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# **Executive summary**

The pandemic (followed by lockdowns, virus containment measures and supply-chain disruptions) negatively affected all modes of transportation with the cargo volumes declining the most in case of air freight (-9.9% YoY in 2020).

In 2021, freight volumes recovered and surpassed pre-pandemic levels for all transports, except maritime (-0.8% vs 2019), which struggled from limited capacity, labor shortages and congested ports.

The Russian invasion of Ukraine further deepened the issues caused by Covid-19 pandemic, such as production and transportation delays, increased input costs and commodity prices. In addition, the sanctions imposed on Russia and Belarus affected global and regional trade and transit flows.

In 7M 2022, the merchandise trade volume increased by 11.4% YoY. In value terms, driven by high inflation on both export and imported products, Georgia's trade turnover constituted even higher growth (+35.3% YoY).

Cargo transit, accounting for more than a third of total cargo transportation volumes, is an important driver of demand on transportation services in Georgia. Driven by recent geopolitical situation the interest toward Georgia as a transit country has increased. The country saw a surge in transit demand in Q2 2022 (+29% YoY) attracting higher cargo volumes from "northern routes" and accelerated Russia-Turkey trade.

Road transport plays a major role in the Georgian transportation sector, accounting for 73% of transported cargo in 6M 2022. In the same period, road cargo freight increased by 16% YoY, mainly driven by increased transit volumes between Russia and Turkey.

In 6M 2022, railway freight increased by 13% YoY. The growth accelerated in Q2 2022 indicating the positive impact of sanctions against Russia on demand for GR transit services. The cargo transportation volumes are expected to increase by 32% YoY in 2022 reaching 16 mln tons.

Georgian ports also saw a surge in demand in Q2 2022. Dry and bulk cargo (originated in Central Asia) increased by 29% YoY with ports working almost at the maximum of their capacity. In case of containers, despite increased traffic (+10% YoY) ports are still underutilized.

Accounting for less than 1% of total cargo transportation air freight is the least preferred means of cargo transportation in Georgia. The start of 2022 seems to be promising for the sector, as traffic posted a 4% and 41% YoY growths in Q1 and Q2, respectively.

Georgia acts as a natural bridge between Azerbaijan and the European market for its oil and gas resources. Azerbaijan's deal to increase gas exports to EU from 8 bcm per year in 2021 to 20 bcm per year by 2027 brings high economic benefits for Georgia.

The Georgian warehouse business is highly concentrated with 88% of total warehouses being in Tbilisi. Georgian warehouse market is dominated by B and C class warehouses, while A class warehouses are in deficit.

The increasing demand on warehouses drove occupancy rates on the organized market to nearly 100% in 2022. Industry has responded by increasing supply - permits granted for construction of warehouses in Tbilisi surged by 42% YoY in 2021 and additional 9% YoY in 6M 2022. If in 2021, the data on permits was driven by small and medium size warehouses, in 2022 relatively large warehouses took the majority.

# Major events that shape transportation and logistics

#### The Pandemic

The recent three years have been the turbulent period for the logistics sector. First, Covid-19 pandemic and then Russian-Ukrainian war shook up the global economy and had major implications for the logistics sector in both Global and regional context.

Covid-19 outbreak. followed lockdowns, border closures and strict regulations in most of the world, disrupted production processes and directly interfered with the supply chains of major industries such as automotive, consumer goods, medical equipment, electronics pharmaceuticals. In combination with the labor shortages, which was one of the immediate effects of the pandemic, and changes in global consumer demand, the pandemic created imbalances in supplydemand for logistical services.

The impacts varied across the types of transportation. The air freight experienced largest reduction in the first months of 2020 due to the dramatic decrease in passenger flights. The average air cargo transportation capacity, which is measured in available cargo ton-kilometres (tkm), fell by 21.7% YoY in 2020.

Tight air cargo market led to: a) declined cargo traffic, <u>-9.9% YoY in 2020</u>, b) increased cargo rates, <u>+53.8% YoY in 2020</u>. The industry quickly recovered from the pandemic with transported cargo volumes surpassing 2020 levels by 18.7%. However, cargo rates continued to grow until the beginning of 2022.

Covid-19 hit maritime cargo transportation as well. In the first months of 2020, the ocean freight was considerably reduced. Large amounts of cargo accumulated in the major ports cancelled sailings. By the end of May, a

record 12% of global container capacity (2.7 million TEUs) was inactive. As a result, global maritime trade measured in loaded cargo weight declined by 3.8% YoY, while container port throughput declined by 1.2% YoY in 2020 – the first year with negative growth since 2009.

In the first half of 2020, largest container shipping firms canceled scheduled sailings and consolidated shipping routes in order to avoid downward pressure on freight rates due to overcapacity. However, as the global economy and trade flows started to quickly recover in the second half of 2020 due to strong fiscal stimulus packages, pent-up demand and gradual lifting of restrictions, demand on maritime services outstripped shipping capacity. Maritime transportation started to face limited capacity, labor shortages and congested ports. As a result, the transportation time nearly doubled, while freight rates on the main trading routes skyrocketed reaching the peak in January 2022. Depending on the routes, transportation price per container from China increased by 8-10 times compared to June 2020. This explains why world seaborne trade was still below (-0.8%) YoY) the pre-pandemic level in 2021.

Railways also experienced disruptions. Global rail freight traffic (in tkm) declined by 4% YoY in 2020. The magnitudes of this decline differed by region. Rail freight declined by 3% in EU and 8.4% in Americas compared to 2019. On the other hand, in Asia and Oceania rail freight contracted only by 1.6% YoY. Drastically increased shipping rates (and stable railway freight rates), shifted some part of the trade from sea to railways, which benefited some routes. For example, container traffic between China and Europe continued the upward trend of previous

# Major events that shape transportation and logistics

#### The Pandemic

years and saw a whopping 56% YoY increase in cargo volumes expressed in TEUs in 2020 and additional 29% YoY increase in 2021.

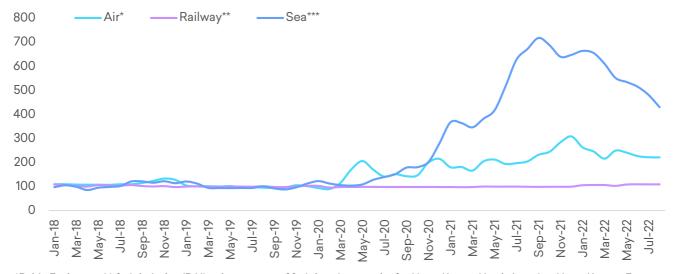
As for the road cargo transportation, the industry showed the resilience during the pandemic. Roads were more available than sea or air transport. This attracted some portion of trade flows. In terms of tkm, EU road cargo transportation fell by only 0.9% in 2020, while showing strong performance in 2021 (+6.5% YoY).

Transport and logistics industry was significantly affected in Georgia as well. According to <a href="PwC survey">PwC survey</a>, conducted in April of 2020, Georgian companies indicated that border closure and limited transportation was one of the biggest issues they faced during the pandemic. Furthermore, the transportation and storage was the second most affected business sector in Georgia – 69% of companies in this sector saw more than 50% decline in their revenues. 27% of companies reported that they were facing

liquidity problems as well. In the follow up survey, conducted in October 2020, 80% of respondents confirmed that they were still facing problems caused by supply chain disruptions, but it had become less problematic. The main challenges that businesses faced at that time were increased transportations costs, limited mobility, reduction in business activity both from changes in consumer behavior and suppliers.

Even in 2022 Covid-19 continues to disrupt the supply chains, as new waves of virus are emerging in China. "Zero Covid" strategy, which is very costly for the businesses and interferes with the supply chain operations, the virus outbreaks followed by endless circle of lockdowns in major manufacturing cities (including Shanghai, Shenzhen and Chengdu) contains high economic risks for China as a country which barely avoided economic contraction in the second quarter. The country plans no policy easing in the near future, which will take toll not only on Chinese, but on global trade and activity.





\*Baltic Exchange Airfreight Index (BAI) – the average of freight prices per kg for Hong Kong - North America, Hong Kong – Europe and Frankfurt – North America routes;

Source: TBC Capital, Baltic Exchange, Drewry Supply Chain Advisors, Eurasian Rail Alliance

<sup>\*\*</sup>Eurasian Rail Alliance Index (ERAI) - composite index of the cost of transit container shipments in the Eurasian rail corridor across the territory of the Eurasian Economic Union between China and the EU;

<sup>\*\*\*</sup>Drewry World Container Index (WCI) - composite index of actual spot container freight rates for 8 major East West trade routes.

# Major events that shape transportation and logistics Geopolitics

The Russian invasion of Ukraine caused the biggest humanitarian crisis in Europe since the World War II, as millions had to flee their homes and thousands fell victim to the unjustifiable military actions. The consequences of the ongoing conflict are apparent in socio-political and economic domains, which will transpire even more in the succeeding years.

The strong economic implications of the war between Russia and Ukraine - the two major providers of the essential products such as food, energy, and agro-commodities, were anticipated due to the obvious general disruptions caused by military conflicts, including border closures, halted production and lacking human resource. The conflict further deepened the issues caused by Covid-19 pandemic, such as production and transportation delays, increased input costs and commodity prices.

In addition, the Western countries <u>imposed</u> <u>strict economic sanctions</u> on Russia and Belarus for its involvement in the invasion, aiming to weaken the Russian economy to the point of the country's inability to finance, and thus, continue the war.

The outcome of the Russian invasion spread across countries, economies and different industries, including the industry of logistics and transportation. Due to the sanctions, countries had to find other suppliers of grain, oil and gas, which resulted in increased shipping distance, cost and time.

In the first set of sanctions, EU prohibited the sale of aircraft, its parts, equipment and any related maintenance or insurance services to Russian companies. In the following sets of sanctions, EU and 36 other countries prohibited Russian aircraft from their airspace, which was met with the similar response from Russia. The closure of Russian airspace caused lengthened flight times, which also increases air transportation costs and possible reduction in flight capacity.

Western countries also closed their ports to the Russian vessels and banned road transportation, in addition to which the strict restrictions were set on the export and import of the goods from Russia and Belarus. The sixth set of sanctions partially abolished imports of oil from Russia to which Bulgaria and Croatia are an exception, along with few EU states which continue to receive Russian oil.

# Major events that shape transportation and logistics Geopolitics

Railway was less effected by sanctions as freight trains can still go through Russia, but they cannot make any stops within the country. However, this is still associated with high operational and reputational risks and some logistic firms try to avoid taking the route via Russia.

