COMPARATIVE ANALYSIS OF THE UNIT COSTS OF THE POLISH INTERNATIONAL FREIGHT TRANSPORT COMPANIES OPERATING ON THE EU MARKETS, IN THE YEARS 2009-2019

Małgorzata Zysińska, Ewa Kamińska, Maciej Menes

Summary

The article represents the next part of the periodical publications of the Department of Economic Research in the field of cost analysis of the Polish international freight transport companies. It summarises and makes comparative assessments of the average unit costs of these companies for 2019 in relation to the results of the previous period. The survey involved both, the carriers operating on the eastern markets and in the European Union countries. The article presents statistical characteristics of the companies surveyed, taking into account their size, determined, based on the number of the fleet's heavy goods vehicles being operated. It also shows how the average costs of a single vehicle-kilometre (veh-km) of mileage, for a truck above 12.0 Mg GVW are shaped, according to the size of the companies and taking into account the direction of transport (EU countries). The generic structure of the costs of the companies examined has been analysed. The evolution of unit costs for both 2019 and the whole period 2009-2018 were presented in tabular and graphic form.

Key words

international transport, freight transport, unit costs

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1. Introduction

The distinguishing feature of international road transport services provided by the Polish carriers is their predominantly full truckload character and the resulting use of a fleet of over 12.0 Mg GVW, mainly with a universal body. Moreover, international freight transport is characterized by cost differentiation in terms of the type of markets served. The rates and costs along the routes to and from eastern markets are different than on the EU markets. The average unit costs of the surveyed enterprises differ, both in terms of the cost of one vehicle-kilometre (veh-km) of mileage and the generic structure. Hence the research interest of the Department of Economic Research (ZBE) in continuing to analyse the costs of international transport, which is confirmed by this article.

2. Characteristics of the sample and the research method

The data, based on which this article was created, was obtained as a result of:
- direct surveys (questionnaire template - Annex II) at the selected enterprises providing international truck freight transport services,
- research via an electronic form - ITS surveys.

The Association of International Road Carriers (ZMPD), with which ZBE has been cooperating in this area for many years, played a key role in collecting data from international trucking companies. The obtained data was subject to a stage of validation and verification. It was then entered into an electronic database, based on their own computer program. Ultimately, 75 questionnaires concerning the first half of the year and 67 questionnaires concerning the second half of 2019 were included in the analysis.

Table 1. Characteristic features of the studied sample of international truck freight transport companies with a dominant share of transport to and from the EU countries markets, operating rolling stock over 12.0 Mg GVW with universal bodies, participating in the cost studies for the first half of 2019, according to the size of enterprises and weighted averages for the examined population

Description	Measurement unit	Micro (up to 5 cars)	Small (6 to 9 cars)	Medium (10 to 49 cars)	Large (50 and more cars)	On average
Average number of trucks	item	3	7.4	24.7	73.2	27.1
Average number of employees in the enterprise	employee	4.1	10.1	42.9	96.9	39.5
Average number of drivers in the enterprise	driver	3.3	7.5	25.1	74.1	27.5
Average mileage of cars in the enterprise	thousands of km	194	443.9	1471.6	5478.8	1638
Average mileage of one car in the enterprise	thousands of km	64.7	60.2	59.5	60.9	60.5
Number of enterprises examined		10	8	14	9	41

Source: Authors' own study based on the ITS database on costs at the truck freight transport companies (as of 2020.05.01)

Table 2. Characteristic features of the studied sample of international truck freight transport companies with a dominant share of transport to and from the EU countries markets, operating rolling stock over 12.0 Mg GVW with universal bodies, participating in the cost studies for the second half of 2019, according to the size of enterprises and weighted averages for the examined population

Description	Measurement unit	Micro (up to 5 cars)	Small (6 to 9 cars)	Medium (10 to 49 cars)	Large (50 and more cars)	On average
Average number of trucks	item	3.1	7.2	24.8	68.3	25.8
Average number of employees in the enterprise	employee	4	13.6	30.9	90.4	34.7
Average number of drivers in the enterprise	driver	3.1	7.4	23.8	68.7	25.7
Average mileage of cars in the enterprise	thousands of km	193.1	487.3	1499.9	3947.6	1531.9
Average mileage of one car in the enterprise	thousands of km	62.3	67.7	60.5	57.8	62.1
Number of enterprises examined		7	10	12	9	38

Source: Authors' own study based on the ITS database on costs at the truck freight transport companies (as of 2020.05.01)

In total, 142 questionnaires regarding the transport activity for 2019 were analysed. Out of the total sample of 142 questionnaires, 79 concerned enterprises with a dominant share of transport to and from the EU countries markets. The results of the presented cost research allowed to capture the trends of changes in the unit costs of transport. Detailed characteristics of the research sample analysed in terms of enterprises with a dominant share of transport to and from the EU countries markets are included in Tables 1-3.

