almost 70 percent of vehicles imported into Armenia come through Georgia.

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<sup>14</sup> <http://fpc.org.uk/articles/635>

<sup>15</sup> <http://www.lragir.am/index/eng/0/politics/view/31257>

<sup>16</sup> <http://www.refworld.org/docid/52a977334.html>

<sup>17</sup> <http://a1.am/en/news/panarmenian.net/17042014-1900>

<sup>18</sup> <http://www.rferl.org/content/armenia-to-sign-agreement-on-joining-customs-union-in-may-june/25354950.html>

<sup>19</sup> [http://voiceofrussia.com/news/2014\\_05\\_13/Armenia-accords-all-issues-related-to-joining-Customs-Union-except-for-parallel-import-8143/](http://voiceofrussia.com/news/2014_05_13/Armenia-accords-all-issues-related-to-joining-Customs-Union-except-for-parallel-import-8143/)

<sup>20</sup> [http://ecfr.eu/blog/entry/armenias\\_refuseniks](http://ecfr.eu/blog/entry/armenias_refuseniks)

<sup>21</sup> [http://www.armenianow.com/economy/52148/armenia\\_car\\_importers\\_customs\\_union\\_licensing](http://www.armenianow.com/economy/52148/armenia_car_importers_customs_union_licensing)

Most of the cars that are imported to Armenia are produced outside the Customs Union, such as in Germany or Japan. In 2013 Russian cars imported into Armenia accounted for only 5 percent of all car imports. Common External Tariff for cars being a proxy for the Russian external tariff is higher than the Armenian external tariff. Customs duties levied on imported cars is 25 percent whereas the existing duty in Armenia is 10 percent. For example, duties levied on Opel Astra, a widely popular car among middle-class Armenians, is from \$3500 to \$3,600. This will push up the car prices in the Armenian market and analysts believe that the retail cost will increase by at least 50 percent. The economic future of those involved in car imports business is uncertain. Many car dealers are in a desperate situation. Thus, CU membership will further monopolize the market of car imports as individual entrepreneurs and small companies will not be able to import overpriced vehicles anymore. Although the Armenian government is negotiating with member states to retain national tariff levels on around 900 goods, cars are not included in the list. Nevertheless, according to the most recent public opinion poll, 55 percent of surveyed respondents in Armenia has positive attitude towards the decision to join the Customs Union.<sup>22</sup>

Another problem is the distribution of customs revenues. During the first 3 quarters of 2013 car imports produced \$110 million<sup>23</sup> in state revenue which will be given away after the accession.

This decision implied that the Deep and Comprehensive Free Trade Area (DCFTA) with the European Union would not be initiated. Other analysts argue that membership in the ECU secures lower gas prices and can attract substantial Russian investments to finance important infrastructure projects in Armenia. There are growing concerns that the CU will lead to unproductive protectionism and maintain wasteful economic structures remaining from the Soviet command economy.

Armenia was expected to sign the agreement to join the Customs Union on April 29, 2014. However, it was postponed.<sup>24</sup> Tough negotiations over the customs duties are still going on. Armenia seeks to retain the current lower duties over the number of goods. The outcomes of the talks are not revealed yet. Many Armenians still hope for concessions regarding common external tariffs. Although the Armenian officials have kept reiterating that the most important issues were resolved during the talks, uncertainty is still huge. According to the most recent reports, Armenia implemented 70 % of the CU accession roadmap.

Armenia's accession to the Eurasian Customs Union has significant economic implications. To begin with, this would imply zero custom duties mutually granted among all the members of the Customs Union. More importantly, the accession to the Eurasian Customs Union implies that Armenia must follow the common customs policy of the CU members. Particularly, it will involve bringing the Armenian custom duties in line with those of the Russia, which is believed to set the rules of the common customs policy

### **ECU history**

There were several attempts to initiate integration projects in the post-Soviet space since 1991. However all of the integration initiatives have not succeeded due to inefficiency and clash of interests. Despite the unproductive history of post-Soviet integration, this initiative to create a

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[http://arka.am/en/news/politics/more\\_than\\_half\\_of\\_armenians\\_want\\_their\\_country\\_to\\_join\\_customs\\_union/](http://arka.am/en/news/politics/more_than_half_of_armenians_want_their_country_to_join_customs_union/)

<sup>23</sup> <http://www.eurasianet.org/node/68149>

Eurasian Customs Union and Common Economic Space is probably the most ambitious so far. However the level of economic integration between member countries is low. Particularly, Armenia's trade with Kazakhstan and Belarus is insignificant. In terms of FDI, the picture shows even weaker links. Except from the mutual relations with Russia, all the other members have weak economic and trade relations.

Eurasian Customs Union is an important milestone along the road to the Eurasian Union. The Customs Union is often viewed as a purely political project engineered by the Russian President Vladimir Putin. It is an important phase of a more advanced integration project as the strategic objective of Kremlin is the creation of the Eurasian Economic Union in 2015. Arguably, the Customs Union of Belarus, Kazakhstan and Russia is not more than an instrument in the hands of Moscow to transform it into the Russia-dominated Eurasian Union. They even argue that the creation of a "Soviet Union 2.0" is now under way<sup>25</sup>.

The Customs Union of Belarus, Kazakhstan and Russia (or the Eurasian Customs Union) was commenced on January 1, 2010. Starting from 2012 the Eurasian Economic Commission has begun to act as the regulatory authority for the Eurasian Customs Union. These countries agreed to eliminate barriers in mutual trade and apply common tariffs against imports from the rest of the world. In 2012 the Single Economic Space came into existence. Although Russia has been constantly stating that it will not impose its national interests on the integration project, it seems that Russia is the main beneficiary of the initiative. In fact the tariff structure of the ECU predominantly replicates the Russian tariffs. Allegedly, the ECU CET is meant to generate trade creation effects only for Russia, as the country significantly reduced its external tariffs. This resulted in growing imports into Russia from the rest of the world. From the Russian perspective the ECU opens up an opportunity to increase its exports in Central Asia challenging of China and the EU. Arguably, it is intended for protecting the uncompetitive and inefficient Russian industrial structures.

Customs control checkpoints have been taken away from the internal borders of the Customs Union. They were eliminated from the Russia-Belarus border on January, 1, 2011 (allegedly, Russian customs officers came back to the Russia-Belarus border in early 2012), and ceased to exist at Kazakhstan-Russia border half a year later (July 1).

### **Pattern and Composition of Armenia's foreign Trade: Trade policy and figures**

External trade is crucial for Armenia, given the limited natural resources and trade embargo with two of its neighbors. High trade openness characterizes this small country. Trade openness is 0.57%, and the import/GDP ratio is 43.36% (Trade openness =  $1480 + 4476.8 / 10325 = 0.5769$ , GDP of Armenia 2013, 10325 million USD, Armenian exports 2013 is 1480.0 million USD, Armenian imports 2013 is 4476.8 million USD) The trade with the outside world is crucial for Armenia, given the unfavorable geographical position and geopolitical constraints. Uninterrupted and cheap imports and the access to the export markets are key determinants of development of Armenia. Armenia has chosen a liberal trade policy due to the natural limitations and the permanent need for the open external trade. As a result, this country set a low tariff rate against the rest of the world. A Free Trade Agreement with EU would give new opportunities of a wider access to the European market. Armenia was expected to sign the

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<sup>24</sup> <http://en.itar-tass.com/world/728574>

<sup>25</sup> <http://www.heritage.org/research/reports/2013/11/the-eurasian-union-undermining-economic-freedom-and-prosperity-in-the-south-caucasus>

Association Agreement (including DCFTA) with the EU in November 2013, but these opportunities has been forgone due to the unexpected decision of the Armenian government to join the ECU (announced in September, 2013).

Armenian exports remain relatively small and dominated by mining. The Armenian authorities argue the Customs Union (ECU) membership will open up enhanced access to the larger Russian market, especially vital for Armenia's processed food and beverage industry. Armenian authorities underline that accession to the ECU enables the country to get cheap raw materials from the resource-rich countries, such as Russia or Kazakhstan. Facilitated access to the large Russian market is important for agricultural sector as well. The uncertainty surrounding Armenia's economic future in the Customs Union may stifle FDI, which has been modest in recent times.

Armenia has been participating in various integration frameworks and developed special economic ties with FSU countries since 1991. CIS membership in 1992 was the first integration project of that type. Further Armenia joined a CIS Free Trade Agreement (FTA) in 1994. Due to the fact that CIS FTA never became operational, Armenia signed individual FTAs with a number of CIS countries. Armenia has signed FTAs with Russia (1993), Tajikistan (1994), Moldova (1995), Kyrgyz Republic (1995), Turkmenistan (1996), Ukraine (1996), Georgia (1998), Kazakhstan (2001) and Belarus (2003).<sup>26</sup> Armenia became an observing member of EVRAZES in 2003.

Armenia's current trade policy is very liberal and simple. In 2003 Armenia achieved a membership in WTO. In addition, the country has been benefiting from the GSP (Generalized System of Preferences<sup>27</sup>) preferential trade systems of the EU, the USA, Canada, Norway, Switzerland and Japan. Armenian customs duties on imports are mostly ad valorem ("A tariff rate charged as percentage of the price"<sup>28</sup>). Customs duties are regulated by the Customs Code, and are imposed only on imports. Customs duties are assessed at either 10% or 0% depending on the type of product being imported. While 10% import duty rate is levied on consumer and luxury goods, 0% duty rate on imports is applied for intermediate goods.

Customs duties accounted for 4.7%, 3.6%, 3.8%, 4.1% and 4.5% of State Budget revenues in 2008, 2009, 2010, 2011 and 2012, respectively. In the first six months of 2012 and 2013, customs duties accounted for 4.1% and 4.8%, respectively, of State Budget revenues.<sup>29</sup>

Exports are duty free and there are not any sales or tariff quotas. In terms of trade policy, Armenia was classified as a model country by WTO in 2010<sup>30</sup>. Almost 80% of imported goods in Armenia are imported under FTAs and, hence, they are duty free. Armenia's trade is primarily oriented towards Russia and the EU (%). Closed borders with Turkey and Azerbaijan limit economic growth and impose additional costs on imports and exports.

If we compare tariff rates on imports in Armenia with that of the ECU, it turns out only 10% matches. Armenia's current weighted mean applied tariff on imports has one of the lowest rates

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<sup>26</sup> Tumasyan M. et al. (2013): "EU-Armenia trade liberalization: A poverty and social impact analysis," working paper 2013-15, Partnership for Economic Policy, p. 8

<sup>27</sup> [http://www.wto.org/english/thewto\\_e/glossary\\_e/gsp\\_e.htm](http://www.wto.org/english/thewto_e/glossary_e/gsp_e.htm)

<sup>28</sup> [http://www.wto.org/english/thewto\\_e/glossary\\_e/ad\\_valorem\\_tariff\\_e.htm](http://www.wto.org/english/thewto_e/glossary_e/ad_valorem_tariff_e.htm)

<sup>29</sup> [www.armstat.am](http://www.armstat.am)

<sup>30</sup> [http://www.wto.org/english/tratop\\_e/tpr\\_e/tp328\\_e.htm](http://www.wto.org/english/tratop_e/tpr_e/tp328_e.htm)

among the WTO member countries. The MFN rate (most-favored-nation tariff<sup>31</sup>) is 2.7% (in the CU MFN was 7.6% in 2013, 6.9% in 2014, and 6% in 2015<sup>32</sup>). There are sectors where Armenia is even more liberal than it is necessary to meet its commitments to the WTO. 73% of tariff lines in Armenia are duty-free and the rest are levied 10% import duty.

Armenia was going to sign a free trade agreement (DCFTA) with the EU; however the decision to join the ECU deprived Armenia of the opportunity. In this sense, it is vitally important to find out whether the accession to the ECU would benefit Armenia or what would be the economic impact of accession on Armenia. The economic justification of the accession is still under question.

Armenia's top trading partners are the EU, Russia, China, Iran and the USA. Taking into account that Armenia imports from the EU such important products as machinery and appliances, chemical and foodstuffs, the price hike may seem even more sensitive.