The overall rail freight (in TEUs) between China and Europe, increased by only 4% YoY in M7 2022, which is a significant slow-down in growth compared to the previous years. In addition, some specific railway routes saw a major decrease in cargo volumes. For

example, the freight traffic (in TEUs) on the China – Kazakhstan – Russia – Belarus – Europe route, which transits about 40% of total China-Europe railway cargo traffic, contracted by 28.1% YoY in 8M 2022. These figures indicate that part of cargo traffic found alternative railway routes, increasing demand on other corridors such as Trans-Caspian International Transport Route (TITR), which is called the "Middle Corridor" – about 6,500 kilometer network of roads, railroads, and ports stretching across Kazakhstan, the Caspian Sea, Azerbaijan, Georgia, Turkey and into Europe.

Figure 2. Rail freight between China – Europe ('000 TEUs)

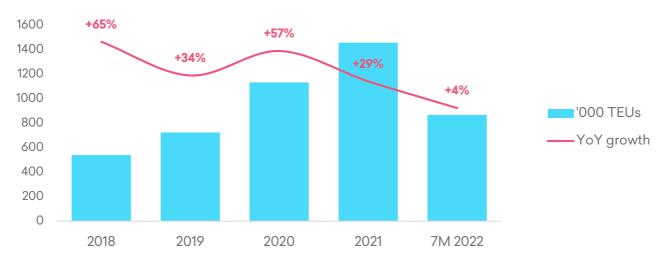


Figure 3. Rail freight via China – Kazakhstan – Russia – Belarus – Europe route ('000 TEUs)



Source: ERAI

#### International trade

International trade (which is also affected by current geopolitical changes and ongoing war) is another shaping factor for demand on logistical services.

As a result of the pandemic, Georgia's international trade turnover (export + import) in goods (merchandise trade) contracted in both value (-14.4% YoY) and volume (-3.6% YoY) in 2020. However, trade recovered in 2021 and continued the growth in the current year as well. In 7M 2022, the merchandise trade volume increased by 11.4% YoY. In value terms, driven by high inflation on both export and imported products, Georgia's Figure 4. Georgia international trade turnover

trade turnover constituted even higher growth (+35.3% YoY).

Due to increased trade in goods and elevated transportation costs, trade turnover in freight transportation services showed high growth – more than 40% YoY in both Q1 and Q2 2022.

Trade turnover in freight transportation services and merchandise trade are strongly correlated – despite significant difference in absolute terms, annual changes in trade turnovers follow the similar patterns.

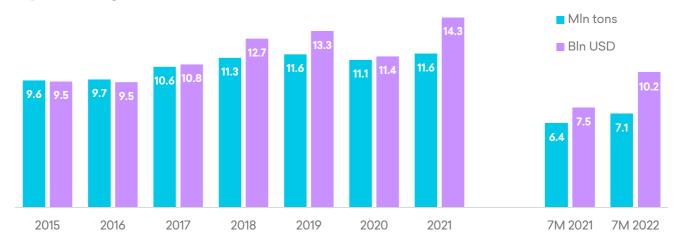


Figure 5. Freight transportation service and total external trade turnover (Bln USD)



Source: NBG, TBC Capital

#### International trade - Export

Looking at the first 8 months of 2022 total export volume increased by 5% relative to the same period of 2021. Changes in export volumes differ by country: export to Russia (-15%), China (-7%), Turkey (-21%) and Ukraine (-54%) has declined, while Peru (24x increase), Bulgaria (+103%), Armenia (+33%) and Kazakhstan (+182%) showed strong growth.

The ongoing war and closure of Ukrainian ports, caused the significant decline in exports of the majority of products in 8M 2022. Lower exports of fertilizers (-70% YoY), waters without added sugar (-60% YoY) and spirituous beverages (-51% YoY) were the main drivers of the decline.

In case of Russia, the decline in export volumes was driven by lower exports of ferro-alloys (-29% YoY), waters without added sugar (-28%) and potatoes (-59% YoY). At the same time, exports of waters with added sugar (+23% YoY), wine (+13% YoY) and nectarine fruits (+17% YoY) had a positive contribution to the change in total exports to Russia.

Lower export volumes to Turkey in 8M 2022, was driven by the decline in exports of

ferrous waste (-42% YoY) and semi-finished products of iron and steel (-32% YoY). As for China, these products included copper ores (-15%), aluminum (-14%) and copper waste (-19%).

The skyrocketed export to Peru, was driven by one large transaction of fertilizers, as the country was looking for alternative supplies amid the war in Ukraine and export restrictions imposed by Russia and China – Peru's main suppliers of fertilizers.

The unusually strong demand from Armenia was observed in case of bars and rods of iron or non-alloy steel (+710% YoY), plaster (+101% YoY) and animal feeding (+175% YoY). Similar patterns were observed in export volumes to Kazakhstan, specifically in case of waters without added sugar (+134% YoY) and with added sugar (+113% YoY), while exports of manganese ores and epoxide resins increased from 0 in 8M 2021 to 15.7 thousand tons in 8M 2022.

Doubled exports to Bulgaria was driven by stronger demand on copper ores (91% YoY), while exports of all major commodities to Azerbaijan saw the positive annual growth in M8 2022.

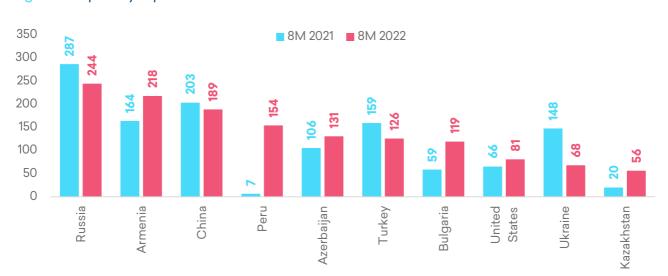


Figure 6. Export by top countries (Mln tons)

Source: Geostat, TBC Capital

### International trade - Import

In 8M 2022, import volumes surpassed the 2021 figure by 15%. Therefore, there was positive growth observed from the majority of countries. This growth was mainly driven by higher imports from Russia (+28% YoY) and Azerbaijan (+27%) – the two main source countries for Georgian imports.

The structure of import from Russia saw drastic changes in 8M 2022. Imposed restrictions on key food exports, caused the fall in wheat (-65% YoY), maize (-81% YoY) and sunflower seed (-48% YoY). However, this was compensated by hiked imports of wheat flour (+884% YoY), cereal grains (x28 YoY) and bran (x568).

The major driver of import growth from Russia in 8M 2022, was petroleum imports (+127% YoY) – as sanctions hit Russian oil industry, this market provides cheaper source of petroleum for Georgia compared to other countries. As a result, Russian petroleum partially substituted imports from Azerbaijan (-61% YoY), Turkmenistan (-38% YoY) and Bulgaria (-18% YoY).

The growth of import volumes from Azerbaijan in 8M 2022 was mainly explained by 45% YoY increase in petroleum gases imports\*. At the same time import of petroleum gases from Russia declined by 11% YoY. Such changes are connected to the deal with EU to double the exports of natural gas from Azerbaijan by 2027. The country has started to supply more gas to EU through South Caucasus Pipeline (SCP). A 50% YoY increase in export volumes is expected in 2022. Georgia has a right to purchase a share of transited volumes of petroleum gases by prices, which are several times cheaper than world prices. Therefore higher transit volumes were reflected in higher import volumes of petroleum gases from Azerbaijan in 8M 2022.

The import from Ukraine halved in 8M 2022 (-51% YoY), due to the ongoing war, halted production and closure of Ukrainian ports. Before the war country was an important source of iron bars (-84% YoY), coke (-91% YoY), oil-cake (-45% YoY) and salt (-81% YoY).

Figure 7. Import by top countries (MIn tons)



<sup>\*</sup>Geostat does not provide data on the trade volumes (tons) of petroleum gases since 2022. Its weight in 2022 trade statistics is estimated by TBC Capital based on 2021 average value-to-volume ratio.

Source: Geostat, TBC Capital

#### **Transit**

In case of Georgia, cargo transit is an important driver of demand on transportation services. In 6M 2022, cargo transit accounted for more than 60% of total external (transit + export + import) cargo transportation volumes.

Cargo transit in Georgia can be divided between road and railway freight transportation. The two modes of transportation were responsible for roughly the same amount of transit cargo in Q2 2022 (railway – 54%, road – 46%).

Transit cargo volume was on the declining trend before 2019. This decline was driven by decreasing railway cargo, while road cargo transit has been on a rising trend.

Since 2019 the tendency has changed when GR's cargo throughput started to increase. After that the dynamics of land transport (road + railway) transit through Georgia has been gradually increasing by double-digit rates.

Considering the recent political situation it's logical to believe that the interest toward Georgia and the "Middle Corridor" would increase further, attracting higher volumes of cargo from "northern" routes.

The data supports this belief. While the growth of cargo transit volumes in Q1 2022 was modest even compared to the pandemic affected first quarter of 2021 (+4% YoY), the country saw a surge in transit demand in Q2 2022 (+29% YoY).

The growth in cargo transit volumes was observed in both rail and road transit. In Q2 2022, a total 2.3 mln tons of cargo was transported for transit purposes by railway, which is 38% higher than in the same period of 2021.

Land transport transit reached its highest historical point in quarterly terms. The cargo volume in Q2 amounted to circa 2 mln tons. This figure surpassed the Q2 2022 figure by 19%.



Figure 8. Land transport transit (Mln tons) and YoY growth (%)

### **Transit by railway**

The total amount of transit cargo moving through Georgia by rail in 6M 2022 was 4.1 mln tons, which accounted for 68% of total external rail cargo transportation volumes.

Railway transit data from 6M 2022 suggests that the growth in transported cargo volumes was driven by specific countries.

Transit skyrocketed from Kazakhstan (+1173% YoY). The country became the second largest origin country for transited cargo through GR in the first half of 2022, while it was top 8th in the same period of previous year. This growth was mainly driven by higher freight volumes of crude oil, ferrous metals and grain to Turkey and Netherlands, Italy and Romania. The surge in cargo transit was observed for goods originated in Uzbekistan as well. Transit from Uzbekistan nearly tripled (+185% YoY) driven by higher volumes of chemicals and fertilizers with final destinations in Greece and Bulgaria.

In the first half of 2022, a high growth in transit volumes was observed in case of

Mexico (+135% YoY) and Brazil (+25% YoY). Sugar is the main product transported from these countries via GR with final destination in Azerbaijan, Uzbekistan, Armenia, Kazakhstan and Kyrgyzstan.

