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Impact Assessment of the Ban on Turkish Imports on the Growth of Wearing Apparel Manufacturing in Armenia¹

Abstract. Armenia imposed a temporary ban on imports of Turkish apparel in 2021, and lifted it on January 1, 2022. The government gave manufacturers a chance to capture that market share. In this article, the role of domestic and foreign sales of various groups of firms in explaining real changes in industry output for various periods in the short run was estimated based on industry-level monthly data for June 2011-September 2021 and using the least squares estimation method. The study identified the priorities of various groups of manufacturers and revealed that industry domestic and foreign sales (mainly exports to Russia) are complements. It was determined that large firms engaged in cut-make-trim (CMT) manufacturing were not and would not be interested in capturing that market share, while large own-brand manufacturers are and will be interested in doing so; however, exports to Russia could be preferred to domestic sales. Micro and small-sized firms managed to capture the market segment of items included in Category 6114 of Harmonised System (HS) codes. However, the firms will meet tougher competition in the future than in 2020, with importers re-switching to Turkish suppliers and Russia emerging as a key player. Hence, the exports will drive the industry growth, regardless of a possible decline in domestic sales. The research results can be used by the Ministry of Economy of Armenia, and the Eurasian Economic Commission in creating various industry development strategies, and implementing import substitution strategies for member-states of the Eurasian Economic Union. Further research on firm-level upgrading strategies will be required to reinforce the obtained results.

Keywords: wearing apparel manufacturing, Armenia, outsourcing, import, export, Turkey, complements, substitutes

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Оценка влияния запрета турецкого импорта на рост производства одежды в Армении

Аннотация. В 2021 г. Армения ввела временный запрет на импорт турецкой одежды, который отменила с 1 января 2022 г. Правительство предоставило армянским производителям возможность освоить эту часть рынка. На основе использования реальных статистических данных ежемесячной динамики в отрасли за период с июня 2011 г. по сентябрь 2021 г. произведена оценка объемов внутренних и зарубежных продаж различных групп фирм с целью определения изменений с использованием метода оценки наименьших квадратов. Выявлены приоритеты различных групп производителей и установлено, что внутренние и зарубежные продажи (в основном экспорт в Россию) в данной отрасли дополняют друг друга. Определено, что крупные фирмы, занимающиеся производством продукции по технологической цепочке «cut-make-trim» (CMT), не были и не будут заинтересованы в освоении этой доли рынка, в то время как крупные производители собственных торговых марок рассматривают такую возможность. Установлено, что экспорт продукции в Россию может быть более предпочтителен, чем продажи на внутреннем рынке. Малые и микропредприятия сумели освоить рыночный сегмент товаров, включенных в категорию 6114 кодов Товарной номенклатуры внешнеэкономической деятельности (ТН ВЭД). Однако в будущем фирмам придется столкнуться с более жесткой конкуренцией, чем в 2020 г., поскольку часть импортеров вернется к турецким поставщикам, а Россия станет ключевым игроком. Следовательно, экспорт будет стимулировать рост объемов производства, несмотря на возможное снижение продаж на внутреннем рынке. Результаты исследования могут быть использованы Министерством экономики Армении, Евразийской экономической комиссией при разработке различных стратегий развития отрасли и реализации стратегий импортозамещения для стран – участников Евразийского экономического союза. Для подтверждения полученных результатов в дальнейшем потребуется проведение исследований стратегий модернизации на уровне отдельных фирм.

Ключевые слова: производство одежды, Армения, аутсорсинг, импорт, экспорт, Турция, взаимодополняющие товары, взаимозаменяемые товары

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Introduction

The growth of the Armenian wearing apparel industry from 2012 to 2021 was mainly driven by real export receipts and/or foreign sales¹ of local apparel and clothing accessories manufacturers, meanwhile, the real domestic sales increased as well (see Fig. 1). The performance of 2 groups of manufacturers explains the increase in foreign sales, with one group being engaged in contract manufacturing for European brands (Assembly/cut-make-trim (CMT))², and the second one producing custom-made clothing items (own brands) to be exported mostly to the Commonwealth

of Independent States (CIS) markets (namely to Russia) and/or sold in the domestic market³. However, the increasing domestic sales did not translate into aggressive business strategies of local manufacturers to penetrate and capture the market share of imported items of comparable and/or same quality, and imports exceeded the export receipts of Armenian manufacturers (see Fig. 1, Fig. 3). The small size of the domestic market is one of the constraints that “affects productivity since large markets allow firms to exploit economies of scale” (Sala-i-Martin et al., 2013, p. 8), and only export markets could allow local firms

¹ We do refer to foreign sales as export receipts (earnings) interchangeably as well, because Armenian firms engaged in CMT manufacturing mainly provide services, and do not sell their own branded wearing apparel items.

² Mainly from Italian and German brands such as La Perla, VERSACE, LEBEK International Fashion, etc.

³ The Republic of Armenia. Ministry of Economy. (2013). The Armenian Textile and Apparel Industry Development Strategy, approved on December 6, 2013, at the meeting of the Industrial Council by the Prime Minister of the Republic of Armenia. Retrieved from: <https://mineconomy.am/media/2252/1473.pdf> (Date of access: 16.12.2021) (In Armenian).

to invest in such practices to ensure economies of scale, since “international markets have become a substitute for domestic markets” (Sala-i-Martin et al., 2013, p. 8).

Armenian brand manufacturers (mainly large and medium-sized firms, with the latter ones emerging as large firms) started aggressively penetrating a larger Russian market upon Armenia’s accession to the Eurasian Economic Union (EAEU) in 2015 (see Fig. 1). Since 2018, the foreign sales of manufacturers mainly exporting to Russia have started exceeding exports receipts of firms purely engaged in CMT manufacturing (see Fig. 1).

The Government decided to impose a temporary ban mostly on imported final goods of Turkish origin for 6 months effective December 31, 2020¹. Only in 2020, the imports of Turkish² apparel and clothing accessories comprised 25.43 % of Armenia’s imports of clothing, lagging behind China (see Fig. 3). The price-quality ratio and logistics due to the proximity of the import destination were among the reasons why Turkish clothing items were so attractive to importers³.

In the period 2019–2020, small, medium-sized and large manufacturers reported foreign sales, with micro-firms primarily satisfying domestic demand and reporting a tremendous increase in domestic sales in 2020 (y./y.)⁴. In 2020, the export receipts of large manufacturers from non-CIS buyers comprised about 96.3 % of total industry export receipts from non-CIS markets, while in the case of exports to the CIS markets, this ratio amounted to about 82 %⁵. The large companies are predominantly export-oriented, although these firms increased their market share in the domestic market as well⁶. The medium-sized companies were the most aggressive in penetrating the CIS markets, reporting about a 4-fold increase in foreign sales in 2020 (y./y.)⁷.

