LOTOS Group
Full-year consolidated financial statements for 2021

prepared
in accordance with International Financial
Reporting Standards
as endorsed by the European Union
with the independent auditor’s report

(This is a translation of a document originally issued in Polish)

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

	Note	2021	2020
Revenue	9.1	33,123.6	20,908.6
Cost of sales	9.2	(26,775.1)	(19,441.7)
Gross profit		6,348.5	1,466.9
Selling expenses	9.2	(1,455.3)	(1,412.9)
Administrative expenses	9.2	(553.7)	(521.0)
Other income	9.4	231.0	80.3
Other expenses	9.5	(87.1)	(1,005.4)
(Impairment losses)/reversal of impairment losses on receivables	9.8	(5.5)	(4.7)
Operating profit/(loss)		4,477.9	(1,396.8)
Finance income	9.6	261.9	125.8
including interest income calculated using the effective interest rate method	9.6	16.3	9.6
Finance costs	9.7	(288.7)	(370.5)
(Impairment losses)/reversal of impairment losses on loans	9.8	0.8	(9.4)
Share in net profit/(loss) of equity-accounted joint ventures	10.2	4.6	(1.9)
Profit/(loss) before tax		4,456.5	(1,652.8)
Corporate income tax	9.9.1	(1,244.7)	506.6
Net profit/(loss)		3,211.8	(1,146.2)
Other comprehensive income/(loss)			
Items that may be reclassified to profit or loss:		12.9	195.9
Exchange differences on translating foreign operations		41.8	16.7
Cash flow hedges	10.8.3	(35.7)	221.2
Corporate income tax on cash flow hedges	9.9.1	6.8	(42.0)
Items that will not be reclassified to profit or loss:		(4.6)	(6.4)
Gains/(losses) on investments in equity instruments	11.1.3	(12.3)	-
Actuarial gains/(losses) on post-employment benefits	10.12	6.6	(7.8)
Income tax	9.9.1	1.1	1.4
Other comprehensive income/(loss), net		8.3	189.5
Total comprehensive income/(loss)		3,220.1	(956.7)
Net profit/(loss) attributable to:			
Owners of the Parent	9.10	3,211.8	(1,146.2)
Total comprehensive income/(loss) attributable to:			
Owners of the Parent		3,220.1	(956.7)
Net profit/(loss) attributable to owners of the Parent per share (PLN)			
Weighted average number of shares (million)	9.10	184.9	184.9
- basic	9.10	17.37	(6.20)
- diluted	9.10	17.37	(6.20)

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

	Note	Dec 31 2021	Dec 31 2020
ASSETS			
Non-current assets			
Property, plant and equipment of the Refining & Marketing segment	10.1	9,343.5	9,466.9
Intangible assets of the Refining & Marketing segment	10.1	192.9	161.0
Property, plant and equipment of the Exploration & Production segment	10.1	3,540.5	2,923.1
Intangible assets of the Exploration & Production segment	10.1	417.3	313.8
Equity-accounted joint ventures	10.2	28.0	26.1
Deferred tax assets	9.9.3	189.7	384.2
Derivative financial instruments	10.11	135.2	1.2
Shares	10.5	297.4	309.8
Loans	10.4	210.3	195.9
Other non-current assets	10.3	170.8	178.1
Total non-current assets		14,525.6	13,960.1
Current assets			
Inventories	10.6	5,611.7	3,495.7
- including emergency stocks		3,409.3	2,135.1
Trade receivables	10.3	2,648.5	1,693.9
Current tax assets		27.1	180.9
Derivative financial instruments	10.11	81.5	65.9
Other current assets	10.3	498.3	314.3
Cash and cash equivalents	10.7	2,572.1	2,145.6
Total current assets		11,439.2	7,896.3
Total assets		25,964.8	21,856.4
EQUITY AND LIABILITIES			
Equity			
Share capital	10.8.1	184.9	184.9
Share premium	10.8.2	2,228.3	2,228.3
Cash flow hedging reserve	10.8.3	(53.3)	(24.4)
Revaluation reserve		(10.0)	-
Retained earnings		12,295.2	9,078.0
Translation reserve		148.7	106.9
Equity attributable to owners of the Parent		14,793.8	11,573.7
Non-controlling interests		0.1	0.1
Total equity		14,793.9	11,573.8
Non-current liabilities			
Bank and non-bank borrowings, notes and lease liabilities	10.9	2,191.1	2,717.7
Derivative financial instruments	10.11	1.1	1.0
Deferred tax liabilities	9.9.3	556.7	144.5
Employee benefit obligations	10.12	236.9	230.2
Other liabilities and provisions	10.13	1,447.7	1,420.5
Total non-current liabilities		4,433.5	4,513.9
Current liabilities			
Bank and non-bank borrowings, notes and lease liabilities	10.9	1,048.1	1,355.8
Derivative financial instruments	10.11	31.0	18.5
Trade payables	10.13	2,360.1	1,636.0
Current tax liabilities		534.7	134.2
Employee benefit obligations	10.12	200.7	196.1
Other liabilities and provisions	10.13	2,562.8	2,428.1
Total current liabilities		6,737.4	5,768.7
Total liabilities		11,170.9	10,282.6
Total equity and liabilities		25,964.8	21,856.4

CONSOLIDATED STATEMENT OF CASH FLOWS
(indirect method)

