

THE EFFECTS OF THE RUSSIAN WAR AGAINST UKRAINE

Logistics & Transportation Sector

INDUSTRY REPORT 2022

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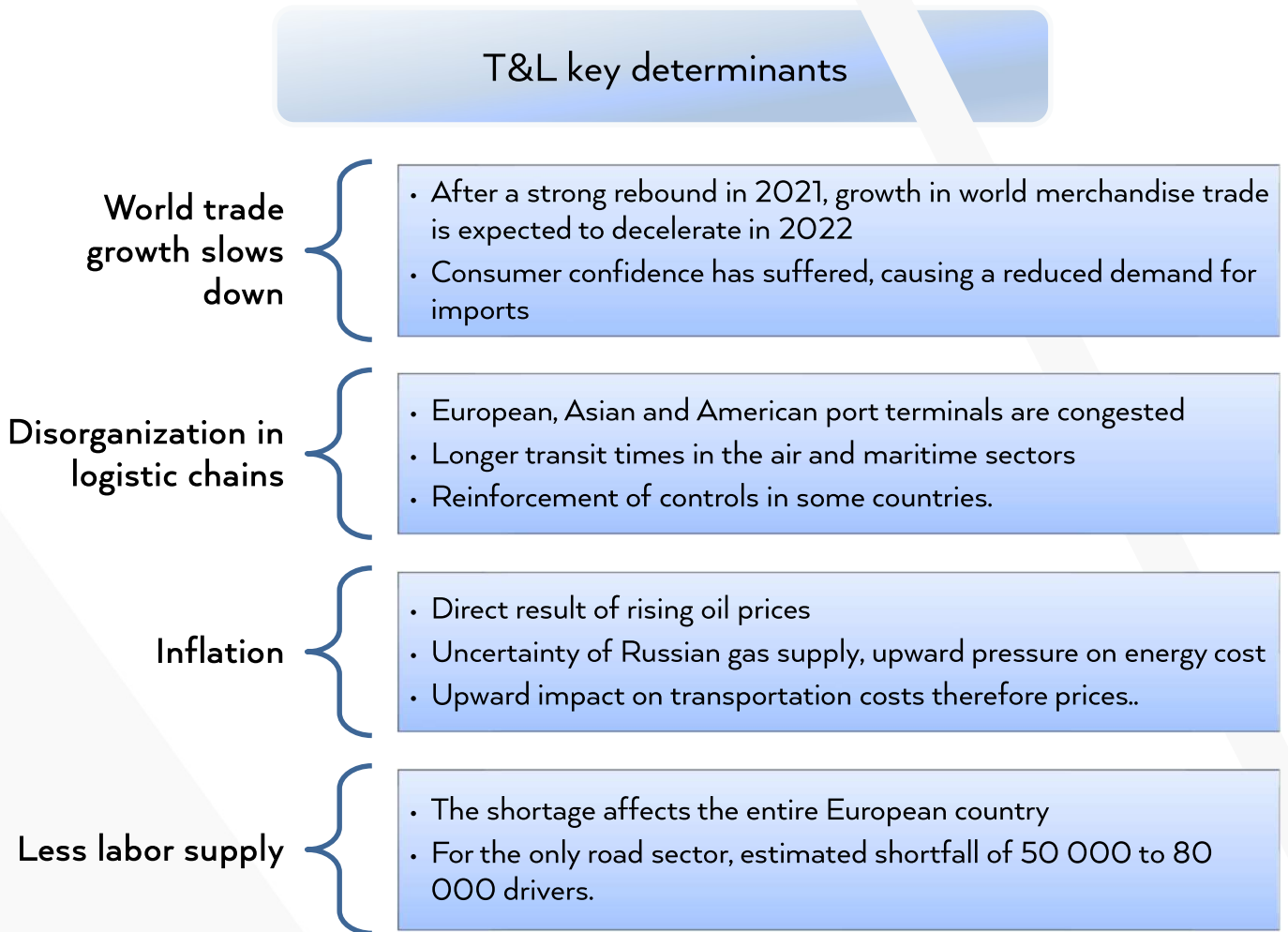
EXECUTIVE SUMMARY