The EU is the largest trading partner of Armenia.<sup>33</sup> It's worth mentioning that Armenia's trade turnover with the EU is more diverse than trade turnover with Russia. The total turnover of EU-Armenian trade is about USD 1.5 billion, of which 2/3 are imports. On the other hand, the biggest chunk of trade turnover with Russia is oil and gas imports. This means that the Armenian consumers will shoulder the burden of expensive imports from the EU while getting no benefits from joining the ECU. Armenia exports to Russia primarily alcohol drinks, dries fruit and products related with mining.<sup>34</sup>

Imports of Armenia	2012		2013	
Countries of origin	Share (%)	Value (million USD)	Share (%)	Value (million USD)
European Union	26.40%	1,124.40	26.70%	1195
Russia	24.80%	1,057.40	24.80%	1110.9
Belarus	0.80%	33.6	0.91%	40.8
Kazakhstan	0.20%	8.9	0.01%	0.7
Eurasian Customs Union	25.80%	1099.9	25.74%	1152.4
Total	100%	4,261.20	100.00%	4476.8

Source: [www.armstat.am](http://www.armstat.am)

### **ECU CET problem**

Whether Armenia would enjoy welfare improvement as a result of switching from the CIS FTA to the ECU highly depends on the nature of external tariffs. Armenia's tariff structure will undergo the most significant change among the countries which have joined the ECU so far. One of the problems of ECU CET structure is that it was engineered and installed during the post-crisis period in order to uphold domestic industries and pursue a policy of import substitution. Automotive industry is an example of this type of policy and high tariffs on vehicles reflect the protectionism in the Russian car industry. Tariff rates of the ECU and WTO

<sup>31</sup> [http://www.wto.org/english/thewto\\_e/glossary\\_e/mfn\\_tariff\\_e.htm](http://www.wto.org/english/thewto_e/glossary_e/mfn_tariff_e.htm)

<sup>32</sup> [www.armstat.am](http://www.armstat.am)

<sup>33</sup> [http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc\\_113345.pdf](http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_113345.pdf)

<sup>34</sup> [www.armstat.am](http://www.armstat.am)



regulations are not fully incompatible<sup>35</sup>, Armenia may face problems in meeting its WTO obligations.<sup>36</sup>

### **Migration/Remittances**

Recently, the Russian Federal Migration Service announced that starting from 2015 they will apply new regulations according to which citizens of the CIS countries will need to use international passports for entering Russia. Russian President Vladimir Putin stated<sup>37</sup> that the regulation will not apply to the citizens of the ECU members. The fate of Georgian migrants who were deported from Russia after the Rose revolution is still remembered in Armenia. There are over 2 million Armenian immigrants in Russia and many of them still don't have Russian or international passports. Remittances sent from Armenian migrant workers in Russia make up a vitally important source for the Armenian economy. Approximately 85% of the total remittances entering Armenia are sent from Russia.<sup>38</sup> Armenia is highly dependent on remittances and as they serve as a vital source of economic development.<sup>39</sup>

### **Investments**

The possible positive effects of accession are mainly associated with investments coming from Russia<sup>40</sup>. The ECU membership can bring a new wave of investments in the infrastructure development. Most important infrastructure projects and industrial complexes are owned by Russian companies. The Russian energy giant Rosneft is expected to invest \$500 million dollars for the construction of a new chemical plant in Armenia. Reportedly, Rosneft may acquire and modernize Armenian chemical factory Nairit which was regarded as the crown jewel of the Soviet chemical industry. The merger of Nairit and Rosneft is likely after the accession to the Customs Union. Metsamor Nuclear Power Plant is expected to be upgraded and renovated by Russia's Rosatom. This will prolong the lifespan of the nuclear power plant from 2016 to 2026. Following the announcement of Armenian to join the Customs Union Russia promised to invest 15 billion rubbles (\$450 million) in the reconstruction of the Armenian railways. Moreover, the Eurasian Economic Commission announced that membership would facilitate the construction of Iran-Armenia railway system given the economic feasibility. The Russian CEO of South Caucasian Railway stated that the railway construction is likely to start in 2015. According to the statements, this project is intended to create the shortest transportation route from the Black Sea to the Persian Gulf.

Russian foreign direct investment in Armenia covers around 40% of the total amount. Russians also promised to invest 50 million US dollars in 1,820 Armenian-Russian joint companies. In addition, ECU accession could attract new funds for infrastructure development and industrial projects, such as Metsamor Nuclear Power Plant, railroad networks, Nairit chemical plant, as well as to FDI in agro-processing, information technology, financial, light industry, and services.

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<sup>35</sup> <http://carnegieendowment.org/2013/05/30/growing-eurasian-customs-union-within-wto/g7ee>

<sup>36</sup> [http://arka.am/en/news/economy/armenia\\_to\\_face\\_problems\\_within\\_wto\\_when\\_joining\\_customs\\_union\\_edb/](http://arka.am/en/news/economy/armenia_to_face_problems_within_wto_when_joining_customs_union_edb/)

<sup>37</sup> <http://en.ria.ru/russia/20130418/180716482.html>

<sup>38</sup> <http://www.eurasianet.org/node/68078>

<sup>39</sup> <http://www.carim-east.eu/media/CARIM-East-RR-2013-24.pdf>

<sup>40</sup> <http://www.imf.org/external/pubs/ft/scr/2014/cr1489.pdf>

### **Economic Impact IMF**

According to the IMF estimates<sup>41</sup>, the major benefits of the Customs Union membership are lower energy prices and funding of important infrastructure projects. It's also expected that the membership in the ECU will boost investments. The impact of significant increase in prices of products imported from the EU can generate high social costs. As the Armenian economy has become even more dependent on Russia, the country is quite susceptible to any possible slowdown in Russia.

### **Key advantages of the research**

The key advantage of this research is that it addresses a policy dilemma which is relevant for the trade policy agenda of Armenia. Novelty and contribution of this research includes calculating trade diversion, trade creation, and net welfare effects of integrating into the ECU. Another key advantage of the research is that the results can be used to make policy corrections and challenge the existing misconceptions surrounding Armenia's potential accession to the ECU. Government officials and Armenian proponents of Eurasian integration usually try to nurture positive attitude towards the ECU and introduce the potential membership in a positive light. Consequently, high expectations and uneducated opinions dominate the discussions over Armenia's integration into the ECU. This thesis attempts to unveil potential risks and negative effects of the Eurasian Customs Union on Armenia.

The Armenian government is reluctant to elaborate on advantages and disadvantages of the membership and all the negotiations are kept in secret. Hot debates over the accession are mainly initiated among the civil society groups.

The research objective is to evaluate welfare effects of customs union accession on Armenia, which is expected to enter the union in 2014. The welfare implications of the accession are analyzed using a partial-equilibrium model. This is an ex-ante study of trade policy change which means we analyze the possible outcomes before the accession to the customs union occur. The focus is on comparing the welfare of Armenia before and after the prospective membership. Therefore, the main research question is: Does participation in the ECU increase the welfare of Armenia compared to the existing free trade regimes with Belarus, Kazakhstan and Russia? In other words, we use a benchmark year (2013) in order to compare the two trade regimes in terms of welfare effects. The study discusses the advantages and disadvantages of the potential membership and comes up with conclusion and policy recommendations. The thesis also finds out what are the sources of welfare gains and losses. The economic justification for entering a customs union can be translated into the analysis of trade creation and trade diversion. Thus, the study proceeds with investigating and measuring the trade creation and trade diversion effects of the accession. After calculating trade diversion, trade creation and net welfare effects we will be able to forecast the potential welfare losses and gains of accession. The study also provides insights on the effect of accession on the government revenues. The research also discusses possible dynamic effects of accession to the ECU. The main research hypothesis is that Armenia's accession to the ECU is economically unjustified. In other words, the hypothesis is that accession will inflict heavy welfare losses. We strongly believe that possible future benefits do not compensate the social and economic costs resulting from accession. In order to achieve its objectives the research exposes potential problems and risks

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<sup>41</sup> <http://www.imf.org/external/pubs/ft/scr/2014/cr1489.pdf>

associated with the membership in the ECU. The study challenges and refutes the main arguments in support of accession.

The effect of ECU accession on Armenia's welfare has not been thoroughly studied so far. The key advantage of this thesis is that for the first time attempt is made to calculate welfare effects (trade diversion effect and trade creation effect) of accession to the ECU on Armenia. Prior to this study no welfare effect analysis was conducted to investigate the impact of joining the ECU on Armenia. Further, in analysing the effect of accession on Armenia the author uses partial-equilibrium model which has not been used previously.

Despite the fact that Armenia announced that it is going to join the single market (Common Economic Space) the Eurasian Economic Union, which implies free movement of people, goods, services and capital, the focus of our study is the welfare economics of Armenia after joining the customs union of Belarus, Kazakhstan and Russia. Although we discuss some aspects of possible dynamic effects, our main concern is static welfare implications of accession.

By answering the main research question, we also come up with supplementary findings. We can classify these findings in terms of trade policy stakeholders. Our stakeholder analysis includes the government, businesses, trading partners and consumers. Consequently four supplementary research questions can be separated:

For the government: what would be the expected tariff revenue of Armenia after it joins the ECU?

For trading partners: Would it strain relationships with the EU who is a critical economic partner and political ally?

For Businesses: Would the elimination of customs check points decrease administrative inefficiencies and corruption (ease of doing business)?

For consumers: Would Armenian consumers enjoy better quality and cheap products as a result of competition among businesses?

# 1. Theoretical Framework

Forming a preferential trade agreement has become widespread since 1990s. WTO counts around 474 PTAs in the world 283 of which are operational.<sup>42</sup>

## 1.1 Definition

A Customs Union (CU) is often defined as form of economic integration (or regional trade agreement) according to which a group of countries preferentially provide tariff-free access to each other's imports and exports and agree to apply common external tariffs (CET) to external trade with the rest of the world (countries outside the customs union).

Customs unions, by definition, grant preferential treatment to a group of countries in terms of trade while being discriminatory against the rest of the world. Customs unions basically constitute a free trade agreement (FTA) but with adoption of CET (FTA plus equalization/harmonization of tariffs) in trade with non-member countries. With establishing FTA countries agree to totally eliminate tariffs as a trade restriction and facilitate non-tariff barriers (frontiers which constrain free movement of goods, services and production factors) on goods flowing between them. The difference of a customs union from a free trade agreement is that with FTA countries are still free to apply their own level of trade protection against other countries. With adopting CET countries apply the same level of trade protection against imports from non-member countries. Membership in a CU implies transfer of power from national authorities to supranational institutions in order to pursue common trade policies.

## 1.2 Theory of Customs Union

The customs union theory has taken shape since 1950s. The theory is based on the assumption that there is perfect competition in markets and thus, it is often labeled as orthodox customs union theory. The theory is primarily focused on the static welfare effects of a customs union. In theory, these welfare effects can be both positive and negative in comparison to the initial situation of individual protectionism.

The theory of customs union has come up with general conclusions regarding gains and losses of a country which is going to join a customs union. Particularly, the theory of customs union suggests that the larger the market size of the union and the more countries participate in the union, the greater would be the likelihood of trade creation.

The theory of customs union addresses the issue of economic justification of forming a customs union or entering one. The theory focuses on the issue whether a customs union is advantageous to the initial situation of trade protectionism or tendency towards trade liberalism is more

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<sup>42</sup> [http://www.wto.org/english/res\\_e/publications\\_e/wto\\_unctad12\\_e.pdf](http://www.wto.org/english/res_e/publications_e/wto_unctad12_e.pdf)

beneficial. Jacob Viner played a crucial role in the development of the theory. His work<sup>43</sup> was a turning point as before 1950 the dominating idea was that customs unions always boost free international trade. In his study Viner demonstrated that whether a customs union endorses protectionism depends on different arrangements. Above all, he introduced the concepts of trade creation and trade diversion in the context of customs union. He argues that these welfare effects decide whether or not it's economically justified to join a customs union. If trade creation effect prevails it is worth joining a customs union. If accession to a customs union leads to trade diversion, it is economically unjustified to integrate.

If the member countries match with the ranges of their products, trade creation is more likely to occur. The logic behind this claim is that trade creation takes place if more efficient production in a member-state replaces less efficient domestic production of the same product type. Hence, the more member countries the union consists of the more likely their product ranges will match. In our case the range of products produced in Russia, Kazakhstan and Belarus is largely different than in Armenia. In essence, Armenia produces different goods than the member-states. Therefore, there is a little room for replacement of less efficient Armenian products with more efficient Russian products and trade creation is unlikely to happen.

Although the theory suggests that in the long-run trade the likelihood of trade creation is higher, our conclusions illustrate that long-term dynamic gains are even more unlikely in the case of Armenia.

According to the theory the greater are the initial tariff rate of a country; the greater is the probability of trade creation. This is not the case with Armenia, as initial tariff rate is very low.

Another important point is that the higher is the elasticity of import demand for a country, the greater is the chance of trade creation. As shown above, the elasticity of import demand is quite low for Armenia.

Finally, the country is likely to benefit from the integration if the share of trade with member states was already large prior to accession. In our case, Armenia's trade with Belarus and Kazakhstan is rather insignificant in relation to other trade partners. Russia has a considerable share in Armenia's trade but does not occupy the top spot among trading partners as the EU is the largest trading partner of Armenia.

According to Viner model, customs union accession results in two types of welfare effects, namely trade creation and trade diversion. The former increases the welfare in a country, whereas the latter decreases the welfare. Accordingly, if trade creation effect outweighs trade diversion effect the customs union membership of a country is welfare-enhancing.

Jacob Viner pioneered the analysis of customs unions elaborating on the phenomenon of trade creation and trade diversion. Trade creation implies additional imports coming from partner countries and replacing products of inefficient domestic producers. In order for this to happen, imports from partner countries have to be at least as cheap as imports from non-member countries. Trade creation means increased trade and enhanced welfare for the country that imports. Alternatively, trade diversion takes place when additional imports from the customs union member-countries replace more efficient suppliers from outside the customs union who, unlike suppliers from the customs union, are not exempted from paying customs duties. Trade

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<sup>43</sup> Viner J. (1950): "The customs union issue," Carnegie Endowment, New York.

diversion usually reduces welfare because the importer country has to pay more for products from less efficient partner-country suppliers.

Cline distinguishes between static and dynamic effects of a customs union on a country. The static effect includes the impact of the customs union membership on welfare of a country. Static effect analysis focuses on comparing the welfare of a country before and after the accession to a customs union. On the other hand, the dynamic effect implies the impact of a customs union on the rate of output growth of a given country. Most of the analysts believe that dynamic effect of a customs union is more important and sustainable than static effect. In other words, most of the advantages of a customs union membership are realized over time as a dynamic effect. Static effect is often small and negative while dynamic effect has more significant effect on economy. However, dynamic effect is more difficult to measure than static effect. The study of both static and dynamic involves comparing the advantages and disadvantages of accession to the customs union.

## 2. Literature review

Much research has been done over the effect of customs union on trade flows and welfare of a country. However, most of the studies deal with ex-post analysis of forming a customs union rather than ex-ante. The reason is that it is much easier to analyse the effect based on historical data rather than make estimates of the future effects based on the current trends.