	Note	2021	2020
Cash flows from operating activities			
Net profit/(loss)		3,211.8	(1,146.2)
Adjustments:		(254.5)	4,338.1
Income tax	9.9.1	1,244.7	(506.6)
Share in net profit/(loss) of equity-accounted joint ventures	10.2	(4.6)	1.9
Depreciation and amortisation	9.2	1,049.0	1,089.9
Foreign exchange (gains)/losses		112.7	182.8
Interest and dividends		134.7	159.4
(Gains)/losses from investing activities		18.9	142.2
Impairment losses/(Reversal of impairment losses) on property, plant and equipment and other intangible assets	9.4; 9.5	(124.9)	904.8
Settlement and measurement of financial instruments	9.6	(242.7)	(65.7)
(Increase)/Decrease in trade receivables		(954.6)	915.2
(Increase)/decrease in other assets		(192.6)	24.5
(Increase)/Decrease in inventories		(2,117.1)	1,358.2
Increase/(Decrease) in trade payables		724.1	(304.7)
Increase in other liabilities and provisions		80.0	399.5
Increase in employee benefit obligations		17.9	36.7
Income tax paid		(60.0)	(322.0)
Net cash from operating activities		2,897.3	2,869.9
Cash flows from investing activities			
Dividends received		3.6	2.4
Sale of property, plant and equipment and other intangible assets		10.7	4.5
Sale of assets held for sale		2.3	-
Purchase of property, plant and equipment and other intangible assets		(1,048.0)	(895.4)
Cash contributions – equity-accounted joint ventures	10.2	(2.9)	(7.0)
Acquisition of shares		-	(300.0)
Loans		-	(200.0)
Security deposits (margins)		102.0	1.7
Funds for future costs of decommissioning of oil and gas extraction facilities		(3.4)	(28.7)
Settlement of derivative financial instruments		78.9	34.0
Net cash from investing activities		(856.8)	(1,388.5)
Cash flows from financing activities			
Proceeds from bank borrowings	10.9	558.6	74.4
Grants received		29.5	15.0
Repayment of bank and non-bank borrowings	10.9	(1,648.5)	(571.5)
Redemption of notes	10.9	(21.9)	-
Interest paid	10.9	(118.5)	(196.8)
Dividends paid		-	(184.9)
Payment of lease liabilities	10.9	(220.6)	(214.6)
Settlement of derivative financial instruments		26.9	(11.4)
Net cash from financing activities		(1,394.5)	(1,089.8)
Total net cash flow		646.0	391.6
Effect of exchange rate fluctuations on cash held		2.7	15.2
Change in net cash		648.7	406.8
Cash at beginning of period		1,923.4	1,516.6
Cash at end of period	10.7	2,572.1	1,923.4

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

	Note	Share capital	Share premium	Cash flow hedging reserve	Revaluation reserve	Retained earnings	Translation reserve	Equity attributable to owners of the Parent	Non-controlling interests	Total equity
Jan 1 2021		184.9	2,228.3	(24.4)	-	9,078.0	106.9	11,573.7	0.1	11,573.8
Net profit/(loss)	9.10	-	-	-	-	3,211.8	-	3,211.8	-	3,211.8
Other comprehensive income/(loss), net		-	-	(28.9)	(10.0)	5.4	41.8	8.3	-	8.3
Total comprehensive income/(loss)		-	-	(28.9)	(10.0)	3,217.2	41.8	3,220.1	-	3,220.1
Dec 31 2021		184.9	2,228.3	(53.3)	(10.0)	12,295.2	148.7	14,793.8	0.1	14,793.9
Jan 1 2020		184.9	2,228.3	(203.6)	-	10,415.5	90.2	12,715.3	0.1	12,715.4
Net profit/(loss)	9.10	-	-	-	-	(1,146.2)	-	(1,146.2)	-	(1,146.2)
Other comprehensive income/(loss), net		-	-	179.2	-	(6.4)	16.7	189.5	-	189.5
Total comprehensive income/(loss)		-	-	179.2	-	(1,152.6)	16.7	(956.7)	-	(956.7)
Dividend		-	-	-	-	(184.9)	-	(184.9)	-	(184.9)
Dec 31 2020		184.9	2,228.3	(24.4)	-	9,078.0	106.9	11,573.7	0.1	11,573.8

NOTES TO THE FINANCIAL STATEMENTS

1. General information

Grupa LOTOS Spółka Akcyjna ("Grupa LOTOS S.A.", the "Company", the "Parent"), was established on September 18th 1991. The Company's registered address is: ul. Elbląska 135, 80-718 Gdańsk, Poland. The Company is registered in Poland.

The principal business activity of Grupa LOTOS S.A.'s Group (the "LOTOS Group" or the "Group") consists in the production and processing of refined petroleum products and their wholesale and retail sale. The Group's business also includes acquisition of crude oil and natural gas deposits and oil and gas production. The Group operates mainly in Poland, Norway and Lithuania. Since June 9th 2005, shares of the Parent have been listed on the main market of the Warsaw Stock Exchange in the continuous trading system. Based on the classification applied by the Warsaw Stock Exchange, Grupa LOTOS S.A. is included in the fuel sector.

2. Composition of the Group and changes thereof

Accounting policies

These consolidated financial statements have been prepared on the basis of the financial statements of the Parent and financial statements of its subsidiaries and jointly-controlled entities, prepared as at December 31st 2021.

All significant balances and transactions between the consolidated entities, including material unrealised profits on transactions, have been eliminated in their entirety. Unrealised losses are eliminated unless they are indicative of impairment.

Subsidiaries are fully consolidated starting from the date when the Group assumes control over them and cease to be consolidated when the control is lost. According to IFRS 10 Consolidated Financial Statements, the Group controls an investee when it is exposed or has rights to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee.

The Group and all other investors collectively control an investee when they must act together to direct the relevant activities. In such cases, because no investor can direct the activities without the cooperation of other investors, no investor individually controls the investee. Interests in joint ventures held by the Group (see Note 14) are accounted for with the equity method.