By the end of 2022, the war in Ukraine triggered a global climate of uncertainty. Therefore decision-makers of M&A activity (CEOs, financing actors) are being more cautious, in particular when valuing future earnings in the T&L sector. The overall trend creates a slowdown in M&A activity and tends to assess the value of seller's securities with restraint. On the other hand, our outlook for 2023 T&L deals is positive. Indeed, as companies and private equity firms have saved plenty of capital in 2022, it will be available to fund number of deals. We expect a particular attraction on the buy-side for distressed companies.

After analysing the globally L&T sector, currently the effects caused by the war, breakout of logistic chains, and increase of energy prices will impact some distress in the sector. We see Joint-Ventures between operators, Carve-Outs and Equity partnerships can bring some risk protection to reduce the downside of the impact that an economic slowdown can bring in the sector. M&A tools can add some value to the activity, specially raising value in Cross Border operations, and leverage our outlook in the sector for 2023.



1. ECONOMIC SITUATION IN THE T&L INDUSTRY



Since 2019, the international trade sector has been struggling to adapt to the economic and health crisis caused by Covid-19. Recently, global demand was picking up, even leading to an increase in transportation rates and a bottleneck in global freight transport. It is in this difficult context that on February 24, 2022 the war in Ukraine broke out. Cancelled or extended flights, higher fuel prices, inflation in the price of basic necessities or even the cancellation of stopovers, the consequences are piling up. The Silk Roads are almost at a standstill due to the sharp reduction in demand from Europe. On the one hand, companies are wary of closing their borders. On the other hand, on the Eurasian axis, many carriers and forwarders such as Maersk and RailBridgeCargo have withdrawn.

1.1 IN GERMANY

Higher energy/fuel costs - due to the embargo against Russia and the destroyed Nord-Stream pipelines. These are the major drivers for inflation in Germany; other drivers of inflation are more expensive derivatives of oil-products (e.g, fertilizer, plastics) and foods traditionally imported from Ukraine (sunflower oil, grain or fodder for livestock); consequently, food prices and transportation costs are soaring.

Due to higher prices, consumers are restricting their consumption, slowing demand of consumer goods.



Specific effects on the Transport and Logistics industry are:

- slowing demand for goods
- more difficult supply lines due to the need to avoid (Bela-)Russian//Ukrainian territory
- higher cost in these supply lines due to longer routes, reduced air cargo capacities, and higher fuel costs
- shortage of truck drivers (185.000 in Germany by 2027), presently reduced availability of Ukrainian nationals
- shortage in Euro-pallets and wooden packaging materials.

Transportation into dangerous areas may not be covered by freight insurances. There is no right to demand coverage from an insurance; deliveries need to be negotiated.

This is a problem for deliveries from the EU to Russia (which are still allowed) and for transports to Ukraine (including humanitarian or military aid).

There is a shortage of Euro-pallets and other wood-based packaging material due to increased use for longer passages and due to the fact that a considerable share of wood materials have been imported from Russia, Belarus (sanctions) and the Ukraine (men in war, not at work).

The trend seems to be the reversal of globalization to some extent due to the recognition of dependencies - not only in Russia, but also in China - and the need to tighten supply lines, including the relocation of critical off-shore productions back to Europe - reducing general prosperity which was achieved by division of labor around the globe.

Transport and Logistics Industry is charged to find a “resilient supply line“.

1.2 In Portugal

Portugal, being the most occidental country in EU, is fully integrated in the planned Trans-European Transport Network (TEN-T) - a set of roads, rail, air and water transport networks in the European Union, including multimodal transport. Relevant legal acts define transport corridors, main seaports, river ports and airports together with principal EU border crossings in order to improve internal connectivity and connections.



