5.1 Rolling stock and other property, plant and equipment

Accounting policy applied

Under property, plant and equipment, the Group recognizes rolling stock, real properties (land, buildings and structures) and other items of property, plant and equipment. Property, plant and equipment are measured at purchase price or production cost reduced by depreciation and impairment losses. The initial value of property, plant and equipment consists of their acquisition cost or cost of production, along with any import duties, non-refundable purchase taxes, less any rebates and discounts, plus any costs directly attributable to preparing the asset for its intended use and, if applicable, the costs of external financing, less any subsidies.

Government subsidies are recognized as reduction of the assets' value at the moment when it is reasonably certain that they will be obtained and that all the necessary conditions will be met.

Assets used based on a finance lease agreement (where all the risks and benefits are in principle transferred onto the Group) are treated as the Group's assets and measured at fair value at the moment of purchase but not higher than the current value of minimum lease fees.

Construction-in-progress is presented in the statement of financial position at the production cost reduced by recognized impairment losses.

An item of property, plant and equipment is removed from the statement of financial position at the moment of sale or when no economic benefits are expected from its use. When it is decided to derecognize an item of property, plant and equipment, its book value is recognized in the profit or loss of the period in which the decision was taken, except for rolling stock items, whose residual values, when it is decided to derecognize them, are posted in the item of inventories.

Within rolling stock items, the Group identifies and separates all the material elements, or components, making up the given asset with different economic useful lives. The material components of freight cars and locomotives distinguished by the Group comprise the main part of the rolling stock item and the repair / periodic inspection part. In addition, the residual value (scrap value) is established for the rolling stock items.

Repairs and inspections

Rolling stock undergoes planned maintenance operations at five levels, the extent of which is defined in the Regulation of the Minister of Infrastructure dated 12 October 2005 on general technical conditions for the operation of railroad vehicles (Journal of Laws of 2016, Item 226, as amended). Detailed requirements for these operations are given in the Maintenance System Documentation (DSU), which is mandatory for each of the operated railroad vehicles. Rolling stock undergoes planned maintenance operations in accordance with repair cycles defined in the Maintenance System Documentation (DSU), depending on the permissible time and/or course of the vehicle's operation.

After completing repair or modernization at level 4 and 5, a technical railworthiness certificate is issued. A technical railworthiness certificate confirms that the given rolling stock asset is allowed to be used until the next repair at level P4 or P5. An asset may be operated in the entire certificate validity period provided also that a P3 inspection is carried out halfway through the cycle. If no repair/inspection at levels P3, P4 and P5 is carried out, the rolling stock asset loses its operational capacity and cannot be used in rail transport. The Group considers periodic repairs and inspections at levels P3, P4 and P5 as the condition for continuous use of rolling stock asset item and at the moment of performing such a repair, if the criteria for its recognition are satisfied, the costs of the repair are recognized in the carrying amount of the rolling stock asset and are depreciated in the period between repairs.

Other costs of ongoing maintenance and repairs for property, plant and equipment and costs of ongoing overhauls (which are not costs of periodic P3, P4 or P5 repairs and inspections) are recognized on general principles as costs of the period in which they were carried out.

Residual value of rolling stock

The residual value of rolling stock is measured based on prices of scrap of specific classes, taking into account disposal costs. The residual value of rolling stock is not subject to depreciation but is subject to periodic verification at the end of each financial year. The Group changes the residual value if it has a material impact on the Group's financial statements.

Depreciation of property, plant and equipment

The Group applies straight-line depreciation. The value of property, plant and equipment subject to depreciation is distributed systematically over the useful life. The initial value subject to depreciation for a given asset is determined after deducting its residual value.

Assets used under finance lease agreements are depreciated over their expected useful lives on the same basis as owned assets. If it is not certain that the ownership will be transferred after the lease term, the assets are depreciated over the lease term or useful life of the asset, whichever is shorter.

Freehold land and rights of perpetual usufruct of land are not subject to depreciation.

The estimated useful lives and residual values are verified at the end of each reporting period (with a prospective application of any changes in estimates).