The LOTOS Group comprises: Grupa LOTOS S.A. (the Parent), a number of production, service and trading companies which are direct or indirect subsidiaries of Grupa LOTOS S.A., and a foundation.

On November 2nd 2021, as part of the implementation of intra-organisational measures aimed at optimising the Group's structure and preparing the Group for the implementation of the remedies, the General Meeting of LOTOS Asfalt Sp. z o.o. adopted a resolution to increase the share capital of LOTOS Asfalt Sp. z o.o. As the sole shareholder of LOTOS Asfalt Sp. z o.o., the Parent acquired all new shares in the company and covered them with a non-cash contribution in the form of an organised part of business of Grupa LOTOS S.A., comprising tangible and intangible assets related to the refining operations carried out by the Parent in Gdańsk. The transfer of the organised part of business to LOTOS Asfalt Sp. z o.o. marked the commencement of the process of integrating refining assets, the objective of which is to change the operating model of LOTOS Asfalt Sp. z o.o. into one of a processing refinery, managed by Grupa LOTOS S.A. Under the model, LOTOS Group S.A., as the processor, will be responsible for the purchase of crude oil and other raw materials, the sale of fuels and other final products resulting from the processing of crude oil in the refinery, as well as logistics, administrative and corporate matters, and R&D activities. LOTOS Asfalt Sp. z o.o. will not purchase crude oil or other commodities nor will it sell products on its own behalf, and its core business will be processing crude oil and providing fuel production services to Grupa LOTOS S.A. on a cost-plus basis.

Information on the registered addresses and business activities of the aforementioned entities, as well as on the Group's ownership interests in those entities, is presented below.

(PLNm)

Name	Registered office	Principal business	The Group's ownership interest	
			Dec 31 2021	Dec 31 2020
Parent				
Refining & Marketing				
• Grupa LOTOS S.A.	Gdańsk	Production and processing of refined petroleum products (mainly fuels) and their wholesale; after November 2nd 2021 crude oil processing was transferred to LOTOS Asfalt Sp. z o.o.	Not applicable	Not applicable
Direct fully-consolidated subsidiaries				
Exploration & Production				
• LOTOS Upstream Sp. z o.o. (parent of another group: LOTOS Upstream Group)	Gdańsk	Activities of head offices and holdings	100.00%	100.00%
• LOTOS Petrobaltic S.A. (parent of another group: LOTOS Petrobaltic Group)	Gdańsk	Acquisition of crude oil and natural gas deposits, extraction of hydrocarbons	99.99%	99.99%
Refining & Marketing				
• LOTOS Paliwa Sp. z o.o.	Gdańsk	Wholesale and retail sale of fuels and light fuel oil, management of the LOTOS service station network	100.00%	100.00%
• LOTOS Oil Sp. z o.o.	Gdańsk	Manufacturing and sale of lubricating oils and lubricants, and sale of base oils	100.00%	100.00%
• LOTOS Asfalt Sp. z o.o.	Gdańsk	Production and sale of bitumens, and additionally after November 2nd 2021, crude oil processing	100.00%	100.00%
• LOTOS Kolej Sp. z o.o.	Gdańsk	Rail transport	100.00%	100.00%
• LOTOS Serwis Sp. z o.o.	Gdańsk	Maintenance of mechanical and electric operations and controlling devices, overhaul and repair services	100.00%	100.00%
• LOTOS Lab Sp. z o.o. (parent of another group)	Gdańsk	Laboratory testing	100.00%	100.00%
• LOTOS Straż Sp. z o.o.	Gdańsk	Fire service activities	100.00%	100.00%
• LOTOS Ochrona Sp. z o.o.	Gdańsk	Security services	100.00%	100.00%
• LOTOS Terminale S.A. (parent of another group: LOTOS Terminale Group)	Czechowice-Dziedzice	Storage and distribution of fuels	100.00%	100.00%
• LOTOS Infrastruktura S.A. (parent of another group: LOTOS Infrastruktura Group)	Jasło	Storage and distribution of fuels, renting and operating of own or leased real estate	100.00%	100.00%
• LOTOS Gaz S.A. w likwidacji (in liquidation)	Kraków	Dormant	100.00%	100.00%
• LOTOS Green H2 Sp. z o.o. (1)	Gdańsk	Dormant	100.00%	100.00%
• LOTOS SPV 1 Sp. z o.o. (1)	Gdańsk	Dormant	100.00%	100.00%
• LOTOS SPV 2 Sp. z o.o. (1)	Gdańsk	Dormant	100.00%	100.00%
• LOTOS SPV 3 Sp. z o.o. (1)	Gdańsk	Dormant	100.00%	100.00%
• LOTOS SPV 4 Sp. z o.o. (1)	Gdańsk	Dormant	100.00%	100.00%
• LOTOS SPV 5 Sp. z o.o. (1)	Szczecin	Dormant	100.00%	100.00%
• LOTOS SPV 6 Sp. z o.o. (1)	Szczecin	Dormant	100.00%	100.00%
Non-consolidated direct subsidiaries				
• LOTOS Foundation	Gdańsk	Public benefit activities within the scope of public tasks defined in the Act on Public Benefit and Volunteer Work. The Foundation does not conduct any business activity.	100.00%	100.00%

(PLNm)

