

Empirical Paper

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Merchandise trade of the unrecognized entities in West Asia. The gravity model of trade, including Abkhazia and South Ossetia

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Abstract: The study aims at presenting the specificity of the economy and merchandise trade of unrecognized entities in the Caucasus region, with a particular focus on Abkhazia and South Ossetia. The study also analyses the potential changes in merchandise trade structure and volume. The empirical analysis covers the period between 2015 and 2020. The conducted study has revealed that over the last years, Abkhazia and South Ossetia have improved their economic condition, increasing industrial production, developing services, and maintaining trade exchange with other states. However, as the outcomes of the gravity model of trade indicate, both unrecognized entities do not fully utilize its trade potential, especially with Georgia, Russia, and Turkey. Hence legitimizing trade between Abkhazia and South Ossetia may bring economic benefits not only for both entities but also for other countries, especially their immediate neighbors.

Keywords: unrecognized entities of West Asia, Abkhazia, South Ossetia, economic and trade relations, gravity model of trade

JEL Classification: F11, F13, N75


1 Introduction

The world has been populated by nations living in sovereign states, which territories are clearly delimited by boundaries. However, next to sovereign states, secessionist entities exist, which are not recognized as states by the international community, although they are *de facto* independent. Whereas there can be found studies on unrecognized entities, they mainly refer to legal aspects regarding their state-building processes [Eastwood, 1993; Walker 1998; Crawford, 2007; Hsieh, 2007; Cismas, 2010; Sterio, 2013; Vidmar, 2013; Perera, 2018; Czapliński and Kleczkowska, 2019] and political-societal aspects of their sustainability [Pegg, 1998; Kolossov and O'Loughlin, 1999; Kolstø, 2006; Stanislawski, 2008; Caspersen, 2009; Caspersen and Stansfield, 2011; Czachor, 2014; Suska, 2020], including studies on unrecognized entities established in the post-Soviet space [Baev, 1998; O'Loughlin et al., 1998; Kolossov and O'Loughlin, 1999; King, 2001; Lynch, 2002, 2004; Kolstø and Blakkisrud, 2008; Blakkisrud et al., 2021]. However, there has been observed a shortage of studies on the economic and trade aspects of the functioning of unrecognized entities [Baar and Baarová, 2017; Jakubowski, 2018; Suska, 2021] partially due to the shortage of economic data available.

The main aim of the study is to present the specificity of West Asian unrecognized entities' economies, including Abkhazia and South Ossetia as well as their trade exchange with other states. Potential changes in trade structure in the case of legitimizing trade of both unrecognized entities have also been researched. To realize the aim of the study, the comparative analysis of literature, as well as descriptive and statistical

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methods, have been used. To assess the potential changes in trade structure the gravity model of trade has been applied. The empirical tier of the paper is preliminary based on the analysis of quantitative data and covers the period between 2015 and 2020.

2 Unrecognised entities: term, definition, and geography

Since the 1990s a plethora of terms has been used to refer to the phenomenon of unrecognized entities. Jackson [1990] has been the first to introduce the term of a “*quasi-state*” to describe a state that emerged as a result of decolonization processes. However, his terminology has not established itself, and in literature, another term is usually used to denote this phenomenon, namely a “failed state.” In turn, contemporarily researchers use the term “*quasi-state*,” when they mean a state that lacks international recognition [Kolstø, 2006; Kolstø and Blakkisrud, 2008]. Simultaneously, other terms have emerged to denote entities that are *de facto* independent but lack international recognition, such as “*de facto* states” [Baev, 1998; Pegg, 1998; Lapidus, 2002; Bridge, 2004], “unrecognised state” [King, 2001; Caspersen and Stansfield, 2011], “*de facto* countries,” “independent state-like entities,” “unrecognized regimes” [King, 2001], “separatist state” [Lynch, 2002], and “pseudo-states” [Kolossoff and O’Loughlin, 1999].

In literature, there are a number of definitions of an unrecognized entity. Pegg [1998, p. 26] defines it, as the entity, which:

“[...] exists where there is an organized political leadership which has risen to power through some degree of indigenous capability; receives popular support; and has achieved sufficient capacity to provide governmental services to a given population in a defined territorial area, over which effective control is maintained for an extended period of time.”

Kolstø [2006, pp 725–726] classifies an unrecognized entity based on three criteria: firstly, “its leadership must be in control of (most of) the territory it lays claim to,” secondly, “it must have sought but not achieved international recognition as an independent state,” and thirdly, “it must persist in the state of non-recognition for >2 years.” Caspersen and Stansfield [2011] broaden the concept of unrecognized entities to include not only entities that formally declared their *de jure* independence but also those, which have not announced a formal declaration of independence.

Unrecognized entities can be found in Europe, Asia, and Africa. In Europe, in the former republic of Moldova, Dniester Moldovan Republic (Transnistria) emerged in 1991. On the premises of former Yugoslavia, Kosovo has been partially recognized by the international community, whereby the spectrum of its international recognition is much wider than in the case of other unrecognized entities. In West Asia, three unrecognized entities emerged as a result of the disintegration of the Soviet Union – in Azerbaijan: Nagorno-Karabakh Republic (1994) and in Georgia: Abkhazia (1993) and South Ossetia (1992)ⁱ. In this region also Turkish Republic of Northern Cyprus emerged in 1983. In East Asia, there is Taiwan (1949), which is not recognized by the entire international community but can be perceived as a category of its own – somewhere between an unrecognized entity and a state [Kolstø, 2006; Caspersen and Stansfield, 2011]. In Africa, since 1991 Somaliland has had the status of an unrecognized entity.

