

# The Impact of Applying the Common Customs Tariff on the Armenian Export of Cut and Polished Gems to Russia

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The presented study discusses the issues of applying the Common Customs Tariff (CCT) rates of the Eurasian Economic Union (EAEU) on rough diamonds and the impact thereof on the exports of stones cut and polished in Armenia and then exported to Russia.

**Aim.** The study aims to identify the possible strategies Armenian diamond cutting and polishing companies could adopt as a response to the application of the CCT rates on rough diamonds and how it would affect exports to various destinations, namely to Russia.

**Tasks.** The authors analyze the current state of the gems and jewelry sector and substantiate the need to either integrate it into the jewelry manufacturing sector or to apply various strategies to facilitate exports to either Russia or other destinations in the medium term in response to the application of the CCT rates.

**Methods.** This study uses general scientific methods of cognition, including analytical and methodological approaches and elements of forecasting. Possible strategies the Armenian diamond cutting and polishing companies could adopt in the medium term in response to the application of the EAEU CCT rates are determined using the analytical research method, forecasts in the context of the developments in the Armenian gem processing and jewelry market and global trends, statistical data on the imports and exports of cut and polished gems and jewelry for 2014–2018 published by the UN Comtrade Statistics.

**Results.** Statistics on the exports of processed diamonds from 2014 to 2018 highlights the issue associated with the loss of competitiveness suffered by Armenian companies (mainly in comparison with Indian diamond cutters). The major global trends in the diamond cutting and polishing business indicate that it could be virtually impossible for Armenian cutters and polishers to compete with Indian companies in the medium term if they do not come to investing in new technology to achieve operational efficiency. For these companies, it is important not to lose the Russian market due to an increase in the tariff rate and concentrate on the processing of gems that are larger than 1 carat. Another strategy to avoid an increase in the customs tariff rates would depend on the Armenian government's ability to negotiate with Russia in respect of direct imports of diamond stones from Russian manufactures. Two other options for Armenian cutters involve focusing on cutting and polishing of rubies, sapphires, emeralds, etc. or integrating into the jewelry sector either by being the primary supplier or by considering this business as a channel to sell processed diamond stones by setting up their own jewelry manufacturing companies.

**Conclusions.** With CCT going into effect in January 2021 and India's dominant role in the diamond cutting and polishing business, Armenia needs to carefully consider all of the strategies the Armenian companies could adopt, as discussed above. As a member state of the EAEU, Armenia freely exports to Russia, however, further exports to Russia would depend on Armenia's ability to ensure that cost-effective operations are in place, or to concentrate on the processing of precious gems rather than diamonds, or to switch to the manufacturing of jewelry items as a major export item.

**Practical Implication.** The findings of this study could be of interest to the Ministry of Economy of the Republic of Armenia and Business Armenia that could be used in elaborating the strategy for the development of Armenian gems and jewelry sector of the economy.

**Keywords:** Common Customs Tariff, cut and polished gems, jewelry, export, Armenia, EAEU.

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## Влияние применения единого таможенного тарифа на армянский экспорт ограненных и полированных драгоценных камней в Россию

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В статье рассматриваются проблемы, связанные с применением ставок Единого таможенного тарифа (ЕТТ) Евразийского экономического союза (ЕАЭС) на необработанные алмазы, и их влияние на экспорт ограненных и полированных в Армении камней в Россию.

**Цель.** Определить возможные стратегии, к которым прибегнут армянские компании, занимающиеся огранкой и полировкой алмазов в связи с переходом на ставки ЕТТ на необработанные алмазы; оценить, как это повлияет на экспорт в различные страны, в частности в Россию.

**Задачи.** Авторы анализируют современное состояние сектора производства драгоценных камней и ювелирных изделий и обосновывают необходимость либо его интеграции в сектор ювелирного производства, либо применения стратегий для стимулирования экспорта продукции в Россию или другие страны в среднесрочной перспективе в ответ на применение ставок ЕТТ ЕАЭС.

**Методология.** Исследование построено на основе общих научных методов познания, включая аналитический, методологический и элементы прогнозирования. С помощью аналитического метода исследования, прогнозов в разрезе анализа тенденций армянского сектора обработки драгоценных камней и ювелирных изделий, глобальных тенденций; статистических данных импорта и экспорта ограненных и полированных драгоценных камней, а также ювелирных изделий за 2014–2018 гг., опубликованных UN Comtrade Statistics, были выявлены возможные стратегии, к которым могут прибегнуть армянские компании, занимающиеся огранкой и полировкой алмазов, в среднесрочной перспективе в ответ на применение ставок ССТ ЕАЭС.