Name	Registered office	Principal business	The Group's ownership interest	
			Dec 31 2021	Dec 31 2020
Indirect fully-consolidated subsidiaries				
Refining & Marketing				
LOTOS Lab Group				
• LOTOS Vera Sp. z o.o. w likwidacji (in liquidation)	Warsaw	Manufacture of cars	-[(2)]	100.00%
LOTOS Infrastruktura Group				
• RCEkoenergia Sp. z o.o.	Czechowice-Dziedzice	Production and distribution of electricity, heat and gas	100.00%	100.00%
LOTOS Terminale Group				
• LOTOS Biopaliwa Sp. z o.o.	Czechowice-Dziedzice	Production of fatty acid methyl esters (FAME)	100.00%	100.00%
Exploration & Production				
LOTOS Upstream Group				
• LOTOS Exploration and Production Norge AS	Norway, Stavange	Crude oil exploration and production on the Norwegian Continental Shelf, provision of services incidental to oil and gas exploration and production	100.00%	100.00%
• AB LOTOS Geonafta (parent of another group: AB LOTOS Geonafta Group)	Lithuania, Gargžd	Crude oil exploration and production, drilling services, and purchase and sale of crude oil	100.00%	100.00%
• UAB Genciu Nafta	Lithuania, Gargžd	Crude oil exploration and production	100.00%	100.00%
• UAB Manifoldas	Lithuania, Gargžd	Crude oil exploration and production	100.00%	100.00%
• LOTOS Upstream UK Ltd. w likwidacji (in liquidation)	London, United Kingdom	Crude oil and gas exploration and production	-[(3)]	100.00%
LOTOS Petrobaltic Group				
• B8 Sp. z o.o.	Gdańsk	Support activities for extraction and quarrying operations	99.99%	99.99%
• B8 Spółka z ograniczoną odpowiedzialnością BALTIC S.K.A.	Gdańsk	Crude oil and gas exploration and production	99.99%	99.99%
• Miliana Shipholding Company Ltd. (parent of another group: Miliana Shipholding Company Group)	Nicosia, Cyprus	Storage and transport of crude oil, other sea transport services	99.99%	99.99%
• Technical Ship Management Sp. z o.o. (parent of another group: Technical Ship Management Group)	Gdańsk	Sea transport support activities, ship operation advisory services	99.99%	99.99%
• SPV Baltic Sp. z o.o.	Gdańsk	Provision of sea transport and related services	99.99%	99.99%
• SPV Petro Sp. z o.o.	Gdańsk	Support activities for oil and gas production, sea transport	99.99%	99.99%
• Miliana Shipmanagement Ltd.	Nicosia, Cyprus	Provision of sea transport and related services	99.99%	99.99%
• Bazalt Navigation Company Ltd.	Nicosia, Cyprus	Ship chartering	99.99%	99.99%
• Granit Navigation Company Ltd.	Nicosia, Cyprus	Ship chartering	99.99%	99.99%
• Kambr Navigation Company Ltd.	Nicosia, Cyprus	Ship chartering	99.99%	99.99%
• St. Barbara Navigation Company Ltd.	Nicosia, Cyprus	Ship chartering	99.99%	99.99%
• Petro Icarus Company Ltd.	Nicosia, Cyprus	Ship chartering	99.99%	99.99%
• Petro Aphrodite Company Ltd.	Nicosia, Cyprus	Ship chartering	99.99%	99.99%
• Energobaltic Sp. z o.o.	Władysławowo	Production of electricity, heat, LPG and natural gas condensate	99.99%	99.99%

(1) On September 29th 2021, Grupa LOTOS S.A. acquired interests in seven special-purpose vehicles not engaged in any operating activities to implement the remedies required by the European Commission and reorganise the Group's day-to-day activities.
(2) On October 26th 2021, LOTOS Vera Sp. z o.o. w likwidacji (in liquidation) was deleted from the Business Register of the National Court Register.
(3) On November 10th 2021, LOTOS Upstream UK Ltd was deleted from the Companies House register in the United Kingdom.

For information on the Group's interests in equity-accounted joint ventures, see Note 10.2.

2.1 Planned merger with Polski Koncern Naftowy ORLEN S.A.

On July 14th 2020, the European Commission issued a conditional approval for the concentration involving acquisition of control of Grupa LOTOS S.A. by Polski Koncern Naftowy ORLEN S.A. ("PKN ORLEN"). The Commission's decision was issued pursuant to the second paragraph of Article 8(2) of Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation) (OJ L No 24, p. 1). Therefore, PKN ORLEN is required to implement remedies set out in the decision to prevent adverse effects of the proposed concentration on competition in the relevant markets (the "Remedies"). The Remedies include structural and behavioural commitments relating to the structure and policies of the undertakings involved in the concentration: PKN ORLEN and Grupa LOTOS S.A.

In Current Report No. 21/2020 of July 14th 2020, Grupa LOTOS reported on the obligations undertaken towards the European Commission. The following commitments continue in effect until the divestment of assets to be disposed of in the implementation of the Remedies ("LOTOS Divestment Assets") has been completed:

- Undertaking to preserve the value and competitiveness of the LOTOS Divestment Assets in accordance with good market practice and to minimise as far as possible any risk of loss of competitive potential by the LOTOS Divestment Assets;
- Undertaking to keep the LOTOS Divestment Assets separate from the business(es) that PKN ORLEN and Grupa LOTOS S.A. are retaining (hold separate obligations), which involves in particular ensuring that the management and staff involved in any business retained by Grupa LOTOS S.A. have no involvement in the business of the LOTOS Divestment Assets, and that the staff (including key personnel) of the LOTOS Divestment Assets identified in the undertakings have no involvement in any business retained by Grupa LOTOS S.A. and do not report to any individuals outside the LOTOS Divestment Assets. Immediately after the adoption of the Commission's decision, Grupa LOTOS S.A. will appoint an individual or individuals as an independent hold separate manager (the "Hold Separate Manager"). The Hold Separate Manager will be a member of key personnel of the LOTOS Divestment Assets. The Hold Separate Manager will manage the LOTOS Divestment Assets independently and will report to an individual appointed by PKN ORLEN to monitor the implementation of the Remedies (the Monitoring Trustee). The above undertaking will not apply to the Gdańsk refinery;
- Undertaking not to employ any key personnel of the LOTOS Divestment Assets within 12 months after the closing of divestment transactions giving effect to the Remedies;
- Undertaking to cooperate with and assist the Monitoring Trustee to a reasonable extent, as required by the Monitoring Trustee.