3 Specificity of Abkhazian and South Ossetian economy

Some partially recognized or unrecognized entities function reasonably well, e.g., Northern Cyprus and Taiwan, which is the extreme case of success. However, other unrecognized entities are economically weak and sometimes perceived as criminalized economies. For example, Somaliland is viewed as an economy based on “criminal-terrorist activities,” and Transnistria – as a thoroughly criminalized economy based on illegal trade [Kolossoff and O’Loughlin, 1999].

ⁱ Abkhazia and South Ossetia have been recognised by Russia, Nicaragua, Nauru, Syria, and Venezuela, whereas Nagorno Karabakh has not been recognised by any state on the international arena.

Kolstø [2006, p. 728] argues that the economic weakness of some unrecognized entities may result from their “deficient capabilities or deficient will”. For example, in the Soviet times, Nagorno-Karabakh and South Ossetia were economically backward regions. The economic situation was better in Abkhazia and Transnistria, which managed to develop a relatively effective economy in comparison to their parent states Georgia and Moldova. However, the historical background of unrecognized entities as well as war damages, which they suffered while struggling for *de facto* independence, have contributed to the relatively poor condition of their economies. They usually represent globally marginal economies with Gross Domestic Product (GDP) being long under US\$1 billion [Baar and Baarová, 2017]. What’s more, most unrecognized entities will be not able to function, if not politically and financially supported by their external patrons [Kolstø, 2006].

Although the warⁱⁱ damages have significantly weakened the economies of both unrecognized entities in West Asia – Abkhazia and South Ossetia, they have been slowly recovering. Abkhazia is, at least theoretically, better conditioned to develop economically than South Ossetia. Its geographical location – access to the Black Sea – compensates for the closure of the border with its parent state, Georgia, and its high economic dependence on its patron state, Russia. Between 2015 and 2020, the GDP (at current prices)ⁱⁱⁱ increased from US\$468.8 million in 2015 to US\$538 million in 2019 (which was a growth of 15%), but after the outbreak of the Coronavirus disease 2019 (COVID-19) pandemic, Abkhazian GDP fell to US\$435.5 million, reaching the lowest value in the researched period (Figure 1) [Ugsra.org, 2020]. Despite an increase in Abkhazian GDP recorded in 2015–2019, it considerably lagged behind the GDP of its neighbors, for example, in 2019 Georgia’s GDP amounted to US\$17.5 billion, whereas Russia’s GDP equaled US\$1.7 trillion [World Bank, 2022].

Similarly, the military conflict with Georgia as well as South Ossetia’s isolation resulting from its geographical location have negatively affected its economic condition. Nevertheless, South Ossetian GDP

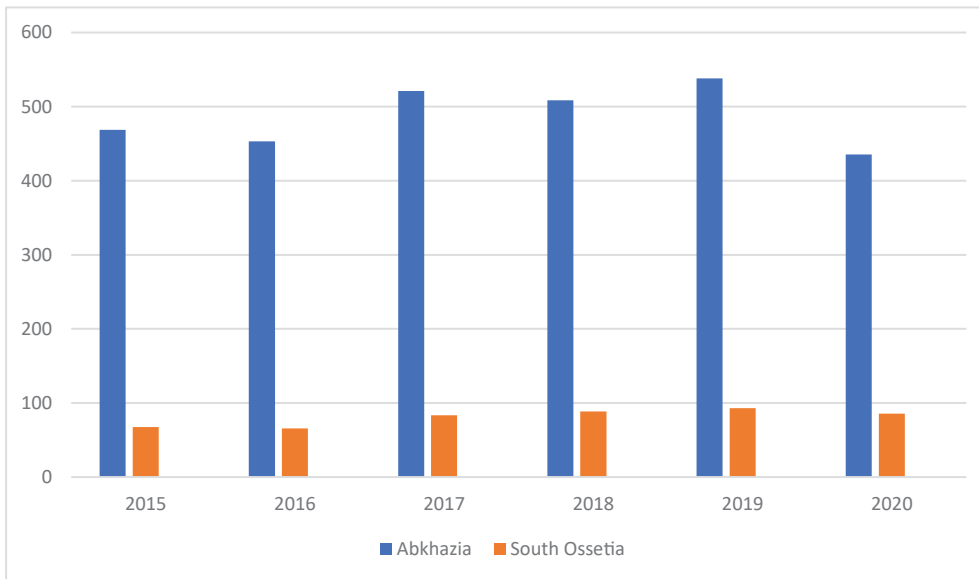


Figure 1. GDP in Abkhazia and South Ossetia, in 2015–2020 (in millions USD).

Note: The exchange rates of Russian rubbles against US dollars were calculated based on World Bank [2022].

Source: own elaboration based on Ugsra.org [2020]; Ugosstat.ru [2020].

ⁱⁱ In 1992–1993 Georgia waged a war against Abkhazia and in 1991–1992 – against South Ossetia. Afterwards the situation of a “frozen conflict” was maintained, which escalated in a form of a short Georgian-Russian war in August 2008. Consequently, a peace treaty was signed, and Russia formally recognised the independence of Abkhazia and South Ossetia.