Source: Specific study and characterization of the Logistic Sector

Along with all the pandemic issues Portugal will receive a PRR subvention of 16,6 B€, to finance an execution plan from 2023 to 2026.

PRR is an investment plan to improve i. Economic Resilience, ii Climate Change and iii. Digital Transactions.

- Logistics & Transports has a possible financing potential: 1.095 M€:
- Transports and Mobility improvements: 558 M€
- Improvement of Sea Infrastructures: Ports and Sea Warehouses: 87 M€
- E-Commerce: 450 M€.

This money will impact the economy from 2023 to 2026 and generate future value through general improvement of the country's infrastructures. Currently there is already in place a program of 23 M€ for companies to improve their e-Commerce activity and to increase their competitiveness to export globally.

This means logistics will have a growing role in the future of the economy also to improve resilience of the related impact from the War in Ukraine.

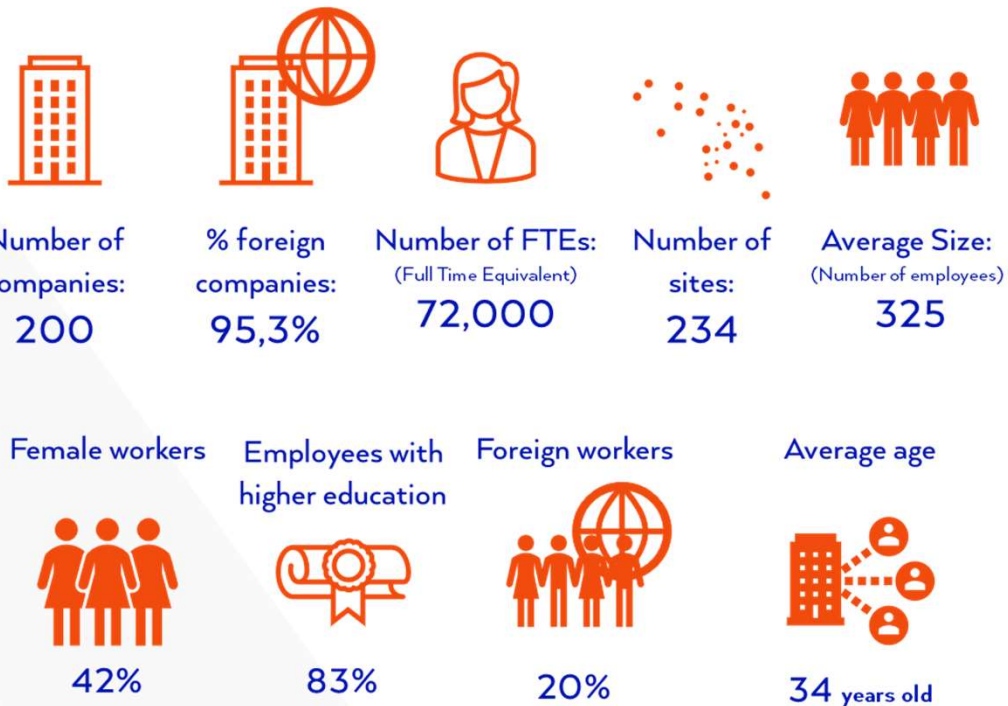
Based on rail & air infrastructures, road connections and good quality broadband, Portugal has been chosen by international companies to create local service centres to serve worldwide operations. Some of them changing their offices from Ukraine.



This means all the logistic infrastructures must improve for such service demand and create alternative solutions to absorb the impact of logistics rupture and the impact of the Ukraine war.

Goldman Sachs, through Newdoc, is analysing investments in logistics parks in Portugal and Spain.