¹ The Republic of Armenia. Government of Armenia. (2020). Decision N 1708-N dated October 20, 2020. Retrieved from: <https://www.e-gov.am/gov-decrees/item/34943/> (Date of access: 26.12.2021) (In Armenian).

² As a country of origin (COO).

³ Karapetyan, A. (2020). Armenia to Ban Turkish Products. EVN Report. Retrieved from: <https://www.evnreport.com/politics/armenia-to-ban-turkish-products> (Date of access: 26.12.2021).

⁴ Statistical Committee of the Republic of Armenia. (2022). Main Indicators of Industrial Organizations by Sizes Based on Number of Employees and by Economic Activities (two-digit code) in 2020. Retrieved from: <https://www.armstat.am/> (Date of access: 30.05.2022) (In Armenian). Authors’ own calculations.

⁵ Ibid.

⁶ Ibid.

⁷ Ibid.

The importers preferred switching to suppliers from China, Bangladesh, Morocco, and Tunisia, with Russia emerging as the second supplier of wearing apparel in 2021, only lagging behind China (see Fig. 3, Fig. 4). On June 24, 2021, the Government of Armenia further extended the temporary ban for another 6 months⁸. The performance of the Armenian wearing apparel industry in 2021 was rather solid compared to the developments in 2020 (see Fig. 1). However, the Government decided not to extend the ban and lifted it on January 1, 2022. The industry reported a 2.8 % growth in the period January–March, 2022 compared to the same period of 2021 (see Fig. 1), with Turkish imports reporting a solid growth and overpassing the supplies from Russia (see Fig. 5)⁹. This is a sign of weak consumer ethnocentrism.

Bugamelli et al. (2015) state that the existing empirical evidence on domestic and foreign sales being complements or substitutes is quite mixed. The companies at full capacity could hardly meet the increasing foreign demand when domestic demand is rather high in the short run (Bugamelli et al., 2015). Based on the literature review, Erbahar (2020) states 3 key channels that explain both negative (capacity constraints) and positive relationships (efficiency or productivity gains and liquidity constraints) between sales of companies in domestic and foreign markets. Hence, Armenian capacity-constrained large firms satisfying increasing demand from CIS buyers could have difficulties in meeting the growing domestic demand in the short run.

Hence, the main goals of the article are:

- to estimate and determine the role of domestic and foreign sales in explaining the changes in the real output of the Armenian industry of wearing apparel manufacturing in the short run;
- to find out if the industry’s domestic and foreign sales, namely export receipts from CIS buyers, are substitutes or complements in the short run;
- to identify possible responses of each group of manufacturers (based on the size) and importers in the short run and the medium term by analysing the shifts in import composition (2021 compared to 2020, and January–March 2022 compared to the same period of previous year), as the ban was lifted.

⁸ The Republic of Armenia. Government of Armenia. (2021). Decision N 1048-N dated June 24, 2021. Retrieved from: <https://e-gov.am/gov-decrees/item/36446/> (Date of access: 26.12.2021). (In Armenian)

⁹ UN Comtrade Database. Retrieved from: <https://comtrade.un.org/data/> (Date of access: 31.05.2022).

Literature Review

Shimp and Sharma (2006) used the term “consumer ethnocentrism” to present “the beliefs held by American consumers about the appropriateness, indeed morality, of purchasing foreign made products” (p. 280). Meanwhile, according to Shankarmahesh (2006), it shows “a general proclivity of buyers to shun all imported products irrespective of price or quality considerations due to nationalistic reasons” (p. 147). However, the developed stereotypical perceptions of products (quality) made in a specific country could influence the preferences of consumers when buying products originating in that country (Tsai et al., 2013).

Quite high ethnocentrism is characteristic of Polish consumers who willingly buy clothing accessories manufactured in Poland when provided a chance to choose between locally produced and overseas brands (Stępień & Młody, 2017). The study on attitudes towards Turkish and Chinese female clothes of Libyan female teachers (from Ajdabiya City) shows that Turkish-origin clothes were more favoured than Chinese items (Elkrghli & Mohamed, 2016). Although consumers in Iran favour Turkish apparel, nevertheless, many Iranians purchase Chinese items that are considered of low reputation (Karami et al., 2013).

According to Karoui and Khemakhem (2019), ethnocentrism plays a minor role in developing countries, and their respective governments need to be engaged in a huge advertising campaign that promotes domestically manufactured items by investing in cultivating “patriotic feelings” and “convince citizens to buy nationally manufactured products” (p. 69); additionally, the improvement of the quality of the manufactured items and increased effectiveness of marketing strategies are stressed.

The concept of the “Turkishization” strategy was introduced by Zhu and Pickles (2015) in the case of Seduno, a Chinese apparel firm from the Ningbo region, although the majority of companies (80 % of the respondents out of 31 apparel manufacturers from the region) has adopted similar strategies. This means that the company managed to upgrade and reshape, rebuild its core competency from a low-cost and large-volume manufacturer into a producer engaged in higher value-added activities. Thus, Seduno has been transformed into a “design-intensive, smaller-batch producer” (Zhu & Pickles, 2015, p. 545), supplier of renowned fast fashion, and high-end retailers (H&M, Zara). Along with adopting “Turkishization” strategies, the Chinese manufacturer has emerged as a supplier of medium- and high-end segments of the domestic market.

Meanwhile, Tokatli and Kizilgün (2004) present the case of a Turkish company, Erak Clothing, that successfully transformed itself from a full-package manufacturer for a “small group of high-status buyers with an exclusive concentration on jeans” (p. 237) into an original brand-name manufacturer (Mavi Jeans) and global competitor by tapping the globally untapped market niche.

According to Whitfield and Starit (2021), local wearing apparel manufacturers from low-income countries that want to integrate into the global value chains (GVCs) could “face four major challenges in exporting through hypercompetitive apparel GVCs”, hence, these challenges lead to a “learning trap where local firms do not even try to enter manufacturing GVCs” (p. 981), or fail to remain.