ⁱⁱⁱ Due to the lack of reliable data on GDP deflator for the independent states and, as a result, difficulties in estimating the rate of economic growth; data on nominal GDP have been used. This is the second-best option which – in my opinion – is better than nothing.

has not fallen dramatically, which was partially caused by the massive displacement of South Ossetian citizens and a rapid decrease in the total population. Between 2015 and 2019, South Ossetia's GDP grew by 38%, moving from US\$67.5 million in 2015 to US\$92.9 million in 2019, but in 2020 it fell to US\$85.5 million (Figure 1) [Ugosstat.ru, 2020]. Nevertheless, the entity's GDP is so marginal that it is incomparable with the GDP of its neighbors.

Abkhazia as well as South Ossetia's economy is highly dependent on Russia's financial assistance for budget and development funds. Since 2008, Moscow has poured funding into Abkhazia, initially covering up to 75% of the entity's budget, gradually dropping to around 50% [Blakkisrud et al., 2021]. Russian financial assistance partly covers regular budget expenditures, such as education, health, and police, and partly funds a bilateral investment program directed mainly toward infrastructure development [ICG, 2018; GRASS, 2019], which has been implemented in 3-year cycles since 2013. Gradually, with some major infrastructure projects completed, the focus has shifted to include the flow of goods and services, introducing, among others, a program for cheap loans to medium-sized and (in the Abkhazian context) large enterprises, to boost exports and tax revenues [Blakkisrud et al., 2021].

After the war 1992–1993, there has been a reorientation of the South Ossetian economy toward Russia, which has provided massive financial assistance for this entity. Since August 2008 approximately US\$840 million, which was about US\$28,000 for each resident has been transferred. This aid included rehabilitation and budgetary assistance as well as a large housing project and Gazprom-funded construction of gas pipelines [ICG, 2010]. The total amount of Russian financial bailout annually exceeded the South Ossetian GDP by 5–11 times, and its budget was supported by Russian subsidies of >90%. Moreover, taking into consideration another sum, which Russia allocated to maintain about 4,000 Russian soldiers stationed on the entity's premises, its entire budget would exceed 140% [Tokmazishvili, 2013].

Although both Abkhazia and South Ossetia are agrarian, agriculture declined its significance after the war 1992–1993 for both entities. As statistics show, in Abkhazia, plant production prevails – the cultivation of citrus fruit, tea, tobacco, hazelnuts, wine grapes, as well as fishing [Ugsra.org, 2020]. Although Abkhazia has appropriate conditions to grow many products, its agriculture fails to develop its full potential due to insufficient financial funds, investment deficit as well as a small number of factories, and a lack of qualified labour force and modern technologies. Similarly, Abkhazian industry collapsed after the war 1992–1993, and also due to a 7-year-long economic blockade imposed on Abkhazia by its parent state – Georgia. Currently, a gradual increase in the volume of industrial production has been recorded, especially alcoholic beverages, mainly wine [Ugsra.org, 2020]. The leading sector of the Abkhazian economy is services, mainly tourism. In the Soviet time, tourism was the basic source of the entity's revenues – in the 1980s about 2 million tourists visited Abkhazia. However, after the war of 1992–1993, the number of tourists considerably decreased. In 2018, 1 million visitors came to Abkhazia, half of which were foreign tourists [GRASS, 2019]. The tourist sector in Abkhazia does not operate to its full potential and faces several challenges – insufficient investment, seasonal character, and relatively small revenues.

Although owing to the Russian financial bailout, the South Ossetian economy recovered for a short period of time, after 2013 its economy deteriorated again. Agriculture collapsed; when Georgian farmers left South Ossetia during the wartime, their land remained idle. The rest of the land was in public hands, and the shortage of agricultural equipment made it impossible to cultivate effectively. In South Ossetia, the internal market for agricultural products practically does not function; local goods meet only 20% of the citizens' needs. Moreover, exports of any surpluses of agricultural products, e.g., apples or peaches to Russia are not beneficial for South Ossetia because of high tariff rates [ICG, 2010]. Like agriculture, the South Ossetian industry has also collapsed. Although, as statistics show, the volume of production increased, in the period 2014–2018, by 68%, most production plants utilized only 10% of their capacities, which they had before the secession from Georgia [Ugosstat.ru, 2018]. Currently, the dominating industry branch is the light industry, primarily the textile industry, mainly concentrated in hands of one textile factory in Tskhinvali [Baar and Baarová, 2017]. In South Ossetia, the services sector is generally at a low level of development, apart from construction services, which are entirely financed by Russia. Despite all efforts of the South Ossetian authority, the unrecognized entity has failed in attracting tourists; only several thousands of tourists visit it per year [Ugosstat.ru, 2018].

4 Abkhazia' and South Ossetia's trade volume and structure

Georgian authorities have introduced restrictions regarding trade with Abkhazia and South Ossetia – trade between Georgia and both unrecognized entities as well as between the unrecognized entities and other states are not permitted. However, in practice, Georgia approves informal trade with both entities, simultaneously banning official sales of products with Abkhazian or South Ossetian labels.

Despite restrictions, over the recent years, both Abkhazia's and South Ossetia's foreign trade volume has been gradually increasing. Between 2015 and 2019, Abkhazian exports rose from US\$72 million in 2015 to US\$94.9 million in 2020, which was a growth of almost 32%. In turn, the entity's imports increased by 24%, moving from US\$250.3 million in 2015 to US\$310.1 million in 2019, whereas in 2020, it fell to US\$273.4 million. As statistics show Abkhazia has a substantial trade deficit – the volume of imports, which accounted for 74% of Abkhazian total trade was almost three times bigger than exports in 2020 (Figure 2).