**Результаты.** Показатели экспорта обработанных алмазов с 2014 по 2018 г. указывают на проблему, связанную с потерей конкурентоспособности армянских компаний (по сравнению преимущественно с индийскими огранщиками алмазов). Основные глобальные тенденции в деятельности по огранке и полировке алмазов говорят о том, что армянским огранщикам и полировщикам практически невозможно будет конкурировать с индийскими компаниями в среднесрочной перспективе, если они не будут инвестировать в новые технологии для достижения операционной эффективности; для этих компаний важно не потерять российский рынок из-за повышения тарифной ставки и сосредоточиться на переработке драгоценных камней размером более 1 карата. Еще одна стратегия, позволяющая избежать повышения ставок таможенных тарифов, будет зависеть от возможности правительства Армении вести переговоры с Россией о прямом импорте алмазов от российских производителей. Два других варианта развития для армянских огранщиков заключаются в том, чтобы компании сфокусировались на огранке и полировке рубинов, сапфиров, изумрудов и др.; или интегрировались в сектор по производству ювелирных изделий либо будучи основным поставщиком, либо рассматривая этот бизнес как канал для продажи обработанных бриллиантовых камней путем создания собственных компаний по производству ювелирных изделий.

**Выводы.** Поскольку ССТ вступает в силу в январе 2021 г., а Индия играет доминирующую в мире роль в огранке и полировке алмазов, Армении необходимо тщательно рассмотреть все описанные выше варианты стратегий, которые армянские компании могли бы выбрать. Являясь государством — членом ЕАЭС, Армения свободно экспортирует товары в Россию, однако в дальнейшем экспорт в Россию будет зависеть от способности Армении обеспечить проведение экономически эффективных мер, сконцентрироваться на обработке драгоценных камней, а не алмазов, или перейти на производство ювелирных изделий в качестве основной продукции, предназначенной для экспорта.

**Практическое применение результатов.** Выводы авторов статьи могут представлять интерес как для Министерства экономики Республики Армения, так и для «Бизнес Армения». Они могут быть использованы при разработке стратегии развития сектора по обработке драгоценных камней и производству ювелирных изделий Армении.

**Ключевые слова:** Единый таможенный тариф, ограненные и полированные драгоценные камни, ювелирные изделия, экспорт, Армения, ЕАЭС.

## Introduction

Export-led growth hypothesis was tested and investigated in the case of many economies by various scholars (see table 1). Based on the Literature review (see table 1), the export-led growth hypothesis could be valid in the case of Armenia in the short-run [1, p. 57], however, the unidirectional causality that exists from economic growth to export would be valid in the long-run [2, p. 647].

In the long-run, imports-led growth, growth-led imports, exports-led import, and imports-led exports hypothesis are valid in the case of Armenia [2, p. 647], which means that export causes an increase in the GDP by an increase in imports via growth in productivity that results from the imports of new technology, equipment, and inputs. Hence, Armenia could experience the positive long-run relationship between exports and economic growth by moving from primary commodity exports to exports of goods of higher value-added, hence export composition “does matter” [3, p. 50]. And in order to reduce the current account deficit, Armenia’s priority would be focusing on the export promotion strategies. One of the recent studies by Dokholyan and Sargsyan [4, p. 8] proved the validity of export-led hypothesis for Armenia, namely stating that increase in exports in a given quarter would cause an increase in the GDP in the same quarter, in two quarters in the last quarter after 2 years. Hence, the export-led growth hypothesis is valid for Armenia, and more diversified export composition would be the key to ensuring higher economic growth in the long-run.

One of the thriving and export-oriented sectors of Armenia in the late 1990s and the first half of the 2000s was Gems and Jewelry with the exports of thereof accounting for 51% of all exports from Armenia in 2002 [5, p. 72]. Belgium-based Arslanian family was considered the first mover in the sector followed by a couple of investors from the United States, Russia, and etc. [6, p. 270]. In the first half of the 2000s, this sector of the economy was attractive for both Diasporan and foreign investors when some of key industry players entered the Armenian market [6, p. 270]. Armenia was mainly importing raw diamonds then upon being cut and polished the processes diamonds were exported to Belgium or Moscow and were distributed mainly through Diaspora channels [5, p. 73]. The highest export value was reported in 2003 when the exports of processed diamonds reached 287.9 million US dollars (see figure 1 [7]). The decline in exports started in 2006 that continued throughout 2009. Then the exports somehow stabilized with some volatility. Upon accession to the Eurasian Economic Union (EAEU), Ar-

menia has started applying Common Customs Tariffs (CCT) since January 2015 [8]. However, with respect to several hundred items, Armenia was granted a transition period during which other rates different from the CCT rates could be applied [9]. Before accession to the EAEU, 0% rate was applied for diamonds imported into Armenia to be processed and exported, however with respect to Diamonds; non-industrial, (other than unworked or simply sawn, cleaved or brutted), but not mounted or set (HS Code: 710239), 3% rate has started to be applied since January 1, 2019, that would gradually increase and in 2021 the CCT rate of 10% would be effective [8; 9]. From 2016 to 2018, Russia was the leading export destination of stones cut and polished in Armenia. Although the diamonds cut and polished in Armenia exported to Russia from Armenia are imported with a 0 % rate, the CTT tariff rate imposed on imported rough diamonds could impact the exports to Russia. In order to maintain the current level of exports to Russia or other destinations, Armenia would need to apply various strategies either to boost exports to Russia or report an increase in exports to other destinations. The other strategy could be an integration into the jewelry sector either by being the primary supplier of Armenian manufacturers of jewelry items or considering this business as a channel to promote processed diamonds in Armenia by setting up own jewelry manufacturing companies.