According to “Integration across Borders,” EBRD Transition Report (2012) regional economic integration produces a number of benefits. The report states that immediate trade creation effect is mainly caused by abolition of administrative barriers or customs checkpoints from internal borders. This is not the case in Armenia. Cross-border infrastructure will remain largely unreformed because customs points will continue to exist. Second, Armenia is not gaining additional market size, as the country already has FTAs with all 3 member-states. Bigger market size generates greater competition and spread of innovation. Russian market is not particularly characterized by innovative project or good competitive environment. Thirdly, it's believed that export capacity-building within the customs union may expand exports worldwide in the future. As already noticed, accession to the ECU does not produce any additional benefits in this sense as Armenia has been already enjoying tariff-free and low non-tariff barriers with the member states. For Armenia, export capacity-building remains as challenging as before due to the high transportation costs and economic blockade. The fourth potential benefit of regional economic integration is the development of cross-border production chains. For Armenia it would be particularly difficult to integrate into such kind of chains because of the absence of shared border with the countries and high transportation costs. In order to boost export competitiveness, take advantage of specialization and intra-regional division of labor Armenia needs facilitated non-tariff barriers in addition to tariff free access. Joining the ECU does not solve this problem as Armenia will continue to face significant non-tariff barriers. Fifth, EBRD point out that regional economic integration promotes economic and political institution-building. In this sense, ECU is the least favorable option for Armenia as the Union consists of countries characterized by lack of democratic institutions and successful market-oriented reforms. Poor property rights protection, low level of contract enforcement and lack of independence in the judicial system are the issues to address in these countries (weak investment climate). This Eurasian trio of Russia Belarus and Kazakhstan is often referred to as the “Authoritarian club”. It is noteworthy that Belarus is the most unreformed country in the post-Soviet area. In contrast, Association Agreement with the EU would open up opportunities

for extensive institutional reforms. Finally, another benefit is that integration can cause services liberalization. According to Jensen, J. and Tarr, D. G. (2011), deeper integration with the CIS countries offers almost no benefits in terms of services liberalization because trade and FDI with developing post-soviet countries produce limited spread of technologies in contrast to trading and investing with developed countries. The authors argue that forming a DCFTA with the EU creates much more favorable framework for liberalization of services and diffusion of technologies than any integration project within the CIS.

World Bank<sup>44</sup> assessed that living standards of people in Belarus and Kazakhstan fell as a result of forming a customs union. This is primarily caused by trade diversion effects.

Wisniewska (2012) argues that Russia simply imposed all the terms and conditions on the other members of the integration project. Although the union has been functioning since 2010 Russia, allegedly, still create barriers against partner countries within the ECU. Export duties levied on oil to Belarus serves as a good example of this conflict of interests. The most interesting claim in this paper is that CIS region (including ECU member states) has limited significance for Russia from the economic perspective. The political aspect of integration is more important for Moscow which tries to prevent the EU eastward expansion into the region. One of economic justifications of Kazakhstan to join the ECU was that the membership could serve as a counterbalance to Chinese expansion in the country. In addition to the growing Chinese presence in the Kazakhstan's economy, cheap Chinese goods overwhelmed the country. Kazakhstan's could exploit the opportunities of ECU and gain more bargaining power against China in energy and economic cooperation. Thus, Kazakhstan's main concern is to maneuver between two great powers and counterbalance each of them. This is not the case with Armenia. In fact, even prior to the announcement to join the union Armenian economy was largely dominated by Russia and DCFTA could serve as a counter-balance to growing Russian expansion.

Wolfgang H., Brovka G. and Belozarov I. (2013) provide a comprehensive overview of emerging problems in the ECU. The growing tendency within the ECU is that while Russia actively trades both with Belarus and Kazakhstan, trade turnover between Belarus and Kazakhstan is not impressive at all. The paper also thoroughly discusses the issue of non-tariff barriers. The facilitation on non-tariff barriers is moving forward too slowly. This situation carries important implications for Armenia as the elimination of non tariff barriers could somehow compensate tariff-related trade diversion losses. The authors cite World Bank's Doing Business report according to which none of the member-states has made a significant positive move in facilitating trade. All of the ECU member countries have below average scores regarding trade across the borders and forming a customs union did not improve the situation in this context. According to a survey, only the third of respondents (representatives of Russian businesses) agreed that the time spent at the customs points had decreased. Moreover, 64% of exporters claimed that they spend around 3 hours waiting at the customs checkpoints; 49% of respondents allege that the customs procedure sometimes lasts more than 1 day<sup>45</sup>.

Tarr (2012) supports the main argument demonstrated by Wisniewska (2012). The authors elaborate on the issue of the Russian domination and argue that the ECU is tailored mainly to

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<https://openknowledge.worldbank.org/bitstream/handle/10986/2722/659770ESW0P1230on0Final0jan0302012.pdf?sequence=1>

<sup>45</sup> [http://www.worldcustomsjournal.org/media/wcj/-2013/2/WCJ\\_V7N2\\_Complete\\_Journal.pdf](http://www.worldcustomsjournal.org/media/wcj/-2013/2/WCJ_V7N2_Complete_Journal.pdf)

protect the Russian manufacturing industries. They confirm that the CET structure almost replicates Russia's tariff profile. He has also found that a considerable amount of wealth transfer occurred from Kazakhstan to Russia as a result of membership. Further, the author makes it abundantly clear that Kazakhstan has been facing substantial welfare losses due to membership in the ECU. The author illustrates that trade diversion effect in Kazakhstan overwhelmed trade creation effect as a result of switching to the Russian-dominated tariff rates. Another important revelation found in the paper relates to the complications and problems associated with non-tariff barriers. Certain problems arise within the ECU regarding sanitary and phytosanitary (SPS) measures on foodstuff and agricultural products and technical barriers to trade (TBTs) on goods. From time to time trade disputes occur between Russia and Belarus over the use of these types of barriers. Allegedly, Russia still uses this type of barriers to create artificial obstacles for exporters from Kazakhstan in entering the Russian market. According to the author, the ECU authorities have made no improvements towards easing of non-tariff barriers so far. This simply supplements Wisniewska's (2012) findings. Another big issue related with non-tariff barriers is that standards regulation within the ECU is inherited from the Soviet Union and includes compulsory technical regulation. This system of compulsory technical regulation is time-consuming and costly as it involves negotiations with regulators in case companies decide to change anything in produced goods or production technology. This creates hassle and red tape which blocks innovation and technological development in the ECU. Accordingly, the system carries potential corruption risks because of the increasing bureaucratization. In contrast, advanced economies use a system of voluntary standards. Although Russian and Kazakhstan adopted a legislation which is favorable for transition to voluntary standards, the reform implementation is too slow. In fact, the formation of ECU has further complicated the procedures due to the transfer of power from national to supra-national authorities. The point is that now the ECU authority should deal with technical regulations and certification instead of the national regulator. Thus, in order to comply with technical requirements businesses have to get permission from the common ECU regulator rather than from the national authority. This situation causes delays and bureaucratic obstacles for the business community. Harmonizing standards along with the application by applying mandatory technical regulation is a huge task to complete. Except from the EU, no other customs union managed to harmonize standards and pursue a policy of compulsory technical regulation simultaneously and more or less successfully. The author suggests using Mutual Recognition Agreements (MRA) instead. The EU used this system in the initial stages while gradually harmonizing the standards. The author argues that the successful facilitation of non-tariff barriers very much depends on adopting the system of mutual recognition across the ECU.

De Souza (2011) was among the first researchers to find out the GDP-reducing and welfare diminishing nature of the EurAsEC customs union. The results obtained by de Souza suggest that trade diversion effects exceed trade creation effects. The author used GTAP model as the methodological framework and concludes that accession caused GDP contraction and negative trade diversion effects for the participants.

One of the latest discussions over the potential effects of tariff changes on the ECU members is presented in the important study by Isakova, Koczan and Plekhanov (2013). The empirical analysis reveals that while Russia enjoyed trade creation effect due to decreased external tariffs, Belarus and Kazakhstan suffered negative impacts of trade diversion. The trade between China and Kazakhstan particularly suffered from the increased external tariffs. The authors emphasize the importance of removing non-tariff barriers. The level and structure of the ECU CET have



limited benefits to offer for the member-states. The negative trade diversion effect is significant on Kazakhstan's welfare due to the lower tariff rates before the accession. Kazakhstan's case is indicative of the potential difficulties Armenia is going to face due to the accession and significant increase in tariff levels. Moreover, the extent of changes in the external tariff level in Armenia would be larger than in Kazakhstan. Accordingly, trade diversion effect is supposed to be stronger than in Kazakhstan. The results and main findings thus obtained in this paper are compatible with that of De Souza (2011) and Michalopoulos and Tarr (1997). All of these authors strongly recommend those countries which have to increase their external tariffs against the accession. One of the limitations of the paper is that it investigates only short-term effects of tariff changes whereas trade may require longer time span to adapt in new environment and have positive effect on welfare.

EBRD mentions<sup>46</sup> asymmetry between member countries as another potential issue. In fact market size and political influence are not compatible within the union. For example, while the population and GDP of Kazakhstan are around one-tenth of Russia's, Belarus is even smaller in these indicators. The history of economic integration suggests that this kind of asymmetric integration projects typically fail. The history of CIS integration attempts reinforces the argument. Moreover, as Venables (2003) put it if a union consist of countries with lower per capita income it's most likely to result in the widening of income gap between member countries rather than converging of income levels. The reason is that in this case the integration tends to profit countries with relatively high specialization and comparative advantage. Thus, relatively rich countries get competitive edge over poorer countries and benefit at the expense of them. This is similar to the situation in the ECU as the member states have relatively low per capita income. The author suggests that this type of union is likely to promote further divergence of income levels than convergence. For instance, Armenia's production structure is far below the world average. Armenia is relatively poorer country with low levels of specialization and comparative advantage. Consequently, it's not Armenia which will be a winner in the Eurasian integration. In contrast, a union of high income countries would benefit relatively poorer countries with labor-intensive industries. This is due to the opportunities of improved access to advanced markets. DCFTA with the EU is an example of this kind of union and Armenia's labor intensive industries could benefit from improved access to the advanced European market. He illustrates his point by giving a hypothetical example of Uganda and Kenya. Uganda has more unskilled labor than the rest of the world, including Kenya. Kenya's labor force is more skilled than Uganda's workforce but less skilled than the rest of the world. So, two of these countries are poorer than the rest of the world but Uganda is even poorer than Kenya. Accordingly, while Uganda has an "extreme" comparative advantage, Kenya possesses an intermediate comparative advantage. Kenya has comparative advantage over Uganda in terms of more skillful labor and after forming a customs union it would export those goods which require skillful labor to Uganda. In its turn, Uganda would export to Kenya those goods which require less skillful labor (for example, agricultural goods). In this situation Uganda is experiencing trade diversion as after forming a customs union and granting preferential treatment to Kenya it would get its imports from Kenya and not the rest of the world. Kenya does not have comparative advantage in comparison to the rest of the world but its comparative advantage is within a custom union over Uganda. On the other hand, Kenya is experiencing trade creation because it imports products from the cheapest supplier in the world not just the cheapest supplier within a customs union. This hypothetical situation perfectly matches the case

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<sup>46</sup> <http://www.ebrd.com/downloads/research/economics/workingpapers/wp0154.pdf>

of Armenia in the ECU. In our situation Armenia has an “extreme” comparative advantage and Russia has an intermediate comparative advantage. According to the same logic, Armenia would experience trade diversion and Russia would experience trade creation as it has comparative advantage over Armenia. As a result, Armenia would lose if it participates in the ECU while Russia would win. This example makes it abundantly clear, that ECU as a customs union of relatively poorer countries promotes income divergence and uneven distribution of benefits and costs. In other words, relatively poorer country, Armenia, would bear costs while Russia, relatively richer country, would enjoy the benefits. The overall findings of this analysis reinforce the argument that Armenia is going to lose in the Eurasian integration undertaking.

Greenaway, D. and Nowbutsing, B. M. (2006) support Venables’ argument and further develop it. They come up with their own analysis based on the early findings of Venables (2003). According to the authors, in forming a customs union what matters for a country is its comparative advantage relative to other union members and rest of the world. The authors run a simulation and support the idea that the country with an “extreme” comparative advantage bears costs due to trade diversion. Not surprisingly, they find that forming a customs union improves trade flows within the union and decreases trade outside the customs union.

### **2.1. The literature on the case of Armenia’s accession**

The literature on economic impact of Armenia’s accession to the ECU is limited. It’s not easy to find reliable assessments of costs and benefits of Armenia’s accession to the ECU. Actually, there are not academic studies discussing the economic implications of potential membership. The questions such as how the accession would impact the Armenian economy or what are the social implications of accession were not studied thoroughly. Individual experts or government officials have made commented and estimates on the issue but no methodological approach or comprehensive framework was introduced. One possible explanation is that the decision to join the ECU was abrupt and totally unexpected. This research attempts to fill the gap and discuss one particular aspect of Armenia’s accession to the ECU.