The analysis shows that in the analysed sample the largest number was of medium-sized enterprises, both in the analysis of data from the 1st and 2nd half of 2019. This conclusion applies to both transports carried out on the EU and eastern markets. At the same time, the differentiation in the size of enterprises serving eastern markets deepened in the second half of 2019. In this group, there was an increase in medium-sized entities at the expense of other types of enterprises. The opposite tendency took place, in the same period, in the group of carriers serving EU markets, where a slight increase in small and large enterprises was recorded.

In the surveyed sample of enterprises with a dominant share of transport on the EU markets, the statistical enterprise in 2019 had an average number of 26.4 cars with a GVW exceeding 12.0 Mg with a universal body (Table 3). In 2019, the average annual mileage of a truck used by the companies whose vehicles travelled mainly on the EU roads was around 61.3 thousand km. On average, at the surveyed enterprise in this group in 2019, there were 37 employees employed, including slightly more than 26 drivers (Table 3).

Table 3. Characteristic features of the studied sample of international truck freight transport companies with a dominant share of transport to and from the EU countries markets, operating rolling stock over 12.0 Mg GVW with universal bodies, participating in the cost studies for the year 2019, according to the size of enterprises and weighted averages for the examined population

Description	Measurement unit	Micro (up to 5 cars)	Small (6 to 9 cars)	Medium (10 to 49 cars)	Large (50 and more cars)	On average
Average number of trucks	item	3.1	7.3	24.7	70.7	26.4
Average number of employees in the enterprise	employee	4.1	11.8	36.9	93.7	37.1
Average number of drivers in the enterprise	driver	3.2	7.5	24.5	71.4	26.6
Average mileage of cars in the enterprise	thousands of km	387	931.2	2971.4	9404	3169.8
Average mileage of one car in the enterprise	thousands of km	63.5	63.8	60	59.4	61.3
Number of enterprises examined		17	18	26	18	79

Source: Authors' own study based on the ITS database on costs at the truck freight transport companies (as of 2020.05.01)

3. Conclusions from the research

As shown by the data presented, the international road freight transport sector was relatively healthy in 2019, both in the Eastern and EU markets. In the last three years, the average annual increase in the unit cost of 1 vehicle-kilometre in the studied sample of enterprises was at a similar level (approx. 2-3%), although in the entire analysed period of the years 2009-2019 the cost dynamics ratio was as high as 140%. Profit margins showed high volatility in the period 2015-2019, especially in relation to transport provided on eastern markets.