Hence, the purpose of the article is to identify the possible strategies the Armenian diamond cutting and polishing companies would adopt as a response to applying the CCT rates on rough diamonds and how it would affect the exports to various destinations, namely to Russia.

## Design/methodological approach

By reviewing the developments in the Armenian gem processing and jewelry market and global diamond cutting and polishing business trends; analyzing statistical data on imports and exports performance of the cut and polished gems and jewelry being classified as of Armenian origin for the period 2014–2018 released by the UN Comtrade Statistics [7] and with respect to applying the EAEU CCT rates upon expiration of the transition period granted to Armenia before accession to the EAEU, the possible strategies the Armenian diamond cutting and polishing companies could adopt in the medium term are identified.

## Results/Analysis

### *Development in Armenian Market*

In November 2016, according to the director of Shoghakn, the largest Armenian diamond

The Relationship between exports and economic growth

| Author(s)                                      | Small, Open Economies: Estonia and Slovenia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Trošt & Bojnec (2016) [10, p. 381]             | <i>Estonia</i> : The evidence of the bidirectional relation is proved: Granger causality exists from economic growth to exports and imports and from exports to economic growth. <i>Slovenia</i> : The evidence of the unidirectional relation is proved: Granger causality exists from exports to economic growth and imports                                                                                                                                                                                                                                                        |
|                                                | <b>Developing Countries</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Dreger & Herzer (2012) [1, p. 57–58]           | <i>Short-run relationship</i> : positive relationship between exports and non-export GDP (GDP minus exports of goods and services). <i>Long-run relationship</i> : “an increase in exports is associated with a long-run decrease in non-export GDP in 69% of the countries; in 31% of the cases, an increase in exports is associated with a long-run increase in non-export GDP” [1, p. 57]<br>Authors cautiously conclude that “removing primary export dependence by diversifying the economy ... can ... induce export-led growth in the long-run” [1, p. 58]                    |
|                                                | <b>Transition Economies</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Çetintaş & Barişik (2008) [2, p. 647]          | <i>Long-run relationships</i> : Unidirectional causality exists between economic growth and export. Bidirectional causality exists between economic growth and import, and import and export as well [3, p.647]. Authors conclude that “export has been affecting economic growth considerably through import” i.e. import of inputs, and technologies leading to an increase in productivity. [2, p. 647].                                                                                                                                                                           |
|                                                | <b>Six South Asian Nations: Pakistan, Bangladesh, India, Sri Lanka, , and Bhutan</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Hye et al. (2013) [11, p. 659]                 | <i>Export-led growth hypothesis</i> is valid in the case of all countries except Pakistan. <i>Import-led growth hypothesis</i> is valid in the case of all countries. The evidence of <i>Growth-led Exports hypothesis</i> is proved in the case of all countries except Bangladesh, and Nepal, while <i>Growth-led Imports</i> is valid in the case of all countries                                                                                                                                                                                                                 |
|                                                | <b>Latin American Countries</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Kristjanpoller and Olson (2014) [12, p. 16–17] | The hypothesis of export-led growth is valid in the case of Bolivia, Brazil, Colombia, Dominican Republic, Ecuador, El Salvador, Mexico, Paraguay, and Peru, while the import-led growth hypothesis is valid with regard to Argentina, Chile, Costa Rica, Guatemala, Honduras, and Peru. Exports lagged two years explain the GDP growth in the short run that is driven by the growth of capital in the previous year, while the growth of exports and the growth of capital influence the growth of imports in the short term                                                       |
|                                                | <b>69 countries from all regional and economic groupings defined by the World Bank</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Greenaway et al. (1999) [3, p. 50]             | There is a strong positive relationship between real export growth and real output growth, and moreover that export composition “does matter” [3, p. 50]                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                                | <b>Asia’s 4 Little Dragons’ Economies</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Tang et al. (2015) [13, p. 234]                | Although the authors find that exports and GDP are moving together in the long run, however export-led growth hypothesis for the four economies is unstable. They conclude that in order to reduce the dependence on the developed markets the policy makers in these nations need to diversify their export markets through regional integration and focus on domestic demand, and private investment                                                                                                                                                                                |
|                                                | <b>Selected Sub-saharan African Countries: Botswana, Equatorial Guinea and Mauritius</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Ee (2016) [14, p. 237]                         | The evidence of export-led growth is evident and highly statistically significant, explaining “not only the cyclical changes in output (short-term) but also in the long-term trend of output” [14, p. 237]                                                                                                                                                                                                                                                                                                                                                                           |
|                                                | <b>European (Central and Eastern Europe, Southeastern Europe, Balkans) transition economies</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Sağlam & Egeli (2018) [15, p. 156]             | Export-led growth and domestic-demand-led growth are valid for European transition economies, and “the direction of the relationship between growth and trade is bilateral and... the contribution of domestic demand on growth is seven times bigger than net export” [9, p. 156]                                                                                                                                                                                                                                                                                                    |
|                                                | <b>BRICS (especially Brazil, India and South Africa)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Rani & Kumar (2018) [16]                       | Long-run relationship between export, import, gross capital formation, and economic growth exist. The evidence of bidirectional causality was proved that exists from export and economic growth and from economic growth to export, thus validating export-led growth and growth-led export hypotheses. In addition, bidirectional causality was found. A percent increase in export would cause a 0.44 % increase in GDP per capita in the long-run. In order to address the issue of current account deficit the authors propose to concentrate on the export promotion strategies |