The Eurasian development Bank released a report in 2013 titled *The Customs Union: Impact of Economic Integration*. This is a single attempt to conduct a comprehensive analysis of those effects that Armenia may experience after joining the union. As this was the first attempt to make quantitative estimates and come up with some conclusions on the topic, many media outlets often give a reference to this study. Consequently, public opinion on the ECU is largely derived from the conclusions of this study. In this research the Armenian analysts tend to make extremely optimistic forecasts regarding Armenia’s prospects in the ECU. Hence it is extremely important to expose the possible misrepresentations in the study. Overall, the study has many flaws and does not discuss possible negative effects thoroughly. It seems that the authors did their best to highlight the possible positive effects of accession while avoiding any discussion involving possible negative consequences for Armenia. In doing so, the study possibly tends to garner support for accession. The report seems heavily biased and inclined to justify the decision to join the ECU. For example, when discussing the impacts of increasing tariff protection on the Armenian economy, the authors claim that it would help to reduce budget deficit and reorient trade. They avoid discussing the possible trade diverting and inflationary effects. Instead, they conclude that transition period may be required to harmonize the divergent tariff rates. Particularly, the study doesn’t discuss negative welfare effects arising from increasing average external tariffs more than twice. Rising prices caused by pure trade diversion effect and negative static effects are ignored in the discussion. Trade and welfare

effects were not discussed at all. Given that Armenian consumers are particularly sensitive to any price increase; this is a serious flaw in the study. While talking about “the short-term trading effect” the authors only mention the reduction of gas price which is claims to have a GDP growth effect of 1%.

To conclude, this study is mainly concerned with justifying the decision to join the ECU and exaggerating the possible benefits. At the same time, the authors avoided discussions over the possible costs and risks associated with the membership. They often cite only positive tendencies to economically justify the accession.

The authors claim that the accession will instantly yield huge economic gains. They primarily focus on the promised Russian investments in telecommunication and energy infrastructure projects which, they predict, will generate economic growth effect of 0.4% . Growth predictions relying on promised Russian investments seem to be risky as previously Russia has promised many investment projects which are not implemented yet (promising to invest some €165 million in the railway network within 5 years in 2008). In addition, the energy sector and transport infrastructure are already mostly controlled by the Russian companies which are not the most effective companies in Armenia. Moreover, they claim that facilitated rules for Armenian migrants working in Russia will produce a GDP growth of 0.25%. In sum, the authors estimate that the accession would produce 4% GDP growth. Additionally they predict a long run growth effect of approximately 2.3%. Assessing the benefits of accession based primarily on GDP growth forecasts is as it does not take into account either important static effects or comprehensive dynamic effects of accession. Furthermore, increase in outflow migration is not a sign of healthy economy nor is it a path for sustainable development of the Armenian economy.

According to the forecasts on the Russian economy, the country does not good growth prospects. Russian economy is in decline and the trend is consistently negative for the country. Another issue is that the whole economy is extremely dependent on energy prices and economic diversification has never succeeded in the country. Financial and manufacturing industries are relatively underdeveloped and inefficient. The Russian economy has many structural problems and weaknesses remaining largely unreformed. Lack of innovation and technological advancement makes the development prospects unsustainable. The influx of remittances flowing Russia makes Armenia highly sensitive to any changes in the Russian economy. In Armenia the lion share (over 80%) of remittance inflows originates in Russia.

One of the perceived benefits linked to the ECU accession is discounted gas price. After Armenia announced its intent to join the ECU Gazprom agreed to supply natural gas to Armenia with Russian domestic prices by 2018 (transportation costs are added). Accordingly, the Armenian gas tariffs are linked to that of Russia and will be adjusted according to the changes in the Russian market. But the problem is that Russia reduced the border price of natural gas (189\$ per 1000 cubic meters) for Armenia, whereas gas price for consumers is continuously increasing. The consumer price of Russian gas in Armenia (391\$ per 1000 cubic meters) remains one of the highest in the post Soviet space. “ArmRosGazprom” obtains all the revenues from gas supply in Armenia. This company fully controls the gas distribution networks in Armenia and earns over 200\$ for each 1000 cubic meters of gas bought by the Armenian consumers. It turns out that the gas price discount that Russia granted to Armenia after the decision to join the ECU, has nothing to do with the consumer price reduction of natural gas in Armenia as one Russian company, Gazprom, sells natural gas to another Russian company,

ArmRosGazprom, with a lower price. ArmRosGazprom has a monopoly over importing and distributing natural gas from Russia. The point is that Gazprom is the sole shareholder of this company. In conclusion, it's worth noting that the discount of natural gas price at border granted by Gazprom does not have any impact on Armenian consumers as another Russian company can monopolistically set any price and earn all the profits. In January 2014 the Armenian government sold the last 20% of shares held in ArmRosGazprom and increased the ownership of Gazprom to 100%. ArmRosgazprom is the only company dealing with import and distribution of Russian natural gas coming to Armenia from Russia via Georgia. It was established in 1997. Its shareholders are Russia's Gazprom (80%) and the government of Armenia (20%).

Although Russia reduced the gas price for Armenia following the announcement to join the ECU, long-term sustainability of gas price discount is unclear. Russia is going to liberalize domestic gas market and this will drive up internal prices<sup>47</sup>. According to the recent agreement with Gazprom, gas price for Armenia is effective only for 5 years (2014-2018)<sup>48</sup> and is pegged to Russia's internal prices. Gas price discount is rather a symbolic gesture for Armenia and does not yield tangible and long-term benefits. Therefore, referring to reduced gas prices as a direct benefit of joining the ECU is rather a misconception.

Further, for Armenia energy security concerns imply diversification of gas supplies. It is more sustainable approach than simply relying on short-term price discounts. Even if we take into account merely gas price and short-term benefits, Gazprom has potential competitor in Armenia and Russian gas does not have competitive advantage in this sense. Following the gas deal between the Armenian government and Gazprom, Iran offered cheaper gas supplies with more beneficial terms<sup>49</sup>. However the Armenian government never approached for official negotiations over large-scale supplies of Iranian gas to Armenia.<sup>50</sup> Furthermore, a week ago Iranian government representative announced that they are ready to export gas to Europe through Armenia.<sup>51</sup> The possible option to import gas from Iran cheaper and with more advantageous terms makes the feasibility of importing gas from Russia highly questionable.

## **2.2 Literature on methodology: Partial equilibrium model**

There are benefits and costs associated with accession into the customs union. According to the theory of regional integration, customs union generates two types of effects, static and dynamic. The economic impact of regional integration on a given country (Armenia) can be measured analysing these two effects. The study of both dynamic and static effects has to compare the advantages and disadvantages of joining the ECU.

Partial equilibrium model help us to conduct empirical investigation of static effects in a given accession case. It is especially useful when the availability of data is limited. It's a standard model to assess the impact of joining a customs union on the welfare of a country. It's useful not only for assessing effects of a customs union membership but for deeper integration

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<sup>47</sup> <http://www.gazprom.com/press/news/2014/april/article189315/>

<sup>48</sup> <http://news.am/eng/news/183575.html>

<sup>49</sup> <http://www.azatutyun.am/content/article/25302878.html>

<sup>50</sup> <http://www.azatutyun.am/content/article/25192605.html>

<sup>51</sup> <http://news.am/eng/news/208246.html>

initiatives. Michalopoulos and Tarr (1997, 2004<sup>52</sup>) employed this model to investigate the impact of CIS Customs Union membership on small CIS countries with lower external tariff. This model was used to analyze the effect of NAFTA membership on the US agricultural sector (Naaawaaba, Yeboah, 2012). (Fetzer, Rivera, 2005) used partial equilibrium model to analyze the impact of NAFTA on changes in the gold trade. This model was used to analyze South African Customs Union (SACU)-EU partnership agreement on Botswana's imports (Thomy, B., G.A. Tularam and M. Siriwardana, 2013. Partial equilibrium analysis to determine the impacts of a Southern African customs union-European union economic partnership agreement on Botswana' imports. It was successfully used (Khorana, Kimbugwe and Perdakis, 2008) to quantify the impact of tariff reduction effect under EAC Customs Union on Uganda's trade.

McIntyre (2005) employed partial equilibrium model to investigate the potential effects of adopting the EAC CET on Kenya's trade figures. The author used SMART trade simulation model in analysing the data. The author suggests that as a result of lower tariff rates the introduction of CET has potentially positive effects on the welfare of Kenya and Kenya would largely benefit from deeper regional integration. However, analysis on possible welfare effects of the EAC CU is still lacking.

In contrast to this, Stahl (2005) analyses welfare effects of intra-EAC tariff liberalisation in addition to the impact of EAC CET. The author concludes that adopting CET has dominating effect compared to changes in other trade policy measures (indicators). On the other hand, the paper elaborates on non-tariff barriers and to EAC trade and discovers that NTBs are more significant obstacles than tariff barriers. The paper argues that EAC total gains are not allocated evenly

## **2.3 Vinerian Approach**

Armenia imports products from the world market at a lower price than it would import after the accession. According to the Viner's approach, this type of customs union is purely trade diverting for Armenia and it's not economically justified to integrate into the union.

The underlying idea of the model suggests trade diversion is not the only effect in this situation. Armenia can potentially benefit from cheaper imports from Russia at the expense of more expensive production at home. This would make the Armenian domestic supply to decline but can potentially increase consumer surplus in Armenia. In order for this to happen, the types of products produced in Armenia and Russia have to be somewhat similar. However, as mentioned earlier, Armenian and Russian suppliers produce mostly different types of products. In this sense, in Armenia consumer surplus is unlikely to increase

## **2.4 Tarr's approach**

We conduct a partial-equilibrium analysis for Armenia's accession case based on the model developed by Michalopoulos and Tarr (1997). They employed the partial equilibrium model to study the impact of joining a Customs Union for those CIS countries which have more liberal customs duties than the CET of the CIS Customs Union. They argue that for a CIS country with a lower external tariff it would be extremely costly and disadvantageous to join the CIS Customs Union with a higher CET. More importantly, the authors explain that adopting higher

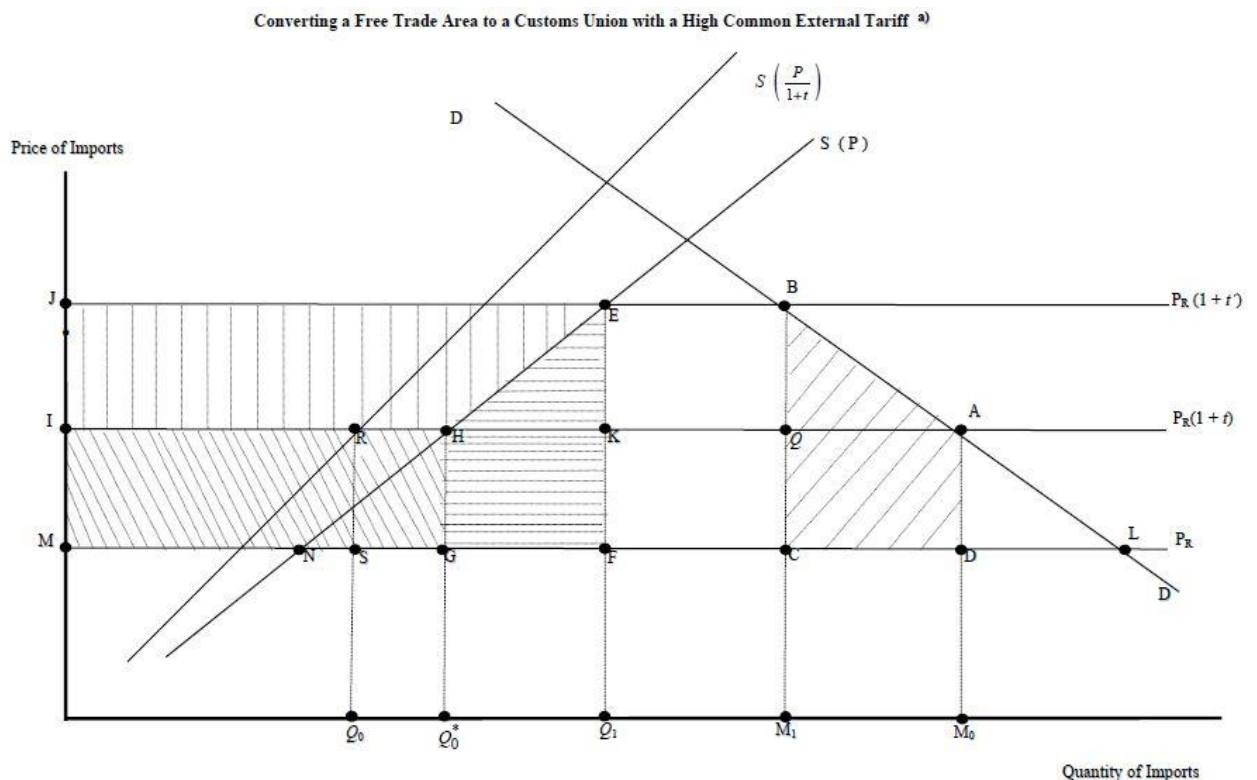
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<sup>52</sup> [http://siteresources.worldbank.org/INTRANETTRADE/Resources/WBI-Training/288464-1162851806581/Tarr\\_Michalopoulos\\_Customs\\_Unions\\_eng.pdf](http://siteresources.worldbank.org/INTRANETTRADE/Resources/WBI-Training/288464-1162851806581/Tarr_Michalopoulos_Customs_Unions_eng.pdf)

CET has more welfare-diminishing effects on small CIS countries than simply increasing the external tariff without joining the CIS Customs Union. The logic behind this argument is that CET adoption creates a window of opportunity for ineffective companies from a partner country (for example, Russia) to increase the supply of low quality goods for higher prices. Many Russian manufacturers with weak competitive qualities can easily penetrate the Armenian market and sell their products at a higher price under the tariff protectionism. The authors strongly recommend small post-soviet countries against accession to the CIS Customs Union as the membership prolong the transition from inefficient and unreformed economic system to the efficient market-based economies.