In turn, in the researched period, South Ossetian exports grew by 87%, moving from US\$7.8 million in 2016 to US\$14.6 million in 2020. The share of imports in the total trade also increased from US\$31.4 million in 2016 to US\$60.4 million in 2019, which was a growth of 92%; however, in 2020 it fell to US\$47.4 million (Figure 2).

Abkhazia and South Ossetia are not self-sufficient economies, and they have to import goods from other states, mainly from Russia. In 2012, for the first time, statistics published the structure of Abkhazian foreign trade, according to which, its main trading partners were Russia (64% of Abkhazian total trade exchange was with Russia) and Turkey (trade with Turkey accounted for 18% of Abkhazian total trade), whereas the remaining 18% came from other states, like e.g., the Baltic states (5%), Moldova (2%) and Germany (2%) [ApsnyPress, 2012]. As statistics show, 5 years later, in 2017,¹ Russia (87%) and Turkey (7%) were still Abkhazia's greatest trading partners; however, the entity's trade relations have expanded to include currently over 40 countries, among others, Moldova (4%), Greece, China, Brazil (2%, each), Ukraine, Belarus, Bulgaria, Italy and Armenia (1%, each) (Figure 4) [Customsra.com, 2017]. Abkhazia's trade with Turkey, which is the second trading partner of the entity, is not official. Most traded goods are transported across the Black Sea by Turkish vessels leaving the Turkish ports and officially heading for Sochi. However, when they reach Sochi, they sail further to Sukhumi and then return to Turkish ports with Abkhazian products.

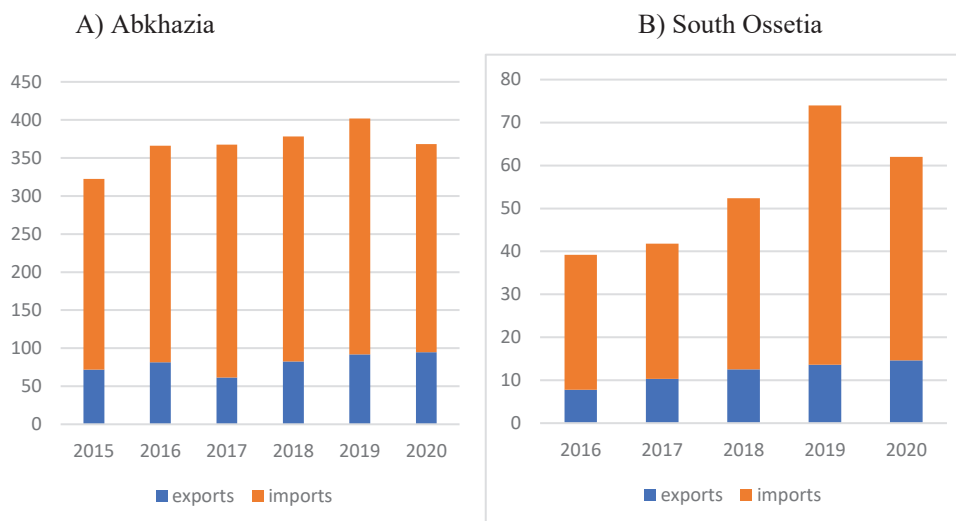


Figure 2. Abkhazia's and South Ossetia's merchandise trade, in 2015–2020 (in million USD).

Note: The latest available data concerning South Ossetia's trade come from 2016.

Source: own elaboration based on Ugsra.org [2020]; Ugosstat.ru [2020].

¹ Data concerning the specific geographical and commodity structure of the trade are not regularly published in unrecognized entities. The latest available statistics regarding the Abkhazian trade structure come from 2017.

As far as the geographical structure of the South Ossetian trade is concerned, it is almost limited to one trading partner – Russia. As statistics show, in 2017, Russia's share in South Ossetian exports amounted to 92% and in imports – 97%. In turn, in 2020, 99.9% of South Ossetian total exports were directed to Russia, whereas 85.5% of the entity's total imports came from Russia [Ugosstat.ru, 2020].

When it comes to the commodity structure of trade, Abkhazia's exports are mainly dominated by wine and wine products (75% of Abkhazian total exports in 2017), followed by fish and fish products (6%), and citrus fruits (4%). Abkhazia imports preliminary food products (21% of Abkhazian total imports in 2017), mineral products (17%), and products of animal origin (9%) [Customsra.com, 2017]. In turn, South Ossetian exports are practically dominated by two groups of commodities – textile and textile products (89% of the entity's total exports in 2020), followed by groceries and vegetables (11%). South Ossetia imports mainly textile and textile products (28% of the entity's total imports in 2020), followed by fuel and energy products (12%), and food products (9%) [Ugosstat.ru [2020].

5 Abkhazian and South Ossetian trade relations with Russia

Russia has always been the biggest trading partner of both unrecognized entities of West Asia. In the period 2015–2019, Russia's exports to Abkhazia increased by 12%, moving from US\$188.7 million in 2015 to US\$211.4 million in 2019, but in 2020, it fell to US\$176 million, reaching the lowest value in the researched period (Figure 3). Russia's exports to Abkhazia constitute the lion's part of the total trade exchange with the entity, namely 70% in 2020.