The relationship between domestic and foreign sales varies from country to country. Gül (2021) shows that domestic and foreign sales of Turkish textiles, wearing apparel, and leather products are substitutes. In the case of Spain and Portugal, domestic and foreign sales are substitutes (Crespo & Muñoz-Sepulveda, 2015; Belke et al., 2015; Esteves & Rua, 2015), especially “during particularly good or bad economic times” (Belke et al., 2015, p. 321), while a small complementarity could be traced in the case of Greece (Belke et al., 2015). Berman et al. (2015) find out that domestic and foreign sales of French firms are complements due to the transmission of the business cycles, while Belke et al. (2015) report substitutive relationship only “during weak economic conditions” (p. 321). Substitution effect can be traced in the case of 11 and 12 (Esteves & Prades, 2016; Bobeica et al., 2016) euro area countries, however, during the boom, strong domestic demand does not have a negative impact on the exports (Bobeica et al., 2016), meanwhile, the effect could vary across economies explained by the export concentration (Esteves & Prades, 2016). McQuoid and Rubini (2014) report a negative correlation between foreign and domestic sales for transitory exporters (Chilean manufacturers), and a mild correlation for perennial exporters.

Quite a few articles outline the growth path of the Armenian apparel industry. Makaryan (2017) built four industry growth scenarios by reviewing the performance of the wearing apparel industry and global outsourcing prospects. Greta et al. (2017) provide an overview of the growth path of the Armenian wearing apparel industry from the Soviet era up to 2014 and state where the industry would head based on the strategy and action plan for developing light industry (approved on December 6, 2013). However, in both papers, domestic demand was not stated as a single and/or major industry growth driver.

Data and Research Methods

To determine the role of sales of various groups of manufacturers in explaining the changes in the real growth of output of the wearing apparel industry in the short run, we define our model as follows:

The real output of the wearing apparel manufacture in Armenia = f (real export receipts of local firms engaged in CMT manufacturing, real foreign sales of local manufacturers exporting to CIS markets, real domestic sales of local manufacturers) (1)

The original dataset included 129 observations covering the period 2011:01–2021:09 (industry-level monthly data). The nominal monthly values¹ were converted into real ones (2011 = 100), and then were seasonally adjusted using the moving average method; afterward, the log of the variables of interest was taken. Since exports to the CIS became regular only starting from March 2015, foreign sales of domestic manufacturers started exceeding the export receipts of CMT manufacturers starting from 2018, and the industry started reporting recovery mainly from May 2011 onwards, we estimated our models for the following 3 periods: 2011:01–2021:09; 2015:04–2021:09; 2018:03–2021:09. In the case of Model 1, the regression equations did not include the real foreign sales of local producers exporting to the CIS markets, and the variable was included in Model 2 and Model 3.

Upon testing for the existence of multicollinearity and finding no evidence of it, we estimated the following equation using least squares with variables in the first difference since the performed stationarity tests on the variables of interest (using the Augmented Dickey-Fuller test) showed evidence of non-stationarity.

$$Dloutputsa_t = \alpha_0 + \alpha_1 \cdot Dlfsalessa_t + \alpha_2 \cdot Dlexprsa_t + \alpha_3 \cdot Dldslessa_t + \varepsilon_t \quad (2)$$

Where $Dloutputsa_t$ is the first difference of the log of the seasonally adjusted value of the real output of the Armenian wearing apparel industry in period t ; $Dlexprsa_t$ is the first difference of the log of the seasonally adjusted value of the real

export receipts of local manufacturers engaged in CMT manufacturing in period t ; $Dlexpcissa_t$ is the first difference of the log of the seasonally adjusted value of the real foreign sales of local manufacturers exporting to the CIS markets in period t ; $Dldslessa_t$ is the first difference of the log of the seasonally adjusted value of the real domestic sales of the Armenian wearing apparel manufacturers in period t ; $\alpha_0, \alpha_1, \alpha_2, \alpha_3$ are model unknown parameters; ε_t is the error term in period t .

In addition, by testing for the presence of serial correlation and finding evidence of it, the first order of the MA process was included in all equations to fix the problem. By performing the normality test to check whether the residuals were normally distributed or not, we found evidence of normally distributed error terms. No evidence of specification error was identified.

To find out the relationship between domestic and foreign sales, we first estimated the following equation for the period 2015:05–2021:09.

$$Dlfsalessa_t = \beta_0 + \beta_1 \cdot Dldslessa_t + v_t \quad (3)$$

Where $Dlexpcissa_t$ is the first difference of the log of the seasonally adjusted value of the real foreign sales of local manufacturers exporting to the CIS markets in period t ; $Dldslessa_t$ is the first difference of the log of the seasonally adjusted value of the real domestic sales of the Armenian wearing apparel manufacturers in period t ; β_0, β_1 are model unknown parameters; v_t is the error term in period t .

Then, we incorporated the first difference of the log of the seasonally adjusted value of the real domestic sales lagged 4 periods, estimated the equation, and performed all required tests.

To trace the substitution pattern of imported wearing apparel items, we retrieved import data from the UN COMTRADE database² with respect to major imported Turkish products for the periods: 2020 and 2021; and January–March 2021 and 2022.

Analysis, Results and Discussions

Analysis of Industry Developments in 2021 and over the period January–March 2022

In 2021, the Armenian wearing apparel industry reported a tremendous growth amounting to 25 % (y./y.) (see Fig. 1), which was driven by foreign sales with real domestic sales reporting a solid increase as well. The major substitution was reported with respect to knitted or crocheted garments (see Fig.

¹ Statistical Committee of Armenia. (2022). Monthly and Quarterly (by Marzes and Yerevan) Reports of Main Indicators of Industrial Organizations by Economic Activities (two-digit code) for the period 2012–2022. Retrieved from: <https://www.armstat.am> (Date of access: 30.05.2022) (In Armenian). Central Bank of Armenia. (2022). CPI (monthly) (over previous month, over December of previous year, over the same month of previous year, over average prices of 2005 year) and Exchange rate of dram against several currencies online databases. Retrieved from: <https://www.cba.am>. (Date of access: 30.05.2022). Note: 2011 = 100. Authors' own calculations.

² United Nations. (2022). UN Comtrade Database, Data retrieved from: <https://comtrade.un.org/data/> (date of access: 31.05.2022).

4), the main category of Harmonised System (HS) codes imported from Turkey in the period 2017–2020 (see Fig. 2). Specifically, in the case of items included in the category of knitted or crocheted garments (n.e.c. in chapter 61), the production of thereof does not require design- and technology-intensive manufacturing practices with virtually no barriers to enter a highly competitive market. Hence, Armenian manufacturers managed to aggressively penetrate and capture that market share, which led to a huge decline in imports of clothing items included in category 6114 (see Fig. 4).