Logistic Infrastructure in Portugal

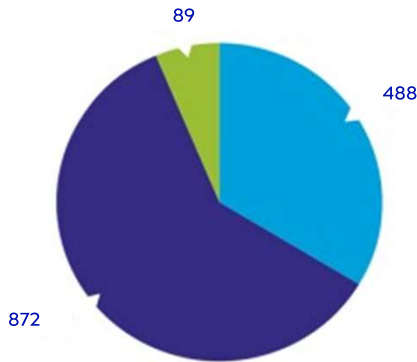


Source: [Trans-European Transport Network \(TEN-T\)](https://ec.europa.eu/transport/themes/trans-european-transport-network-ten-t) (europa.eu)

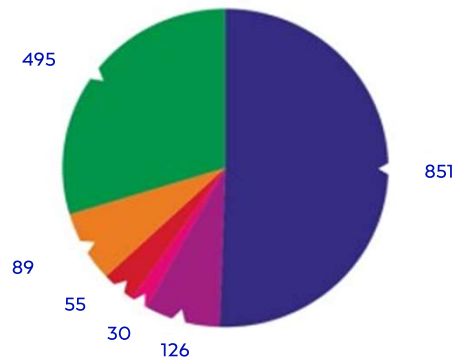
Cross Border M&A in 2021 in Portugal

In 2021 Logistic transactions was expressive, included in infrastructure.

OUTBOUND



INBOUND



NB only deals with publicly disclosed values are represented in the charts and infographics



Source: Dealogic

Infrastructure

Infrastructure fundraising activity



Source: PitchBook | Geography: Global
*As of September 30, 2022

In 2021 Logistic investments were very dynamic.

With the inflation and interest rates pressures we will see how it ends in 2022 but we are quite positive with the outlook for 2023 as companies see logistic investments as strategic steps for the future.

1.3 In Poland



Outflow of workforce (drivers)

- Ukrainian truck drivers working in western Europe are abandoning their jobs to return home and fight the Russian army, exacerbating a labor shortage that will make ground shipping more difficult, according to logistics professionals. The Northern Chamber of Commerce is sounding the alarm, emphasizing that even 150,000 professional drivers are missing in Poland. According to experts, Poland will soon face a large wave of retirement of drivers. The 50-59 age group is over 10% greater than 20-29 years of age. Moreover, drivers older than 60 are numerically comparable to the youngest.



The impact of the inflation

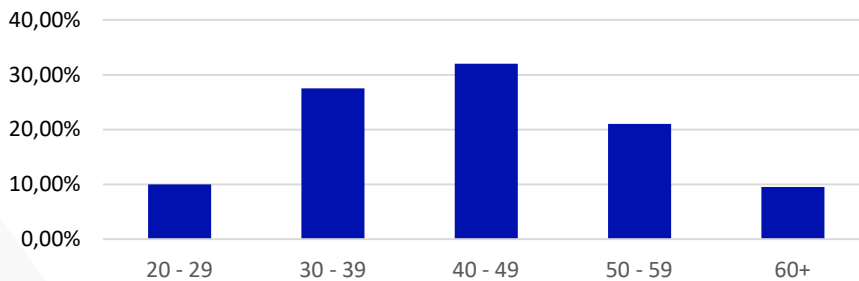
- Sea freight prices increased 10 times. The fuel seemed to rise inconsolably. The costs of transporting goods can be up to half of the price that consumers pay in a store.
- Inflation prompted the search for sources of savings. Among other things, the packaging pooling service is more and more often used, minimizing the need to transport empty pallets. Some of the large logistics companies have also invested in new warehouse space.



The influence of the war on the warehouse economy in Poland

- According to the latest Walter Hertz report, over 3 million m² of warehouse and industrial space was added to Poland last year, and its total supply reached 23.8 million m². More than half of this space was built in the last 5 years, and at the end of 2021, another 4.7 million m² was under construction. This is the highest recorded result on the Polish market. Local warehouse resources are similarly assessed by experts from JLL, according to whom 23.8 million m² at the end of the year makes our country the sixth largest European market.