Some of these trends might be explained by one-off surge in demand for specific goods, which was triggered by the ongoing war. For example, the decision of Russia and Ukraine to ban exports of key goods including sugar and grain imposed in March 2022, created fears of potential deficit and countries started stockpiling these products or looking for alternative sources. Similar story is observed in case of Peru, which turned to South Caucasus and Central Asia for import of fertilizers, after China restricted fertilizers export in July 2021 and Russia totally banned it in March 2022.

Some of these export bans are already lifted, their impact on cargo transit volumes will be observed in the upcoming months. However, ongoing war and sanctions imposed by EU against Russian ports (in Black Sea) and ban

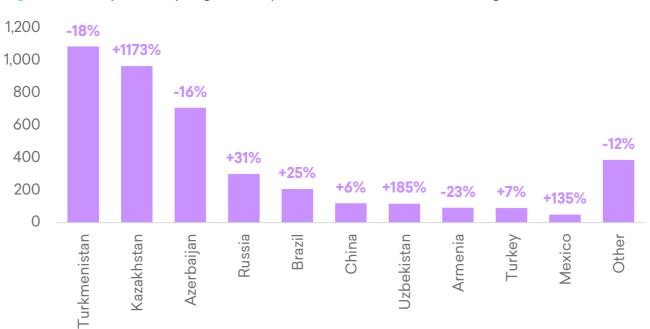


Figure 9. Railway transit by origin country in 6M 2022 ('000 tons) and YoY growth (%)

### Transit by railway

on Russian-flagged vessels entering EU ports plays a crucial role in the positive trends observed in cargo transit. Data from Q2 2022 indicate to redirection of cargo originated in Central Asia from northern routes to GR. This is specifically true for cargo movement between Asia and Europe via Russia, its ports in Black Sea and Ukraine.

At the same time, the low growth (+6% YoY) of transit from China suggests that the country probably continues using Russia as a main inland transit route for trade with Europe or increases the use of sea trading routes with Europe.

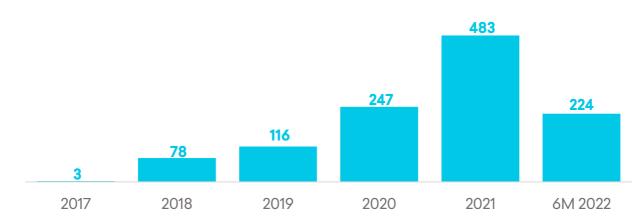
Meanwhile, the Baku-Tbilisi-Kars (BTK) railway project is close to completion after several major delays. The line creates a crucial link between Azerbaijan and Turkey. The official opening ceremony of the line was held in Baku in October 2017. Five years later the BTK is still operating in a test regime. The line is expected to become fully operation in 2023.

The project is intended for the transportation of cargo as well as passengers. The initial maximum annual throughput capacity of the BTK railway is estimated at 1 mln passengers and 5 mln tons of cargo.

The BTK is comprised of two different gauge types: the broad gauge (1,520mm) from Baku to Akhalkalaki and the standard gauge (1,435mm) from Akhalkalaki to Kars. The two different gauge types increases Akhalkalaki's importance on the international railway. Taking the maximum cargo throughput capacity of the BTK into consideration, 5mln tons during the initial stage, the project can create a potential demand for a railway terminal and presence of handling service providers (lift-off-lift-on) due to the required gauge change.

On a larger scale, the BTK is a key player in the Transport Corridor Europe-Caucasus-(TRACECA). TRACECA internationally recognized multinational and multimodal corridor connecting 13 countries in Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan), South Caucasus (Armenia, Azerbaijan and Georgia), Europe (Turkey, Bulgaria, Moldova, Romania and Ukraine) and the Middle East (Iran). The BTK's role in TRACECA is creating the link between the route from Asia and Central Asia to Baku and the route from Turkey to Europe, therefore continuous railway cargo movement from Asia to Western Europe.

Figure 10. Railway transit by Baku-Tbilisi-Kars line in 6M 2022 ('000 tons)



#### Transit by road

The total amount of transit cargo moving through Georgia by road in 6M 2022 was 3.5 mln tons, which accounted for 60% of total external road cargo transportation volumes.

Unsurprisingly, it were the neighbor countries which used Georgia for road cargo transportation the most. In 6M 2022, cargo going between Armenia and Russia accounted for 25% of total road cargo transit movement. Other pairs of countries using Georgia for road cargo transportation in their bilateral trade relations were Azerbaijan and Turkey (18%), Russia and Turkey (10%), and Turkey and Uzbekistan (10%).

The demand in 6M 2022 was mainly driven by higher traffic from Russia, Turkey and the EU countries, which recorded 66%, 11% and 27% increase compared to the same period of 2021, respectively.

Data suggest that sanctions imposed against Russia favored road cargo transportation through Georgia. Both, Turkish and Armenian companies try to fill the void created by sanctions. The trade between Armenia and Russia jumped by nearly 50% YoY in 6M 2022 (exports grew by 49% YoY, while imports grew by 42% YoY). Similar hikes are observed in trade between Turkey and Russia, which mainly use Black Sea ports for cargo transportation. However, a part of increased cargo movement ended up on Georgian roads – in 6M 2022 cargo transit between Turkey and Russia tripled in volumes.

Also, despite being low in absolute terms, the road transit to EU countries surged by 89% YoY in the first half of 2022. Such growth was driven by higher cargo transit from Azerbaijan, Uzbekistan and, interestingly, even from Russia (no cargo was transited from Russia to EU via Georgian roads in 6M 2021).

Figure 11. Road transport transit in 6M 2022 ('000 tons) and its growth (%)

| Destination countries |                   |        |        |         |            |            |      |       |       |                   |                   |
|-----------------------|-------------------|--------|--------|---------|------------|------------|------|-------|-------|-------------------|-------------------|
| Origin countries      |                   | Turkey | Russia | Armenia | Azerbaijan | Uzbekistan | EU   | Other | Total | Change vs<br>2019 | Change vs<br>2021 |
|                       | Turkey            |        | 209    | 1       | 423        | 142        |      | 291   | 1,067 | 93%               | 11%               |
|                       | Russia            | 141    |        | 612     | 1          |            | 10   | 15    | 779   | 61%               | 66%               |
|                       | Armenia           |        | 254    |         | -          | 1          | 15   | 48    | 318   | 20%               | -18%              |
|                       | Azerbaijan        | 216    | 1      |         | 5          |            | 25   | 51    | 299   | 27%               | 4%                |
|                       | Uzbekistan        | 194    |        | 2       |            |            | 9    | 37    | 243   | 4313%             | 3%                |
|                       | EU                |        | 3      | 76      |            | 7          |      | 29    | 176   | 7%                | 27%               |
|                       | Other             | 211    | 12     | 113     | 122        | 12         | 10   | 112   | 592   | 13%               | 10%               |
|                       | Total             | 763    | 479    | 804     | 611        | 162        | 70   | 584   | 3,474 | 56%               | 15%               |
|                       | Change vs<br>2019 | 176%   | 78%    | 15%     | 6%         | 918%       | 182% | 60%   | 56%   |                   |                   |
|                       | Change vs<br>2021 | 11%    | 27%    | 34%     | 4%         | -25%       | 89%  | 13%   | 15%   |                   |                   |

# Economic importance of transportation and logistics

The total contribution of transportation and storage to Georgia's GDP has been relatively stable, hovering around 5.5% of GDP. After the slight decline in 2020, probably caused by the drop in passenger transportation, the sector's share in GDP reached 5.7% in 6M 2022. Having grown at 22% YoY during 6M 2022, we expect the sector value added to reach 4 bn GEL in 2022.

By the share of sector in GDP, Georgia currently surpasses the EU average, but trails

behind Turkey, Baltics and the majority of Eastern European countries. This indicates that Georgia still has room for improvement and future growth in the transportation and storage sector. Considering the ongoing geopolitical changes, country has a chance to further unlock its potential to become a major gateway for international trade routes, increasing international cargo flow and generating revenue from relevant services.

Figure 12. Transportation and storage value add (GEL Bn) and share in GDP

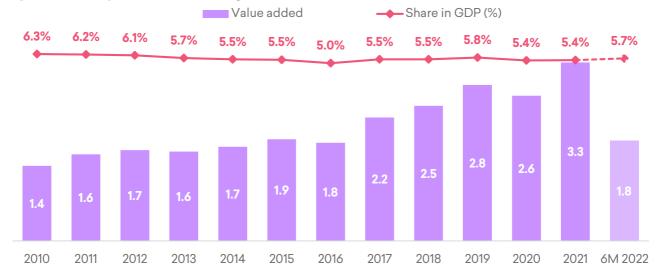
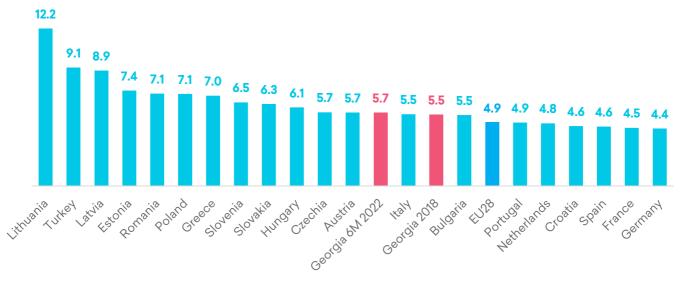


Figure 13. Share of transportation and storage in GDP (%) in Europe, 2019



Source: Geostat, Eurostat

# Economic importance of transportation and logistics

Compared to its share in GDP, the importance of transportation and storage in employment is higher with the share fluctuating around 8% during the last years. The number of employees had been gradually increasing until the pandemic, when 9.7% of employees left the sector. Figures swiftly recovered in 2021, however in the first half of 2022 the sector saw another decline in employment figures.

The sector had been attracting the major foreign direct investment (FDI) to the country

prior 2018, when the South Caucasus Pipeline Extension project was completed. Transportation and storage sector was accountable for about one-third of total FDI in Georgia. However, since 2018 the volumes FDI in the sector has been drastically decreasing and reached nearly zero amounts in 2020 and 2021.

In 6M 2022, early signs of trend reversal was observed, as FDI in transportation amounted USD 36 mln, 4% of country's total during that period.