In the European Commission's decision, the following business areas of Grupa LOTOS S.A. ("LOTOS Divestment Assets") were identified:

- Fuel production and wholesale,
- Fuel logistics,
- Retail activities,
- Aviation fuel,
- Bitumens.

In Current Report No. 10/2021 issued on March 12th 2021, Grupa LOTOS S.A. announced that the Management Board gave a general consent to internal organisational measures aimed at optimising the Group's structure and preparing it for implementation of the model whereby the remedies necessary to go ahead with the intended acquisition of control over Grupa LOTOS S.A. by PKN ORLEN are to be carried out.

On May 12th 2021, Grupa LOTOS S.A. announced in Current Report No. 16/2021 that it had entered into a cooperation agreement with PKN ORLEN, PGNiG S.A. ("PGNiG") and the State Treasury (the "Parties") concerning the recommended scenario for consolidation of PKN ORLEN, PGNiG and Grupa LOTOS S.A.

As at the date of the Agreement, the adopted scenario for acquisition by PKN ORLEN of control of Grupa LOTOS S.A. and PGNiG (the "Acquirees") is to merge PKN ORLEN and the Acquirees pursuant to Art. 492.1.1 of the Commercial Companies Code, so that all assets of the Acquirees would be transferred to PKN ORLEN in exchange for shares that PKN ORLEN would issue to the shareholders of Grupa LOTOS S.A. and PGNiG as part of one or two separate merger processes.

The Agreement stipulates that, as a result of the merger or mergers, as the case may be, the shareholders of Grupa LOTOS S.A. and PGNiG will acquire new shares in the increased share capital of PKN ORLEN and become shareholders in PKN ORLEN as of the date of the merger or mergers, as the case may be.

In July 2021, the European Commission decided to extend the deadline for the implementation of remedies for PKN ORLEN's acquisition of Grupa LOTOS S.A. until November 14th 2021.

On October 14th 2021, the Extraordinary General Meeting of Grupa LOTOS S.A. passed resolutions necessary to enable reorganisation of the LOTOS Group. The shareholders' consents allow the Parent to prepare for the implementation of the remedies specified by the European Commission. As announced in Current Report No. 38/2021, the agenda for the Extraordinary General Meeting of Grupa LOTOS S.A. included:

- Adoption of a resolution to give consent to the disposal of an organised part of Grupa LOTOS S.A. business to LOTOS Asfalt sp. z o.o. by way of non-cash contribution in exchange for all new shares in the increased share capital of LOTOS Asfalt Sp. z o.o.
- Adoption of a resolution to give consent to the acquisition by Grupa LOTOS S.A. of 19,999 shares in LOTOS Biopaliwa sp. z o.o., representing 99.95% of the share capital of LOTOS Biopaliwa Sp. z o.o.
- Adoption of a resolution to give consent to the disposal by Grupa LOTOS S.A. of 100% of shares in LOTOS Biopaliwa sp. z o.o.
- Adoption of a resolution to give consent to the disposal by Grupa LOTOS S.A. of 100% of shares in LOTOS Terminale S.A.
- Adoption of a resolution to give consent to the disposal by Grupa LOTOS S.A. of 100% of shares in LOTOS Paliwa sp. z o.o. and companies which will acquire part of assets of LOTOS Paliwa sp. z o.o. as a result of demerger of LOTOS Paliwa sp. z o.o.

- Adoption of a resolution to give consent to the disposal by Grupa LOTOS S.A. of 30% of shares in LOTOS Asfalt Sp. z o.o.
- Adoption of a resolution to give consent to the disposal by Grupa LOTOS S.A. of 100% of shares in the company which will acquire part of LOTOS Asfalt Sp. z o.o.'s assets as a result of demerger of LOTOS Asfalt Sp. z o.o.

In order to prepare for the implementation of the remedies, on November 2nd 2021 the Extraordinary General Meeting of LOTOS Asfalt Sp. z o.o. ("LOTOS Asfalt") passed a resolution to increase the share capital of LOTOS Asfalt by issuing new shares, all of which were acquired by Grupa LOTOS as the sole shareholder of LOTOS Asfalt and paid for with a non-cash contribution in the form of an organised part of the Company's business consisting of tangible and intangible assets related to the refining business, thus starting the integration of refining assets within LOTOS Asfalt.

In November 2021, the European Commission agreed to extend the deadline for the implementation of the remedies that PKN ORLEN is obliged to implement to prevent adverse effects of the planned concentration. The new deadline was set for January 14th 2022, with the extension justified by the need to finalise the negotiation process with partners participating in the discussions concerning sale of the LOTOS Divestment Assets covered by the remedies and to allow the partners to complete the necessary decision-making processes.

In Current Report No. 1/2022 of January 12th 2022, Grupa LOTOS S.A. announced that in order to implement the Remedies, the following conditional agreements were concluded, whose entry into force depends on:

- the European Commission issuing a decision approving the buyers of divestment assets in the performance of the Remedies and the terms of the agreements concluded with them,
- concentration between Grupa LOTOS S.A. and PKN ORLEN S.A. being completed,
- the buyers (listed below) of the divestment assets to be sold as part of implementation of the Remedies obtain anti-trust and other administrative clearance for execution and performance those agreements;
- other competent authorities' approvals required by law for the disposal of rights to certain components of the divested assets are obtained.