cutting and polishing company (35 % of cut and polished diamonds in Armenia that were supplied in Israel due the owner of the company Lev Leviev (LLD Diamonds), Mr. Alanakyan, Armenia was one of about 10 countries and/or centers that was engaged in diamond cutting and polishing business (stone manufacturing),

and efforts needed to be done to emerge as one of the leaders in this global industry, especially with respect to training the young stone cutters [17]. The company planned to open a training center for young diamond cutters supported by the Armenian Development Foundation [17]. In 2017, the large companies of Armenia engaged



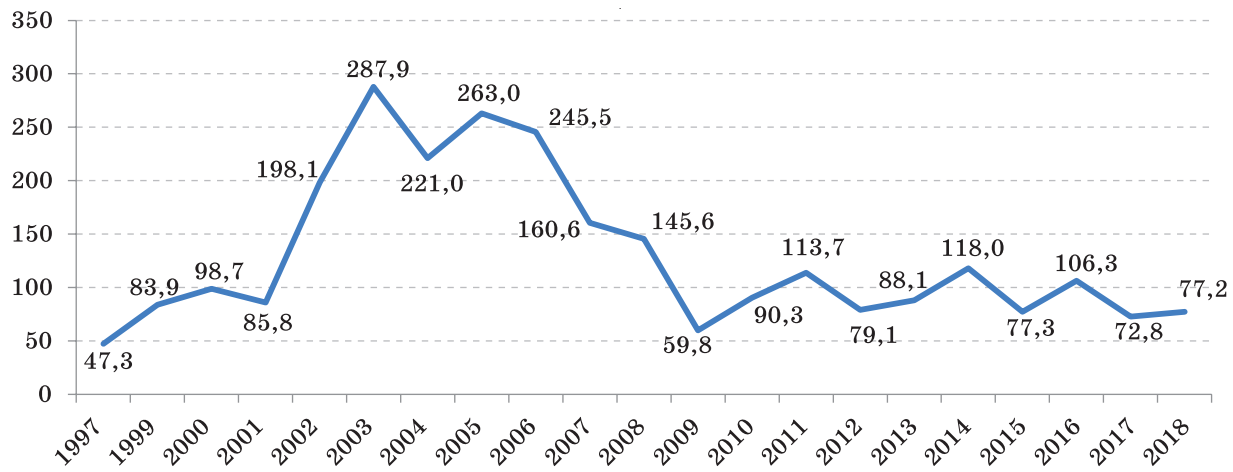


Figure 1. Exports of Diamonds from 1997 to 2018 (million US dollars)

Source: [7].

Table 2

**Developments in the global diamond cutting and polishing market from 2014 to 2017**

| Period      | Developments in the global diamond cutting and polishing market                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>2014</b> | In 2014, India and China as the most cost-efficient destinations increased their market share that comprised about 85 %.<br>The high-cost centers such as Belgium, the United States, and Israel focused on high-end stones reported a decline due to loss of the market share to India. The Indian market share of cuts and polished diamonds that were larger than 1 carat exceeded 40 %.<br>Two business models that enabled companies to maintain the margins were the followings: specialization or integration into jewelry retail business                                                                                                                                                                                                                              |
| <b>2015</b> | In 2015, the share of the midstream market of India and China reached up to 90 % owing to cost-efficiency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>2016</b> | India's market share as the lowest-cost cutting and polishing destination further increased comprising about 90 % of the global polished-diamond manufacturing by value. Along with being the dominant player in the market of small stones, India was gaining the market share in the larger stones segment, mainly at the expense of China.<br>Being focused on at least maintaining the current level of profitability over the long-run, the manufacturers concentrated on operational efficiency: shortening cutting and polishing timespan, adopting new technologies ( <i>"automated cutting processes and advanced digital mapping and modeling of diamond cutting"</i> [17, p. 12])                                                                                   |
| <b>2017</b> | In 2017, India further increased its market share mainly at the expense of China and other diamond cutting and polishing centers and due to low labor costs, and etc. India's share in <i>"global polished diamond manufacturing"</i> exceeded 90 % and emerged as the dominant player in the markets segments of all size stones, <i>"including the value-add segment of larger stones"</i> [18, p. 12].<br>In 2017, China's diamond cutting and polishing market growth was driven by the domestic demand for jewelry.<br>Traditionally strong centers of large stone manufacturing continued losing positions to India owing to high costs, and aging workforce<br>Russia was consolidating its efforts to make the Russian cutting and polishing industry more competitive |

Source: [20, p. 14], [21, p. 12], [22, p. 12], [23, p. 12–13].

in stone manufacturing and owned by Western investors were supplied with rough diamonds from Africa by the owners [18]. The Government of Armenia had been trying for a long period to facilitate and increase the imports of rough and/or uncut diamonds from Russia, and according to the Ministry for Economic Development of Armenia: *"An agreement was reached on taking practical steps as early as possible"* [18]. However, imports from Russia started to decline since 2016 (see table 3).