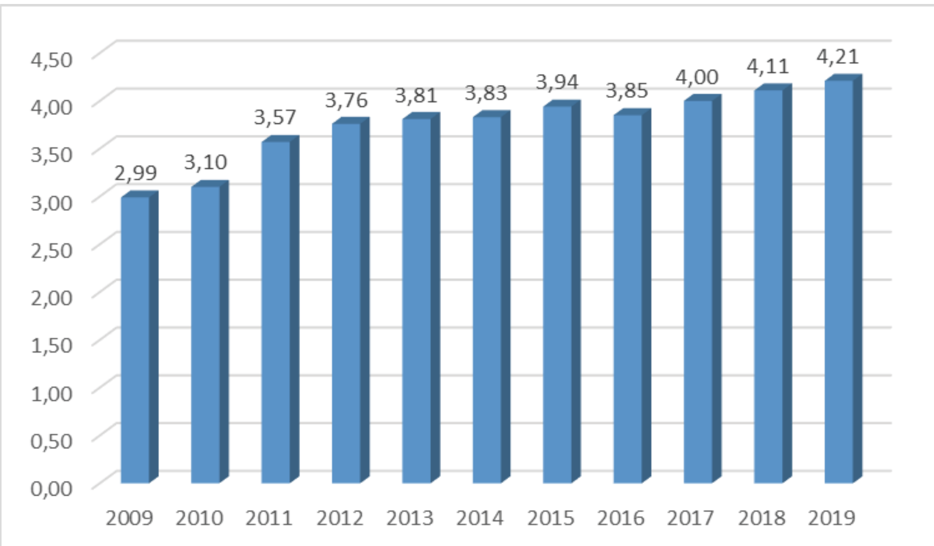
Further part of the article describes the differences in cost changes resulting from: the markets served, the size of the enterprise, and the type of cost. The profitability of enterprises, taking into account the differences for the served geographic markets, remained at a similar level, with an average annual profit of less than PLN 0.2/veh-km, although with a regular downward trend, resulting from the tightening of regulations on international freight transport, being a precursor solution to the provisions of the so-called Mobility Package. However, it is worth noting the increase in profit margins in the last year of the study (the profit in the entire group of surveyed companies increased from PLN 0.14/veh-km in 2018 to PLN 0.18/veh-km in 2019). This applied to both the transport performed on the EU markets and Eastern countries, with higher growth dynamics recorded in the transport on the EU markets rather than the Eastern ones (respectively: 124.5%, 102.6%). However, this means that the profitability of transport is still much lower than that achieved in 2009-2015, when the average annual profit for transport carried out on both markets was in the range of PLN 0.35-0.38/veh-km. One should not forget about the impact of the Russian embargo on the decline in margins after 2014 in the entire group of companies studied, in particular with regard to transport on the eastern markets. In 2014, the Russian government introduced a ban on the importation of a significant part of agricultural products from the EU to the Russian Federation, including fruits and vegetables. This particularly affected Polish carriers that perform the majority of international transport in this market segment. Then, in June 2015, the Russian authorities decided to continue the embargo, and in the following years they extended it by altering only the scope and list of export items. These decisions hit the largest Polish exporters and carriers the hardest. Already in the period from January to October 2014, the export of Polish meat and meat products decreased by 73.6%, and fruit - by 34.5%, and vegetables - by 31%. This resulted in changes in transit directions and new models of cooperation between EU producers and Polish carriers. Due to the introduced restrictions, new transport routes for quasi-exports from the EU countries appeared, which often resulted in an extension of the average annual mileage and worsened the profitability ratios on the eastern markets. Later, the situation was systematically stabilizing or was slightly improving in some market segments. In 2019, the average mileage of trucks at the companies operating in both markets (EU and Eastern countries) was similar, both for the entire fleet and for individual vehicles. In the group of carriers operating on EU markets in the second half of 2019, the average mileage of one vehicle increased slightly, while in the group of companies serving eastern markets even a slight decrease in the average mileage of one car was recorded in this period compared to the first half of the year.

2.1. Average cost of 1 vehicle-kilometre of mileage and by type - EU markets

Tables 4-7 present the results of cost studies at the truck freight transport companies by size groups of enterprises and calculated as the weighted average costs of 1 vehicle-kilometre of mileage in the first and second half of 2019 and for the entire 2019 for all analysed international transport companies operating on the EU markets. The weighted average costs of 1 vehicle-kilometre in the group in question amounted to **PLN 4.21/vehicle-kilometre** in 2019 and were higher by 2.4% compared to the cost of 2018. During the entire period under study, the cost of 1 vehicle-kilometre increased systematically, only in 2016 a decrease was observed, which resulted from a greater than average one-off reduction in the costs of remuneration and delegation of drivers. The results of the research conducted in the previous years are presented below, they are also shown in Fig. 1:

- in 2018, PLN 4.11/veh-km,
- in 2017, PLN 4.00/veh-km,
- in 2016, PLN 3.85/veh-km,
- in 2015, PLN 3.94/veh-km,
- in 2014, PLN 3.83/veh-km,
- in 2013, PLN 3.81/veh-km,
- in 2012, PLN 3.76/veh-km,
- in 2011, PLN 3.57/veh-km,
- in 2010, PLN 3.10/veh-km,
- in 2009, PLN 2.99/veh-km.

Fig. 1. Average costs of 1 vehicle-kilometre of mileage at the surveyed international transport companies, in 2009-2019 (universal rolling stock over 12.0 Mg GVW; EU countries markets) [PLN/veh-km]



Source: Authors' own compilation based on ITS cost database.

Table 4. Average weighted costs of 1 vehicle-kilometre of mileage in total, by type, in four groups of surveyed enterprises, in the first half of 2019 (universal rolling stock; EU markets) [PLN/veh-km]

Description	**Micro (1- to 5) EU** [P LN/ veh-km]	**Small (6 - 9) EU** [PLN/ veh-km]	**Medium (10 - 49) EU** [PLN/ veh-km]	**Large (50+) EU** [PLN/ veh-km]	Average weighted costs of 1 vehicle-kilometre of mileage (PLN/veh-km)
The average cost of 1 vehicle-kilometre of mileage, including:	**4.18**	**4.22**	**4.15**	**4.17**	**4.18**
Propellants and consumables	1.67	1.67	1.64	1.68	1.66
Overhauls, repairs and tires	0.11	0.11	0.12	0.09	0.11
Depreciation or loss of market value of the rolling stock	0.1	0.09	0.1	0.08	0.09
Remaining capital costs (leasing, credit)	0.02	0.04	0.04	0.05	0.04
Remuneration and business trips of drivers as well as social insurance down to the employer	1.15	1.1	1.05	1.07	1.09
Insurance of transport means and taxes on transport means	0.51	0.49	0.47	0.47	0.48
Road tolls	0.49	0.52	0.51	0.47	0.5
Other costs of the company's transport activity	0.13	0.21	0.23	0.25	0.21
Number of enterprises examined	10	8	14	9	41