In the period January-March 2022, the industry growth was again driven by foreign sales (see Fig. 1). However, imports of other categories reported a solid increase in 2021 (y./y.) (see Fig. 4). Importers switched to new suppliers from other destinations and/or increased supplies from the existing ones from those destinations in 2021 and then started re-switching back to Turkish suppliers over the period of January-March 2022 (see Fig. 4, Fig. 5). Price sensitivity, and especially price-quality ratio coupled with destination proximity played a vital role in choosing a supplier, especially in the case of Russia due to the depreciation of the Russian rouble against the Armenian dram in 2021 (namely in the second half)¹. High- and medium-end segment was the prime target of Russian apparel items since imports of category codes 6110 and 6204 increased immensely in 2021 compared to 2020 (see Fig. 4). Russia managed to emerge as the third largest supplier of imported wearing apparel in 2021, slightly lagging behind Bangladesh, with China extremely benefiting from the ban on the Turkish apparel items (see Fig. 3). A solid increase in supplies of imported items was reported with respect to Bangladesh, Morocco, etc.

The attitude of Armenian designers changed as well, as they started offering much more affordable items for mass production, and brands for the medium-end segment of the domestic market, hence a larger variety of products started to be offered by local producers². Therefore, the prime target would be the medium-end segment that would be possible to reach with the required upgrading to be undergone.

The imported Turkish clothing started regaining the former market share thereof in the domestic market over the period January-March 2022,

¹ Central Bank of Armenia. (2022). Exchange rate of dram against several currencies online database. Retrieved from: <https://www.cba.am>. (Date of access: 23.06.2022).

² Ghazaryan, K. (2021). Ban on Turkish imports boosts Armenian fashion. Eurasianet. Retrieved from: <https://eurasianet.org/ban-on-turkish-imports-boosts-armenian-fashion> (Date of access: 26.12.2021).

with imports in Chapters 61, 62 and nearly all Categories (except codes 6109 & 6110, while in the case of Code 6209, Turkey was the leading import destination), lagging behind only imports from China. The prospects of Russian apparel items on the domestic market could decline in the case of prolonged appreciation of the Russian rouble against the Armenian dram that started in April 2022 upon sharp depreciation in February 2022³.

Estimation Results and Discussion

Foreign Sales vs. Domestic Sales

Over the period June 2011 – September 2021, export receipts from the EU-based buyers were the major drivers of growth of the wearing apparel industry output, with a 1 % increase in thereof, on average, causing a 0.439 % increase (see Table 1, Estimation 1). Hence, for large firms engaged in CMT manufacturing, export receipts are preferred over domestic sales (see Table 1, Estimation 1).

In general, changes in both real foreign sales from exporting to the CIS markets and export receipts from the EU-based buyers would cause significantly higher changes in the real output of the Armenian wearing apparel industry, than changes in real domestic sales could lead to (see Table 1, Estimation 3) over the period March 2018-September 2021 (other things being equal).

A percent increase in the domestic sales in period t could cause a 0.204 % increase in the real industry output in the same period, on average (see Table 1, Estimation 3), while in the case of exports to the CIS markets and receipts from CMT manufacturing, a percent increase in foreign sales could lead to a 0.339 % and 0.393 % increase in the real output, accordingly. A rather high contribution of the export receipts to the industry output was explained by the outsourced contract exports placed by mainly German and Italian brand names, especially over the period April 2015 – September 2021 (see Table 1, Estimation 2). On average, a 1 % increase in the real export receipts of local firms engaged in CMT manufacturing in period t could cause a 0.506 % increase in the industry output in period t over the second period (see Table 1, Estimation 2). If we compare this result with the estimated coefficient of the same variable for the third period, we could conclude that engagement in CMT manufacturing is still a crucial driver of the industry output growth, with exports to CIS markets gaining momentum and emerging as an alternative to CMT manufacturing.

³ Central Bank of Armenia. (2022). Exchange rate of dram against several currencies online database. Retrieved from: <https://www.cba.am>. (Date of access: 23.06.2022).