Kotayk Region is the host of 7–8 medium-sized diamond manufacturing companies that export cut and polished diamond mainly to Russia and

European Centers [19]. Diamond manufacturing companies would be located on the premises of Sirius Factory, in Abovyan, Kotayk region, and it is expected that the city would attract Hong Kong and Dubai based diamond manufacturers and overall about 3,000 new jobs will be created [19]. According to the Governor of Kotayk, it is expected that the companies would conduct training for the workforce to increase the pool of the skilled labor force once the construction is completed [19].

In 2018, the exports of processed diamonds comprised only 3.2 % of commodity exports [14, authors own calculation]. The exports of

processed diamonds from 2014 to 2018 could pinpoint the issue related to the loss of competitiveness (cost-effective while compared to mainly Indian diamond cutters).

### *Global Trends*

The main developments of the global diamond cutting and polishing business state (see table 2) that it could be virtually impossible for Armenian cutters and polishers to compete with the Indian companies over the medium-term if they are not aggressive enough in investing in new technology to achieve operational efficiency. Hence, the options Armenian cutters could pursue could be the followings:

- Investing in new technology to keep up with pressure from Indian cutters to reach operational efficiency;
- Focusing on cutting and polishing larger stones or switching to the stones rather than diamonds, such as rubies, sapphires, and etc.;
- Integrating into the jewelry sector.

### *Export Performance from 2014 to 2018*

Although Armenia imported non-industrial unworked or simply sawn diamonds (HS Code: 710231), the amount of thereof varying from 35,066,180 to 59,720,627 US dollars in the period 2014–2018, the exports of this product item didn't exceed 14,832,762 US dollars (see table 3). This means that Armenian doesn't solemnly rely on the imports non-industrial unworked or simply sawn diamonds as the main input that needs to be further cut and polished in Armenia to be exported to major export destinations.

Armenia was mainly importing non-industrial, other than unworked or simply sawn, cleaved or bruited diamonds (not mounted or set) as the main input to be processed and re-exported to main export destinations. The amounts of imports varied from 52,676,808 US dollars to 119,996,840 US dollars the highest value reported in 2018 reported over the prod of 2014–2018. As the EAEU member-state, Armenia was mainly importing from countries such as the United Arab Emirates, Switzerland, India, and Belgium. In the case of Belgium and Switzerland, Armenian cutters were processing the gems for head offices located in those in those countries.

Since the United Arab Emirates, as one of the centers of the diamond exchange (having connections with producers from Africa, cutting centers from Asia (including India), consumers from Europe, and etc.) [24] is an attractive option for Armenia-based diamond processors. India has also emerged as a supplier for Armenian diamond processing companies. This trend patterns mean that Armenian would face competition with respect to cutting and polishing

of gems that India has increased its expertise in the processing of the respective gems.

Armenia was mainly exporting non-industrial, other than unworked or simply sawn, cleaved or bruited diamonds (not mounted or set) to Russia from 2016–2018 (see table 3), hence making the exports vulnerable to the increase in customs tariffs that would be effective on January 2021. Therefore, Armenian needs to be aggressive in investing in new technology to ensure the most cost-effective operations in place not to lose the Russian market due to an increase in the tariff rate and concentrate on the processing of the gems that are larger than 1 carat. To avoid the increase in the customs tariff rates the other strategy the Armenian government could opt for is to negotiate with Russia with respect to directly importing diamond stones from Russian manufactures. The other option to mitigate the negative impact of applying CCT rate and face severe competition from Indian companies would be to become more focused on cutting and polishing of rubies, sapphires and emeralds and etc. (see table 3). Here again, Russian is the main export destination. One of the possible strategies as well could be an integration into the jewelry sector either as the major supplies of processed gems to by considering this activity as a channel to sell processed diamond stones by setting up own jewelry manufacturing companies. Over the period of 2014–2018, the exports of jewelry reported tremendous growth (see figure 2). The United Arab Emirates has emerged as a leading export destination, followed by Russia.

### **Conclusion**

With CCT being effective in January 2021 and India's dominant role in cutting and polishing diamond stones business, Armenia needs to carefully consider all the above-discussed options for strategies the Armenian companies could adopt and opt for. As a member state of the EAEU Armenia freely exports to Russia, however, further exports to Russia would depend on Armenia's ability to ensure that cost-effective operations are in place or to concentrate on processing of precious gems, rather than diamond or to switch to the manufacturing of jewelry items as major export item.

### **Practical Implication**

The findings provided in the article could be of interest to the Ministry of Economy of the Republic of Armenia, and Business Armenia that could be used in elaborating the strategy for the development of Armenian gems and jewelry sector of the economy.