Source: Authors' own compilation based on the ITS database on costs at the truck freight transport companies (as of 2020.05.01)

Table 5. Average weighted costs of 1 vehicle-kilometre of mileage in total, by type, in four groups of surveyed enterprises, in the second half of 2019 (universal rolling stock; EU countries markets) [PLN/veh-km]

Description	**Micro (1- to 5) EU** [P LN/ veh-km]	**Small (6 - 9) EU** [PLN/ veh-km]	**Medium (10 - 49) EU** [PLN/ veh-km]	**Large (50+) EU** [PLN/ veh-km]	Average weighted costs of 1 vehicle-kilometre of mileage (PLN/veh-km)
The average cost of 1 vehicle-kilometre of mileage, including:	**4.42**	**4.2**	**4.27**	**4.17**	**4.26**
Propellants and consumables	1.79	1.67	1.72	1.71	1.72
Overhauls, repairs and tires	0.11	0.11	0.1	0.13	0.11
Depreciation or loss of market value of the rolling stock	0.1	0.09	0.09	0.11	0.1
Remaining capital costs (leasing, credit)	0.02	0.04	0.04	0.07	0.05
Remuneration and business trips of drivers as well as social insurance down to the employer	1.26	1.14	1.17	1.05	1.15
Insurance of transport means and taxes on transport means	0.53	0.51	0.51	0.5	0.52
Road tolls	0.51	0.47	0.49	0.47	0.49
Other costs of the company's transport activity	0.06	0.13	0.13	0.13	0.12
Number of enterprises examined	7	10	12	9	38

Source: Authors' own compilation based on the ITS database on costs at the truck freight transport companies (as of 2020.05.01)

Table 6. Average weighted costs of 1 vehicle-kilometre of mileage in total, by type, in four groups of surveyed enterprises, in 2019 (universal rolling stock; EU countries markets) [PLN/veh-km]

Description	**Micro (1- to 5) EU** [P LN/ veh-km]	**Small (6 - 9) EU** [PLN/ veh-km]	**Medium (10 - 49) EU** [PLN/ veh-km]	**Large (50+) EU** [PLN/ veh-km]	Average weighted costs of 1 vehicle-kilometre of mileage (PLN/veh-km)
The average cost of 1 vehicle-kilometre of mileage, including:	**4.28**	**4.21**	**4.21**	**4.17**	**4.21**
Propellants and consumables	1.72	1.67	1.67	1.69	1.69
Overhauls, repairs and tires	0.11	0.11	0.11	0.11	0.11
Depreciation or loss of market value of the rolling stock	0.1	0.09	0.09	0.09	0.1
Remaining capital costs (leasing, credit)	0.02	0.03	0.04	0.06	0.04
Remuneration and business trips of drivers as well as social insurance down to the employer	1.19	1.12	1.1	1.06	1.12
Insurance of transport means and taxes on transport means	0.52	0.5	0.49	0.49	0.5
Road tolls	0.5	0.49	0.5	0.47	0.49
Other costs of the company's transport activity	0.1	0.16	0.18	0.19	0.16
Number of enterprises examined	17	18	26	18	79

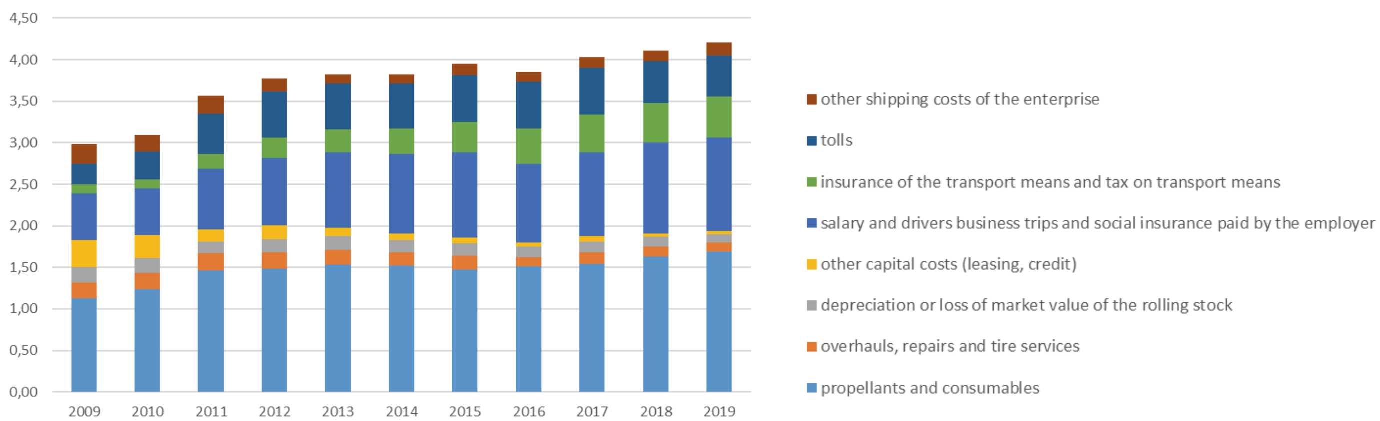
Source: Authors' own compilation based on the ITS database on costs at the truck freight transport companies (as of 2020.05.01)