Figure 14. Employment in transportation and storage

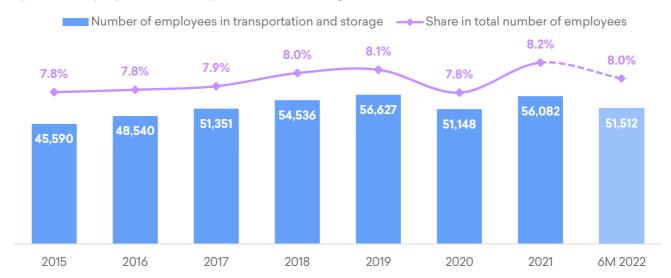
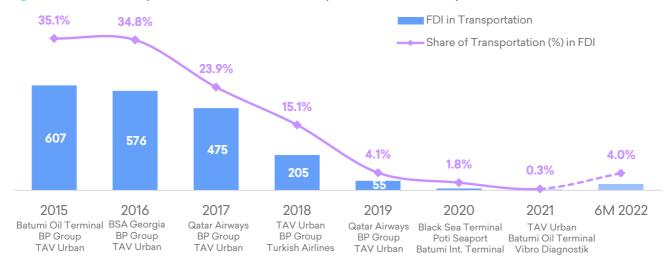


Figure 15. FDI in transportation (USD mln) and top 3 investors of the year



Source: NBG

# Freight transportation prices

According to the producer price index (PPI) for freight transportation, general price level for road transportation business in Georgia has been on the rising trend since 2016.

In 8M 2022, road cargo transportation prices stood at 6.3% higher level compared to the same period in the previous year.

As for railway services, historical data shows that the prices are highly dependent on USD/GEL exchange rate, as prices are fixed in USD. The sector saw a price surge in 2014 -

2015, mainly attributable to the depreciation of the GEL against the USD, with contract prices adjusting from 2016. In 8M 2022, prices of railway cargo transportation services declined by 8.5% YoY.

The price level in pipeline transportation services are more stable according to Geostat's data, as prices in this sector of transportation is predetermined by long-term contractual agreements and changes, therefore, occur rarely.

Figure 16. PPI index for freight transportation (in GEL) and USD/GEL exchange rate (Index, 2010=100)

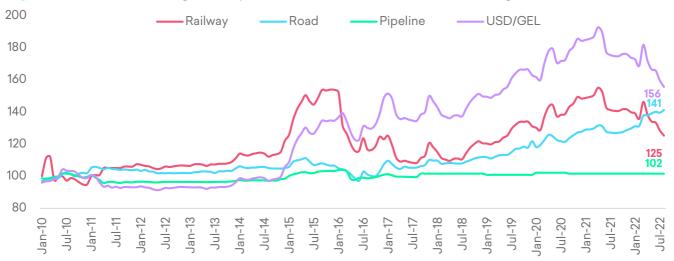


Figure 17. Railway revenue from cargo transportation/transported ton-kilometers (GEL)



Source: Geostat, GR, TBC Capital

# Transportation and logistics sector overview

### **Cargo transportation**

Road and railway are the two major modes for cargo transportation in Georgia. Road seems to be the most preferred mode for transportation on the market by far with the largest share of 66% in the first half of 2022.

The declining trend observed in transported cargo volumes from 2013, turned positive since 2017. In the first six months of 2022, a total of circa 13.7 Mln tons of cargo was transported through, to and from Georgia, a

+15% YoY increase. Another 6.7 Mln tons of cargo was transported domestically (+1.1% YoY), mainly by road transport.

In 6M 2022, transit accounted for 37% of total cargo traffic in Georgia. Another 33% was transported for domestic consumption, 23% for import and only 6% for export. Railway was more favored for transit, however for local, import and export, road transportation volumes exceeded railway.

Figure 18. Transported cargo excluding local transportation (Mln tons)\*

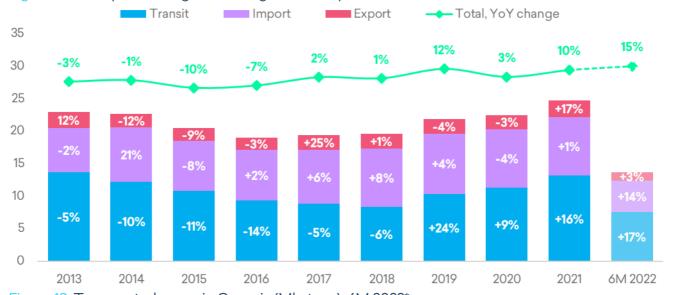
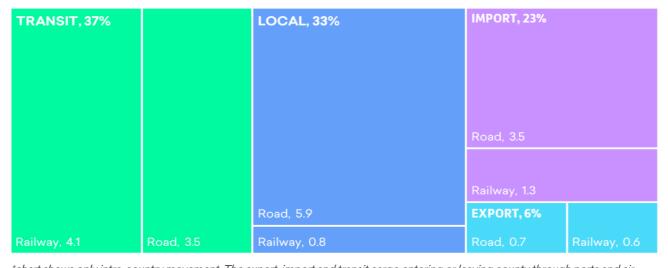


Figure 19. Transported cargo in Georgia (Mln tons), 6M 2022\*



\*chart shows only intra-country movement. The export, import and transit cargo entering or leaving county through ports and air transport is added to roads/railway, while trade or transit via pipeline is excluded from the calculations.

Source: MOESD, RS, GR, TBC Capital

#### **Maritime**

Ports and marine terminals are important infrastructures for cargo transportation in Georgia. Currently, there are four main ports/terminals in Georgia: Port of Poti, Port of Batumi, Kulevi Oil Terminal and Supsa Terminal.

Port of Poti is the largest operating port in Georgia, responsible for over 75% of Georgia's annual container traffic. Since 2011, the port has been owned and operated by APM Terminals, which is the port authority as well as the terminal operator.

The port is capable of handling dry, bulk, roro, and liquid cargo. The Port of Poti is equipped with 20 mobile harbor cranes. It has 15 berths, with a total length of 2,900 meters and a maximum depth of 12.5m. However, the container berth, capable of accepting vessels with an overall length of up to 200m, the largest possible vessels that the port can handle, has a maximum depth of only 8.4 m.

The number of containers was at its peak in 2019, reaching almost maximum annual capacity of 550 thousand TEUs, but started falling in 2020-2021.

The similar historical trends in container traffic were observed in case of Batumi Port. The port's annual container maximum throughput capacity is 200 thousand TEUs.

According to a more recent data, Q1 2022 was more "successful" for Batumi (+35% YoY) than for Poti (-1% YoY) and vice versa in Q2 2022, when port of Poti posted a 18% increase relative to the same period of 2021 and in case of Batumi the figure declined by 9%. The data suggests that Poti port is a bit better utilized, with utilization levels for container transportation above 55%, while Batumi hangs around 50% and lower.

In total, in the first half of 2022, the number of containers has increased by about 8% for both Poti and Batumi ports.

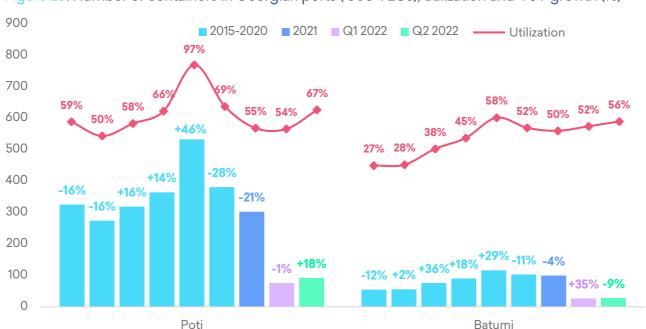


Figure 20. Number of containers in Georgian ports ('000 TEUs), utilization and YoY growth (%)

Source: MOESD, MTA

#### **Maritime**

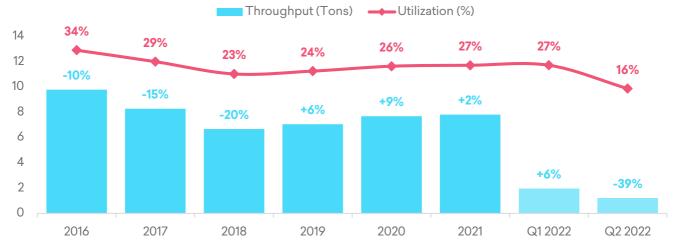
It is no surprise that Poti Port is the leader in case of dry (general + bulk) cargo throughput as well. The throughout dynamic over the years was mostly "jumpy" for both Poti and Batumi. In 6M 2022, total dry cargo amounted to 4.6 mln tons, a 21.3% increase relative to the same period of 2021. Both Poti and Batumi Ports experienced the significant increase in the demand, which was more emphasized in Q2 2022. Dry cargo throughput in Batumi Port hiked by 88% YoY and 155% YoY in Q1 and Q2 of 2022, respectively, while the figures posted by Poti Port were more modest (+4% in Q1, +10% in Q2).

Regarding the oil throughput, ports and terminals are massively underutilized – only one-fourth of total capacity is used. Majority of liquid cargo (75% of total) is handled at Kulevi and Supsa terminals. Both terminals have a single purpose of delivering Azerbaijani and Central Asian oil products to the western markets. However, in April 2022 BP (the operator of Baku-Supsa pipeline) temporary stopped the operation of the pipeline due to the ongoing war in Ukraine. As a result, oil throughput in Georgian ports/terminals, which had been stable in 2020 and 2021, declined by about 18% YoY in 6M 2022.

Figure 21. Dry cargo throughput in Georgian ports (Mln tons), utilization and YoY growth



Figure 22. Oil throughput in Georgian ports/terminals (Mln tons)



Source: MOESD, MTA

#### **Maritime**

The total number of ships in Georgian ports has been mostly on a declining trend, going down from 1,821 ships in 2016 to 1354 in 2021 (-26%). However, in 6M 2022, there was a notable improvement in YoY terms both in Poti (+5.6%) and Batumi (+6.3%).

The total number of ships in the first six months of 2022 exceeded the 2021 figure by 5.9%, implying the higher activity in the current year.

The largest share of the vessels were general cargo ships (31%). The second on the list, and quite close to the top, were tankers, taking up 29%, followed by containers (18%). RO-RO, together with bulk carriers and other types of vessels take up about 23%.

The shares were somewhat consistent throughout the years, with general cargo ships and tankers alternating the top two places.