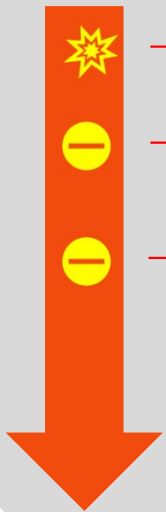
Age structure of drivers employed in Poland



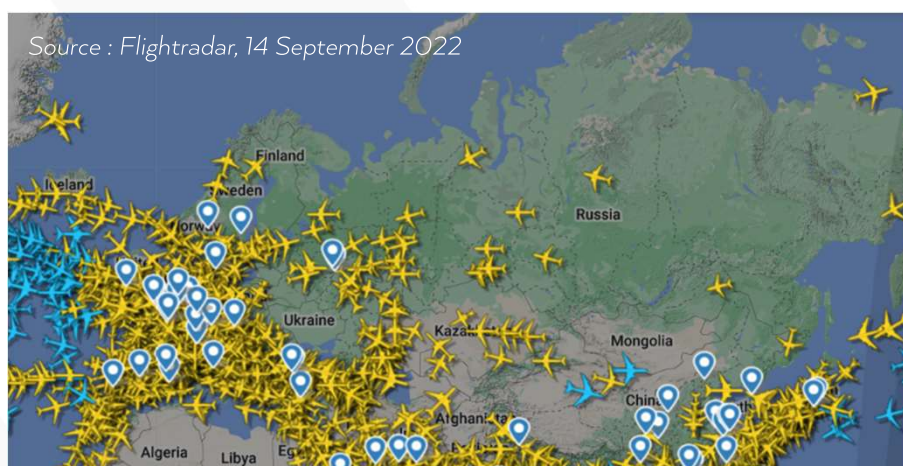
Source: Grupa Inelo 2022 r.



2. THE AIR SECTOR



- 24th Feb 2022 : Russia invades Ukraine
- 25th Feb 2022 : All EU members (27 states), UK, USA and Canada, close their airspace to Russia.
- 28th Feb 2022 : Russia bans airlines from 36 countries, including France, from entering its airspace. It is estimated that within one week, 221 international flights between Russia and Europe used to happen; Aeroflot (Russian airline) accounted for 38% of market share, followed by Lufthansa (Germany) and the low cost Wizz Air (Hungary) but also Turkish Airlines and the low-cost Pegasus (Turkey).



Since the beginning of the war, we can observe that flights have completely stopped over Ukraine and Russian airspace emptied.

Given the immense size of Russia (it is the largest country in the world, with a surface area of 17.1 million km² and its length stretches over eleven time zones), the decision taken by Moscow is fraught with consequences.

Especially since the country is geographically located between the European Union and some East Asian countries.



Longer transit times Europe-Asia

- Flight times between Europe and Asia have therefore increased by several hours. It is still possible to fly between Russia and the rest of the world using the hubs in Istanbul and Dubai, although with a cost of time. On the other hand, Air India, Ethiopian Airlines (now by far the largest airline based in Africa) and Chinese airlines are still allowed to operate their usual routes over Russia.



Higher operating costs

- In addition to longer roads implying increased kerosene consumption for freight forwarding companies, the oil price is at historic highs and “war risk” charges appeared. Indeed, insurance costs increase with the war in Ukraine. For example, in March 2022 the price of air freight between China and Europe jumped to 11,36 dollars per kilo, an 80% increase in just a few days.

Evolution of air freight volumes in May 2022		
Zone	Overall traffic	Filling ratio
Europe	-14,6%	54,8%
Global market	-8,3%	50,5%

In France, despite the Russian invasion of Ukraine, business growth has continued in the air freight transport for 22% of the companies and remained stable for almost all the others. In fact, demand for transport remained solid overall in France. Household consumption has fallen back slightly, but industrial activity is holding up well and structural factors, in particular the rise of express delivery, is driving demand. For 2023, business is uncertain for airline companies, between the current resilience of the economy and fear of a major economic crisis. In this context, most managers are betting on a stable business overall.