Since 2015, Russia's exports to South Ossetia have been gradually growing, reaching a value of US\$71.6 million in 2020. Also, an increase in Russia's imports from South Ossetia by almost 62% was recorded between 2015 and 2020 (Figure 3). However, in 2020 Russia's exports to South Ossetia dramatically prevails over imports from South Ossetia, accounting for 82% of the total exchange with this entity.

According to the statistics, in 2015, merchandise trade between Russia and Abkhazia was practically dominated by two commodity groups: prepared foodstuffs: beverages, spirits, and vinegar; tobacco (34.5% of total trade exchange) and mineral products (27%). Other important products in the trade structure of Russia and Abkhazia were products of chemical or allied industries (7.5%), vegetable products (6.5%), and base metals and articles of base metals (4.8%) (Figure 4). In 2020, trade in prepared foodstuffs: beverages, spirits, and vinegar; tobacco by 3.9 p.p., whereas in mineral products by as much as 12.2 p.p. In turn, the trade in vegetable products rose by 5.5 p.p. It is also notable that in the trade exchange between Russia and

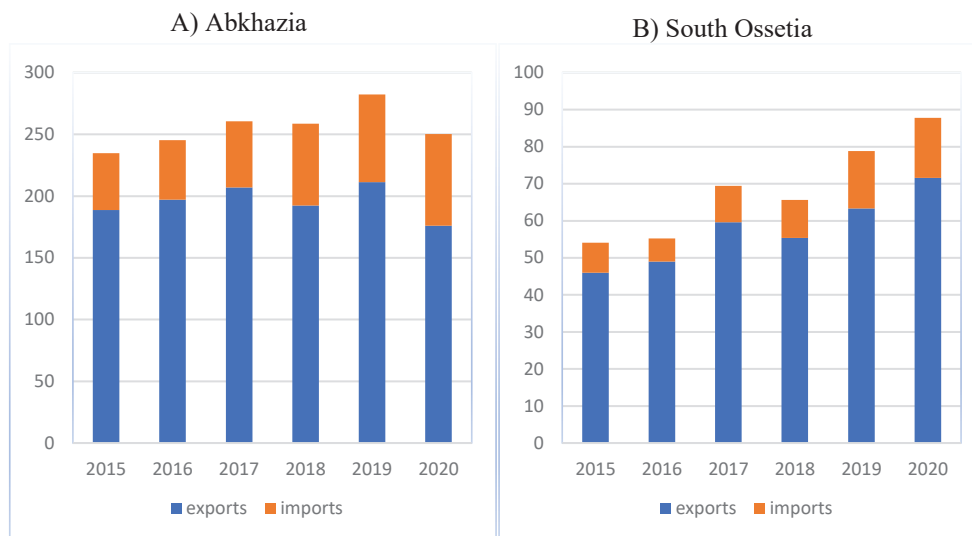


Figure 3. Russia's trade with Abkhazia and South Ossetia, in 2015–2020 (in million USD).

Source: own elaboration based on Ru-Stat [2022].

Abkhazia machinery and mechanical appliances; electrical equipment; sound and television occupied an important place (74% of the total trade exchange between Russia and Abkhazia).

In turn, in the research period, Russia traded with South Ossetia mainly in textiles and textile products. In 2015, this commodity group accounted for 23.4% of total trade between Russia and South Ossetia, and in 2020, it rose to 31.1%. In the trade structure, an important place is also occupied by prepared foodstuffs; beverages, spirits, and vinegar; tobacco (20.3% in 2015 and 22.3% in 2020) and mineral products (18.2% in 2015 and 13.4% in 2020) (Figure 5). Notably, machinery and mechanical

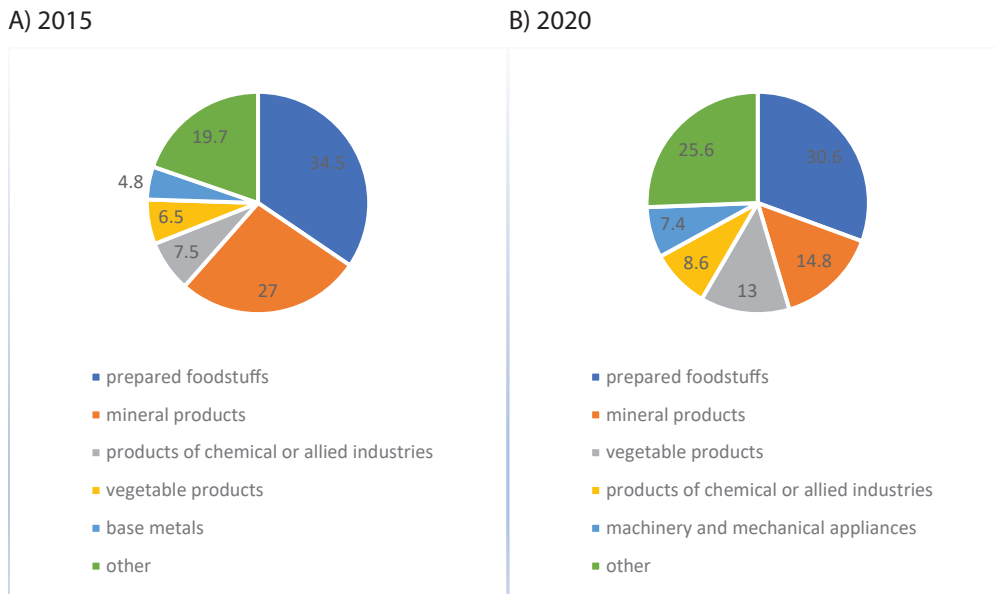


Figure 4. Main commodity groups traded between Russia and Abkhazia in 2015 and 2020 (in%).