Figure 23. Vessel throughput in Georgian ports and YoY growth (%)

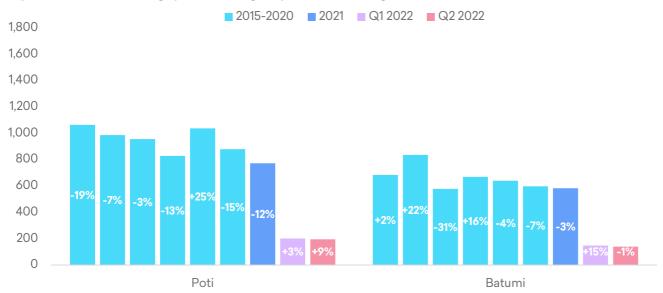
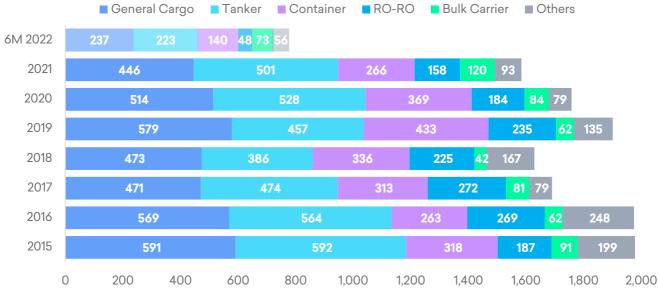


Figure 24. Number of vessels in Georgian ports, by type



Source: MOESD, MTA

#### **Maritime**

As for the trade statistics via sea transport, exports amounted 860 thousand tons, a 8.9% YoY decrease in 8M 2022. Such decline was caused by "vanished" exports of ferrous waste to Turkey (-99% YoY), lower exports of waters without sugar to Ukraine (-69% YoY) and ferro-alloys to Russia (-18% YoY). The highest YoY increase in export volume by sea transport was observed for precious metal ores (+187 % YoY) to China, fertilizers (+11%) to Peru and copper ores (+6% YoY) to Bulgaria.

The volume of imported products by maritime transport amounted 1,395 thousand tons in 8M 2022 showing no change YoY. The growth in imports of manganese, coper and sugar was balanced by the reduced imports of wheat (-40% YoY) from Russia, coke and semi-coke of coal (-32% YoY) from Romania, bars and rods of iron (-72% YoY) from Ukraine.

Figure 25. Top export products by maritime transport (tons) and YoY growth (%)

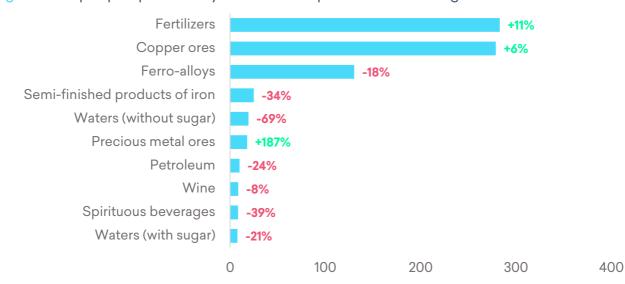
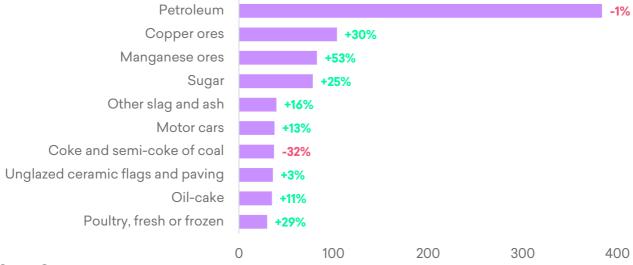


Figure 26. Top import products by maritime transport (tons) and YoY growth (%)



Source: Geostat

#### Railway

The main railway operator in Georgia is Georgian Railway JSC (GR), handling the transportation of containers, dry and liquid cargoes. The 1,411 km operational network under GR's management includes: 296 km of double-track lines, 92 freight stations, 42 railroad tunnels, and 1,349 railroad bridges.

The transported cargo volumes had a downward trend up until 2019, when it started posting YoY growths. In the first six months of 2022 a total of 6.8 mln tons of cargo was transported, up by about 13% compared to the same period of 2021.

The growth accelerated in Q2 2022 indicating the positive impact of sanctions against Russia and cargo transit through Russia on demand for GR services. The cargo transportation volumes are expected to increase further in upcoming quarters reaching 16 mln tons in 2022 (+32% YoY).

The maximum railroad capacity of the Georgian railway network is estimated to be around 27 mln tons annually, which is expected to increase to 48 mln tons upon

the completion of <u>modernization project</u> in 2023.

Considering cargo volumes, the railroad utilization factor was around 57% in Q2 2022 – the highest since 2015. However, the surge in the demand for GR freight service showed that not railroad capacity, but the current condition of rolling stock (4,469 freight railcars and 89 electric locomotives) is a major constraining factor for attracting higher volumes of cargo. The ongoing war exacerbated the situation further as the maintenance and repair of rolling stock were previously held in Russia, Belarus and Ukraine.

As mentioned earlier, about 61% of total cargo transported by GR was for transit purposes, which in 6M 2022, exceeded the 2021 figure by 19% benefiting from cargo rerouting from the northern transport corridors. In the same period, import increased by 21% and export by 4%. Interestingly, cargo transported for domestic consumption had a major decline, falling behind 2021 by 14%.

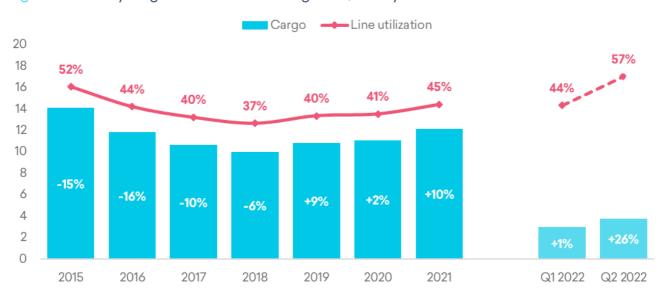


Figure 27. Railway cargo (Mln tons) and YoY growth, railway utilization level

### Railway

As mentioned earlier, the largest part of total cargo volumes transported by GR was for transit purposes (61% in 6M 2022). The first half of 2022, exceeded the 2021 figure by 19% benefiting from cargo rerouting from the northern transport corridors.

In the same period, import increased by 21% and export by 4% YoY. Interestingly, cargo transported for domestic consumption had a major decline, falling behind 2021 by 14%. GR's TEU throughput was on a rising path

since 2016 with the slight decline observed in 2021. In Q2 2022, GR transported 23,254 TEUs, a 37% YoY increase and the highest amount in the time series. The major factor for the TEU throughput growth was the transit cargo movement on the "Middle Corridor". However, the low level of the containerization (the vast majority of cargo is bulk cargo) of the railways on this route created problems/delays with cargo handling at Caspian and Black Sea ports in Q2 2022.

Figure 28. Railway cargo by direction ('000 tons) and YoY growth, 6M 2019 - 2022

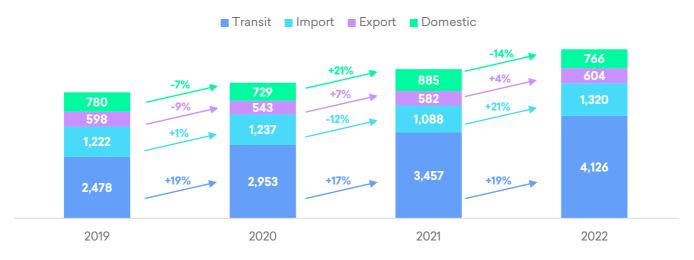
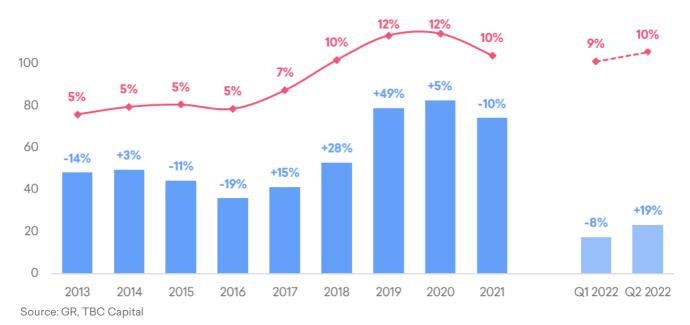


Figure 29. Number of containers, YoY growth and the share in total cargo volumes



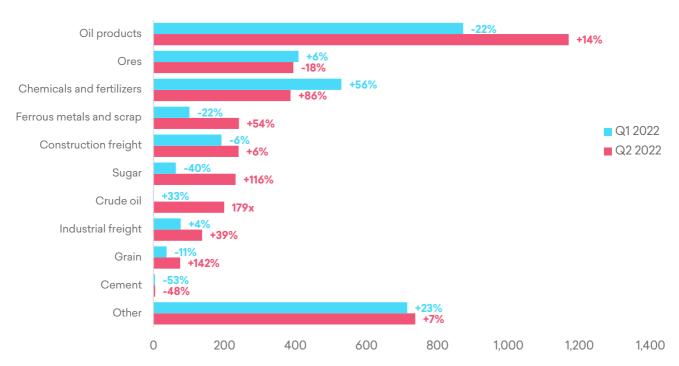
### Railway

In the first half of 2022, considering the products transported by railway, oil products took up the majority. It started off slowly in the first quarter, with a considerable decline (-22%) relative to the same period of 2021, however Q2 2022 changed the view, posting a 14% increase vs Q2 2021.

It should be noted, that the majority of the products had better results in Q2 2022.

Together with oil products, grain (+142% YoY) and sugar (+116% YoY) also showed major improvements in the second quarter of 2022. But even these impressive results fell short of crude oil, which was 179 times higher than in Q2 2021, thanks to the influx of oil from Kazakhstan, which seeks for alternatives to Russian route.

Figure 30. Railway cargo by product ('000 tons) and YoY growth (%)



Source: GR; TBC Capital

#### Road

Road transport plays a major role in the Georgian transportation sector. Historically, road transport has the largest share in Georgia's cargo movement, 72.6% of total in 6M 2022. The sector is characterized by the least amount of organized activity in the Georgian transportation sector, since the majority of the players do not appear to be linked with large service provider companies.

Looking at the data of last 5 years, road cargo transportation (excluding domestic transportation) volumes have been growing at a fairly high rate. This tendency was also maintained in 2022 as well, as both Q1 and Q2 of 2022 exceeded the figures of the same

period of 2021 by circa 16%.

In Q1 2022, export volume by road transport increased by 47% YoY. The growth was a bit modest in Q2 2022, exceeding the Q2 2021 figure by 10%.

In case of import, the figure in the first quarter of 2022 was 23% higher than in the same period of 2021 and YoY growth in Q2 2022 amounted 13%.