Tarr and Michalopoulos conducted their analysis for a small CIS country facing the dilemma of joining a customs union within the CIS. Moreover, they assume that the small country has low initial tariff rate and have to increase its external tariffs in the event it joins a custom union within the CIS. So, this approach is perfectly suitable for analyzing the case of Armenia joining the ECU as Armenia has all these attributes.

We employ a simple partial equilibrium model to evaluate the benefits and losses of applying the ECU CET. In our case ECU is higher than the average external tariff of Armenia.



Source: Michalopoulos C. and Tarr D.G. (1997): "The Economics of Customs Unions in the Commonwealth of Independent States," *Post-Soviet Geography and Economics*, Vol. 38, No. 3, 125-143, p. 34 (available at <http://elibrary.worldbank.org/doi/book/10.1596/1813-9450-1786>)

### **Demand**

We assume that this figure depicts the import demand in Armenia for a given product group.

Demand for imports: For the sake of simplicity, we assume that imports from different sources are homogenous.

Demand for domestic production: We also assume that there is domestic production of a given product group.

### **Rest of the world supply**

The rest of the world (denoted R) is larger than Armenia and, thus, the supply curve is perfectly elastic.  $P_R$  is the world price for the product.  $P_R (1+t)$  denotes the supply curve from the rest of the world as consumers pay  $P_R$  to suppliers from the rest of the world and  $P_R \times t$  to the government. As Armenia's external tariff increases as a result of adopting CET the supply curve from the rest of the world increases as well.  $P_R (1+t')$  denotes increased supply curve from the rest of the world.

### **Partner country supply.**

P represents the ECU member countries which are Armenia's potential partners.  $S(P)$  is the aggregate supply curve to Armenia from all potential partners (Russia, Belarus and Kazakhstan) for this product type. Imports from partner countries are tariff free. If tariffs were applied on imports from these countries, it would imply paying tariff inclusive price for imports. Hence, supply curve depends on tariff inclusive price.  $S[P/(1+t)]$  is the tariff inclusive supply curve to Armenia which would move up and left.

The supply curve of partner country is upward sloping because we assume that factors of production are limited and production is increasingly costly. Although the Armenian market is small, Russian companies producing the goods would still have constraints in supplying the goods as the goods are distributed throughout the customs union area.

Another reason for having an upward sloping supply curve is that business companies develop under tariff protection may not have been profitable without this protection. The supply curve is depicted in a way that there is not a full displacement of the rest of the world supply. Thus, the price of imports in Armenia will increase by the full amount of tariff.

If the supply curve of the partner country is not upward sloping (the higher the price of the good, the larger the supply is) for some products, the welfare of Armenia would suffer fewer losses. However, there is no reason to assume that supply curve for Russia is not upward sloping.

In order to better understand the effects of economic integration on Armenia we begin with examining the situation even before Armenia formed FTAs with Russia, Kazakhstan and Belarus. External tariff rate is  $t$  which is levied on all imports, including those coming from Russia, Kazakhstan and Belarus. Consumers pay  $P_R (1 + t)$  for the imports from rest of the world (all the countries in the world).  $M_o$  is import demand. We analyze 3 scenarios.

The Armenian consumers have to pay tariff inclusive price for suppliers from Russia, Belarus and Kazakhstan.  $Q_o$  is the quantity that suppliers from Russia, Belarus and Kazakhstan supply to Armenia.  $M_o - Q_o$  is the quantity supplied from the rest of the world. In this scenario, the

Armenian authorities collect tariff revenues from all imports. The area MIAD denotes tariff revenue before forming any preferential trade area. MIAD total tariff revenue consists of two sources one of which is collected from partner country suppliers (SRIM) and the other from the rest of the world suppliers (SRAD)

The triangle ADL represents the static welfare losses of the tariff. In this scenario, the Armenian consumers have to pay higher price  $PR(1+t)$  rather than  $PR$ . As a result of this we observe a loss of consumer's surplus as large as MIAL. However, as the authorities collect tariff revenue this loss is compensated in the Armenian economy. On the other hand, the area ADL is a loss to the Armenian economy and it denotes consumption inefficiency loss as the Armenian consumers who would buy these imported products before now buy products that they preferred less before the imposed tariff.

Now we analyze a situation where Armenia forms a free trade area with Russia, Belarus and Kazakhstan. The external tariff  $t$  does not change and the Armenian consumers pay the same  $PR(1+t)$  price for imports from the rest of the world. The quantity of import demand is the same  $Mo$ . As imports from Russia, Belarus and Kazakhstan are tariff free, supply from these countries increase and move to the right of original supply curve  $SP$ . The Armenian consumers have to pay the same price to suppliers from RBK for the quantity  $Qo$ . The remaining quantity  $Mo - Qo$  is supplied by the rest of the world producers. While there are no tariffs imposed on imports from RBK, the government tariff revenue collected equals to the area GHAD.

Now we'll discuss what would be the welfare implications of shifting from non-preferential tariff regime to the preferential Free Trade Area for Armenia. Tariff  $t$  again brings a loss of consumer surplus equal to the area MIAL. However, the part of MIAL is not a loss for the economy as only the area ADL remains as loss to the economy implying consumption inefficiency loss. The government partially covers the losses as collect tariff revenue representing the area GHAD. On

the other hand, MIHG is a loss for Armenia owing to the Free Trade Area. MIHG is a loss for Armenia as the Armenian consumers pay higher prices to the suppliers from RBK for the quantity  $Qo$  compared to what Armenia would have to pay from suppliers operating in the rest of the world.

Since Armenia consumers pay more for the RBK imports (MNHI), the suppliers from RBK take this additional money as producer's surplus. However, part of the higher prices paid by the Armenian consumers is pure inefficiency loss. In other words, producers' deadweight loss equals to the area NGH since protectionism promotes additional supply of goods from RBK who are marginally inefficient compared to world suppliers. In the case of FTA, the net change in welfare if tariffs remain unchanged towards the rest of the world, is a loss representing the area MIHG. All in all, the total loss of the tariff and the FTA is the area ADL in addition to the area MIHG.

To sum up, if Armenia impose a tariff it leads to inefficiency losses, but FTA with RBK with upward sloping supply curves significantly increase to losses. If Armenia applies a non-preferential tariff, the economy experiences consumption inefficiency loss in the face of triangle ADL. Forming a FTA magnifies the losses of Armenia because of the tariff. MIHG represents these losses. This analysis illustrates why for Armenia preferential trade arrangements are more inefficient than even non-preferential tariff protection.



Apart from costs Armenia also enjoyed certain benefits thanks to the improved access to RBK markets. Armenian exports would be protected against the competition from the rest of the world suppliers. Armenian exporters experience producer's surplus would compensate the losses from resulting from forming a FTA with RBK. However, these benefits from exports would be less than the losses on imports from RBK suppliers.

Now we consider the scenario of Armenia turning its FTAs with Russia, Belarus and Kazakhstan into Eurasian Customs Union. As a result, Armenia would adopt CET at the rate  $t'$ . The supply curve, which includes the new equilibrium price and the CET, would increase to  $PR$  ( $1 + t'$ ). The quantity of import demand decreases to  $M1$ . The suppliers from RBK also get the higher price and the quantity supplied raise to  $Q1$ . Accordingly, the quantity imported from the rest of the world decreases to  $M1 - Q1$ .

Armenia would face strongly negative welfare losses. We break down these heavy costs into three parts. First, the Armenian consumers would have to consume goods that previously they proffered less. For instance, these products may include domestic substitutes of the same goods or substitutes in other product category. Further, they decrease their consumption of total imports from  $M_0$  to  $M1$  and start using these substitute goods. In economics, the term deadweight loss refers to this type of efficiency loss. The triangle  $ADL$  represented this in the initial equilibrium, but now this loss increase to  $BCL$  area. The difference between these deadweight losses results from turning FTAs into the ECU and represents the area  $ABCD$ . The adoption of CET is responsible for the increase in consumer's deadweight losses.

Secondly, as a result of adopting the ECU CET, producers also face increase in deadweight losses. The losses expand from the area  $NGH$  to  $NFE$ . The difference between the initial situation and the situation after accession to the ECU represents the area  $FEHG$ . Owing to this, Armenia attracts less efficient higher cost supply because producers from Russia, Belarus and Kazakhstan get the opportunity to sell their goods at higher prices in Armenia. If Armenia didn't adopt CET, supplies from the rest of the world (for example, from the EU) would become available at the lower price  $PR$ . Thirdly, as producers from RBK receive higher prices while selling their products in Armenia, it increases their profits or producer's surplus.  $HIJE$  depicts this increase in producer's surplus in the RBK. This implies wealth transfer from the Armenian consumers to the producers in Russia, Belarus and Kazakhstan.

All in all, turning FTAs with RBK into the ECU implies significant losses which are reflected in the sum of areas  $ABCD$ ,  $FEHG$  and  $HIJE$  ( $ABCD + FEHG + HIJE$ ). The economic costs resulting from the ECU CET adoption given FTAs with RBK are considerably higher than if Armenia increased non-preferential tariff from an average rate of  $t$  to  $t'$ . If Armenia did so the losses to the Armenian economy would be only the area  $ABCD$ . Joining the ECU generate additional costs reflected in the areas  $FEHG$  and  $HIJE$ .  $FEHG$  represents inefficiency losses of Armenia and  $HIJE$  reflects wealth transfer to RBK producers.

The aggregate loss of the FTAs and the ECU is reflected in the area  $BCL$  plus  $MFEJ$ . It is greater than the individual loss of the ECU or FTAs if we take them separately. If Armenia adopted a non-preferential tariff of rate  $t'$  it would generate a welfare loss equal to the area  $BCL$ . The difference is the area  $MFEJ$ . This is because the Armenian consumers pay higher prices to producers from RBK than they would have to pay to producers from the rest of the world. Armenian authorities could compensate the loss reflected in the area  $MFEJ$  by tariff revenue, if the tariffs were not preferential. The combination of FTAs and ECU add  $MFEJ$  as a loss to

Armenia and amplifies the negative effects on Armenia. The area MFEJ consists of the area MNEJ, which reflects wealth transfers from Armenia to the Russian suppliers, and NFE, which reflects inefficiency or deadweight losses of buying goods from marginally inefficient Russian suppliers. The estimated losses of the Armenian economy could be decreased by the amount of improved export conditions under preferential trade agreement. However, these benefits are likely to be small as the tariff first and foremost benefits Russia.

In comparison to a situation where no tariffs are applied, applying tariffs would result in inefficiency. If Armenia enters a preferential trade agreement with partners that have upward sloping supply curves, the losses would be even greater. The adoption of higher external tariffs would produce amplify inefficiency losses in Armenia. The producers from Russia, Belarus or Kazakhstan would increase supply under higher protected prices and this would make the things for Armenia even more inefficient. It would be even more inefficient than non-preferential tariff protection at the similar rate.

### 3. Methodology

The choice of an appropriate methodological for analyzing regional economic integration is quite challenging. Depending on the research question the methodology can vary widely starting from using descriptive statistical approaches to constructing some models. In general, researchers either use econometric estimation or simulation. However all of the methodologies depend on whether your analysis is ex ante or ex post. For ex ante analysis, general equilibrium and partial equilibrium models are among the most convenient and widely used tools (WTO, “Practical Guide to Trade Policy Analysis” or EADB, Quantifying Economic Integration of The European Union and The Eurasian Economic Union: Methodological Approaches). Ex ante approach involves projecting the impacts of integration and turning to a set of economic variables, while ex post focuses on historical data and conduct the analysis of the past trade records.

One of the limitations of partial-equilibrium model is that it ignores the links between different sectors of economy, different markets, income and expenditure and focuses only on one or multiple specific products or markets.

In order to conduct a regression analysis, one needs to have sufficient time series and cross-sectional data. Other models require devoting long time and large resources. The advantage of the partial equilibrium model is that it requires data only for one year.

#### 3.1 Partial equilibrium model

Statistical methods and econometric models are useful in analyzing the economic impact of a customs union membership on a country if we have sufficient data or a large sample size for long periods of time. That is to say, one can conduct econometric analysis to investigate the ex-post effect of customs union accession on output growth or welfare if the customs union has already been operating for sufficiently long period of time. Availability of historical data is particularly important in order to make valid conclusions and reliable predictions with a high level of confidence. However, policymakers often have to assess the likely effects of joining a customs union before the actual membership. Econometric tools are not suitable in assessing upcoming trade policy changes.

Unavailability of data dictates to use different approaches in evaluating ex-ante effects (implications or feasibility) of joining a customs union. In order to evaluate changes in foreign

trade policy, researchers first choose a model which is the most suitable in a case study. Trade data collection and obtaining the respective elasticity is particularly important in analyzing the effects of a customs union membership. Using the formulas derived from the theoretical models with input data (baseline or benchmark) we can easily calculate welfare effects of joining a customs union on a given country.

In order to do ex-ante assessments of joining a customs union, analysts usually chose either general equilibrium model (GE) or partial equilibrium (PE) model. Indeed, these models have their own advantages and disadvantages. GE model takes into account the links among different markets, whereas PE model overpasses these linkages. What is more, GE model highlights the aggregate data, but PE model segregates the data into sub-groups making it more apparent and explicit. It depends on the research questions and goals whether or not these features represent advantages or disadvantages.

The advantages of the Partial Equilibrium model are the following: the researcher can find accessible and convenient online simulation tools for the analysis. The results of the simulations are clear and lead to valid conclusions. There is a small number of equations involved in the simulation for quantifying the changes in supply and demand. Also for the simulation the researchers need only limited variety of data such as imports, exports, elasticity and other trade-related data. Unlike the GE model, PE model focuses on complex policy mechanism and uses current data. While the GE model considers long-term effects, the PE model develops short-term and medium term effects. It is the limitation of the PE model that the results may diverge with the elasticity values used in the analysis. Another limitation is the lack of the empirical literature. Furthermore, the PE model does not consider the budget constraints on the production factors.