2.1 The Air Sector in Germany

Russian **airspace** is blocked for European airlines (and many others), European and American airspace is blocked for Russian airlines. Aircraft leased by Russia from Western companies are confiscated in many countries outside of Russia.

Since Russian Airlines played a major role in **air cargo**, the capacity situation was tightened considerably after their boycott. Especially the huge Antonov aircrafts - which play an important role for making special deliveries of complete machinery and plant equipment for the German industry - these cannot be substituted at all.

Therefore, exporters need to allow considerably higher delivery times, e.g., for sea freight.



3. THE MARITIME SECTOR



Threats

- Detour of shipping routes leads to a disorganization in the maritime rotations
- Increase of the time of delivery, therefore delays
- Port congestion for neighboring countries of Russia and Ukraine
- European customs inspect all vessels to and from Russia to verify the conformity of goods in transit, therefore increase of the time spent in ports
- 14.5% of the world's merchant marine workforce are Russian or Ukrainian => problem of repatriation at the end of the mission.



Opportunities

- The post-pandemic economic recovery has revived shipping
- Charter and freight rates are growing at record rates
- The conflict area represents only 1% of the world container traffic (nevertheless collateral effects are numerous).

Detour of shipping routes

Directly affected by the war in Ukraine, many shipping companies such as MSC, Maersk, Hapag Lloyd, ONE and CMA CGM have suspended their calls in Ukraine and redirected their ships to ports in neighboring countries. Russia was also suspended from calls by many shipping companies, except for food, humanitarian and medical interventions.



3.1 The Maritime sector in Germany

The Russian Black Sea navy is **blocking shipping routes to Ukraine**. Only pre-announced ships transporting Ukrainian grain have a special permission but are subject to inspection in Turkey. We have seen how volatile this agreement is.

EU has **banned all Russian ships** - with some exceptions (energy, food and medical supplies, etc) - to enter EU-ports and vice versa - Russia has banned all vessels from countries that have disallowed Russian ships in their ports.



4. THE ROAD SECTOR



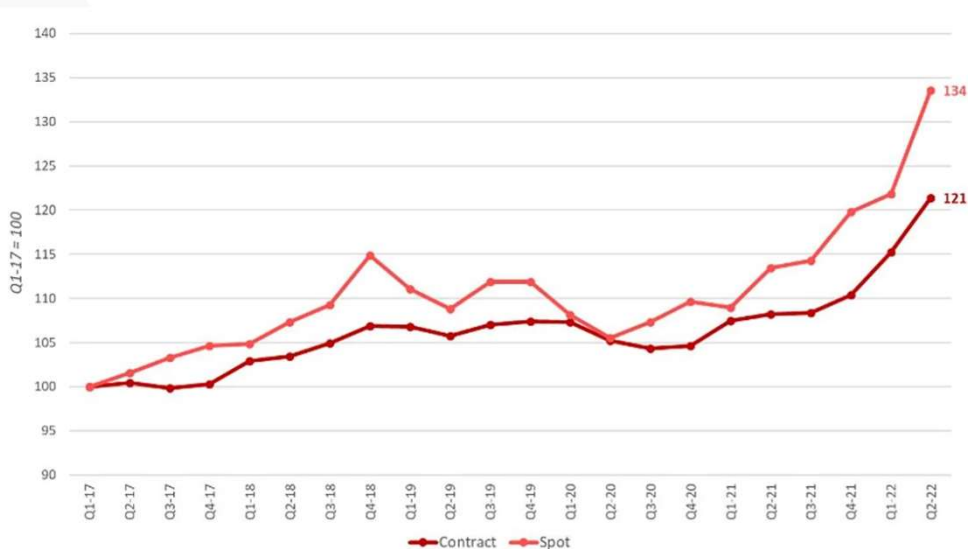
Lack of drivers

Boom in road transport prices

After rising sharply in 2021, the price of road freight transport continues to rise in 2022. Indeed, at Q2 2022, the European Road Freight Spot Rate Index is at a record of 134 points, up 11.8 points from Q1 2022 and 20.1 points from Q2 2021.