Source: own elaboration based on Ru-Stat [2022].

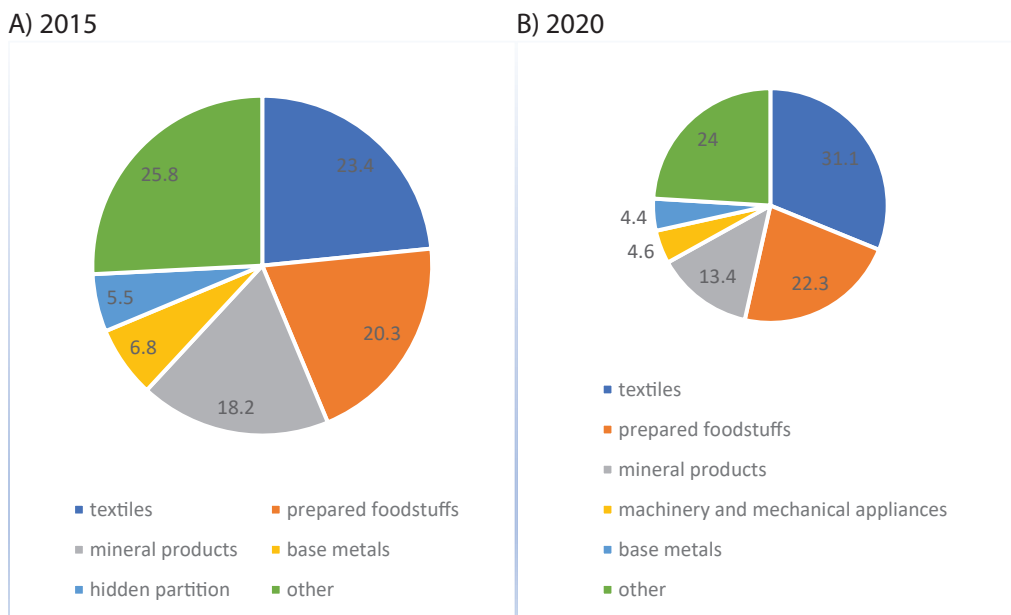


Figure 5. Main commodity groups traded between Russia and South Ossetia in 2015 and 2020 (in%).

Source: own elaboration based on Ru-Stat [2022].

appliances; electrical equipment; sound and television have gained importance in the trade structure between Russia and South Ossetia, whereas base metals and articles of base metal decreased their significance in the bilateral trade exchange.

6 The gravity model of trade, including Abkhazia and South Ossetia

Because of trade restrictions imposed by Georgia on Abkhazia and South Ossetia, no official trade exists between them. Moreover, trade with other states, except for Russia, is not legitimate because both entities are not recognized by the international community. In the chapter, the impact of legitimizing trade of both unrecognized entities on the trade structure has been researched with the use of a gravity model of trade. Polyakov [2001] applied the gravity model of trade to evaluate the potential growth of trade in Armenia, Azerbaijan, and Georgia after the conflict resolution in the South Caucasus. Saha et al. [2018] used the gravity model of trade to assess the possible increases in merchandise trade for Armenia and Azerbaijan after the resolution of the Nagorno-Karabakh conflict. The gravity model presented in this chapter predicts the potential changes in the trade structure of Georgia, Abkhazia, and South Ossetia and the percentage share of individual countries in the bilateral trade exchange in the case of legitimizing both entities' trade.

7 Methodology

To estimate the potential changes in the trade structure of Georgia, Abkhazia, and South Ossetia in the case of legitimizing the trade of both unrecognized entities, the gravity model of trade with mean coefficients identified by Head and Mayer [2013] was applied on the basis of the analysis of 159 papers using gravity models published in high-quality economic journals, and >2,500 usable estimates^{iv}. The model equation is the following:

$$\ln X_{ij} = \text{const} + 0.98 \cdot \ln GDP_i + 0.84 \cdot \ln GDP_j + 0.53 \cdot \text{contiguity} + 0.54 \cdot \text{common language} + 0.92 \cdot \text{colonial link} + 0.59 \cdot \text{RTA/FTA} + 0.79 \cdot \text{common currency} - 0.93 \cdot \ln D_{ij}, \quad (1)$$

where: X – the volume of exports; i – exporter; j – importer.

The estimates are conducted for each pair of trading partners and then the potential structure of trade is calculated. In the model, the following countries are included: Russia (the main trading partner of Georgia, Abkhazia, and South Ossetia), Turkey (the second trading partner of Georgia, Abkhazia, and South Ossetia), Armenia, Azerbaijan and Iran (neighboring countries in the region of East Asia) as well as other countries outside the region of East Asia – Germany (the biggest economy in the EU), China (the third trading partner of Georgia and the fifth of Abkhazia) and the USA (the biggest world's economy). Except for Germany, other European Union (EU) member states were not included in the research due to the incompleteness of the data concerning their foreign trade with both unrecognized entities. The calculations are done for 2017. The inaccessibility of full data concerning the foreign trade of unrecognized entities makes it impossible to analyze for later periods. However, the conclusions drawn from the analysis of the trade structure of the researched states and entities will also be valid for later periods because the relations among the particular variables of the model are likely to be stable over time.