A number of studies on trade policy use partial equilibrium models. Although this is a highly effective method to measure trade creation, trade diversion and welfare effects of economic integration, it has some limitations. The major drawback of this approach lays in its underlying assumptions. The model assumes that tariff reduction will mechanically cause decreased prices and vice versa. Whereas, it's quite possible that importers will partially exploit tariff reduction and will not decrease prices accordingly.

One of the classic tools that researchers have been using to measure the static effects of forming a customs union is partial equilibrium (PE) modeling. One of the key advantages of PE is that the model allows investigating the effects at a disaggregated level and separately quantifying the trade and revenue effects. The model is employed to gauge the effects of specific changes in trade policy (such as increasing import tariffs or adopting common external tariff) on various measures of trade and welfare (such as imports, exports, government revenue, prices, consumer surplus etc.) at a given point in time. Partial equilibrium models are based on Viner's theory of customs union.

Moreover, the model is one of the most appropriate methodologies for an ex-ante study of trade policy options. Many analysts used this model in assessing the implications of possible membership in a customs union for a given country. Partial equilibrium model is a classical method to measure the welfare effects of accession to a customs union on economy. It is a useful tool in investigating the impact on a given country or a particular sector of economy. Comparing to general equilibrium models, partial equilibrium models are simpler as the model does not take into account interconnections between different markets. Most importantly, partial

equilibrium model is useful empirical study method when conducting ex-ante assessment of the prospective membership or gauging the impact of membership before accession.

In order to calculate the trade creation and trade diversion effects on Armenia, we use the suggestions made by Cline in his analysis of the Central American Common Market. Trade pattern for the year 2013 is used as benchmark. The trade patterns in the baseline year help us understand what would happen if Armenia didn't join the ECU. The main assumption is that the main trade pattern and import trends would not dramatically changed if Armenia didn't enter the customs union. Thus, the calculation of trade diversion and trade creation effects of accession is based on the classical approach suggested by Cline, W. R. (1978). The formulas based on Cline's suggestions were used by Vizjak, A. (2001), Samardžija, V. et al (1998), Đukec, Z. et al (2003) to calculate the similar effect on Croatia in case the country joined the EU Customs Union. The most recent use of formula is presented in the paper by Josic H. and Josic M (2013). Thus, we use a formula to based on Cline's model and formulas used by the Croatian economists to measure the static welfare effects on Croatia. Hence, using the trade figures and indicators for Armenia in 2013 we calculate the static effects based on the respective formulas:

### 3.2 Calculations of trade creation, trade diversion and total net welfare effect on Armenia

#### Calculation of the trade creation effect on Armenia

$$\underline{TC} = \eta \times T \times \underline{IECU} =$$

$$= -1.07 \times 0.029 \times 0.257 = 0.0079 = -0.797\% = -0.8\%$$

Where,

TC = Trade creation

η = price elasticity of import demand for Armenia = -1.07<sup>53</sup>

T = percentage change in import prices due to tariff elimination in ECU = -2.915% = -0.029

IECU (%) = relative value of imports from the ECU countries in total imports for Armenia  
0.257

T = Pw (1+t) - PECU (percentage change of import prices due to tariff elimination in customs union is equal to the difference between the price change of imports before and after customs union creation) = 2.457% - 5.372% = -2.915% = -0.029

Pw (1+t) = the price change of imports before the accession to the ECU (Price change due to the application of import tariff before Armenia entered the Eurasian Customs Union)

Price change due to tariff impose before customs union creation (Pw (1+t)) was calculated by dividing government tariff revenue with the value of imports in 2013 and equals 2.457% of price without any tariff rate.

$$\underline{Pw (1+t)} = \underline{RT / I} = 110 \text{ (million USD)} / 4476.8 \text{ (million USD)} = 0.02457 = 2.457\%$$

RT = government tariff revenue in 2013, 44.3 (billion AMD) or 110 (million USD)

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<sup>53</sup> The sources of the trade figures and indicators for Armenia are provided in the appendix

$I_{TOT}$  = value of imports in 2013 4476.8 (million USD)

Price change after the customs union creation (PECU) is calculated by dividing expected government tariff revenue after the customs union creation (RTE) with the import value (I)

$$P_{ECU} = R_{TE}/I = 240.5/4476.8 = 0.05372 = 5.372\%$$

$R_{TE}$  = Expected government tariff revenue after the customs union creation = 240.5 (million USD)

$I_{TOT}$  = value of imports in 2013 = 4476.8 (million USD)

$R_{TE}$  = Expected government tariff revenue is calculated by multiplying expected non-preferential imports of goods after the customs union creation (INP) (67.62% of the market) with the average common external tariff ( $CET_{AVE}$ ) in the ECU in 2014.

$INP$  = expected non-preferential imports after the customs union creation is obtained by subtracting the proportion of expected preferential imports (imports from Russia + imports from Belarus + imports from Kazakhstan = 32.38%) from total imports (100%) and equals 67.62% of the total Armenian imports value = 3485.8 (million USD)

$INP$  = Expected non-preferential imports of goods after the customs union creation is 67.6% of the total imports and equals 67.6% of 5155 million USD = 3485.8 million USD

$R_{TE} = INP \times CET_{AVE} = 3485.8 \times 0.07$  (7.6%/6.9%) = 240.5 million USD (This figure (240.5 – 110 = 130.5 million USD seems credible when we take into account the estimates (140-145 million USD) of the Armenian government<sup>54</sup>)

In order to calculate expected government tariff revenue after the customs union creation, imports from non-ECU and non-CIS countries will be taken into account. Under the CIS framework Armenia signed the CIS Free Trade Agreement (CISFTA) in 1994. As the CISFTA never became effective and operative, Armenia began negotiating separate FTAs with CIS countries. As of today, Armenia has signed Free Trade Agreements with Russia (1993), Tajikistan (1994), Moldova (1995), Kyrgyz Republic (1995), Turkmenistan (1996), Ukraine (1996), Georgia (1998), Kazakhstan (2001) and Belarus (2003). All in all, tariffs would apply on imports from all the countries in the world not including the ECU member states (Belarus, Kazakhstan and Russia) and those countries which have FTAs with Armenia (Tajikistan, Moldova, Kyrgyz Republic, Turkmenistan, Ukraine and Georgia).

Total (TMKTUG) 297124.7 thousand USD + Total (ECU) 1152515.2 thousand USD = IP1449639.9 thousand USD = 1449.6 million USD (32.38% of total imports)

Expected non-preferential imports of goods after the customs union creation =  $INP = \text{Total Imports (100\%)} - \text{IP (32.38\%)} = 67.62\% = 4476.8 \text{ million USD} - 1449.6 \text{ million USD} = 3027.2 \text{ million USD}$

According to the IMF (Armenian authorities; and Fund staff estimates and projections, March 2014) projected imports of goods and services in 2014 is 5155 million USD<sup>55</sup>.

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[http://arka.am/en/news/economy/armenia\\_suggests\\_including\\_over\\_800\\_goods\\_in\\_exception\\_list\\_for\\_joining\\_customs\\_union/](http://arka.am/en/news/economy/armenia_suggests_including_over_800_goods_in_exception_list_for_joining_customs_union/)

### **Calculation of the trade diversion effect on Armenia**

$$TD = (M_{ROW} \times M_{ECU} \times S \times T) / (1 + (M_{ROW} \times S \times T)) =$$

$$= 0.743 \times 0.257 \times 0.73 \times 0.029 / (1 + (0.743 \times 0.73 \times 0.029)) = 0.004 / 1 + 0.0157 = 0.004 / 1.0157 = 0.0039 = 0.4\%$$

**TD** = Trade diversion

**I<sub>ROW</sub> (%)** = level imports from rest of the world (outside the Eurasian Customs Union) = total imports – the proportion of imports from Russia, Belarus and Kazakhstan = 1 – 0.257 (the combined imports from Russia, Belarus and Kazakhstan constitute 25.7% of the total imports) = 0.743 (or 74.3% of the total Armenian imports)

**S** = coefficient of elasticity of substitution 0.73

**T** = percentage change in import prices due to tariff elimination in ECU = -0.029

**I<sub>ECU</sub> (%)** = relative value of imports from the ECU countries in total imports for Armenia 0.257

In order to calculate net welfare effect of the accession on Armenia, it is necessary to calculate revenue effect (loss of government revenue from tariff elimination) and welfare effect (change in welfare of domestic producers and consumers).

### **Calculation of the net welfare effect on Armenia**

**Total net welfare effect** on Armenia's welfare can be calculated:

$$W = T \times \Delta M / 2$$

$$= 0.029 \times (-53.587 \text{ million USD}) / 2 = -0.7770115 \text{ million USD}$$

**W** = total net welfare gain/loss

**T** = percentage change in import prices due to tariff elimination in customs union = 0.029 (for the value of T see the previous calculations)

**ΔM** = M0M1 = Net Trade effect (trade creation effect – trade diversion effect) × I (value of imports) = -0.797% - 0.4% = -1.197 = -1.2% (4476.8 million USD) = -53.587 million USD

Figures for Armenia

**η** = price elasticity of import demand for Armenia = -1.07

**R<sub>T</sub>** = government tariff revenue in 2013: RT = Customs and other import duties (% of tax revenue) in Armenia was last measured at 5.58 in 2011, according to the World Bank.

(2010) 5.0, (2009) 4.8, (2008) 6.0, (2007) 4.8, (2006) 4.5, (2005) 4.8, (2004) 4.3 (2003) 4.7

Applying these tariff rates across all sectors implies that tariff revenue in the revised database is about 1% of GDP, which is consistent with collected revenues in Armenia.

For the year 2008, aggregate data from Armenia show that tariff collections are 1% of GDP

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<sup>55</sup> <http://www.imf.org/external/pubs/ft/scr/2014/cr1489.pdf>

Tax revenue (Tax revenues and duties) 777.4 (billion AMD, 2011), 878.4 (billion AMD, 2012), 993.1 (billion AMD, 2013) – 21.9% GDP, 1103.3 (billion, 2014)

I – Import value – (2013) 4476.8

CETAVE = 7.6% (2013), 6.9% (2014), 6% (2015)

RT = government tariff revenue in 2013, 44.3 (billion AMD)

S = coefficient of elasticity of substitution is 0.73

IECU = 25.74% = 0.257 (2013)

IROW = 74.26% = 0.743 (2013)

## 4. Results

As our findings clearly illustrate that Armenia's accession to the ECU will result in negative trade creation effects and significant trade diversion effect. Trade creation effect is - 0.8%, trade diversion effect is 0.4% and net welfare effect is - 0.7770115 (million USD). In sum, Armenia would experience an immediate welfare loss of 0.7770115 million USD. This was quite expected due to the high CET rates and large share of Armenian trade outside the ECU (with the EU). The increase of the equilibrium price in Armenia would lead to a decrease of consumer surplus. Intra-trade between the ECU members is free within the framework of the CISFTA. This means that imports are duty free.

Both Armenia and Customs Union member countries applied to the WTO individually rather than as a customs union. After the accession problems may arise with WTO regarding the obligations of Armenia. Although the modification of these commitments is possible, it might be costly in terms of time and adjustment costs. The point is that according to the WTO rules other members have a right to demand compensation for any losses suffered as a result of changes in obligations. The average CET of the ECU exceeds the WTO required tariff rate.<sup>56</sup>

The major impact of joining the Customs Union would be the replacement of the national external tariffs of Armenia with the common external tariff of the ECU. Theoretically speaking, potential benefits of accession to a customs union are largely dependent on difference between initial external tariff structure of a country and common external tariff structure of a customs union. The current external tariffs of Armenia are considerably low than the common external tariffs of the ECU. If Armenia replaces the existing external tariffs with the ECU common external tariffs, it would push up its unweighted average tariff. Moreover, the common external tariff displays more dispersion than the Armenian external tariff. Hence, the tariff rate of specific products (which are highly protected in Russia) would rise considerably.

Armenia already enjoys tariff free access to the CIS market within the framework of CISFTA. Therefore, the accession to the ECU will not result in decreased consumer prices in the Armenian market. In this sense, the ECU membership does not offer any additional benefit as trade creation and welfare gains will not occur. Trade creation effect is possible only in the case of those products which are imported from non-member countries and for which Armenia

<sup>56</sup> <http://carnegieendowment.org/2013/05/30/growing-eurasian-customs-union-within-wto/g7ee>

currently offers higher external tariff compared to the common external tariff of the ECU (for example). After all, significant tariff increases will generate more crucial welfare effects in Armenia than small tariff reductions.

In the case of Armenia's accession we can expect significant price hike. Given high tariff rates in the Eurasian Customs Union, suppliers from Russia, Belarus or Kazakhstan who would enjoy trade preferences over rest-of-world supplies, can take advantage of the expanded protection and raise consumer prices in the Armenian market. We assume that they will behave this way because one of the underlying ideas of creating the customs union is the enhanced protection of inefficient local industries across the member states. For Russia, Customs Union serves as a strategic tool to preserve its inefficient industries by means of tariff structure. It can be argued that the tariff structure of the Eurasian Customs Union is almost indistinguishable from that of Russia. For the model, it should be assumed that Armenia will face upward sloping supply curves from Russian or Belarusian suppliers because they will increase consumer prices corresponding to the degree of high tariffs.