In order to implement the Remedies with respect to fuel production and the fuel wholesale market, the following agreements were concluded:

I a preliminary share purchase agreement for 30% of shares in LOTOS Asfalt sp. z o.o. of Gdańsk ("LOTOS Asfalt") (the "LOTOS Asfalt Preliminary Share Purchase Agreement") between the Company and Aramco Overseas Company B.V. ("Aramco"), together with the following attachments:

  a form of a joint venture agreement between PKN ORLEN, Grupa LOTOS, LOTOS Asfalt and Aramco, to be signed to fulfil the commitment to sell to an independent third party a 30% equity interest in the company to which the refinery located in Gdańsk was transferred as a contribution in kind, and to guarantee to that third party corporate governance rights under a contract;

  b form of a processing agreement and an offtake agreement between Grupa LOTOS, LOTOS Asfalt and the Wholesale Company (as defined below), which will be concluded for the terms of the joint venture referred to in (a) above,

  c form of a framework agreement for the maintenance of mandatory crude oil stocks between PKN ORLEN and the Wholesale Company (as defined below), to be concluded for a period of 10 years,

  d form of a framework outsourcing agreement for rail logistics for transporting fuel between PKN ORLEN and the Wholesale Company (as defined below), to be concluded for the term of the processing agreement or the off-take agreement.

  The agreements referred to above will be executed on the date of execution of the final agreement for the sale of shares in LOTOS Asfalt.

  The price under the LOTOS Asfalt Preliminary Share Purchase Agreement will be calculated based on the formula defined in the LOTOS Asfalt Preliminary Share Purchase Agreement, comprising a fixed component of ca. PLN 1.15 billion and a variable component whose amount will depend on the amount of LOTOS Asfalt's debt and working capital on the day preceding the execution of the final agreement.

  The LOTOS Asfalt Preliminary Share Purchase Agreement contains a material adverse change clause, giving Aramco the right to terminate the agreement if specific events, precisely defined therein, occur.

II preliminary agreement for the sale of 100% of shares in LOTOS SPV 1 Sp. z o.o. with its registered office in Gdańsk ("the Wholesale Company") between Grupa LOTOS and Aramco ("Wholesale Company Preliminary Share Purchase Agreement"). Prior to the execution of the final agreement for the sale of shares in the Wholesale Company, an organised part of wholesale business currently operated by LOTOS Paliwa sp. z o.o. with its registered office in Gdańsk ("LOTOS Paliwa") ("Wholesale Business") will be transferred to the Wholesale Company.

  The price under the Wholesale Company Preliminary Share Purchase Agreement will be calculated based on the formula defined in the Wholesale Company Preliminary Share Purchase Agreement, comprising a fixed component of ca. PLN 1 billion and a variable component whose amount will depend on the amount of Wholesale Company's debt and working capital on the day preceding the execution of the final agreement.

  The Wholesale Company Preliminary Share Purchase Agreement contains a material adverse change clause, giving Aramco the right to terminate the agreement if specific events, precisely defined therein, occur.

The following agreement was entered into to implement the Remedies with respect to the biofuels market:

I a preliminary share purchase agreement for 100% of shares in LOTOS Biopaliwa sp. z o.o. of Gdańsk ("LOTOS Biopaliwa") between Grupa LOTOS and Rossi Biofuel Zrt. ("LOTOS Biopaliwa Preliminary Share Purchase Agreement").

An additional document to the LOTOS Biopaliwa Preliminary Share Purchase Agreement is an agreement for sale of biocomponents between the Company and LOTOS Biopaliwa, to be concluded for a period of four years. The agreement will be executed on the date of execution of the final agreement for the sale of shares in LOTOS Biopaliwa.

In order to implement the Remedies with respect to fuel logistics, the following agreements were concluded, among others:

I a preliminary share purchase agreement for 100% of shares in LOTOS Terminale S.A. of Czechowice-Dziedzice ("LOTOS Terminale") between Grupa LOTOS and Unimot Investments spółka z ograniczoną odpowiedzialnością ("Unimot Investments"), together with a schedule in the form of the in-kind contribution agreement providing for the contribution of four fuel depots of PKN ORLEN located in Gdańsk, Szczecin, Gutkowo and Bolesławiec to LOTOS Terminale.

II a conditional fuel storage agreement between PKN ORLEN and Unimot Investments, enabling PKN ORLEN to use storage capacities in fuel depots located in Gdańsk, Szczecin, Gutkowo and Bolesławiec after disposal of LOTOS Terminale shares to Unimot Investments, concluded for a period of 10 years from its effective date;

III a conditional preliminary agreement on lease and reimbursement of outlays between the Parent and Unimot Investments and Unimot S.A., providing for the obligation of the Parent, Unimot Investments and Unimot S.A. to enter into a final agreement specifying the terms of delivery of a project to construct aviation fuel storage and transport infrastructure on the premises of the fuel depot being divested in Szczecin as part of implementation of the Commitments, to be owned and operated by LOTOS Terminale.

The in-kind contribution agreement will be concluded between PKN ORLEN and LOTOS Terminale upon completion of the concentration of PKN ORLEN and Grupa LOTOS.

In order to implement the Remedies with respect to the fuel retail market, the following agreements were concluded:

I a preliminary agreement for the sale of shares in LOTOS Paliwa between Grupa LOTOS and MOL Hungarian Oil and Gas Public Limited Company ("MOL") ("LOTOS Paliwa Preliminary Share Purchase Agreement"), covering a total of 417 petrol stations of the LOTOS retail network in Poland; prior to the execution of the final agreement for the sale of shares in LOTOS Paliwa, a Wholesale Business will be spun-off from the company.

An additional document to the LOTOS Paliwa Preliminary Share Purchase Agreement is a conditional agreement for the sale of fuels to the MOL Group between PKN ORLEN and MOL, to be concluded for a period of up to eight years.