Table 1 presents the dependent variables of the gravity model and the source of the data used for its calculation. Applying the gravity model, numerical values of explanatory variables (described in Table 1) along with the coefficients (given in equation [1]) have been used to calculate the log of the volume of exports. The obtained statistics (after eliminating the logarithmized form) are potential volumes of exports.

^{iv} For estimates of typical gravity variables see Table 4 in Head and Mayer (2013).

Table 1. Dependent variables of the gravity model of trade

Variable	Description of the variable	Source of the data
GDP	Gross domestic product which determines the size of the exporter and importer, measured in current prices, in USD	World Bank; http://ugosstat.ru/statisticheskij-sbornik-za-2018-g/ ; http://ugosstat.ru/statisticheskij-sbornik-za-2018-g/
Distance (D)	Determining the geographical distance between the capitals of a given pair of countries, measured in kilo meter	CEPII; https://www.timeanddate.com/worldclock/distance.html
Contiguity	Dummy variable taking the value of 1 for the neighboring countries and 0 otherwise	Geographical atlas
Common language	Dummy variable taking the value of 1, when the residents of both countries speak the same official language and 0 otherwise	Different sources (CEPII; https://www.ethnologue.com ; https://abkhazworld.com/aw/abkhazia)
Colonial link	Dummy variable taking the value of 1, when countries historically have trade relations or common statehood and 0 otherwise	Different sources (CEPII)
RTA/FTA	Dummy variable taking the value of 1, when countries have signed a free or a regional trade agreement and 0 otherwise	Different sources (WTO)
Common currency	Dummy variable taking the value of 1, when countries have the common value and 0 otherwise	Different sources (https://www.countries-ofthe-world.com/world-currencies.html ; https://abkhazworld.com/aw/abkhazia)

Source: own elaboration.

GDP, Gross Domestic Product; CEPII, Centre d'Études Prospectives et d'Informations Internationales; FTA, free trade agreement; RTA, regional trade agreement; WTO, World Trade Organisation.

8 Results and discussions

Tables 2–4 present the actual and potential trade volumes of Georgia, Abkhazia, and South Ossetia with the analyzed trading partners in the situation of legitimizing trade of unrecognized entities.

Table 2. Gravity model; the actual and potential structure of Georgia's trade in 2017

Trading partners	Actual exports (in millions USD)	Actual imports (in millions USD)	Potential exports (in millions USD)	Potential exports divided by actual exports	Actual share of the trading partner (%)	Potential share of the trading partner (%)
Russia	396.672	786.867	499.818	1.3	25.7	15.7
Turkey	216.674	1,373.739	239.187	1.1	14.1	7.5
Armenia	210.276	281.322	693.842	3.3	13.6	21.7
Azerbaijan	272.15	567.034	298.045	1.1	17.7	9.3
Iran	76.351	105.194	67.238	0.9	5.0	2.1
Germany	45.657	434.153	216.858	4.7	3.0	6.8
China	201.702	732.946	30.333	0.2	13.1	0.9
USA	121.796	268.262	56.783	0.5	7.9	1.8
Abkhazia	-	-	304.980	-	-	9.6
South Ossetia	-	-	786.226	-	-	24.6
Total	1,541.278	4,549.517	3,193.31	13.1	100	100

Source: own elaboration.

Table 3. Gravity model; the actual and potential structure of Abkhazia's trade in 2017

Trading partners	Actual exports (in millions USD)	Actual imports (in millions USD)	Potential exports (in millions USD)	Potential exports divided by actual exports	Actual share of the trading partner (%)	Potential share of the trading partner (%)
Russia	53.371	217.550	1,061.295	19.9	91.8	60.7
Turkey	4.740	12.270	64.796	13.7	8.2	3.7
Armenia	-	1.616	48.291	-	-	2.8
Azerbaijan	-	-	28.653	-	-	1.6
Iran	-	-	24.959	-	-	1.4
Germany	-	-	77.343	-	-	4.4
China	-	5.713	8.039	-	-	0.5
USA	-	-	28.113	-	-	1.6
Georgia	-	-	275.957	-	-	15.8
South Ossetia	-	-	131.400	-	-	7.5
Total	58.111	237.149	1,748.846	33.6	100	100

Source: own elaboration.

Table 4. Gravity model; the actual and potential structure of South Ossetia's trade in 2017

Trading partners	Actual exports (in million USD)	Actual imports (in million USD)	Potential exports (in million USD)	Potential exports divided by actual exports	Actual share of the trading partner (%)	Potential share of the trading partner (%)
Russia	9.470	30.422	386.246	40.8	100	27.2
Turkey	-	-	36.939	-	-	2.6
Armenia	-	-	60.817	-	-	4.3
Azerbaijan	-	-	29.496	-	-	2.1
Iran	-	-	21.807	-	-	1.5
Germany	-	-	55.105	-	-	3.9
China	-	-	5.896	-	-	0.4
USA	-	-	19.575	-	-	1.4
Georgia	-	-	677.388	-	-	47.8
Abkhazia	-	-	124.991	-	-	8.8
Total	9.470	30.422	1,418.26	40.8	100	100

Source: own elaboration.