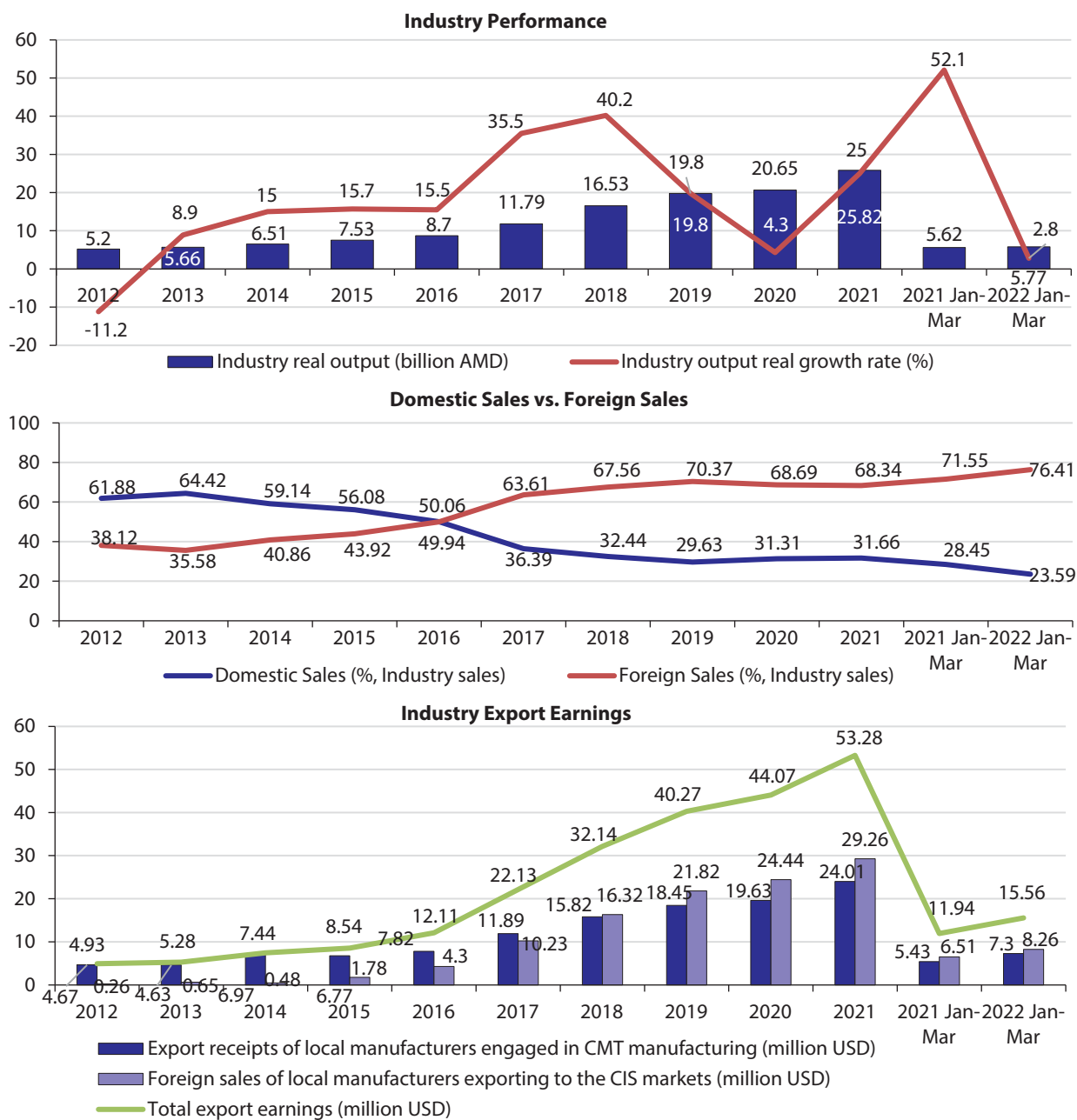


Fig. 1. Performance of the Armenian wearing apparel industry (source: Authors' own calculations based on data retrieved from various databases, and publications of the Statistical Committee of Armenia and the Central Bank of Armenia (for detailed sources see Footnote 1 on page 1241))

Based on the results of Estimation 3 (see Table 1), we could figure out that a percentage increase in foreign sales could cause higher changes in the real output while compared to the changes caused by the increase in real domestic sales (other things being equal). Therefore, we could assume that foreign sales, namely exports to Russia, could be preferred by local companies (over domestic sales), especially in the case of large manufacturers (due to sunk costs to penetrate the foreign markets like in the case of Portuguese manufacturers (Esteves & Rua, 2015)), and would not switch to domestic demand in the short-run with positive foreign demand shocks.

A percent change in the real domestic sales lagged 4 periods could cause a 0.247 % increase in the real exports to the CIS markets, namely to the Russian markets in period t (see Table 2, Estimation 4). Therefore, we could assume that real domestic and foreign sales, namely exports to the CIS markets, are complements. This could be explained by a couple of facts. Firstly, domestic manufacturers that invest and undergo upgrading tend to export more while gradually transforming into larger companies, attempting to respond to both positive domestic and foreign shocks that happen simultaneously with some lags, hence forc-

Estimated Models for different periods (Method: Least Squares)

Dependent variable: $Dloutputsa_t$	Estimation 1: 2011:06–2021:09	Estimation 2: 2015:04–2021:09	Estimation 3: 2018:03–2021:09
$Dlexprsa_t$	0.439 (12.678)***	0.506 (12.462)***	0.393 (5.002)***
$Dldsassa_t$	0.257 (6.563)***	0.208 (5.147)***	0.204 (4.286)***
$Dlfsassa_t$		0.120 (4.315)***	0.339 (3.768)***
Constant	0.005 (2.818)***	0.002 (1.903)*	0.0005 (0.293)
MA(1)	-0.858 (-17.823)***	-0.979 (-49.550)***	-0.982 (-46.311)***
R-squared	0.763	0.860	0.884
Adjusted R-squared	0.757	0.853	0.872
Included Observations	124	78	43

Note: t statistics values in parentheses. *** denotes significant at 1 percent significance level; * denotes significant at 10 percent significance level.

Source: Authors' own calculations.

Table 2

Estimated Model 4 (Method: Least Squares)

Dependent variable: $Dlfsassa_t$	Estimation 4: 2015:05–2021:09
$Dldsassa_{t-4}$	0.247 (2.034)**
Constant	0.036 (2.744)***
MA(1)	-0.699 (-8.187)***
R-squared	0.313
Adjusted R-squared	0.295
Included Observations	77

Note: t statistics values in parentheses. *** denotes significant at 1 percent significance level; ** denotes significant at 5 percent significance level.

Source: Authors' own calculations.

ing them to invest in cost-effective business practices. Secondly, the role of the Russian economy as a Systemic Emerging Market for Armenia explains why the synchronisation of business cycles causes both economies almost simultaneously to experience positive demand shocks (Dabla-Norris et al., 2012) with some lags in Armenia. Moreover, Russia plays a key role in “transforming the negative impact of an increase in oil prices into a positive event in Armenia, through stronger Armenian remittances and exports” (Ayvazyan & Dabán, 2015, p. 5). The reason why our findings differ from the empirical evidence of various scholars concerning different countries (Gül, 2021; Crespo & Muñoz-Sepulveda, 2015; Esteves & Rua, 2015; McQuoid & Rubini, 2014; Belke et al., 2015, etc.) is the fact that the size of their domestic markets is much larger compared to the size of the Armenian

market, and/or those countries can be considered as Systemic Markets for other countries.

If we compare the estimation results and industry performance with the proposed 4 scenarios of growth of the wearing apparel industry in Armenia by Makaryan (2017), we could conclude that Armenia has been heading towards a Dual-nature growth scenario with local manufacturers of custom-made, branded items emerging as suppliers for Russian clients (Makaryan, 2017).

Possible company responses in the short run and over the medium term and opportunities with EAEU integration processes

Large firms engaged in CMT manufacturing: Manufacturers serving outsourced contracts of Italian and German brands were and would hardly be interested in penetrating the domestic market segment of interest. They would prefer investing in expanding production capacities and/or building new facilities to ensure higher export receipts, rather than penetrating any share of the Armenian market of apparel and clothing items. Over the medium term, they could switch to “Turkishization” strategies adopted by Chinese companies (namely Seduno) (Zhu & Pickles, 2015) to start investing in upgrading to become engaged in higher value-added activities and emerge as an original brand manufacturer benefiting from near-shoring advantages and by teaming up with local designers.