To calculate depreciation, the Group applies the following economic useful lives for particular groups of non-current assets:

	Useful life
Real properties, including:	
and and perpetual usufruct rights to land	are not subject to depreciation
Buildings, premises and civil and water engineering facilities	from 5 to 75 years
echnical machinery and equipment	from 2 to 40 years
olling stock, including:	
reight cars:	
main part of a wagon	from 36 to 48 years
periodic repairs of wagons	from 4 to 6 years
periodic inspections of wagons	from 2 to 3 years
lectric locomotives:	
main part of a locomotive	from 24 to 45 years
periodic repairs of locomotives	from 4 to 8 years
periodic inspections of locomotive	from 2 to 4 years
ther means of transport	from 2 to 25 years
ther fixed assets	from 2 to 25 years

Impairment of property, plant and equipment

At each balance sheet date, the Group performs an analysis of carrying amounts of owned non-current assets to determine if there are any indications of their impairment. If such indications of impairment are identified, the recoverable amount of the cash-generating units or individual assets is estimated to determine a potential related charge.

The recoverable amount is measured at the higher of the following two values: fair value less cost of disposal or value in use. The value in use is defined as the present value of estimated future cash flows discounted using a discount rate before tax. If the recoverable amount of a cash-generating unit or individual asset is lower than its carrying amount, the latter is reduced to the recoverable amount. An impairment loss is recognized in the line item "depreciation and impairment losses".

Where an impairment loss is reversed, the net value of the asset is increased to the revised estimate of the recoverable amount, which, however, does not exceed the carrying amount of the asset that would have been determined if an impairment loss had not been recognized in previous years. The reversal of an impairment loss is recognized in the line item "depreciation and impairment losses".



SIGNIFICANT VALUES BASED ON PROFESSIONAL JUDGMENT AND ESTIMATES

Economic useful lives of fixed assets

The Group estimates the economic useful lives of individual items of property, plant and equipment and on this basis determines the depreciation rates for these items. The estimates are based on the expected economic useful lives of the assets. Depreciation rates may change in the event of circumstances causing a change in the expected useful life, which in turn affects the value of the depreciation charges and the net carrying amount of specific items of property, plant and equipment in future periods. The verification of the useful lives of property, plant and equipment conducted as at 31 December 2018 did not reveal the need to correct the previously applied depreciation rates.

Residual value of the rolling stock

As at 31 December 2018, the Group verified the residual value of its rolling stock. As a result of this verification, the Group decided to update the residual value of its rolling stock without valid technical railworthiness certificates, yet this change did not have a material impact on the value of the impairment loss on rolling stock. In respect of the other rolling stock items, the Group did not update their residual value, because the change did not have a material impact on the Group's financial statements in the current period or in the subsequent periods.

Impairment of non-current assets

In the second quarter of 2018, certain redundant rolling stock assets were identified as part of the optimization processes executed in the AWT Group. After the analysis and taking into account the effects of the optimization processes an impairment loss on the redundant rolling stock assets was recognized in the amount of PLN 18 million.

As at 31 December 2018, the Group performed impairment tests with respect to two cash-generating units defined at the level of assets of the Parent Company and the AWT Group. The main indications of potential impairment of the Group's selected assets were:

- the market value of the Group's net assets continued to be lower than their carrying amount;
- significant uncertainty as to the implementation of the approved restructuring plan for the main business partner of the AWT Group and the observed changes on the Czech rail market.

Impairment tests have been performed on cash-generating units by determining their recoverable amount at the level of their value in use

PKP CARGO S.A.

The recoverable value of analysed assets was determined on the basis of their estimated useful value using the net discounted cash flows method, in line with detailed financial projections developed for 2019–2028. In the opinion of the Parent Company's Management Board, adopting financial projections for more than five years is reasonable because the property, plant and equipment used by the Parent Company have a considerably longer economic useful lives. Presented below are the key assumptions affecting the estimate of the value in use of the tested cash-generating units:

- a) in the whole period covered by the detailed projection, the compound annual growth rate (CAGR) of operating revenue will be at 2.8% in real terms;
- b) in the whole period covered by the detailed projection, capital expenditures will achieve annual operating revenue of 13.2% in real terms:
- c) the after-tax weighted average capital cost (WACC) level will be at 6.03% in real terms;
- d) after the detailed projection period, the growth of future cash flows was assumed at 0.0% in real terms.

Since the recoverable amount determined as a result of the test exceeded the carrying amount of the assets tested as at 31 December 2018, the Parent Company recognized no impairment loss for the assets.