Comparing the outcomes of the gravity model of trade in the region of South Caucasus and outside the region, it can be argued that Georgia as well as the unrecognized states could have exported more goods than they actually did in 2017 – Georgia's actual exports (to the selected countries) totaled US\$1.5 billion, whereas the potential exports (predicted based on the gravity model of trade) amount to US\$3.2 billion – see Table 2). Especially, in the case of opening the Georgian-Abkhazian and Georgian-South Ossetian border, Georgia's exports to Abkhazia and South Ossetia could potentially increase from a zero level (no trade) to US\$305 m and US\$786.2 m respectively. The trade with both unrecognized states accounts for 34% of Georgia's total predicted exports with the researched states. The analysis of the results of the gravity model of trade in numerical values indicates the currently unused trade potential of Georgia with Russia, Turkey, Armenia, Azerbaijan, and Germany as well as Abkhazia and South Ossetia. However, in percentage terms, the potential share of Russia (15.7%) and Turkey (7.5%) in Georgia's exports is lower than the actual (Russia – 25.7%; Turkey – 14.1%); however, the potential share of Armenia (21.7%), Abkhazia (9.6%) and South Ossetia (24.6%) is higher than in reality (Armenia – 13.6%; Abkhazia – 0%; South Ossetia – 0%).

Moreover, an unused trade potential of both unrecognized entities in all researched states is recorded. In the case of Abkhazia, particularly the trade potential with Russia (the predicted exports are by over one billion dollars greater than the actual), Georgia (the actual exports could potentially increase from zero level to nearly US\$276 billion), and South Ossetia (the actual exports could potentially increase from the zero level to over US\$131.4 billion – see Table 3). A similar situation is observed for South Ossetia; there also exists an unused trade potential, particularly with Russia (the predicted from the gravity model exports to Russia are >US\$376 million bigger than the actual), Georgia (the potential exports could increase from the level of zero to over US\$677.4 million) and Abkhazia (the potential exports could increase from zero to nearly US\$125 m) – see Table 4.

The factors fostering the trade flows between Georgia and both unrecognized entities are the very small geographical distance between them, and consequently, certain natural trade ties functioning there. However, the factor unfavorable or preventing the trade flows between Georgia and both unrecognized entities is the fact that Abkhazian and South Ossetian trade has been not legitimized.

The results of the gravity model of trade indicate that in the situation of legitimizing the trade of Abkhazia and South Ossetia the geographical structure of trade of the researched states in the region of West Asia and outside the region would change. Conducting the trade exchange between Georgia and the unrecognized entities could mean a decrease in the share of other states of the region, e.g., Georgia, Turkey, and Azerbaijan. Such a decrease is not impossible in practice since Georgia's trade with these states can in fact cover, to a certain degree, the "lost" trade with Abkhazia and South Ossetia. The legitimization of trade of the unrecognized entities would provide economic benefits not only to these entities but also to other states. One of the advantages would be not only an increase in total trade but also cheaper imports from Abkhazia and South Ossetia (than from, e.g., Turkey or Russia), which would be connected with a decrease of transport costs in the situation of the trade exchange with immediate neighbors. The unrecognized entities, like other states in the region, have a relatively weak export base. Additionally, they suffer from the problems typical of post-Soviet economies, such as insufficient working capital, problems with management and marketing, and incomplete private sector restructuring processes. Therefore, only legislating the trade of unrecognized entities would not be sufficient to increase total trade in the region. Nevertheless, conducting the trade exchange in a situation, when their economies are not self-sustaining and are not capable of meeting fully the needs of their residents, is undoubtedly one of the key factors conditioning their existence and functioning.

9 Conclusions

Twelve years of the functioning of the unrecognized entities in West Asia as *de facto* independent entities has not changed much in terms of their legal status – neither they have received international recognition, nor have their reintegration occurred. However, the economic condition of both unrecognized states has improved, although the functioning of their economies is still largely based on cooperation with Russia. Industrial production has been gradually growing and the service sector has gained importance. Unrecognized states also produce certain amounts of goods, which are exported.

Despite trade regulations introduced by Georgia banning any foreign trade activities, Abkhazia, and South Ossetia conduct a cross-border informal trade with Georgia as well as with Russia, and in the case of Abkhazia also with Turkey and other countries. What is more, the volume of this trade is gradually growing, which reflects the unrecognized entities' efforts to reduce their dependence on Russia and open their economies to new trade partners and opportunities. However, despite the increase in the trade exchange, both Abkhazia and South Ossetia do not fully use their trade potential, especially with Russia and Georgia. The outcomes of the analysis of the gravity model of trade confirm potential economic benefits in the case of legitimizing trade of both unrecognized entities. Hence, creating the frameworks for the development of legitimate trade in Abkhazia and South Ossetia will be beneficial not only for the unrecognized entities by themselves but also for other countries, including their immediate neighbors – Georgia and Russia.

Undisputedly, the legitimization of informal trade of both unrecognised entities will enhance their economic condition, but it will also be beneficial for the neighboring countries and other parties expressing their interest in the region, like, e.g., Turkey. It will be a chance for Abkhazia and South Ossetia to gain additional financial sources and conclude wider international relations, which will definitely contribute to their economic and political deisolation. For Russia, the development of official trade of the unrecognized entities may mean less financial aid granted by Moscow to support their reconstruction. What's more, Russia would not bear any significant costs connected with the trade regulation. Georgia, in turn, apart from economic benefits would gain opportunities to conduct a direct political dialogue with the entities, which seceded from it. However, there should be emphasized that without the liberalization of the Georgian law restricting the trade of Abkhazia and South Ossetia, any attempts to regulate their foreign trade would probably turn unsuccessful.

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