Table 7. Average weighted costs of 1 vehicle-kilometre in total, by type, at the surveyed international transport companies, in 2009-2019 (universal rolling stock; EU countries markets of) [PLN/veh-km]

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
The average cost of 1 vehicle-kilometre of mileage, including:	**2.99**	**3.10**	**3.57**	**3.76**	**3.81**	**3.83**	**3.94**	**3.85**	**4.00**	**4.11**	**4.21**
Propellants and consumables	1.13	1.24	1.46	1.48	1.53	1.52	1.47	1.51	1.54	1.63	1.69
Overhauls, repairs and tires	0.38	0.19	0.21	0.20	0.18	0.16	0.17	0.11	0.14	0.12	0.11
Depreciation or loss of market value of the rolling stock	0.19	0.18	0.14	0.16	0.17	0.15	0.15	0.13	0.13	0.12	0.10
Remaining capital costs (leasing, credit)	0.33	0.28	0.15	0.17	0.10	0.08	0.07	0.05	0.07	0.04	0.04
Remuneration and business trips of drivers as well as social insurance down to the employer	0.56	0.56	0.73	0.81	0.90	0.95	1.02	0.95	1.00	1.09	1.12
Insurance of transport means and taxes on transport means	0.11	0.11	0.18	0.24	0.28	0.30	0.37	0.42	0.46	0.48	0.50
Road tolls	0.25	0.33	0.48	0.56	0.55	0.54	0.56	0.56	0.50	0.50	0.49
Other costs of the company's transport activity	0.23	0.20	0.22	0.15	0.11	0.11	0.14	0.12	0.13	0.13	0.16
Number of enterprises examined	63	70	66	48	61	62	61	58	71	79	79

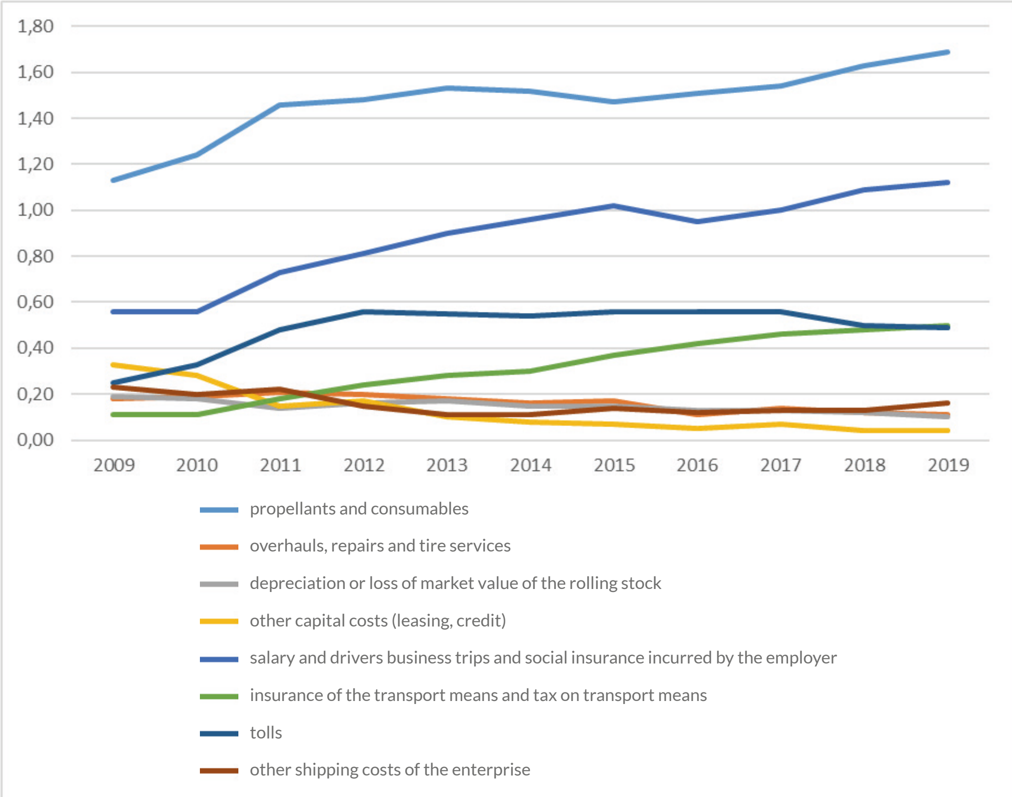
Source: Authors' own compilation based on the ITS database on costs at the truck freight transport companies (as of 2020.05.01)