More importantly, as Armenia has already got an access to the ECU market (Russian market) free of customs duties, Armenian exporters will not gain more advantageous access to the ECU market (mainly Russian). Armenia has adopted liberal tariff structure and trade policies which is inconsistent with the common trade policy and interests of the ECU. As our calculations illustrate Armenia's membership will result in clear trade diversion without improved access to the ECU market and trade creation effects. Tariff structure and trade policy pursued by the ECU is extremely costly and inefficient for the small and liberal economy of Armenia. Armenia's membership in the ECU will impose high tariff protection which blocks the penetration of world prices into the Armenian economy. This will generate significant distortions in the economy as price signals from the international market will not support the efficient allocation of resources to areas of comparative advantage in the Armenian economy. Many studies (see,) conclude that countries with high tariff protection grow slower than those with more liberal tariff policy. Furthermore, we argue that for Armenia changing its external tariffs according to the ECU common trade policy is even more disadvantageous than simply increasing national tariff rates without preferential treatment to the ECU member-countries. As a matter of fact, for Armenia the adoption of ECU trade legislation and tariff structure would be more costly than if Armenia just raised tariffs without membership in the ECU. It is abundantly clear that costs associated with Armenia's accession to the Customs Union outweigh benefits in the short run.

Accession to the ECU and adoption of the common external tariff impose high costs for a number of reasons. Firstly, suppliers from Russia, Belarus or Kazakhstan are likely to increase prices of those products which are under preferential tariff protection in the Armenian market. In other words, Armenian consumers will have to pay higher prices for Russian or Belarusian goods which were much cheaper before entering the ECU. There is an adverse terms-of-trade effect on the initial quantities purchased from partner-country suppliers. Secondly, imports will shift away from the EU and other non-member countries as for these imports higher customs duties will be charged. The supplies will divert away from the non-member countries towards Russia, Belarus and Kazakhstan. In this case, trade diversion imposes two types of costs: (1) as Armenia will not charge customs duties for imports from the ECU, additional loss of the potential tariff revenues on these diverted imports will occur (2) Armenian consumers will have to pay higher prices to suppliers from Russia, Belarus or Kazakhstan than they used to pay to rest-of-world suppliers before the customs union membership.



#### **4.1 Revenue effects**

Participation in the ECU will have important impact on the fiscal situation, inflation and macro stabilization of Armenia due to changes in the structure of government revenues.

Joining the ECU will have negative impact on government revenues of Armenia. Armenia will continue to pursue a non-tariff free trade with the ECU member-states (there will be no customs clearance in the ECU). Furthermore, due to higher protection imports from the ECU member-states will grow at the expense of trade with countries outside the ECU. As a result, potential tariff revenues that could be collected from imports outside the ECU will be lost to the ECU authorities because of the trade diversion away from these imports towards imports from the ECU member-states. The problem is that although the ECU legislation foresees that customs revenues will be given to the country to which the imports are intended, certain administrative obstacles may arise. Armenian authorities will have to obtain customs revenues from the authorities of another member-state (or the ECU authorities) and this fact may create additional red tape given the poor and corrupted tax collection practices in all the member-states. Another point is that part of the customs revenues will likely be used to finance administrative institutions and offices of the Eurasian Customs Union. This fact also supports the argument that tariff revenues will be diminished

#### **4.2 Excise tax**

After Armenia joins the ECU a new procedure to collect VAT and excise tax will be introduced. According to the Armenian legislation, importers have to pay both (indirect taxes) VAT and excise tax at the border. According to the ECU, both of these taxes have to be declared in the customs declaration. The actual payment should be made before the 20th of the next month after products are imported. The procedure involves certain risks. After the accession excise tax rates will have to be harmonized. Excise tax rates vary across the ECU.

#### **4.3 VAT**

The application of VAT on a mixed basis is common among the ECU countries. The “origin system” implies that when trading within the CISFTA exports are taxed but imports are not. In the case of “destination system” imports are taxed but are not taxed. Membership in the ECU means harmonizing VAT system across the member-countries (Armenia-the applicable system in the Customs Union is the current mixed system). If not harmonized the discrepancies between taxes systems will create distortions and opportunities for arbitrage. Allocation of tax revenues is one of the most crucial issues to address. Even if Armenia completely harmonizes VAT rate with the ECU certain problems may arise. If Armenia experiences a trade deficit within the ECU and trade surplus outside the union, it would lose VAT revenues to another member-country with the opposite trade pattern. To put it simply, let’s suppose that Armenian imports entirely come from Russia and exports go to the EU or elsewhere outside of the ECU. Another assumption is that Russia’s trade pattern is opposite. In this situation Armenia would not collect any tax revenue either on imports or on exports due to the fact that trade outside of the ECU is subject to the “destination system” taxation and trade intra-ECU trade subject to the “original system”. Instead Russia would collect the entire VAT revenue since the country collects on both exports to Armenia and imports from outside of the ECU. In other words, Russia would collect tax revenues at the expense of Armenia. Therefore, mixed VAT system

would result in the relocation of tax revenues from Armenia to Russia (even though the mixed VAT system would not change relative prices and is therefore non-distortionary because there is no impact on the allocation of resources).

Dynamic effect relates to rate of output growth. There are two basic mechanisms that can accelerate output growth rate in a country (economic growth or GDP growth). The first mechanism is the faster growth of factor inputs while the second mechanism is increased total factor productivity. If we hold population growth constant and assume no changes in economic activity rate (or LFPR), factors of production grow through investment (in human and physical capital). Total factor productivity relates to the technological dynamism or long-term technological change. Improved access to technology is one of the most important determinants of sustainable development. New technologies bring changes and raise productivity of human and physical capital. However if Armenia join the ECU the country would lose the opportunity to import high technologies for a reasonable price.

The evidence shows that the total factor productivity of developing countries is positively correlated with the access of technology and knowledge realized by the imports from developed countries (Coe and Helpman, 1995; Coe, Helpman and Hoffmaister, 1995). For the development and transformation of the economy it is of high importance for the transition country like Armenia to have an access to technologies. Thus, Armenia should orientate on the improved access to world markets and the opportunity to obtain cheaper new technologies. For restructuring the obsolete industrial complexes inherited from the Soviet economy it is important to attract new technologies. The introduction of new and dynamic technologies in the Armenian economy will be ruled out by the protectionist trade policy of the ECU. As a result, Armenia will be still dependent on Russian uncompetitive technological capacity. This perspective suggests that the joining the ECU will have negative consequences on the Armenian economy.

According to the Winters (1996), Customs Unions affect the rate of investment in participating country in a number of ways: 1) Tariff change engenders cost shift of imported capital equipment. As a result of this, rate of return on investment and rate of capital accumulation change, 2) effective economic policies and stable financial system can improve investment climate in the country, 3) Can attract FDI from foreign investors instead of importing from abroad.

There are not any positive signs that membership in the ECU will promote investment growth in the country whatsoever. For Armenia cost of imported capital will shift up due to high tariff rates. There is a risk that the Customs Union may act as a protection for inefficient industrial structures and technological capacity inherited from the Soviet Union.

For a country which has one third of its population living below poverty line, the social costs of import price hike can be too high to bear.

In terms of institution-building and market-oriented reforms the ECU does not provide the right incentives and motivation to modernize. On the other hand, red tape reduction, improvement in business climate, good governance, anti-corruption policies and bringing the Armenian products in agreement with the international standards were key requirements of the Association agreement. If not the decision to join the EU, Armenia was supposed to sign a free trade agreement with the EU in November 2013. The ECU membership does not set any requirements of such kind of reforms. AS IMF report put it, compared to the EC DCFTA ECU membership is

less likely to lead to structural reforms or institutional modernization. Joining the ECU entails abandoning the model of modernization and institutional reforms which the EU offered in terms of DCFTA.

As a result, accession the following trends would continue to prevail

1. Armenia gave up the opportunity to build strong economic institutions.
2. No facilitation of exports to the rest of the world would take place
3. Trade diversion effects outweigh trade creation effects
4. Armenia would operate in a less efficient markets compared to the EU market

To exploit these benefits, the most urgent reforms to address are to low non tariff-barriers to trade, improved cross border infrastructure, limited use of non-tariff barriers against the rest of the world, extended market access to service sectors and reinforce regional governance institutions.

## **5. Limitations**

A great deal of economic impact of accession depends on the terms and conditions under which Armenia enters the ECU. Whether the trade diversion effect and inflationary trends would be harsher or milder depends on what kind of agreement the Armenian authorities will be able to hammer out as a result of negotiations. Negotiations over concessions play a crucial role in the final outcome of the effects. In this research we used the current data independent from any future changes due to exemptions.

The optimal trade policy option for Armenia would be the formation of FTA with all of its important trading partners. Armenia already has FTAs with CIS countries (including Russia) and it would be beneficial to sign DCFTA with the EU as well. Russia and the EU are two most important partners and it's in the best interest of Armenia to have tariff-free facilitated access to these markets. However forming a customs union with one of these partners is exclusive as the country would not be able to complete free trade agreements with bot of the key partners (the membership is incompatible with DCFTA). Signing DCFTA would balance the trade policy of Armenia and benefit the country in the long-run.

Owing to the fact that the trade of Kazakhstan and Russia is dominated by oil and gas commodities, the trade policy of these countries is set accordingly. Commodity importers and exporters have divergent interest in terms of trade policy.

## **Conclusion**

The results of our investigation suggest that pure trade diversion effect prevails over trade creation effect in the accession case of Armenia. ECU membership will result in considerable losses to Armenia. The main sources of these losses are increased import tariffs and remaining non-tariff barriers. This is due to the fact that Armenia's trade with all the member-states is already liberalized. Consequently, reductions in customs duties will not yield any further effects, as customs duties between member-states are already almost zero. Additional losses can be expected in the long run as technological advancement and innovations are unlikely to occur

within the ECU. One of the most important findings is the welfare transfer from Armenian consumers to Russian producers.

Accession to the ECU would be costly for Armenia given its current liberal trade regime. The major costs are associated with the adoption of common external tariff which on average is more than two times higher than the current average external tariff of Armenia (the average level and dispersion of CET is higher than external tariff of Armenia). Imposing the Russian tariff more than doubled the external average tariff of Armenia. As a consequence, Russia will benefit from high tariff protection in Armenia and increase its share in the Armenian imports. Moreover, Russian low quality goods will be available for higher prices than prior to the accession because imports from Russia will enjoy higher protection than before. Mostly high tariffs are imposed on goods which are not produced in Armenia but produced in Russia. As a result, imports from Russia will considerably grow displacing imports from the EU and other non-member countries. Shifting away from the EU imports to more expensive and lower quality imports from Russia signifies a large transfer of income from Armenia to Russia (trade diversion effect). Uncompetitive Russian companies can take advantage of favorable conditions and increase the prices of their low quality goods in Armenia. Common external tariff schedule almost duplicate the Russian tariff schedule and expresses the interest of Russian producers. That's why Russians have been pushing new members to accept the Russian tariff structure as the basis for the common external tariffs. This represents win-lose situation which overwhelmingly favors Russian industry. Although the Armenian government has been negotiating over exemptions from adopting CET for a number of products (special transition arrangements), however little success has been recorded so far (the outcomes are uncertain). Initially the government was negotiation over 900 tariff lines but the number of tariff lines gradually decrease to 400. Before the accession, Belarus and Kazakhstan negotiated over 400 items for exclusion from the CET application by 2015. Essential goods such as aircraft, cars, medical equipment, pharmaceuticals products and furniture were included in the list (Wiśniewska (2012). The sizable amount of the costs will be reduced if the government achieves the exemptions for a number of vital goods. Due to the welfare gains and increased growth, Armenia should have pursued the liberal trade regime. Armenia loses the advantages from the trade relations with the rest of the world (for instance, EU) due to the restrictive trade regime established by the ECU. Making Russia a key trade partner, Armenia risks too much of being highly dependent on the Russian outdated technologies and poor production structures. The ECU member countries are unable to propose much in relation to innovation. The member states suffer from the weak competitive environment and business climate. For Armenia, it faces distortions caused by ECU, and they will not be balanced by the static trade effect or dynamic effect of the technological development.

Armenian proponents of the Eurasian integration often argue that if Armenia joins the ECU it would obtain important benefits in terms of facilitated access to the important Russian market. This argument lacks validity as Armenia has been enjoying duty free access to the vast Russian market within the framework of free trade agreement formed in 1993. Hence, the participation in the ECU does not yield any added value for Armenia in terms of improved market access.

International competition makes it difficult for the small markets of Belarus, Kazakhstan and Russia to choose an effective tariff structure. Armenia will be forced to rely on adopting the expensive and outdated Russian technologies instead of the technologies potentially flowing from the developed countries. There is an uneven distribution of the costs and benefits of the ECU, and the latter may cause the clash of interests in the future.

For Armenian consumers the high tariff protection means that they will be forced to purchase either low quality or overpriced Russian products. Armenia will face high costs due to the Customs Union membership. With its legislation and structure the ECU serves only the interests of the Russian industries. The gains from the Russian exports will be minor compared to the forgone EU exports. Although short-term economic losses of accession are apparent and measurable, it is difficult to find any conclusive evidence regarding the long-term benefits. The positive dynamic effects do not reduce the negative static effects. Armenia would face high trade costs which would be difficult to mitigate.

Armenia's accession to the ECU is not beneficial both in the short run and in the long run. However, as the economy of Armenia is overwhelmingly dependent on the Russian economy, refusing to join the union could result in hostile reaction from Russia. Having a harmonized import policy would have negative welfare effect on the Armenian economy. Most importantly, joining the ECU would deprive Armenia of obtaining higher quality new technologies from advanced countries for cheaper prices. Accession to the ECU would deteriorate and strain Armenia's trade relation with important partners, such as the EU or the USA. Non-tariff barriers would continue to worsen the business climate in Armenia, even though the red tape and corruption risks would be decreased in the absence of the tariff barriers. On the other hand, agricultural businesses incur ample risks, because after the accession Russian or Belorussian agricultural products may capture the Armenian market. As a result of greater productivity and cheaper prices the Armenian agricultural businesses may be suppressed. Armenia risks becoming overly dependent on Russia.