Exports and import of diamonds by destination from 2014 to 2018 (US dollars)

|                                                                                                                                      | Exports     |            |            |            |            | Imports    |            |            |            |             |
|--------------------------------------------------------------------------------------------------------------------------------------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|
|                                                                                                                                      | 2014        | 2015       | 2016       | 2017       | 2018       | 2014       | 2015       | 2016       | 2017       | 2018        |
| <b>710231: Diamonds; non-industrial, unworked or simply sawn, cleaved or bruted, but not mounted or set</b>                          |             |            |            |            |            |            |            |            |            |             |
| World                                                                                                                                | 10,626,791  | 10,492,722 | 9,391,394  | 14,832,762 | 11,227,928 | 59,720,627 | 34,513,240 | 56,318,096 | 35,066,180 | 51,472,820  |
| United Arab Emirates                                                                                                                 | 48,850      |            | 181,977    | 2,722,368  | 1,749,376  | 242,947    | 4,494,349  | 8,272,982  | 14,815,220 | 25,818,363  |
| Canada                                                                                                                               | 110,255     | 3,582,568  | 28,697     |            | 767,304    | 1,185,557  | 451,051    | 4,879,762  | 40,729     | 11,275,972  |
| Russian Federation                                                                                                                   |             |            | 1,444,444  |            |            | 4,888,522  | 7,721,438  | 28,803,562 | 14,974,200 | 6,203,548   |
| Belgium                                                                                                                              | 2,168,718   | 4,227,206  | 6,096,301  | 10,922,111 | 8,685,491  | 30,922,235 | 16,999,818 | 9,150,181  | 622,449    | 3,022,819   |
| Botswana                                                                                                                             |             |            |            |            |            |            | 2,210,913  | 1,681,663  |            | 2,985,101   |
| South Africa                                                                                                                         |             |            |            |            |            | 1,586,786  | 1,542,035  | 1,938,926  |            | 1,237,843   |
| Israel                                                                                                                               |             | 97,696     | 29,670     |            |            | 190,446    | 254,036    |            |            | 506,763     |
| Thailand                                                                                                                             | 8,087,018   |            | 544        | 1,188,282  |            | 19,765,056 |            | 1,028,834  | 4,613,580  | 195,686     |
| Belarus                                                                                                                              |             | 828,925    | 1,609,761  |            |            |            |            |            |            |             |
| India                                                                                                                                | 122,532     |            |            |            |            |            |            | 76,736     |            |             |
| USA                                                                                                                                  | 39,541      | 1,756,327  |            |            | 25,756     | 250,200    |            |            |            |             |
| <b>710239: Diamonds; non-industrial, (other than unworked or simply sawn, cleaved or bruted), but not mounted or set</b>             |             |            |            |            |            |            |            |            |            |             |
| World                                                                                                                                | 107,391,191 | 66,513,801 | 96,505,089 | 57,445,038 | 65,627,444 | 88,510,559 | 52,676,808 | 69,389,591 | 89,312,997 | 119,996,840 |
| United Arab Emirates                                                                                                                 | 2,697,472   | 2,565,347  | 21,863,838 | 6,683,093  | 6,590,432  | 36,239,955 | 19,983,072 | 27,674,825 | 45,137,118 | 47,463,307  |
| Switzerland                                                                                                                          | 89,641      | 7,819,394  | 10,861,074 | 3,717,539  | 52,654     | 10,198,996 | 6,460,276  | 7,974,953  | 16,436,781 | 26,555,886  |
| Russian Federation                                                                                                                   | 35,395,641  | 4,675,398  | 24,462,739 | 26,187,250 | 24,622,130 | 117,899    | 3,637,380  | 48,779     | 31,000     |             |
| India                                                                                                                                |             | 371,417    | 195,036    |            |            | 9,868,653  | 6,168,607  | 12,691,121 | 11,735,406 | 20,246,976  |
| Belgium                                                                                                                              | 40,475,128  | 31,948,940 | 22,368,492 | 9,136,656  | 11,984,926 | 27,081,397 | 13,484,884 | 17,946,041 | 12,259,246 | 16,048,949  |
| Israel                                                                                                                               | 2,350,698   | 3,770,249  | 2,843,431  | 728,030    | 5,866,705  | 1,125,154  | 586,289    | 1,217,347  | 1,132,298  | 5,204,574   |
| China, Hong Kong SAR                                                                                                                 | 505,582     |            | 114,294    | 293,702    | 114,859    | 624,196    | 395,812    | 803,807    | 1,064,813  | 2,921,710   |
| Thailand                                                                                                                             | 12,835,446  | 76,629     | 1,907,704  | 6,706,002  | 334,848    | 1,348,081  | 256,953    | 358,247    | 985,646    | 680,598     |
| Canada                                                                                                                               | 10,723,982  | 10,159,244 | 6,571,120  | 2,277,095  | 8,853,731  | 322,556    | 108,189    | 3,692      |            | 400,278     |
| Germany                                                                                                                              |             |            |            | 71,225     | 236,463    |            |            |            | 86,527     | 222,083     |
| Lebanon                                                                                                                              | 25,458      |            | 22,266     |            |            | 321,142    | 175,960    | 181,359    | 154,662    | 155,272     |
| USA                                                                                                                                  | 2,166,558   | 5,089,383  | 5,138,271  | 1,621,238  | 6,959,507  | 243,498    | 519,374    | 464,839    | 260,004    | 37,654      |
| Belarus                                                                                                                              | 125,585     |            |            |            |            | 900,284    |            |            |            |             |
| <b>710391: Stones; rubies, sapphires and emeralds, worked (other than simply sawn or roughly shaped), not strung, mounted or set</b> |             |            |            |            |            |            |            |            |            |             |
| World                                                                                                                                | 2,144,028   | 24,956     | 1,086,750  | 2,524,833  | 2,350,530  | 2,273,184  | 2,177,561  | 2,141,658  | 4,555,420  | 5,013,159   |
| China, Hong Kong SAR                                                                                                                 |             |            |            |            | 65,116     | 6,321      | 18,330     | 1,528,328  | 4,068,840  | 4,014,890   |
| Thailand                                                                                                                             | 36,025      | 24,585     |            | 7,876      | 19,441     | 190,091    | 229,868    | 222,531    | 180,157    | 597,795     |
| United Arab Emirates                                                                                                                 | 5,554       |            | 6,148      |            |            | 1,979,976  | 1,835,422  | 213,631    | 273,458    | 347,212     |
| Russian Federation                                                                                                                   | 2,065,848   |            | 1,080,382  | 2,452,274  | 2,232,875  |            |            |            |            |             |