Fig. 2. Average weighted costs by type of 1 vehicle-kilometre of mileage, at the surveyed companies of international transport, in the years 2009 - 2019 (universal rolling stock; over 12.0 Mg GVW; EU countries markets) [PLN/veh-km]



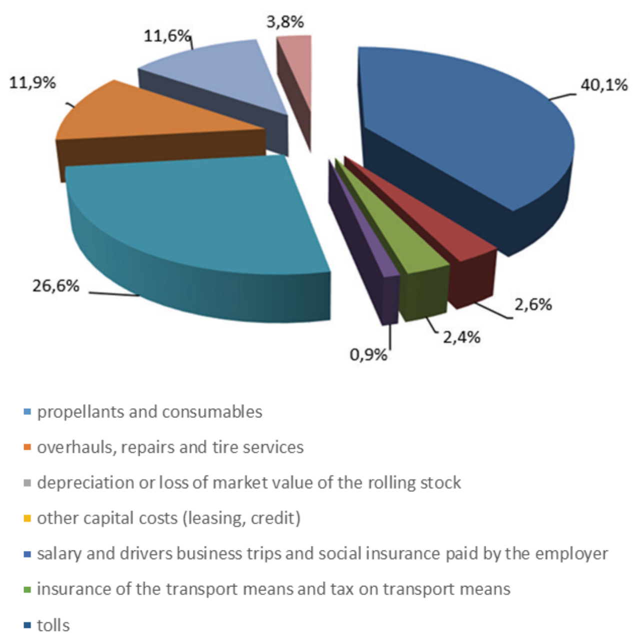
Source: Authors' own compilation based on data from Table 7

Fig. 3. Variability of the average weighted costs of 1 vehicle-kilometre of mileage by type of costs, at the surveyed international transport companies, in 2009-2019 (universal rolling stock; over 12.0 Mg GVW; EU countries markets) [PLN/veh-km]



Source: Authors' own compilation based on data from Table 7

Fig. 4. Generic structure of the average weighted cost of 1 vehicle-kilometre of mileage at the surveyed international transport companies in 2019 (universal rolling stock over 12.0 Mg GVW; EU markets) [%]



Source: Authors own compilation based on data from Table 7

Referring to the previous periodical publications of the ITS Economic Research Department regarding cost analysis of the Polish international truck freight transport enterprises, it is also worth making a comparison and comparative assessment of the average unit costs of carriers for 2019. The comparison will concern the results of analyses from previous years with respect to the enterprises serving eastern markets and European Union countries. The data on enterprises serving eastern markets iis presented in a separate article, published in this Quarterly. Tables 8-10, on the other hand, present comparative data of enterprises operating on the Eastern and EU markets. The average weighted costs of 1 vehicle-kilometre of mileage and average weighted rates for 1 vehicle-kilometre of mileage at the surveyed companies operating on the EU and eastern markets in 2015-2019 are presented in the data in Table 9.

The profit margins and their dynamics in the freight transport on the eastern markets and EU countries in 2015-2019 are presented in Table 10.