Ukrainian truckers, many of them on the roads of Europe, have returned to their families or joined the defense of their country, since the Ukrainian government announced the mobilization of all men aged 18 to 60. The driver shortage continues to put upward pressure on wages (which account for a third of transportation costs) as employers try to remain competitive and retain drivers. By the end of the year, the driver shortage is expected to increase in Europe to 14% of unfilled driver positions, an estimated 40% increase in unfilled truck driver positions. The aging of the truck driver population is the main factor in the shortage, with the average age of truck drivers in Europe being 47. A large proportion of drivers is close to retirement (34% are over 55 years old).

European Road Freight Rate Index, Q2 2022

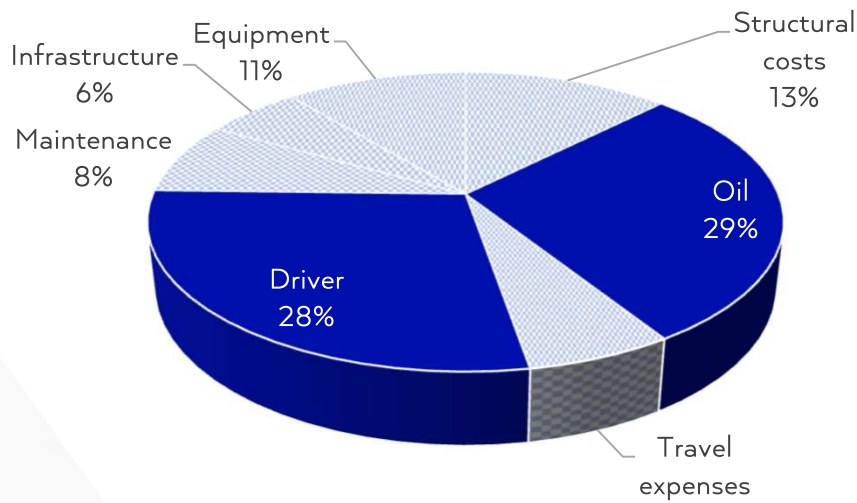




Oil consumption

- The major costs for road sector are driver wages and oil prices.
- The average prices at the pump for diesel in Q2 2022 in the main European countries increased of 13% compared to Q1 2022, with an average pump price of 1.9 per liter.
- Fuel costs typically account for about one-third of total transportation operating costs, but with the increase, this share could now rise to 50%.

Cost structure of road transport



France/Spain

This corridor has seen very significant increases in spot rates. In particular, the quarter-on-quarter increase was 21.2% in the Paris-Madrid direction. This is almost double the average increase in European spot rates. It is also the second highest increase of all European spot rates. Spain has seen one of the largest increases in diesel prices in Europe, with prices 45% higher in July than at the beginning of the year.

4.1 The Road Sector in Germany

The European Union has - with a few exceptions (medical product, life stock, mail, etc.) **banned** commercial vehicles from Russian and Belarussian companies to operate in its territories - and vice versa. Western vehicles entering Belarus with special permissions need to register before entering and are subject to a “technical inspection”.



The hiring of **Ukrainian drivers** - which was quite common in Western countries - is getting more and more difficult (mandatory military service for Ukrainian men < 60 years, special regulations) and is increasing the existing shortage of truck drivers.

The trend will be to push for autonomous driving, wherever possible.

5. THE RAIL SECTOR



New Silk Road project slowed down



Traffic reduction

- The New Silk Road (a Chinese project called One Belt One Road) is particularly affected by tensions in the area, especially on the border between Poland and Belarus, and between Poland and Ukraine, whose ports and railroads are a strategic pawn for China on the road to Europe. Prior to the Ukraine conflict that broke out in late February, 95% of rail freight between China and Europe passed through the Northern Corridor of the China-Europe Express, the rail Silk Road linking China to Germany via Kazakhstan, Russia, Belarus and Poland. As a result of international sanctions against Russia and the risk of confiscation of the goods transported, Eurasian rail freight volumes - consisting of PCs and electronic devices, machinery and automotive parts - have dropped by 80%.
- While activity was expected to increase by 20% in the short term, many shippers have withdrawn. Some major export operators have stopped eastbound and westbound intercontinental rail bookings between Asia and Europe for the time being.