The Parent Company's Management Board did not identify any key assumptions which, when changed by reasonably expected values, would lead to impairment.

AWT GROUP

The recoverable value of analysed assets was determined on the basis of their estimated useful value using the net discounted cash flows method, in line with detailed financial projections developed for 2019–2028. In the opinion of the Group, adopting financial projections for more than five years is reasonable, because the property, plant and equipment used by the AWT Group have considerably longer useful lives and such projections enable a better depiction of the impact of expected changes in the Czech coal and rail market on the Group's performance.

The key assumptions affecting the estimation of the value in use of the tested cash-generating unit were as follows:

- a) the cash-generating unit was considered to be all owned by the AWT Group, used mainly to service customers on the
- b) the first three years of the forecast are based on the approved financial plans, for the years 2022–2028 a compound annual growth rate (CAGR) of 3.8% has been assumed in nominal terms (with a 2% projected inflation rate);
- c) the after-tax weighted average cost of capital (WACC) in the detailed projection period will be at a level of 7.30% in nominal terms (5.20% in real terms). The WACC calculation takes into account a premium for specific risk, including that related to the main customer undergoing a restructuring process;
- **d)** the increase in remunerations in the residual period was on the level of 0.15% in real terms; no increase was assumed for other parameters.

As at 31 December 2018, following an impairment test, the Group recognized an impairment loss in the amount of PLN 51.2 million.

Presented below is the estimated amount of impairment loss as at 31 December 2018 when changing only the following key parameters and keeping the other assumptions on a fixed level:



SIGNIFICANT VALUES BASED ON PROFESSIONAL JUDGMENT AND ESTIMATES

	AWT	AWT Group		
	- 0.3 p.p.	+ 0.3 p.p.		
WACC	(41,9)	38.1		
Growth after the detailed projection period	23.6	(25.9)		

Movement in rolling stock and other property, plant and equipment

		Other property, plant and equipment						
2018	Rolling stock	Real properties	Technical machinery and equipment	Means of transport	Other fixed assets	Fixed assets under construction	Total	
Gross value								
1/01/2018	6,024.6	914.6	405.9	100.5	39.5	41.2	1,501.7	
Increases / (decreases):								
Acquisition	-	-	-	-	-	885.8	885.8	
Finance leases		-	0.8	-	-		0.8	
Settlement of fixed assets under construction	786.7	27.5	26.9	3.0	2.2	(846.3)	(786.7)	
Grant for non-current assets	-	-	-	-	-	(9.2)	(9.2)	
Sales	(27.5)	(0.9)	(1.1)	(6.1)	-	-	(8.1)	
Liquidation	(332.1)	(0.8)	(1.9)	(0.2)	(0.1)	(0.1)	(3.1)	
FX differences	19.5	3.3	0.9	1.0	0.1	0.5	5.8	
Other	-	_	0.6	-	(0.6)	-	-	
31/12/2018	6,471.2	943.7	432.1	98.2	41.1	71.9	1,587.0	
Accumulated depreciation and amortization								
1/01/2018	2,129.5	195.7	270.7	60.4	31.6	-	558.4	
Increases / (decreases):								
Depreciation	461.7	38.8	32.1	6.4	3.0	-	80.3	
Sales	(5.7)	(0.3)	(1.0)	(6.0)	-	-	(7.3)	
Liquidation	(326.0)	(0.6)	(1.6)	(0.2)	(0.1)	-	(2.5)	
FX differences	3.9	0.5	0.3	0.2	-	-	1.0	
Other	-	-	0.6	-	(0.6)	-	-	
31/12/2018	2,263.4	234.1	301.1	60.8	33.9	_	629.9	

		Other property, plant and equipment						
2018	Rolling stock	Real properties	Technical machinery and equipment	Means of transport	Other fixed assets	Fixed assets under construction	Total	
Accumulated impairment								
1/01/2018	144.7	2.7	0.3	-	-	2.7	5.7	
Increases / (decreases):								
Recognition	69.0	0.1	1.4	-	-	0.1	1.6	
Sales	(3.4)	-	-	-	-	-	-	
Liquidation	(0.6)	-	-	-	-	(0.1)	(0.1)	
FX differences	1.1	-	-	-	-	-	-	
31/12/2018	210.8	2.8	1.7	-	-	2.7	7.2	
Net value								
1/01/2018	3,750.4	716.2	134.9	40.1	7.9	38.5	937.6	
including finance lease	246.1	-	10.8	7.0	-	-	17.8	
31/12/2018	3,997.0	706.8	129.3	37.4	7.2	69.2	949.9	
including finance lease	165.4	-	4.4	3.9	-	-	8.3	