Table 8. Average costs of 1 vehicle-kilometre, in total and by selected types of costs in 2009, 2018 and 2019 at the surveyed enterprises (universal rolling stock over 12.0 Mg GVW, markets of other EU countries and eastern markets)

	Other EU countries' markets		Eastern Markets	
	PLN/veh-km	%	PLN/veh-km	%
The average cost of 1 vehicle-kilometre of mileage in 2019, including:	**4.21**	**100**	**4.24**	**100**
Propellants and consumables	1.69	40.1	1.61	37.9
Overhauls, repairs and tires	0.11	2.6	0.1	2.4
Depreciation or loss of market value of the rolling stock	0.1	2.4	0.1	2.4
Remaining capital costs (leasing, credit)	0.04	1	0.04	1
Remuneration and business trips of drivers as well as social insurance down to the employer	1.12	26.6	1.16	27.3
Insurance of transport means and taxes on transport means	0,5	11,9	0,49	11,6
Road tolls	0,49	11,6	0,43	10,1
Other costs of the company's transport activity	0,16	3,8	0,31	7,3
The average cost of 1 vehicle-kilometre of mileage in 2019, including:	**4,11**	**100**	**4,1**	**100**
Propellants and consumables	1,63	39,7	1,52	37,2
Overhauls, repairs and tires	0,12	3	0,12	2,9
Depreciation or loss of market value of the rolling stock	0,12	2,9	0,12	2,9
Remaining capital costs (leasing, credit)	0,04	1,1	0,05	1,1
Remuneration and business trips of drivers as well as social insurance down to the employer	1,09	26,4	1,12	27,4
Insurance of transport means and taxes on transport means	0,48	11,6	0,48	11,7
Road tolls	0,5	12,1	0,4	9,7
Other costs of the company's transport activity	0,13	3,2	0,29	7

	Other EU countries' markets		Eastern Markets	
	PLN/veh-km	%	PLN/veh-km	%
The average cost of 1 vehicle-kilometre of mileage in 2019, including:	**2,99**	**100**	**2,62**	**100**
Propellants and consumables	1,13	37,7	1,01	38,5
Overhauls, repairs and tires	0,18	6,1	0,18	6,7
Depreciation or loss of market value of the rolling stock	0,19	6,5	0,18	7
Remaining capital costs (leasing, credit)	0,33	11,1	0,26	10,1
Remuneration and business trips of drivers as well as social insurance down to the employer	0,56	18,6	0,56	21,5
Insurance of transport means and taxes on transport means	0,11	3,6	0,11	4,3
Road tolls	0,25	8,5	0,09	3,3
Other costs of the company's transport activity	0,23	7,8	0,22	8,5

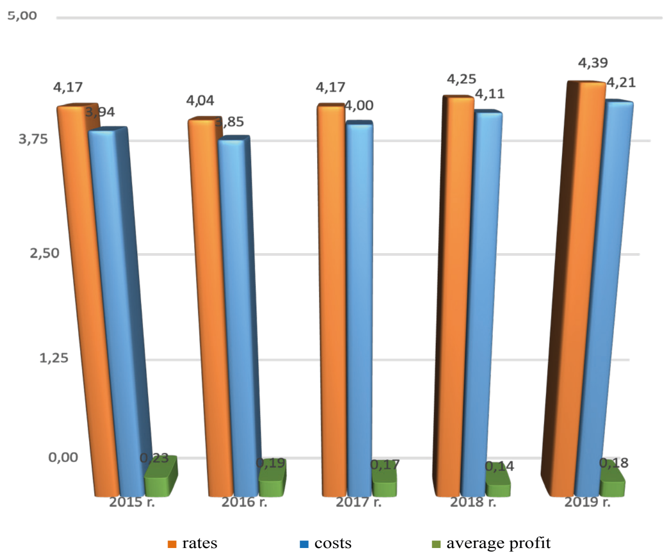
Source: Authors' own compilation based on the ITS database on costs at the truck freight transport companies (as of 2020.05.01)

Table 9. Average weighted costs of 1 vehicle-kilometre of mileage and average weighted rates for 1 vehicle-kilometre of mileage at the surveyed enterprises in the years 2015-2019 (universal rolling stock, over 12.0 Mg GVW) [PLN/vehicle-km]

	2015			2016			2017			2018			2019		
	costs	rates	profit	costs	rates	profit	costs	rates	profit	costs	rates	profit	costs	rates	profit
EU countries' markets	3,94	4,17	0,23	3,85	4,04	0,19	4,00	4,17	0,17	4,11	4,25	0,14	4,21	4,39	0,18
Eastern markets	3,49	3,90	0,41	3,83	4,14	0,31	3,99	4,17	0,18	4,10	4,26	0,16	4,24	4,41	0,17

Source: calculations based on the ITS database on the costs at the truck freight transport companies (as of 2020.05.01)

Fig. 5. Average weighted transport rates, costs and average unit profit of the surveyed international truck freight transport companies operating mainly on EU markets in the years 2015-2019 (universal rolling stock, over 12.0 Mg GVW) [PLN/veh-km]



Source: Authors' own drawing based on the data in Table 9

Table 10. Profit margins and their dynamics in the truck freight transport on the eastern markets and EU countries, in the years 2015-2019 (universal rolling stock, over 12.0 Mg GVW) [PLN/veh-km]