Large companies reporting domestic sales and exports to the CIS and predominantly to the EAEU markets: Foreign sales are preferred over domestic sales in the short run; however, firms would be interested in penetrating the Armenian market seg-

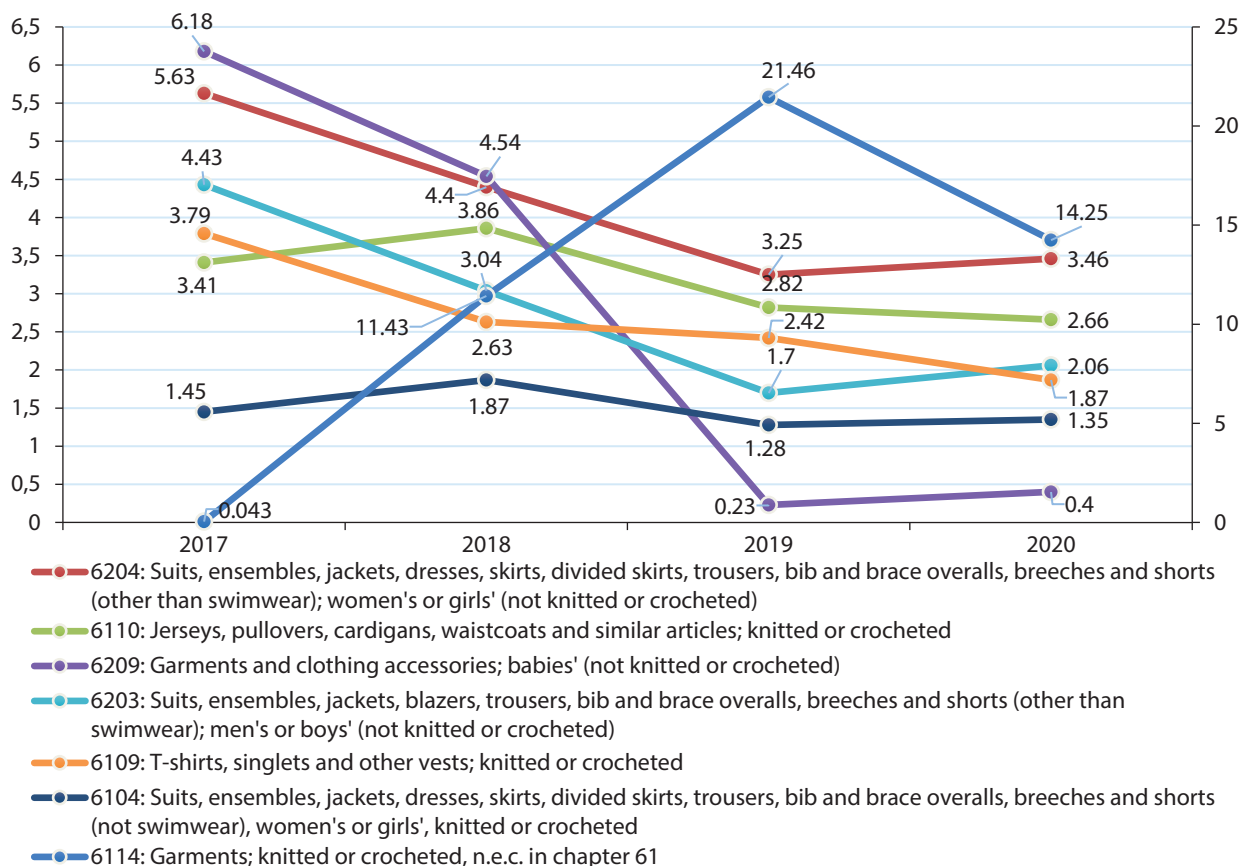


Fig. 2. Major categories of HS codes imported from Turkey (million USD) (source: UN Comtrade Database. Retrieved from: <https://comtrade.un.org/data/> (Date of access: 12.12.2021))

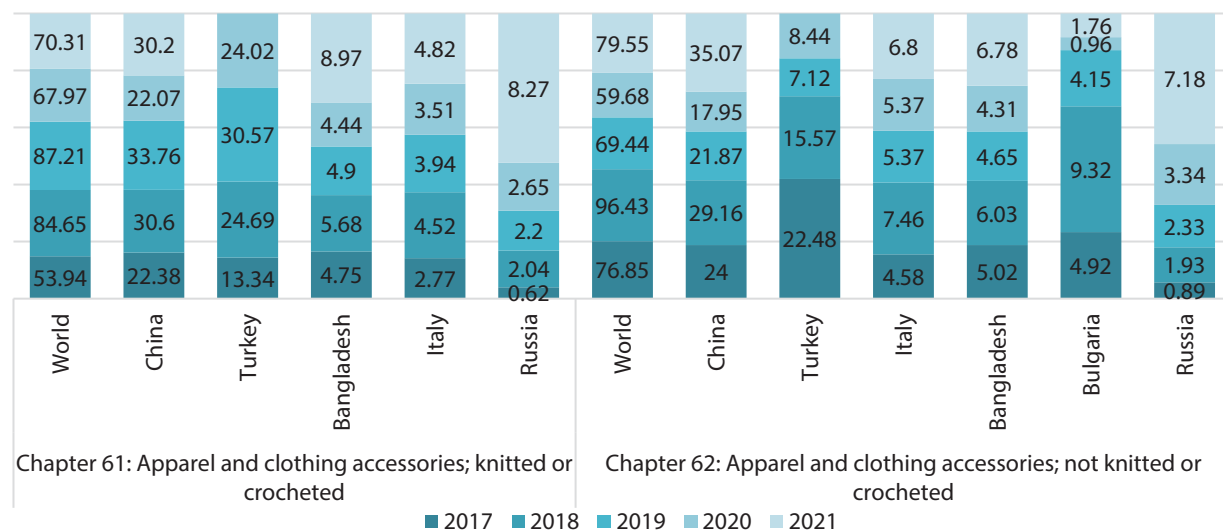


Fig. 3. Armenia's import of apparel by major destinations (million USD) (source: UN Comtrade Database. Retrieved from: <https://comtrade.un.org/data/> (Date of access: 31.05.2022))

ment as well. This is somehow explained by the fact that medium-sized firms that undergo upgrading and invest in cost-effective business practices continue penetrating the domestic market segment they target, with aggressive strategies to boost foreign sales as well due to the price-quality ratio. While companies are trying to penetrate domestic market segments, marketing campaigns

would play a crucial role in the short run to at least maintain the market share captured in 2021 and survive severe competition on the domestic market (to compete with Turkish and Russian supplies especially in the medium-end segment), with consumer ethnocentrism playing a minor role. Over the medium term, they could be focused on the strategies adopted by Erak Clothing (Tokatli &