It should be noted that transit accounts for more than half of total road cargo, posting 10% and 19% YoY growths in Q1 and Q2 respectively.

14 Export +20% +16% +15% 12 +10% +7% Import Transit 10 YoY growth (of total) 8 6 +16% 4 +16% 2 0 2017 2018 2019 2020 2021 Q12022 Q2 2022

Figure 31. Road cargo by direction (Mln tons) and YoY growth (%)

Source: Geostat, Revenue Service, TBC Capital

#### Road

The trade statistics via motor transport by products saw drastic changes in composition.

Exports amounted 649 thousand tons, a 23% YoY increase in 8M 2022. The most notable change relative to 2021 was observed for the export of ferrous waste and scrap (+256% YoY) to Turkey, which in the same period of 2021 was transported via sea transport. Exports of iron bars (+660% YoY) and plaster (+101% YoY) to Armenia, and animal feedings (+127% YoY) to Armenia and Azerbaijan, were

the other important drivers of export via motor transport in 8M 2022.

As for the import via motor transport, it stood at 2,571 thousand tons posting a 15% YoY increase in 8M 2022. Wheat flour (+846% YoY) and cereal grains (x386) from Russia were products with the highest YoY growths. These products substituted the imports of wheat (-76% YoY) from Russia, which dropped due to export ban. Other top import products via motor transport also showed notable YoY growths in 8M 2022.

Figure 32. Top export products by road transport ('000 tons) and YoY growth (%)

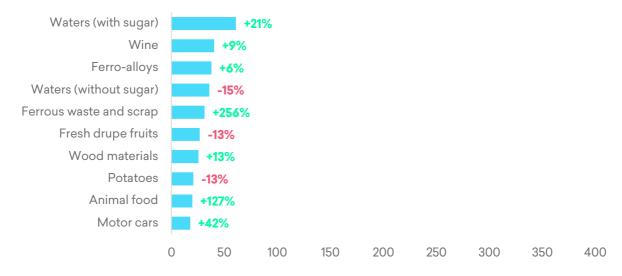
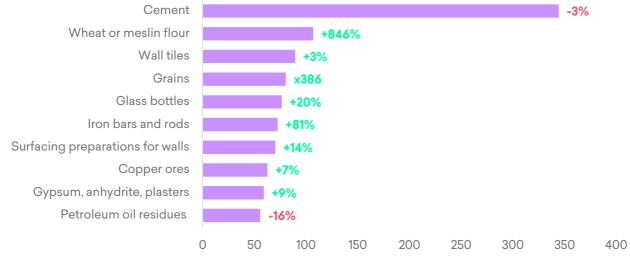


Figure 33. Top import products by motor transport ('000 tons) and YoY growth (%)



Source: Geostat, TBC Capital

#### Road

The largest amount of trucks crossing Georgian borders are registered at Sarpi border, followed by Tsiteli Khidi and Kazbegi checkpoints. The number of entries and exits are somewhat evenly distributed.

The traffic in 2022 seems to have increased and comparing the first six months of the last two years shows that in 2022, the total number of entries surpassed the 2021 figure by 14.1% and the number of exits – by 13.6%.

2022 was especially active for Kartsakhi (Georgia-Turkey), where the number of trucks crossing the checkpoint more than tripled. This was driven by the closure of Vale, border checkpoint for cargo movement due to construction works on the Turkish site. Tsodna (+259% YoY) and Ninotsminda (+36% YoY) also saw a significant increase in the number of trucks crossing the border.

Figure 34. Number of trucks by border checkpoint (Entry) and YoY growth (%)

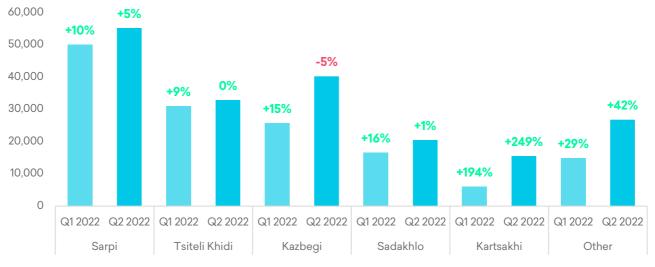
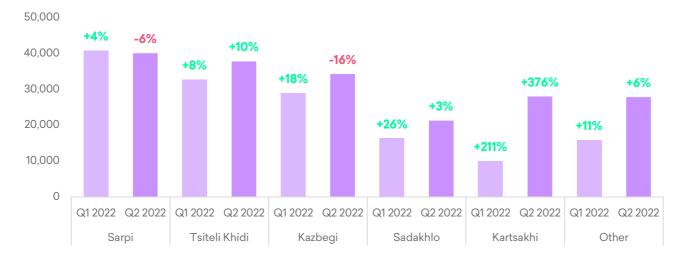


Figure 35. Number of trucks by border checkpoint (Exit) and YoY growth (%)



Source: MIA

#### Road

Georgian inventory of wagons and trucks can be considered quite old and even though throughout in the last years the numbers have increased, the inventory might still be in need of replacements.

As of August 2022, the number of wagons that are less than 10 years old has increased by 17% compared to the same period of 2021.

The amount of trucks less than 10 years old posted an even higher YoY increase in August 2022, with growth amounting 27%.

It should be noted that the average age of inventory is gradually declining.

Figure 36. Number of wagons by age (August) and YoY growth (%)

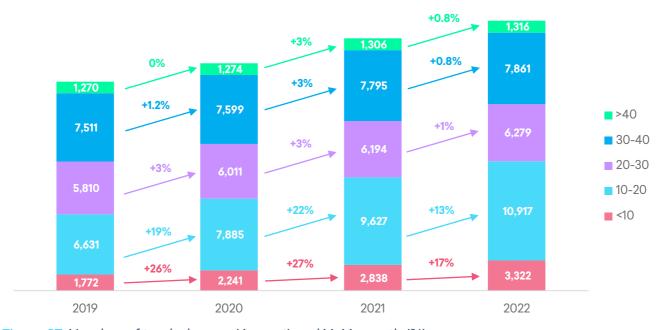
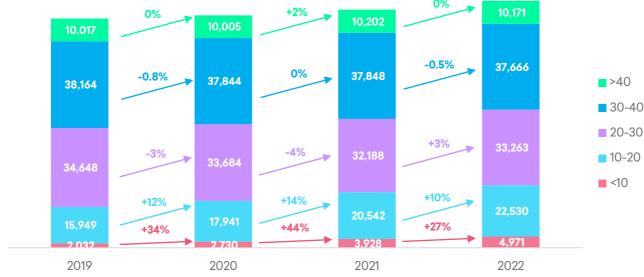


Figure 37. Number of trucks by age (August) and YoY growth (%)



Source: MIA

#### Air

The air freight terminal infrastructure is comprised of just three terminals, all located in Tbilisi: Tbilisi Cargo Service LTD, Lasare LTD, and Georgian Post LTD. However, in terms of airports, Georgia has developed infrastructure with three international airports evenly spread out across the country (Tbilisi, Kutaisi, and Batumi international airports) and four domestic airports (Telavi, Natakhtari, Ambrolauri, and Mestia). Currently only three airlines offer regular cargo flights to five destinations, with two being neighboring Azerbaijan and Turkey.

Air freight transportation seems to be the least preferred way of transporting cargo in Georgia, as the volumes are lowest for this mode of transport, amounting to a mere 25 thousand 9.2 thousand tons in 6M 2022 (0.04% of total cargo transportation). The small share can be partially explained by air freight's higher cost compared to other modes of transportation.

Air cargo transportation was especially active in 2016, when cargo volume more than

doubled compared to previous year. The following gradual decline can be seen as normalization as 2016 was an outlier explained by the <u>increased demand for live animals from international buyers.</u> However, exports of live animals have been falling since 2019, as Georgia prohibited the export of livestock smaller than 200 Kg.

The start of 2022 seem to be promising for ar cargo transportation sector, as traffic posted a 4% and 41% YoY growths in Q1 and Q2, respectively.

The direct impact of war on air cargo freight in Georgia was negligible, since nor air transport is used in trade with Russia, neither air freight routes cross Russian airspace. At the same time, doubled fuel prices and significantly increased insurance costs negatively affected companies in the sector. On the positive side, the traffic returned to the pre-pandemic level as demand increased due to lower competition from Russian and Ukrainian cargo airlines.

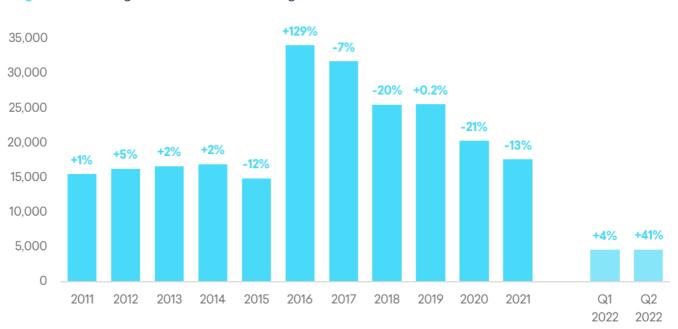


Figure 38. Air cargo traffic (tons) and YoY growth (%)

Source: GCAA

#### **Air**

In 8M 2022, the highest YoY increase in the export volume by air transport was observed for personal items (+348%), parts of aircrafts (+134%) and medical instruments (+118% YoY).

Sheep and goat meat continue to be the top export product transported by air with 1% YoY declined in M8 2022.

In the same period, the top import product

by air transport in terms of volume was medicaments, exceeding the 2021 level by 22% YoY.

Prepared binders for foundry modules and cigarettes had the largest YoY changes in M8 2022, with the export volumes surpassing the 2021 level by 633% and 340% respectively.

Figure 39. Top products by air transport (Export, tons) and YoY growth (%)

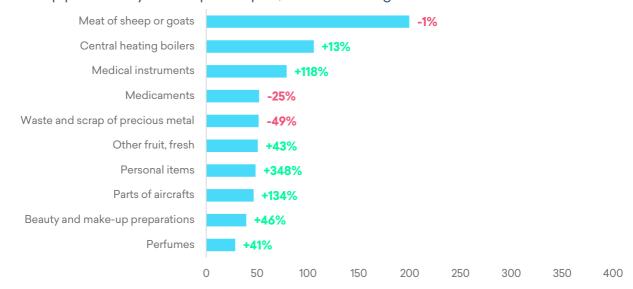
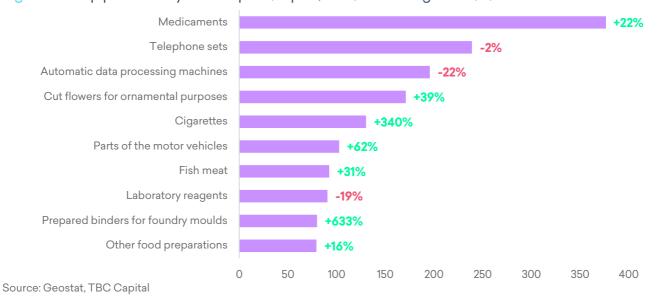


Figure 40. Top products by air transport (Import, tons) and YoY growth (%)



#### Air

In 6M 2022, a total of 840 tons of cargo departed from Georgia. The majority of products went to Azerbaijan, which holds 36% of total cargo, followed by Turkey with a 19% share and China with 16%.