Transport unit margin - PLN/veh -km	EU markets					Transport unit margin - PLN/veh -km	Eastern markets				
	2015	**2016**	**2017**	**2018**	**2019**		**2015**	**2016**	**2017**	**2018**	**2019**
Unit profit	0,23	0,19	0,17	0,14	0,18	Unit profit	0,41	0,31	0,18	0,16	0,17
Freight rate	4,17	4,04	4,17	4,25	4,39	Freight rate	3,9	4,14	4,17	4,26	4,41
Net profit margin	**5,50 %**	**4,70%**	**4,10%**	**3,30%**	**4,10%**	Net profit margin	**10,50 %**	**7,50%**	**4,30%**	**3,80%**	**3,90**
		85,30 %	**86,70 %**	**80,80 %**	**124,50 %**			**71,20 %**	**57,60 %**	**87,00 %**	**102,60 %**

Conclusions from the studies of the average unit costs at the international truck freight transport companies for 2019 against the background of cost studies from the years 2009 – 2018

Markets of EU countries:

1. The average weighted costs of 1 vehicle-kilometre in 2018 and 2019 at the surveyed companies of international truck freight transport, whose transport destinations were dominated by **EU markets**, amounted to **PLN 4.11/veh-km** and **PLN 4.21/veh-km**, of mileage respectively.
2. Compared to the average unit costs in 2009, the increase in the average unit costs in this scope in 2018 amounted to approximately 37%, and in 2019 to less than 41%.
3. The structure of the average weighted costs of 1 vehicle-kilometre in 2018 and 2019 was dominated by the costs of propellants and consumables (39.7% and 40.1%, respectively), drivers' remuneration costs (including business trips) and social security costs incurred by the employer (26.4% and 26.6%, respectively), followed by road toll costs (12.1% and 11.6%, respectively).
4. In 2019, in comparison with 2009, the average unit costs of road tolls almost doubled (by almost 95%), the average unit costs of remuneration for drivers (including business trips) and social insurance costs incurred by the employer doubled (by about 100%), and fuel costs increased on average by less than 50%.
5. The average transport rates at the surveyed companies operating mainly on the markets of the EU countries were in 2018 and 2019 respectively at the level of **PLN 4.25/veh-km** and **PLN 4.39/veh-km** of mileage.

4. Conclusions

1. In the years 2015-2018 at the surveyed enterprises an annual decrease in the average profit was observed. This negative trend was halted in 2019. The average weighted costs of 1 vehicle-kilometre of mileage of enterprises operating mainly on eastern markets have been systematically growing since 2016, by an average of 0.10-0.15 PLN a year. The freight rates of these companies also grew, but at a slower pace. There were no visible differences in the growth rate of these costs between the transport activity of enterprises in both analysed markets.
2. In the analysed period, on the markets of the EU countries, the highest increase in costs was observed in the category of remuneration, business trips and social insurance incurred by the employer. Over the last eleven years, this value increased by 100% (from PLN 0.56 to PLN 1.12).
3. In this category, the highest increase of the unit cost share in the overall structure was also recorded (from 18.6% in 2009 to 26.6% in 2019). In the same period, the eastern markets recorded a similar trend, although with a slightly smaller increase in the overall cost structure. The value of this cost category changed from 0.56 in 2009 to 1.16 for 2019.
4. Another significant cost category, for which a systematic increase in the share in the average weighted costs on both markets was observed, was expenditure on propellants and consumables. For the European markets, the share of this category in the average weighted costs of 1 vehicle-kilometre increased from 1.13 in 2009 to 1.69 in 2019. For the eastern markets, an even higher increase in the value of this costs category was recorded, i.e. from 1.01 in 2009 to the level of 1.61 in 2019.
5. The immediate prospects related to the tightening of the existing regulations, in particular the forecasted reduction of full truckload international transport, in connection with the COVID-19 pandemic, will probably cause further deterioration of profitability ratios in this sector. However, it is already known that the current situation has not caused homogeneous changes among all companies providing international transport. There was a large variation in the dynamics of transport in terms of goods served and market segments (customers). The continuation of the research in this area would therefore be valuable in terms of strategic planning for the Polish carriers operating on international markets.

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Małgorzata Zysińska
malgorzata.zysinska@its.waw.pl
Motor Transport Institute, 80 Jagiellońska Str., 03-301 Warsaw

Ewa Kamińska
ewa.kaminska@its.waw.pl
Motor Transport Institute, 80 Jagiellońska Str., 03-301 Warsaw

Maciej Menes
maciej.menes@its.waw.pl
Motor Transport Institute, 80 Jagiellońska Str., 03-301 Warsaw