2017		Other property, plant and equipment						
	Rolling stock	Real properties	Technical machinery and equipment	Means of transport	Other fixed assets	Fixed assets under construction	Tota	
Gross value								
1/01/2017	5,824.8	905.1	381.6	100.7	39.9	44.3	1,471.6	
Increases / (decreases):								
Acquisition	-	-	-	-	-	552.4	552.4	
Finance leases	0.5	-	2.4	1.0	-	-	3.4	
Settlement of fixed assets under construction	500.7	20.6	27.0	3.1	1.9	(553.3)	(500.7	
Grant for	-	-	-	-	-	(2.2)	(2.2	
non-current assets								
Sales	(0.7)	(1.6)	(1.2)	(3.8)	(0.2)	-	(6.8	
Liquidation	(293.0)	(5.4)	(2.8)	(0.4)	(0.3)	(0.1)	(9.0	
FX differences	(3.5)	(1.0)	(0.2)	-	-	-	(1.2	
Other	(4.2)	(3.1)	(0.9)	(0.1)	(1.8)	0.1	(5.8	
31/12/2017	6,024.6	914.6	405.9	100.5	39.5	41.2	1,501.7	
Accumulated depreciation and amortization								
1/01/2017	1,895.8	168.0	241.4	57.8	31.2	-	498.4	

2017		Other property, plant and equipment						
	Rolling stock	Real properties	Technical machinery and equipment	Means of transport	Other fixed assets	Fixed assets under construction	Total	
Increases / (decreases):								
Depreciation	479.5	34.8	32.8	6.9	2.7	-	77.2	
Sales	(0.2)	(0.2)	(0.9)	(3.7)	(0.2)	-	(5.0)	
Liquidation	(241.4)	(3.5)	(2.6)	(0.4)	(0.4)	-	(6.9)	
FX differences	(0.2)	(0.1)	-	(0.1)	-	-	(0.2)	
Other	(4.0)	(3.3)	-	(0.1)	(1.7)	-	(5.1)	
31/12/2017	2,129.5	195.7	270.7	60.4	31.6	-	558.4	
Accumulated impairment								
1/01/2017	194.4	4.3	0.3	-	-	2.6	7.2	
Increases / (decreases):								
Recognition	-	-	-	-	-	0.2	0.2	
Derecognition	(27.5)	-	-	-	-	-	-	
Liquidation	(20.2)	(1.6)	-	-	-	(0.1)	(1.7)	
FX differences	(2.0)	-	-	-	-	-	-	
31/12/2017	144.7	2.7	0.3	-	-	2.7	5.7	
Net value								
1/01/2017	3,734.6	732.8	139.9	42.9	8.7	41.7	966.0	
including finance lease	310.3	-	8.6	9.4	-	-	18.0	
31/12/2017	3,750.4	716.2	134.9	40.1	7.9	38.5	937.6	
including finance lease	246.1	-	10.8	7.0	-	-	17.8	

As at 31 December 2018 and 31 December 2017, the carrying amount of rolling stock without valid technical railworthiness certificates, for which the Group recognized an impairment loss, was PLN 367.0 million and PLN 350.0 million, respectively.

A technical railworthiness certificate is a document issued individually for each rail vehicle, confirming the validity of vehicle inspection and their suitability for transport.

A technical railworthiness certificate is issued immediately after performing level P4 or P5 maintenance activities and upon entering new and modernized vehicles into service. Rolling stock without valid technical railworthiness certificates is treated by the Parent Company:

- as a backup from which additional resources can be drawn from to increase freight turnover following P4 and P5 level repairs,
- as a necessary set of rail vehicles to be rotated in the maintenance process. Performing a P4 or P5 level repair lasts from 30 to 90 days depending on vehicle type. To prevent the number of operated wagons and locomotives with valid technical railworthiness certificate from decreasing, it is necessary to have a larger pool of vehicles so that a vehicle whose technical railworthiness certificates expires can be replaced at least on the same day with another that has been repaired and had a technical railworthiness certificate issued.