The price under the LOTOS Paliwa Preliminary Share Purchase Agreement will be calculated based on the formula defined in the LOTOS Paliwa Preliminary Share Purchase Agreement, comprising a fixed component of ca. PLN 610 million and a variable component whose amount will depend on the amount of LOTOS Paliwa's debt and working capital on the last day of the month preceding the month in which the final agreement is executed.

The LOTOS Paliwa Preliminary Share Purchase Agreement contains a material adverse change clause, pursuant to which the occurrence of specific events, precisely defined therein, will trigger a reduction in the price of LOTOS Paliwa shares based on an agreed formula.

In order to implement the Remedies with respect to the aviation fuel market, the following agreements were concluded:

I a preliminary agreement for sale of all shares in LOTOS-Air BP Polska sp. z o.o. of Gdańsk ("LOTOS-Air BP") held by Grupa LOTOS between Grupa LOTOS and Aramco;

II a conditional agreement for sale of aviation fuel to LOTOS-Air BP between PKN ORLEN and LOTOS-Air BP, concluded for up to 15 years from its effective date;

III a conditional agreement for storage of LOTOS-Air BP's aviation fuel at the Olszanica depot between PKN ORLEN and LOTOS-Air BP, concluded for up to 15 years from its effective date;

IV a conditional agreement for the provision of operating support services in case of an event of force majeure between PKN ORLEN, ORLEN Aviation sp. z o.o. with its registered office in Warsaw and LOTOS-Air BP, concluded for up to 15 years from its effective date.

In order to implement the Remedies with respect to bitumens, the following agreements were concluded, among others:

I a preliminary share purchase agreement for 100% of shares in LOTOS Terminale, which, prior to the execution of the final share sale agreement, will acquire 100% of shares in LOTOS SPV 2 sp. z o.o. (the "Bitumen Company"), between the Company and Unimot Investments. Prior to that, the Bitumen Business will be spun off and transferred to the Bitumen Company.

II a conditional agreement for sale of bitumens between Grupa LOTOS, PKN ORLEN and Unimot Investments, to be concluded for a period of 10 years from its effective date, with an option to extend for another two years, on terms previously agreed between the parties.

Professional judgement

The Management Board of the Parent has analysed the requirements of IFRS 5 Non-current Assets Held for Sale and Discontinued Operations taking into account the progress of the implementation of particular Remedies provided for in the decision. As of December 31st 2021, the LOTOS Divestment Assets were not available for immediate sale as of that date. The process of preparing the individual LOTOS Divestment Assets for sale includes a number of significant, non-customary, activities in 2022 such as a number of reorganization activities within the Group, obtaining appropriate external approvals from relevant regulatory authorities and the European Commission, and obtaining internal corporate approvals, including from the Parent's General Meeting and the general meeting of PKN ORLEN S.A. By January 14th 2022, the Management Board of PKN ORLEN S.A. notified the European Commission of conditional agreements for sale of the LOTOS Divestment Assets. Both as at December 31st 2021 and as at the date of authorisation of these financial statements for issue, the European Commission's decision and the approval of corporate bodies were not certain and it may be necessary to make significant changes to the divestment plan, which means that the criteria of high probability defined in IFRS 5 are not met.

Therefore, based on the judgement of the Management Board of the Parent, as at December 31st 2021 the criteria defined in IFRS 5 for available-for-sale non-current assets (or disposal group) were not met by the LOTOS Divestment Assets specified in the European Commission's decision of July 14th 2020

Estimates

As preliminary sale agreements related to the implementation of the remedies were signed, it was necessary to analyse indications of potential impairment for the cash-generating units (CGUs) covered by the remedies. As a result of this analysis, indications of impairment were identified for the refining and wholesale CGU and the logistics CGU. These CGUs were tested for impairment, and the significant underlying assumptions are described in Note 10.1.1.1.2.

3. Basis of preparation

These consolidated financial statements ("consolidated financial statements", "financial statements") have been prepared in accordance with the International Financial Reporting Standards ("IFRS") endorsed by the European Union and in effect as at December 31st 2021.

These consolidated financial statements have been prepared on the assumption that the Group companies will continue as going concerns in the foreseeable future. As at the date of authorisation of these financial statements for issue, no circumstances were identified which would indicate any threat to the Group companies' continuing as going concerns.

4. Functional currency, presentation currency, foreign currency translations and transactions in foreign currencies

The Parent's functional currency and the presentation currency of these consolidated financial statements is the Polish złoty ("złoty", "zł", "PLN"). These consolidated financial statements have been prepared in millions of złoty and, unless indicated otherwise, all amounts are stated in millions of złoty.

4.1 Translation of financial statements of foreign operations

The financial statements of foreign entities are translated into the presentation currency of the consolidated financial statements at the following exchange rates:

- items of the statement of financial position – at the mid rate quoted by the National Bank of Poland for the end of the reporting period (NBP's mid rate for the end of the reporting period),
- items of the statement of comprehensive income – at the exchange rate computed as the arithmetic mean of mid rates quoted by the National Bank of Poland for the end of each month in the reporting period (NBP's average mid rate for the reporting period).

The resulting exchange differences are recognised as a separate component in equity and other comprehensive income.

Exchange differences on translating foreign operations comprise exchange differences resulting from the translation into the złoty of the financial statements of foreign companies and groups of companies.

Exchange differences arising on a monetary item that forms a part of a reporting entity's net investment in a foreign operation are recognised in equity and other comprehensive income, and on disposal of the investment they are reclassified to consolidated profit or loss in the statement of comprehensive income.

At the time of disposal of a foreign entity, the accumulated exchange differences recognised in equity and relating to this foreign entity are taken to profit or loss.