Source: [14].

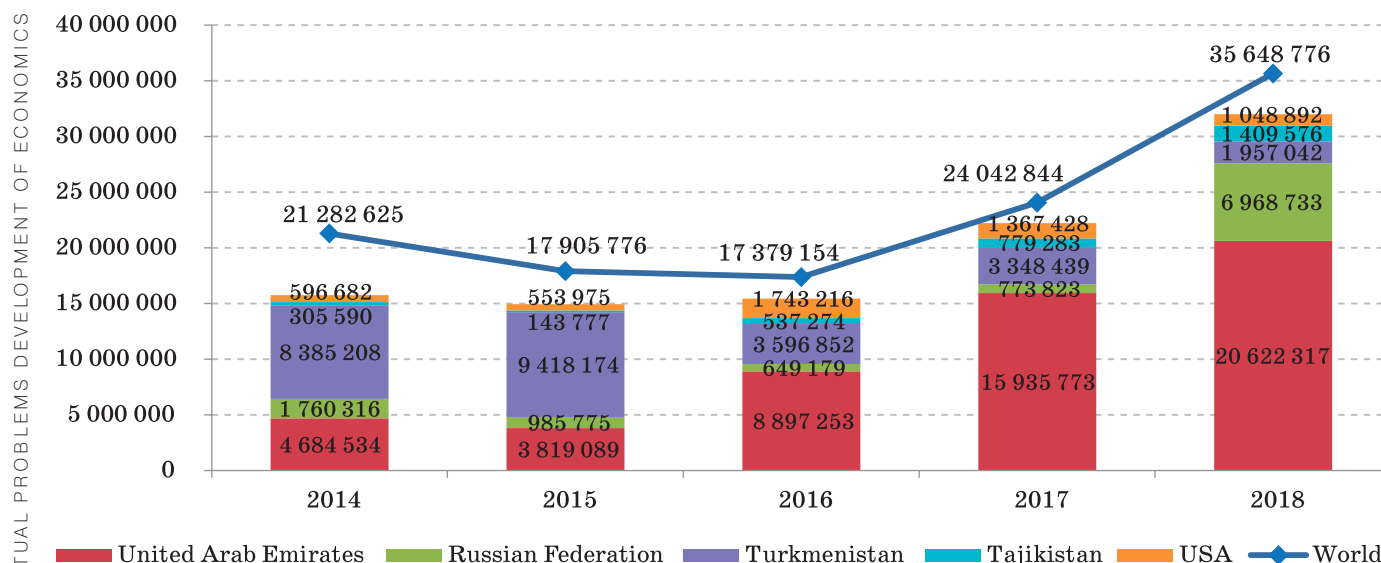


Figure 2. Exports of Jewellery; of precious metal (excluding silver) whether or not plated or clad with precious metal, and parts thereof from 2014 to 2018 (US dollars)

Source: [7].