The share of Poland and Hungary together amounts about 15% of departed cargo.

In the same period, about 6 times more cargo arrived in Georgia through air transportation. The total volume amounted 5,107 tons, of which the majority was from Turkey (+33%), followed by Luxembourg (+23%) and Azerbaijan (+16%).

Figure 41. Air cargo traffic by country (tons), 6M 2022

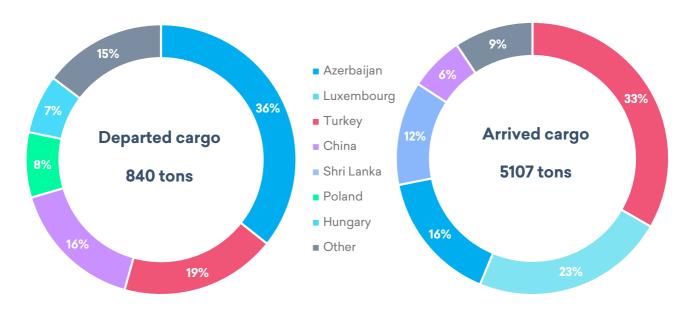
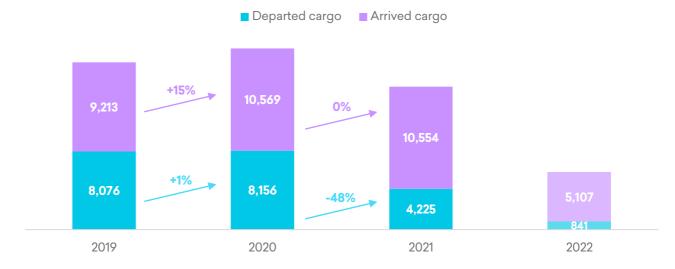


Figure 42. Number of cargo flights



Source: GCAA

#### **Pipelines**

Georgia acts as a natural bridge between Azerbaijan and the European market for its oil and gas resources. Four international pipelines can be identified in Georgia: the Western Route Export Pipeline (WREP), the Baku-Tbilisi-Ceyhan (BTC) pipeline, the South Caucasus Pipeline (SCP), and the North-South Main Gas Pipeline (NSMP). The Georgian Oil and Gas Corporation (GOGC), the UK-based oil and gas conglomerate BP and the state-owned SOCAR are the major players in the Georgian pipeline sector.

Fully operational from 1999, the WREP was the first international pipeline in Georgia. The WREP is 830km in length, half of which is located in Georgian territory. The pipeline delivers crude oil from the Chirag field in the Caspian Sea to the Supsa Terminal on the Black Sea coastline, where it can be loaded onto tankers for the Western market. The maximum daily throughput of the WREP is 36 mln barrels (4.8 mln tons).

However, in April 2022 BP (the operator of WREP pipeline) temporarily stopped the operation of the pipeline to "...avoid the potential threat during the operating of Baku-Supsa pipeline. This is related to the

unavailability of the potential tankers, which the shipping companies face". The operation renewal date is unknown. Crude oil was completely diverted to the BTC Pipeline, through which tankers are filled in the Mediterranean port of Ceyhan. In 9M 2022, the oil volume transported via WREP pipeline amounted 1 mln tons, a 68% YoY drop.

The BTC pipeline stretches for 1,768 km through Azerbaijan, Georgia, and Turkey, from the Caspian Sea to the coast of the Mediterranean Sea. The transited crude oil is mostly originated in Azerbaijani ACG field, but the BTC pipeline also transports oil originating from fields of Turkmenistan and Kazakhstan. The pipeline started operating in 2006. Around 14% of the pipeline (249km) runs through Georgia. Georgia also houses two of the pipeline's eight pump stations. In 2009, BP undertook work to increase the maximum annual capacity to 440 mln barrels (58 mln tons), in line with increased production from the Azeri-Chirag-Gunashli (ACG) field in Azerbaijan. In 9M 2022, the total volume of oil transported by the BTC amounted to 21.7 mln tons, a 11% YoY increase.

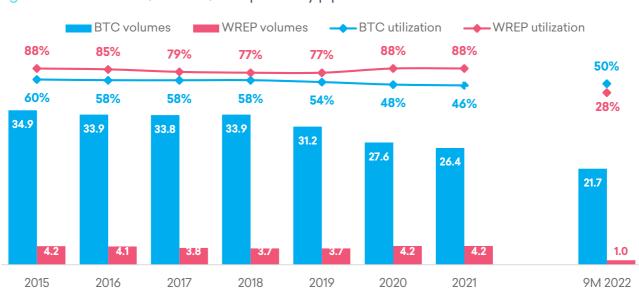


Figure 43. Oil volumes (mln tons) transported by pipelines and utilization rates

Source: GOGC, TBC Capital

#### **Pipelines**

The SCP delivers natural gas from the Shah Deniz field in the Caspian Sea to customers in Azerbaijan, Georgia, and Turkey. The SCP is a parallel project to the BTC pipeline and follows the same route through Azerbaijan and Georgia, stopping at the Georgia-Turkey border. The total length of the SCP is 692km, 249km of which runs through Georgia. After the South Caucasus Pipeline Expansion Project (SCPX) was completed, the annual throughput capacity of the pipeline reached over 16 bcm (billion cubic meters) in 2018.

SCP ties into the Trans Anatolian Pipeline (TANAP) at the Eastern Turkey border and then connects with the Trans Adriatic Pipeline (TAP) at the Western Turkey border through which gas is delivered to Greece, Albania and Southern Italy.

According to the <u>new deal</u> between the EU and Azerbaijan the gas exports from Azerbaijan to EU through the SCP will increase from 8 to 20 bcm meters per year by 2027. Such growth will require to increase the capacity of the pipeline from 16 to 32 bc m, which can be achieved by <u>additional investments in compressor stations</u> (two of them are located on the Georgian territory). This deal will bring massive benefits for

Georgia, as country has an option to purchase 5% of gas transported from Azerbaijan to Turkey for a favorable price.

In 9M 2022, as Azerbaijan accelerated its exports to EU, the gas volume transported via SCP pipeline amounted 16.3 bcm, a 23% YoY increase.

The NSMP delivers Russian natural gas to Armenia. The sole owner of the pipeline is GOGC. The NSMP is a 234 km long part of the larger North-South Main Gas Pipeline with a maximum annual throughput of 12 bn cubic meters of natural gas. The transit through NSMP in 9M 2022 declined as Armenia gas import from Russia contracted by 9% YoY.

Currently SCP pipeline works at the maximum capacity, which in parallel with increasing gas consumption in Georgia, might increase the dependency on Russia, if the SCP capacity does not increase according to the plan. In 9M 2022, the share of Russian gas in total import of gas stood at 16%, 9 pp lower compared to the 2021 level – when during the construction works on SCP pipeline import increased from Russia.

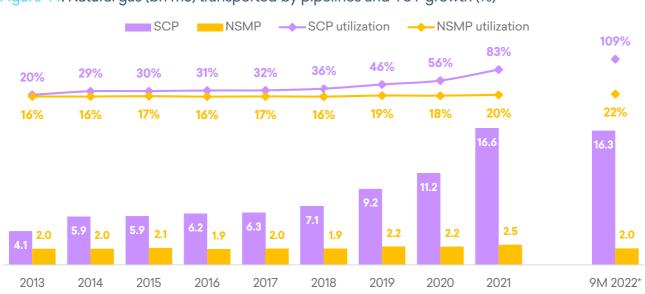


Figure 44. Natural gas (bn m3) transported by pipelines and YoY growth (%)

Source: GOGC, TBC Capital

#### **Dry storage - Supply**

The data on the number of active listings and listed area suggests, that the demand on warehouses followed the patterns observed in cargo traffic and general economic activity. In July 2022, the number of listings amounted 234, which is more than 3 times higher than in the same period of 2021. As for the total area, about 162 thousand SQM was listed, exceeding the July 2021 figure by 306%. The distribution of active listings by area tells us that the supply of warehouses is dominated by the smaller size storages.

Listed warehouses stock was highly concentrated, with 88% of total warehouses being in Tbilisi.

According to key market players, despite an increase in the number of listed warehouses, the demand is much stronger and vacancy rates on the organized market of warehouses went down in 2022. All warehouses interviewed during the study reported almost 100% occupancy rates and their plans to build new warehouses in the near future.

Figure 45. Number of active listings and listed area ('000 SQM)

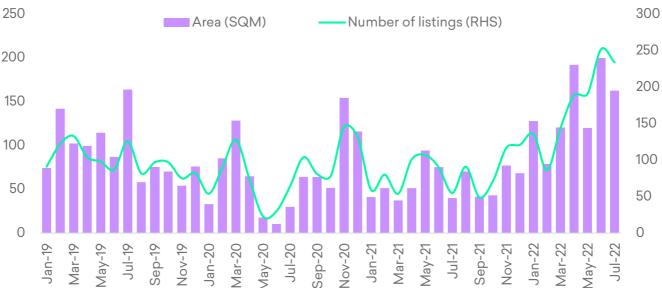
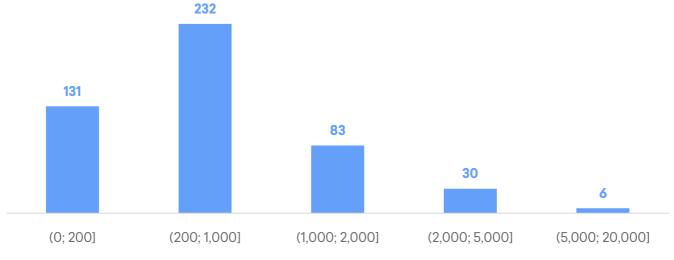


Figure 46. The distribution of active listings of warehouses by area, August 2022



Source: Myhome, TBC Capital

#### **Dry storage - Average prices**

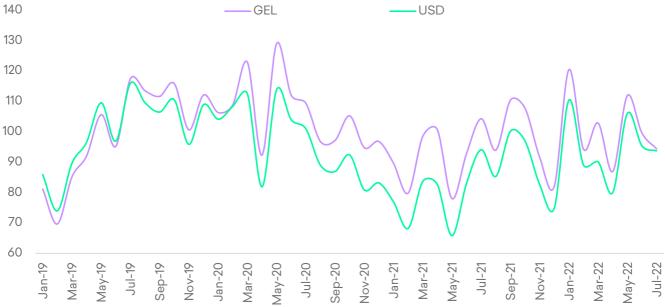
The average listed rent price (in USD) of warehouses saw a decline during the pandemic years, falling below 2019 level by 3% and 17% in 2020 and 2021, respectively. Nevertheless, rents in warehouses were more resilient during the pandemic compared to other types of commercial real estate. In 7M 2022, average listed rent price in warehouses was still 5% lower compared to 2019.