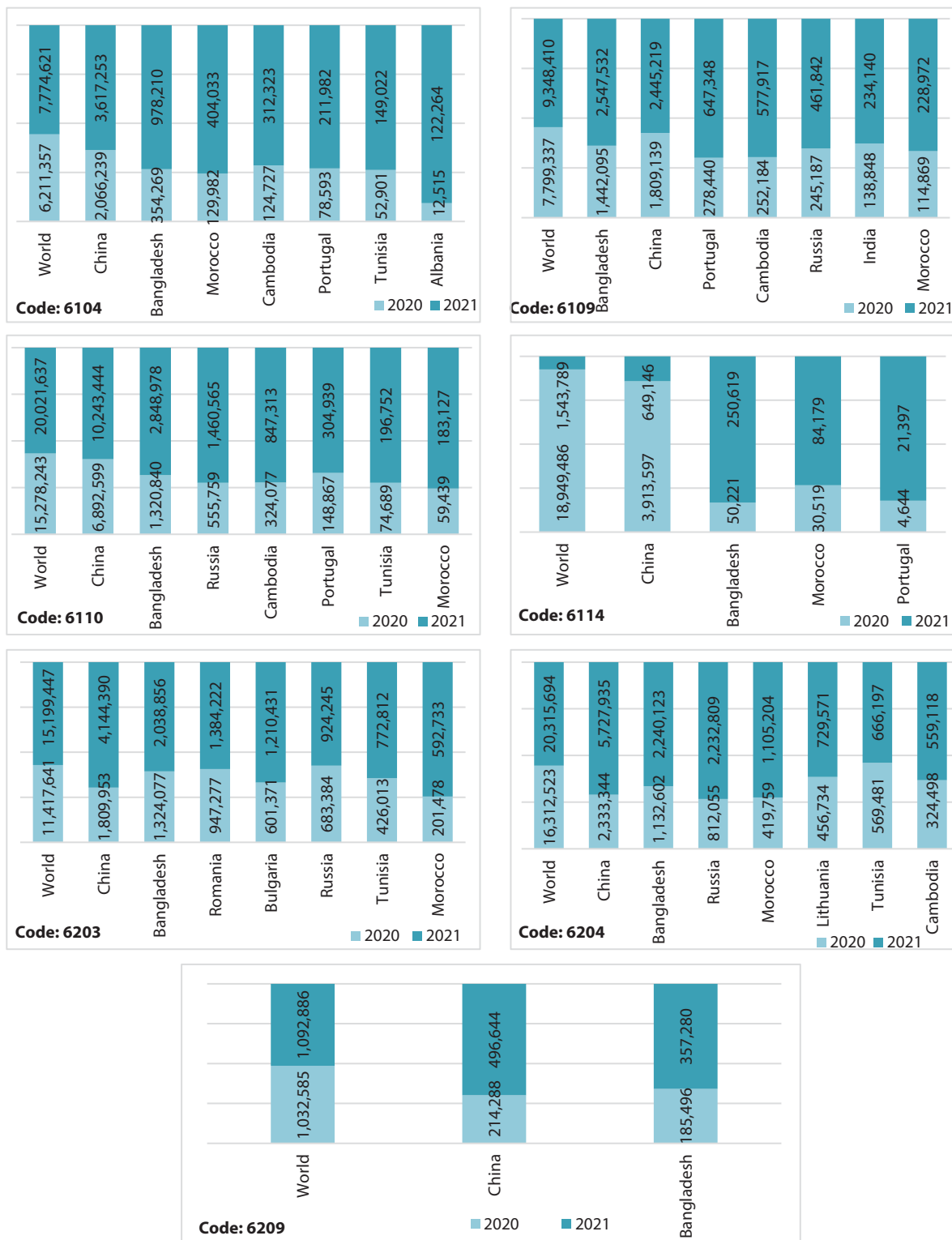


Fig. 4. Changes in imports of categories previously imported from Turkey in 2020 (USD) (source: UN Comtrade Database. Retrieved from: <https://comtrade.un.org/data/> (Date of access: 26.05.2022))

Kizilgün, 2004) as well to penetrate medium- and high-end market segments both overseas and domestically. As Erak Clothing did, Armenian manufacturers can rely on Diasporans, world-renown icons to penetrate specific market niches (Tokatli & Kizilgün, 2004) and team up with both local and overseas designers of Armenian ancestry.

Medium-sized manufacturers mainly meeting the domestic demand and aggressively penetrating the Russian market: These firms will continue penetrating domestic market segments and aggressively boost exports to the CIS markets in the short run, which could be more preferred to domestic sales. Marketing strategies are vital drivers