## References

1. Dreger C., Herzer D. A further examination of the export-led growth hypothesis. *Empirical Economics*. 2013;45(1):39-60. DOI: 10.1007/s00181-012-0602-4
2. Çetintaş H., Barışık S. Export, import and economic growth: The case of transition economies. *Transition Studies Review*. 2009;15(4):636-649. DOI: 10.1007/s11300-008-0043-0
3. Greenaway D., Morgan W., Wright P. Exports, export composition and growth. *The Journal of International Trade & Economic Development: An International and Comparative Review*. 1999; 8(1):41-51, DOI: 10.1080/09638199900000004.
4. Dokholyan S. V., Sargsyan L. N. Is the export-oriented growth hypothesis valid for Armenia? *Ekonomika i upravlenie = Economics and Management*. 2019;(2):4-11. (In Russ.).
5. Armenia competitiveness assessment report, submitted to USAID/Yerevan, under Contract No. PCE-I-837-98-00016-00. Nathan Associates Inc. & J.E. Austin Associates Inc. June 2004. URL: [https://pdf.usaid.gov/pdf\\_docs/PNADD292.pdf](https://pdf.usaid.gov/pdf_docs/PNADD292.pdf).
6. Hergnyan M., Makaryan A. The role of the diaspora in generating foreign direct investments in Armenia. *Armenian Journal of Public Policy*. 2007;2(2):259-294.
7. UN Comtrade Database. United Nations Statistics Division. URL: <https://comtrade.un.org/data/>.
8. The Common Customs Tariff of the Eurasian Economic Union, approved by Decision No. 54 of the EEC Council dated July 16, 2012 (as amended by Decision No. 101 of the EEC Council of October 18, 2016). URL: <http://www.eurasiancommission.org/ru/act/trade/catr/ett/Pages/default.aspx> (In Russ.).
9. Annex 4 (List of goods and rates in respect of which, during the transitional period, the Republic of Armenia shall apply the import customs duties rates, other than the Common Customs Tariff rates of the Eurasian Economic Union) to the Treaty on the Accession of the Republic of Armenia to the Treaty on the Eurasian Economic Union of May 29, 2014 (adopted October 10, 2014). URL: [https://docs.eaeunion.org/docs/en-us/0017354/itia\\_11102014\\_doc.pdf](https://docs.eaeunion.org/docs/en-us/0017354/itia_11102014_doc.pdf)
10. Trošt M., Bojnec Š. Export-led growth: The case of the Slovenian and Estonian economies. *Post-Communist Economies*. 2016;28(3):373-383. DOI: 10.1080/14631377.2016.1184425
11. Hye Q. M. A., Wizarat S., Lau W.-Y. Trade-led growth hypothesis: An empirical analysis of South Asian countries. *Economic Modelling*. 2013;35:654-660. DOI: 10.1016/j.econmod.2013.07.040.
12. Kristjanpoller W. R., Olson J. E. Economic growth in Latin American countries: Is it based on export-led or import-led growth? *Emerging Markets Finance and Trade*. 2014;50(sup. 1):6-20. DOI: 10.2753/REE1540-496x5001S101
13. Tang C. F., Lai Y. W., Ozturk I. How stable is the export-led growth hypothesis? Evidence from Asia's Four Little Dragons. *Economic Modelling*. 2015;44:229-235. DOI: 10.1016/j.econmod.2014.09.022
14. Ee C. Y. Export-led growth hypothesis: Empirical evidence from selected sub-Saharan African countries. *Procedia Economics and Finance*. 2016;35:232-240. DOI: 10.1016/S2212-5671(16)00029-0.
15. Sağlam Y., Egeli H. A. A comparison of domestic demand and export-led growth strategies for European transition economies. *Foreign Trade Review*. 2018;53(3):156-173. DOI: 10.1177/0015732517734755.



16. Rani R., Kumar N. Is there an export- or import-led growth in BRICS countries? An empirical investigation. *Jindal Journal of Business Research*. 2018;7(1):13-23. DOI: 10.1177/2278682118761748.
17. Shoghakn diamond cutting company to open training center. ARKA News Agency. Nov. 25, 2016. URL: [http://arka.am/en/news/business/shoghakn\\_diamond\\_cutting\\_company\\_to\\_open\\_training\\_center/](http://arka.am/en/news/business/shoghakn_diamond_cutting_company_to_open_training_center/).
18. Further growth recorded in Armenian diamond Industry. Aazatutyun Radio. Aug. 9, 2017. URL: <https://www.azatutyun.am/a/28667420.html>.
19. Gziryan A. Armenia's Kotayk province eyes becoming major diamond industry center. Armenpress. March 6, 2019. URL: <https://armenpress.am/eng/news/966487.html>.
20. The global diamond industry 2015: Growth perspectives amid short-term challenges. Boston, MA: Bain & Company, Inc.; 2015. 40 p. URL: <https://www.awdc.be/sites/awdc2016/files/documents/BAIN%202015%20The%20Global%20Diamond%20Report%202015%20Growth%20perspectives%20amid%20short-term%20challenges.pdf>.
21. The global diamond industry 2016: The enduring allure of timeless gems. Boston, MA: Bain & Company, Inc.; 2016. 46 p. URL: [https://www.bain.com/contentassets/9b90201a6a764af88ad06f21cca3f273/bain\\_diamond\\_report\\_2016.pdf](https://www.bain.com/contentassets/9b90201a6a764af88ad06f21cca3f273/bain_diamond_report_2016.pdf).
22. The global diamond industry 2017: The enduring story in a changing world. Boston, MA: Bain & Company, Inc.; 2017. 40 p. URL: <https://www.awdc.be/sites/awdc2016/files/documents/The%20Global%20Diamond%20Industry%202017%20-%20The%20enduring%20story%20in%20a%20changing%20world.pdf>.
23. The global diamond industry 2018: A resilient industry shines through. Boston, MA: Bain & Company, Inc.; 2018. 43 p. URL: [https://www.bain.com/contentassets/a53a9fa8bf5247a3b7bb0b10561510c2/bain\\_diamond\\_report\\_2018.pdf](https://www.bain.com/contentassets/a53a9fa8bf5247a3b7bb0b10561510c2/bain_diamond_report_2018.pdf).
24. Dubai's diamond gateway: Certified for security, quality and responsible stewardship. DMCC. 2019. URL: <https://www.dmcc.ae/gateway-to-trade/commodities/diamonds>.