6. OIL PRICE



Limited production

At its meeting on September 5th, Opec announced a reduction in its oil production of 100,000 barrels per day from October. This is the first time in over a year that this has been done, and it goes against Western expectations.

At the same time, on Friday 2 September, the finance ministers of the G7 countries (Canada, France, Germany, Italy, Japan, Great Britain and the United States) agreed on a future cap on the price of imported Russian oil, with a twofold aim: to exert downward pressure on world prices while depriving Moscow of revenues used to finance the war in Ukraine.

The exhibit below shows the development of the Diesel price for companies sourcing major quantities and speaks for itself:

Development of diesel prices in € per liter (net) for bulk consumers												
Month	Jan.	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
2021												
EUR												
/100 liters	95.99	100.37	103.51	101.98	103.95	106.37	108.57	107.37	110.34	123.25	122.96	119.28
average per quarter	99.96	99.96	99.96	104.10	104.10	104.10	108.76	108.76	108.76	121.83	121.83	121.83
2022												
EUR												
/100 liters	128.03	133.72	175.99	162.26	159.73	170.91	158.57	155.77	163.60	176.11	155.19	
average per quarter	145.91	145.91	145.91	164.30	164.30	164.30	159.31	159.31	159.31			

Source: TEMA Transport & Logistik

In the short term, German transport and logistic companies have no chance to substitute Diesel by any other fuel, since electric trucks are way to expensive.

LATEST TRANSACTIONS

<p>FRANCE 12/2022</p> <p>Arenc</p> <p>Logistics, transport and customs solutions</p> <p>Tempo One</p> <p>Buy-Side</p>	<p>FINLAND 10/2022</p> <p>Vekka Group Oy</p> <p>Public and charter bus transport operator</p> <p>Lehtimäen Matkat Oy</p> <p>Sell-Side</p>	<p>BRAZIL 12/2021</p> <p>Log-in</p> <p>Transportation infrastructure</p> <p>Tecmar</p> <p>Buy-Side</p>
<p>NORWAY 11/2021</p> <p>Posten Norge</p> <p>3PL</p> <p>Dream Logistics AB</p> <p>Buy-Side</p>	<p>NORWAY 12/2020</p> <p>Sandahlsbolagen Sweden AB</p> <p>Road transportation</p> <p>Bring Freight Forwarding AB</p> <p>Sell-Side</p>	<p>NORWAY 09/2020</p> <p>Kleijn Transport B.V & Kim Johansen Transport s.r.o</p> <p>Bring Trucking AS</p> <p>Sell-Side</p>
<p>NORWAY 09/2020</p> <p>Consortium</p> <p>Road transportation forwarding</p> <p>Toten Transport AS</p> <p>Sell-Side</p>	<p>PORTUGAL 05/2020</p> <p>Novo Banco</p> <p>Ships Repair and Maintenance</p> <p>Induma</p> <p>Debt Advisory</p>	<p>NL 07/2019</p> <p>Krone Commercial Vehicle Group</p> <p>Designing and producing trailers</p> <p>Knapen Groep</p> <p>Sell-sSide</p>

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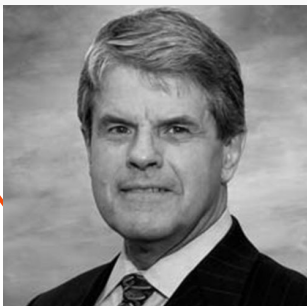
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LOGISTICS & TRANSPORTATION SECTOR

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