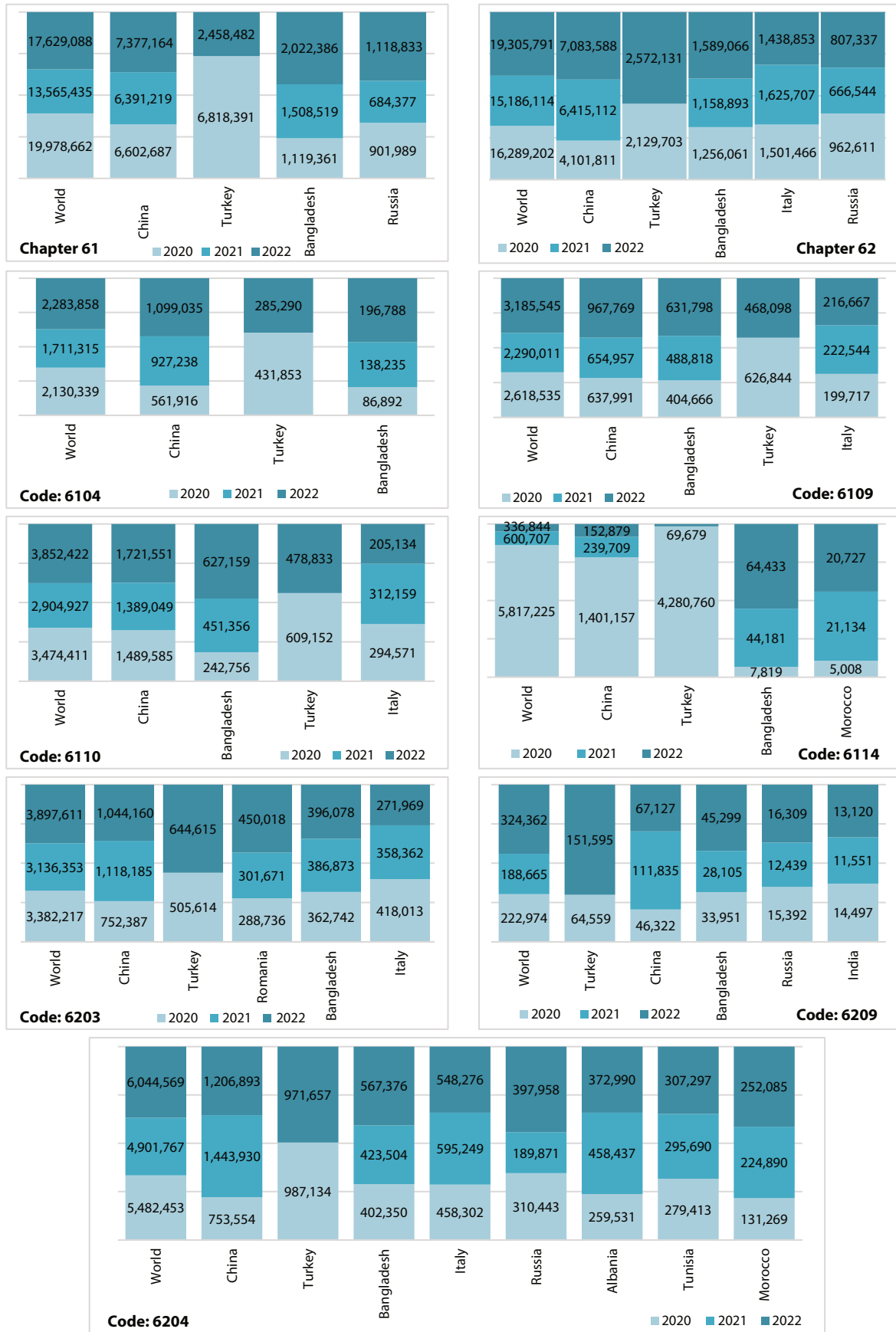


Fig. 5. Imports of chapters and categories in January-March of the period 2020–2022 (USD) (source: UN Comtrade Database. Retrieved from: <https://comtrade.un.org/data/> (Date of access: 26.05.2022))

of growth as well. Over the medium term, upgrading and engagement in higher value-added activities will enable these companies to penetrate medium-end market segments having respective designers in the team.

Small-sized manufacturers predominantly meeting the domestic demand: The same practices to be utilised by the medium-sized companies in the short run and over the medium term as described above could be introduced in the case of small-sized manufacturers.

Micro-firms almost solely meeting the domestic demand: These firms will aggressively penetrate the low-end segment of the domestic market, benefiting from the sharp decline in imports of items enlisted in Category Code 6114 in the short run. Over the medium term, the same practices to be adopted by small- and medium-sized companies as described above could be utilised in the case of micro-firms as well.

Importers: In the short run, importers of Category Code 6114 of the HS coding system would not sharply increase supplies from other destinations, including items of Turkish origin. The same pattern could be observed over the medium term. In the case of other categories of HS coding system, the importers that re-switched to suppliers of Turkish items in January-March 2022 would continue to do so in the short run and even in the medium term depending on the macroeconomic developments in Russia that emerged as a key player for the high- and medium-end segment of the domestic market. The continued appreciation of the Russian ruble against the Armenian dram would be the key factor that would determine the intensity of competition between Turkish and Russian supplies of clothing items in the high/medium-end segment of the domestic market in the medium term.

New opportunities within the EAEU integration processes

According to the Eurasian Economic Commission, in various industries of the economy, different types of integration potential are of higher importance among the EAEU members, and in terms of import substitution (decline of imports from third countries), the manufacture of textile and wearing apparel is stressed¹. Several factors can motivate Armenian large and

¹ Eurasian Economic Commission. (2017). Report on Industries of the economy with integration potential in the Eurasian Economic Union and measures aimed at utilizing thereof. Moscow, Russia: Eurasian Economic Commission. Retrieved from: https://docs.eaeunion.org/docs/ru-ru/01213095/cncd_28022017_1 (Date of access: 25.06.2022) (In Russ.)

medium-sized firms to penetrate aggressively the EAEU markets, namely Russia: appreciation of the Russian rouble against Armenian dram; the exit of various fashion brands from Russia in the first half of 2022². Hence, Armenian manufacturers (especially medium-sized and large firms) teamed up with designers can undergo upgrading and by ensuring economies of scale can offer price-competitive clothing items for the medium- and high-end segments of the Russian, domestic, and EAEU members' markets, as well. The firms engaged in CMT manufacturing teamed up with designers can emerge as suppliers for a few fast fashion Russian high-end brands, with the availability of additional capacity in place to meet the required quantities along with serving outsourced contracts of existing partners. This strategy can be adopted by own brand manufacturers. This would entail the decline in imports from third, non-EAEU countries, as well.

Conclusion and Policy Implications

The temporary ban on Turkish apparel items for 12 months (effective in 2021 and lifted on January 1, 2022) was an opportunity for Armenian firms to capture the market share of Turkish supplies. However, not all groups of firms were and would be interested in capturing additional domestic market share.

Hence, based on the least squares estimation method and using industry-level monthly data for the period June 2011-September 2021, we determine that foreign sales, namely exports to the CIS markets (predominantly the EAEU markets) and receipts from EU-based buyers would lead to a higher increase in the real output of the Armenian wearing apparel industry than domestic sales could cause (other things being equal). For companies exporting to the EAEU markets and reporting domestic sales, foreign sales could be more attractive, especially in the case of positive foreign demand shocks. We conclude that exports to the EAEU markets are becoming an alternative to CMT manufacturing. We find out that industry domestic and foreign sales are complements, explained by the dependency of the Armenian economy on the Russian economy, etc.

For large firms reporting domestic sales and exports to the EAEU markets, foreign sales are preferred over domestic sales in the short run, however, they would be interested in penetrating the

² Mishina, I. (2022). World brands are leaving Russia: will fashion stay? Novye Izvestiya [New news]. Retrieved from: <https://en.newizv.ru/article/general/04-03-2022/world-brands-are-leaving-russia-will-fashion-remain> (Date of access: 26.06.2022).

domestic market segment as well, and competing again with Turkish supplies and, additionally, with Russian clothing items. Medium-sized manufacturers mainly meeting the domestic demand and aggressively penetrating the Russian market will continue penetrating domestic market segments in the short run, encountering more severe competition than in 2020. Micro-firms will aggressively penetrate the low-end segment of the domestic market.

Overall, foreign sales will drive the industry growth and could compensate for a possible decline in domestic sales.

The results can be used by the Ministry of Economy of Armenia in designing the industry development strategy, and by the Eurasian Economic Commission in developing and implementing import substitution strategies in the medium-term for the Eurasian Economic Union member-states, and by Armenian firms crafting growth strategies and marketing campaigns.

Further research on firm-level upgrading strategies will be required to reinforce our results concerning the priorities of Armenian manufacturers to penetrate foreign and domestic markets, thus affecting the industry output growth rates.

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