Similar patterns were observed in case of listed average rents in warehouses of different size. The decline in rents, which began in the second half of 2020, continued in 2021 as well. Average listed rents recovered in case of warehouses with the size of 1,000-2,000 SQM, posting 15% increase in 7M 2022 compared to 2019 level. In the same period, rents in smaller (200-1,000 SQM] and larger warehouses (2,000-5,000 SQM] were by 2% and 13% lower than their pre-pandemic levels, respectively.

According to key players on the market, the

actual rent dynamics on organized market of warehouses differ from the patterns in listed rents. Namely, nowadays the prices (in USD) are by 15-20% higher compared to 2020. While rents in new contracts increase by 5% on average each year.

Interestingly, in contrast with other types of commercial real estate (shopping and business centers, street retail), where rental contracts are typically fixed in USD, the dollarization of rents in case of warehouses seems to be lower. The dynamics of average listed rents support this argument, as price in both currency followed the similar pattern despite high volatility in USD/GEL exchange rate. According to the market players, the currency of rent is determined individually during the negotiation process. However, some warehouses, in order to eliminate the exchange rate risks, have all their rents fixed in the national currency with inflation clause put in place (rent indexation - adjusts the rent based on the development of inflation).



Source: Myhome, TBC Capital

#### **Dry storage - Price distribution**

Warehouses in Georgia can be either rented without any interference in the operation from the real estate owner, or rented together with the service of warehouse operation (pick and pack, subassembly, distribution center management, vendor inventory, managed crossdocking. fulfillment). The price for the two different types of third party storage solutions varies greatly. Also, the prices are typically higher in warehouses, customs which provides additional benefit to tenants.

Another important determinant of rent price, is the class of warehouse (A, B or C). The major difference between the three types of warehouses lies in the infrastructural and technical capital expenditure. The current stock of warehouses mainly consists of Class B and C warehouses, while Class A warehouses are in deficit.

In a sample of 480 warehouses listed for rent countrywide in August 2022, the majority fall in the range of USD 2 - 5 per SQM. The highest number of listed warehouses was in USD 3.5 to 4 range, followed by the USD 2 to 2.5 range.

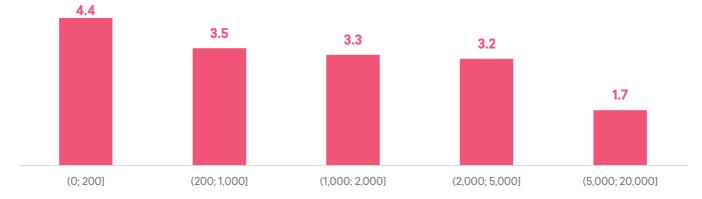
The interviews revealed, that on organized market the rents in Class B warehouses vary varies from USD 3.5 to 5.5 per SQM, which is similar to the picture observed in statistics of listings.

Regarding the pricings, the larger the area of the warehouse - the lower the average rent price per SQM. Smaller (1000; 2000] warehouses have an average listed rent price of about 3.5 USD per SQM, while the figure for large ones (5000; 20000] amounts to 1.7 USD.



Figure 48. Number of active unique listings of warehouses by price per SQM (USD), August 2022





Source: Myhome

### **Dry storage - Future supply**

As mentioned earlier demand on warehouses, especially in case of Class A and B, is strong in 2022. High economic growth and strong internal demand together, increased cargo traffic and introduction of GDP standard for pharma sector, all positively affected the demand on warehouses.

To meet an increased demand market players plan to increase the supply The permits granted for construction of warehouses in Tbilisi surged by 42% YoY already in 2021. In 6M 2022, the figure increased by additional 9% YoY. If in 2021, the data was driven by small and medium size warehouses, in 2022 relatively large warehouses took the majority. It should be noted that the data do not take into account permits issued for construction in near proximity but outside Tbilisi.

Increased supply will probably eliminate the existing deficit on warehouse market, specifically for A and B class warehouses.

Figure 50. Permits issued for construction of warehouses, Tbilisi

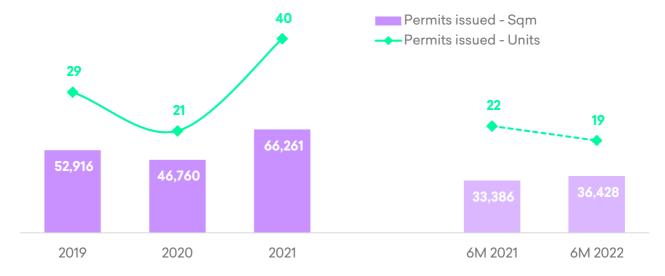
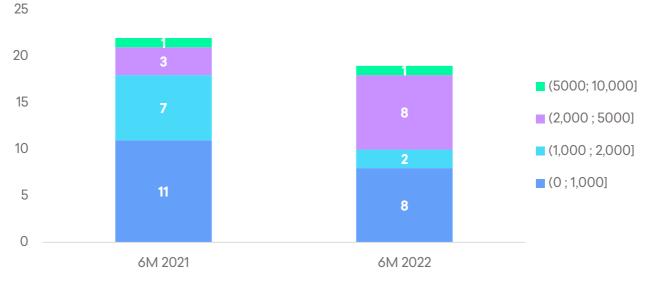


Figure 51. Number of permits issued for construction of warehouses by size, Tbilisi



Source: TBC Capital, Tbilisi Architecture Office

### **Cold Storage - Supply**

Currently, there are a total of 393 cold storage facilities across Georgia. The majority of these facilities are located in Shida Kartli region, with share amounting 55%, followed by the capital city, Tbilisi with 10% and Samegrelo-Zemo Svaneti with 7%. Kakheti and Kvemo Kartli take up 11% of total units together, the remaining 17% is distributed in other regions.

The volume of products stored in owner occupied facilities has been on an

increasing trend, with its share increasing from only 10% in 2015 to 28% in 2021. This might suggest the preferences slowly shifting toward owning cold storage rather than renting it. Comparing the first quarters of 2022 and 2021, the difference in shares is more noticeable.

The total volume (tons) of products stored in cold storages in Q1 2022 increased by 12.8% YoY.

Figure 52. Distribution of active cold storage facilities by regions, 6M 2022

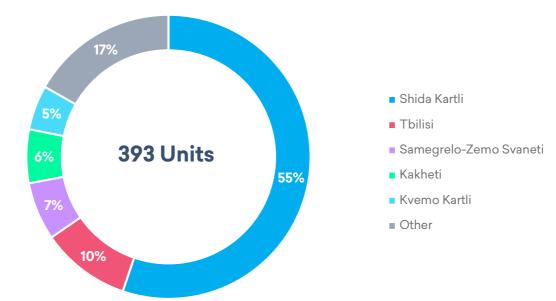
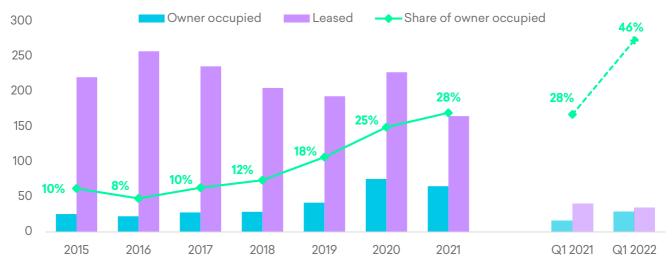


Figure 53. Products stored in facilities ('000 tons)



Source: Geostat

### Cold Storage - Price and Occupancy

The dynamics of average daily service fee (GEL/ton) has been mostly stable with the +24% YoY spike in 2020 followed by the normalization (-11% YoY) in 2021. In Q1 of 2022 the figure reached 1.9 GEL per ton, which was only 1% lower than in the same period of 2021.

Due to the seasonal nature of demand on the services of cold storage facilities, the annual occupancy ratios for cold storages are less than the occupancy ratios for dry storage facilities. During the period for which data exist, occupancy never surpassed 20% level. In Q1 2022, occupancy stood at 12.7%.

Nevertheless, the fluctuations in demand also translate into extremely high demand for cold storage during the summer months (the harvesting season for numerous perishable fruits and vegetables).

Figure 54. Average daily service fee (GEL/tons) and YoY growth (%)

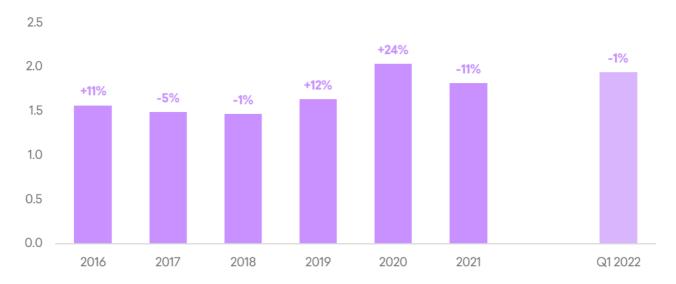
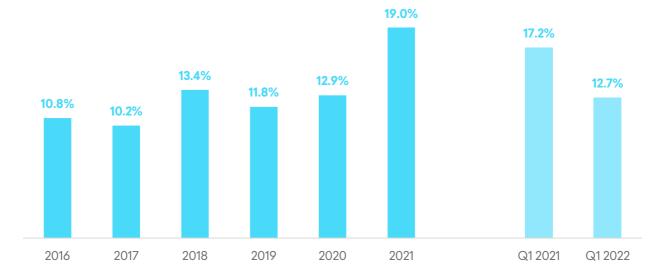


Figure 55. Occupancy level



Source: Geostat

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