Russian companies are bigger in terms of the size and scale of operation in case of the most of the industries compared to Armenian businesses. Therefore, Russian businesses can suppress Armenian competitors by taking advantage of the economies of scale. This is true especially for the agricultural sector where the Russian products may seize the Armenian market and harm the sector.

Taking into consideration both static and dynamic effects of accession to the ECU, I conclude that Armenia's economic losses outweigh gains. Static effects are of particular importance for many Armenians who earn a living in import-related industries. Armenians are sensitive to any price hike due to the high poverty and unemployment level in the country. Moreover, in recent years Armenia has witnessed high emigration rate. Facing unemployment many Armenians choose to leave the country and any price increase would exacerbate demographic problem in the country. The Russian authorities announced that by 2015 new regulation of immigration would favor the citizens of the ECU member-countries and will grant them visa free entry into Russia. This decision served as a pressure on the Armenian government which is dependent on remittances sent by the Armenian migrant workers (over 2 million) in Russia. I strongly recommend against the participation in the ECU as social and economic costs are too high. As a result of accession, cost of living and food prices will go up creating more hardships for Armenians and pushing more people below the poverty line. Although the Russian side promised several investment projects which are important for the infrastructure development in Armenia, their implementation schedule is still uncertain. Taking into account the impact of accession on welfare and output growth, I would strongly recommend postponing the accession. If accession is irreversible or unavoidable due to political pressure or security concerns, the Armenian authorities should do their best to negotiate for concessions and claim as many exemptions as possible. As far as political economy is concerned, joining the ECU would make Armenia even more dependent on Russia. Economic and energy security of Armenia is already

under threat due to the overdependence on Russia. Russia has already taken control of major energy and telecommunication infrastructure in the country and accession to the Russian-led integration project would reinforce this tendency. Economic integration with the ECU is not viable for Armenia as negative effects are not offset by potential positive effects. Deeper integration with Russia aggravates the macroeconomic vulnerability of Armenia as any negative shift in the Russian economy would have immediate and amplified effect on the Armenian economy. According to EBRD, if production chains are deeply integrated, suppliers of intermediary goods are negatively impacted as suppliers of final goods cancel orders and use the existing stocks of inputs.

The membership in the ECU benefits a small group of people, who control the key industrial sectors of Armenia. If we take into account possible Russian sanctions that would follow if Armenia did not join the ECU, dodging the likely embargo of Armenian brandy or mineral water is a benefit for its own sake. Russian ban on Ukrainian chocolates or Georgian and Moldovan wines was extensively discussed in the Armenian media and within the business community. Russia is a significant trade partner and Russia is the main export market for many Armenian manufacturers.

One of the most pressing concerns for a small and low-income country such as Armenia is the changes in tariff revenue resulting from accession to a customs union.

As Armenia gives up a part of its sovereignty and leverage trade policy to the supra-national body, the country will not be able to pursue an independent trade policy anymore. Moreover the accession to the ECU deprived the country from the opportunity to complete an agreement with the EU over the Free Trade Agreement (DCFTA). Most importantly, the agreement would push for institutional and market-oriented reforms which are important for a post-Soviet transition country. Fears over reform reversal, Armenia's liberal reforms and trade policy will be reversed. The main problem is that outside the ECU Armenia would not be able to form a free trade agreement with other countries is another disadvantage. The membership in the ECU is exclusive and Armenia will not be able to form a free trade area with countries outside of the ECU. The association agreement with the EU promised may positive effects for the country. According to the report<sup>57</sup> prepared by the "Ecorys" on the prospects of Armenia in relation the DCFTA, the free trade agreement with the EU would produce good results in the long run. Furthermore, according to the same report, the legislative framework regulating imports of products into the ECU is quite complicated and may imply high enforcement costs.

One of the benefits of forming a customs union is the removal of customs control. Armenia will not gain any benefit in this sense as customs checkpoints will not be removed from the borders. Internal border control will still be in place (remain) in Armenia. In other words, administrative barriers will not be removed from the Armenian borders.

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<http://tsia.ecorys.com/images/Armenia/Background/final%20report%20tsia%20armenia%20final%20sept.pdf>

Facilitated customs clearance procedures are considered to be one of the key foundations of forming a customs union. Reduced costs gained from the removal of customs inspection offices (infrastructure and staff) and improved cross-border trade can also be viewed as advantages. However, Armenia would not be able use these opportunities because of the absence of shared border with the Eurasian customs territory. Even after the membership, all the Armenian imports and exports will continue to flow through Georgia. Thus Armenia will not be able to enjoy the benefits associated with speedy and cost-effective cross-border trade because the country will still need customs check points. Usually the elimination of customs check points results in less administrative inefficiencies and anti-corruption corruption but this is not the case with Armenia's accession. Furthermore, Armenia's status as a member of the ECU would rather complicate the customs clearance process at the Armenian-Georgian border.

According to the ADB estimates, as a result of removing customs checkpoint cross border trade between Kazakhstan and Russia became speedier. However for cars and trucks coming from non-member countries customs clearance time was prolonged.<sup>58</sup> In Armenia the situation is going to be even worse as the country does not share border with member-countries and thus, all the customs checkpoints will remain in place. In other words, Armenia will not enjoy the benefit of speedy cross-border trade while significantly complicating the current customs clearance procedures with Georgia.

For importers and exporters crossing the Armenian border will not become easier and cost-efficient. Armenia has already enjoyed free trade agreements with all the member countries. Further gains in this sense should not be expected.

Armenia may benefit from uninterrupted and expanded access to the larger Russian market. As mentioned earlier in this study, the membership of the ECU does not generate any additional benefits, because the country has already been taking advantage from the duty free access under the FTA with Russia. The most of the Armenian exports flowing to Russia represent the metals and minerals. Thus, ECU membership is unable to generate more effects on these industries. Furthermore, the efficient trade with Russia, Belarus and Kazakhstan is constrained by the weak business environment and institutions in these countries. Structural inefficiencies are inevitable in case of the ECU membership. The creation of the trade block benefits the country by offering the advanced development of supply chain. However, Armenia will not benefit from it, as it does not have a common border with the member states, and it will face high transportation costs.

As far as Armenia is an import-based economy receiving over 75% of imports from outside the ECU, the current low foreign trade tariffs and liberal trade policy are more suitable for the country. Moreover, Armenia lost the chance of becoming more liberal with signing the Free Trade Agreement with the EU. It seems the best choice to have a liberal trade policy for the small and landlocked country having limited natural

resources. The situation for Armenia worsens further, when 2 out of 4 neighbors (Turkey and Azerbaijan) of Armenia put embargo on Armenian trade. The access to the world market is realized only through Georgia.

Although the average CET is expected to fall due to Russia's WTO commitments, the level of CET will still be higher than the original Armenian tariffs. Expanded Russian export to Armenia is not beneficial for the country in terms of welfare and economic development. In fact, transfer of income from Armenia to Russia is likely to take place. Joining the ECU means departure from its liberal trade policy and adoption of high protectionism. Hence, the ECU CET protects those industries which are in the interests of Russia. Russia would increase trade barriers.

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<sup>58</sup> <http://www.ebrd.com/downloads/research/economics/workingpapers/wp0154.pdf>



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## Appendix

### **Figures for Armenia** (Figures are current as of 30 June 2013)

$\eta$  = price elasticity of import demand for Armenia = -1.07 (obtained from Kee et al. (2008))<sup>59</sup>

$R_T$  = government tariff revenue in 2013:  $R_T$  = Customs and other import duties (% of tax revenue) in Armenia was last measured at 5.58 in 2011, according to the World Bank.<sup>60</sup> For the year 2008, aggregate data from Armenia show that tariff collections are 1% of GDP<sup>61</sup>

**Tax revenue (Tax revenues and duties)** 777.4 (billion AMD, 2011), 878.4 (billion AMD, 2012), 993.1 (billion AMD, 2013) – **21.9% GDP**, 1103.3 (billion, 2014)<sup>62</sup>

**I – Import value** – (2013) 4476.8 million USD<sup>63</sup>

**CET<sub>AVE</sub>** = Average Common External Tariff of the Eurasian Customs Union 7.6% (2013), 6.9% (2014), 6% (2015)<sup>64</sup>

$R_T$  = government tariff revenue in 2013, 44.3 (billion AMD) or 110 million USD<sup>65</sup>

**S = coefficient of elasticity of substitution is 0.73**<sup>66</sup>

$I_{ECU} = 25.74\% = 0.257$  (2013)

$I_{ROW} = 74.26\% = 0.743$  (2013)

### **Armenian imports 2012**

Total 100% (4,261.2 million USD)<sup>67</sup>

Russia 24.8% (1,057.4 million USD, 1057416.4 thousand USD)

Kazakhstan 0.2% (8.9 million USD, 8896.5 thousand USD)

Belarus 0.8% (33.6 million USD, 33588.8 thousand USD)

Eurasian Customs Union 25.8% (1099.9 million USD)

<sup>59</sup> <https://www.imf.org/external/pubs/ft/wp/2010/wp10180.pdf>

<sup>60</sup> <http://www.tradingeconomics.com/armenia/customs-and-other-import-duties-percent-of-tax-revenue-wb-data.html>

<sup>61</sup> <http://www.economics-ejournal.org/economics/journalarticles/2012-1>

<sup>62</sup> [www.arlis.am/Annexes%5C4%5CPT48.1\\_13hav3.doc](http://www.arlis.am/Annexes%5C4%5CPT48.1_13hav3.doc)

<sup>63</sup> <http://www.armstat.am/en/?nid=126&id=10004>

<sup>64</sup> <http://www.eabr.org/e/research/centreCIS/projectsandreportsCIS/project20/>

<sup>65</sup> [www.armstat.am](http://www.armstat.am)

<sup>66</sup> <https://www.imf.org/external/pubs/ft/wp/2009/wp0966.pdf>

<sup>67</sup> <http://www.armstat.am/en/?nid=126&id=10004>

EU 26.4%<sup>68</sup> (1,124.4 million USD)

**Trade openness** =  $1480 + 4476.8 / 10325 = 0.5769$

### **GDP of Armenia 2013**

10325 million USD<sup>69</sup>

### **Armenian exports 2013**

Total 100% (1480.0 million USD)<sup>70</sup>

### **Armenian imports 2013**

Total 100% (4476.8 million USD)<sup>71</sup>

Russia 24.8% (1110.9 million USD, 1110900.1 thousand USD)<sup>72</sup>

Belarus 0.91% (40.8 million USD, 40,874.8 thousand USD)<sup>73</sup>

Kazakhstan 0.01% (0.7 million USD, 740.3 thousand USD)<sup>74</sup>

Eurasian Customs Union 25.74% (1152.4 million USD, 1152515.2 thousand USD)

Rest of the World 74.26% (3324.4 million USD)

### **Customs Duties**

**2011** (AMD billions) 36.3, 1.1% of GDP, 4.5% of total revenues

**2012** (AMD billions) 43.0, 1.0% of GDP, 4.1% of total revenues

**2013** (AMD billions)<sup>75</sup> 43.2/45.1, 44.3 (AMD billions, 110 million USD)<sup>76</sup>

$R_{TE} = I_{NP} \times CET_{AVE} = 3485.8 \times 0.07 (7.6\%/6.9\%) = 240.5$  million USD (This figure (240.5 – 110 = 130.5 million USD seems credible when we take into account the estimates (140-145 million USD) of the Armenian government<sup>77</sup>)

<sup>68</sup> [http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc\\_113345.pdf](http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_113345.pdf)

<sup>69</sup> [http://www.economywatch.com/economic-statistics/economic-indicators/GDP\\_Current\\_Prices\\_US\\_Dollars/](http://www.economywatch.com/economic-statistics/economic-indicators/GDP_Current_Prices_US_Dollars/)

<sup>70</sup> <http://www.armstat.am/en/?nid=126&id=10003&submit=Search>

<sup>71</sup> <http://www.armstat.am/en/?nid=126&id=10004>

<sup>72</sup> <http://www.mineconomy.am/eng/8/baner.menu.html>

<sup>73</sup> [http://www.armstat.am/en/?nid=380&thid\[\]=112&submit=Search](http://www.armstat.am/en/?nid=380&thid[]=112&submit=Search)

<sup>74</sup> [http://www.armstat.am/en/?nid=380&thid\[\]=398&submit=Search](http://www.armstat.am/en/?nid=380&thid[]=398&submit=Search)

<sup>75</sup> <http://www.imf.org/external/pubs/ft/scr/2013/cr13238.pdf>

<sup>76</sup> <http://civilnet.am/customs-union-armenia-vahram-avanesyan/>

<sup>77</sup>

[http://arka.am/en/news/economy/armenia\\_suggests\\_including\\_over\\_800\\_goods\\_in\\_exception\\_list\\_for\\_joining\\_customs\\_union/](http://arka.am/en/news/economy/armenia_suggests_including_over_800_goods_in_exception_list_for_joining_customs_union/)

According to the IMF (Armenian authorities; and Fund staff estimates and projections, March 2014)<sup>78</sup>, projected imports of goods and services in 2014 is 5155 million USD

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<sup>78</sup> <http://www.imf.org/external/pubs/ft/scr/2014/cr1489.pdf>