Goodwill and fair value adjustments arising on the acquisition of a foreign operation are treated as assets or liabilities of the foreign operation and are translated into the presentation currency of the financial statements at the exchange rate prevailing at the end of the reporting period.

The following exchange rates were used in the valuation of items of the statement of financial position:

NBP's mid rate quoted for:	Dec 31 2021[1]	Dec 31 2020[2]
USD	4.0600	3.7584
EUR	4.5994	4.6148
GBP	5.4846	5.1327
NOK	0.4608	0.4400

[1] NBP's mid rates table, effective for December 31st 2021.
[2] NBP's mid rates table, effective for December 31st 2020.

The following exchange rates were used in the valuation of items of the statement of comprehensive income:

NBP's average mid rate for the reporting period	2021[1]	2020[2]
USD	3.8757	3.9045
EUR	4.5775	4.4742
GBP	5.3308	5.0240
NOK	0.4505	0.4147

[1] Based on the arithmetic mean of the mid rates quoted by the NBP for the last day of each full month in the period January 1st–December 31st 2021.
[2] Based on the arithmetic mean of the mid rates quoted by the NBP for the last day of each full month in the period January 1st–December 31st 2020.

4.2 Foreign currency transactions

Business transactions denominated in foreign currencies are reported in the consolidated financial statements after translation into the Group's presentation currency (Polish złoty) at the following exchange rates:

- the exchange rate actually applied on that date due to the nature of the transaction – in the case of sale or purchase of foreign currencies;
- the mid rate quoted for a given currency by the National Bank of Poland (the "NBP") for the day immediately preceding the transaction date – in the case of payment of receivables or liabilities where there is no rationale for using the exchange rate referred to above, and for other transactions.

The exchange rate applicable to purchase invoices is the mid rate quoted by the National Bank of Poland for the last business day immediately preceding the invoice date, and the exchange rate applicable to sales invoices is the mid rate quoted by the National Bank of Poland for the last business day immediately preceding the sale date. This practical expedient is applied unless it results in significant differences.

Any foreign exchange gains or losses resulting from currency translation are disclosed in the statement of comprehensive income (including intercompany foreign currency transactions), except for foreign exchange gains and losses which are treated as a part of borrowing costs and are capitalised in property, plant and equipment (foreign exchange gains and losses on interest and fees and commissions). Non-monetary items measured at historical cost in a foreign currency are translated at the exchange rate effective as at the date of the initial transaction. Non-monetary items measured at fair value in a foreign currency are translated at the exchange rate effective as at the date of determining the fair value.

The Company calculates realised and unrealised foreign exchange gains (losses) separately and recognises the resulting total balance in the statement of comprehensive income under:

- other income or other expenses: in the case of foreign exchange gains and losses related to settlement of trade receivables and payables,
- finance income or finance costs: in the case of borrowings, investment commitments, and cash and cash equivalents.

5. Accounting policies

These consolidated financial statements have been prepared in accordance with the historical cost principle, with the exception of those financial instruments which are measured at fair value.

Selected significant accounting policies and significant amounts based on judgements and estimates are presented as part of the individual notes to the consolidated financial statements, except as described below.

Use of accounting assumptions, estimates and judgements

Although the assumptions and estimates are based on the management's best knowledge of the current and future events and developments, the actual results might differ from the estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Any change in an accounting estimate is recognised in the period in which it was made if it refers exclusively to that period, or in the current period and future periods if it refers to both the current period and future periods. Material assumptions used in making the estimates are described in the relevant notes to these financial statements.

While making assumptions, estimates and judgements, the Management Board of the Parent (Management Board) relies on its experience and knowledge and may take into consideration opinions, analyses and recommendations issued by independent experts.

6. New standards and interpretations

New standards, amendments to existing standards and interpretations that were first applied to the Group's financial statements for 2021:

- Amendments to IFRS 9 *Financial Instruments*, IAS 39 *Financial Instruments: Recognition and Measurement*, IFRS 7 *Financial Instruments: Disclosures,* IFRS 4 *Insurance Contracts* and IFRS 16 *Leases*; *Interest Rate Benchmark Reform — Phase 2* (effective for annual periods beginning on or after January 1st 2021),
- Amendments to IFRS 16 *Leases*: *Covid-19-Related Rent Concessions beyond June 30th 2021* (effective for annual periods beginning on or after January 1st 2021),
- Amendments to IFRS 4 *Insurance Contracts* titled *Extension of the Temporary Exemption from Applying IFRS 9* (the temporary exemption from IFRS 9 was extended from January 1st 2021 to annual periods beginning on or after January 1st 2023).

The amendments to the standards adopted by the European Union for periods beginning on or after January 1st 2021 have no material effect on these consolidated financial statements.

The following new standards, amendments to existing standards and interpretations have been endorsed by the European Union (the "EU") but are not effective:

- Amendments to IAS 1 *Presentation of Financial Statements: Disclosure of Accounting Policies* (effective for annual periods beginning on or after January 1st 2023),
- Amendments to IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors – Definition of accounting estimates* (effective for annual periods beginning on or after January 1st 2023),
- Amendments to IAS 16 *Property, Plant and Equipment — Proceeds before Intended Use* (effective for annual periods beginning on or after January 1st 2022),
- Amendments to IAS 37 *Provisions, Contingent Liabilities and Contingent Assets: Onerous Contracts—Cost of Fulfilling a Contract* (effective for annual periods beginning on or after January 1st 2022),
- Amendments to IFRS 3 *Business Combinations: Reference to the Conceptual Framework (Amendments to IFRS 3)* (effective for annual periods beginning on or after January 1st 2022),
- IFRS 17 Insurance Contracts, with subsequent amendments to IFRS 17 (effective for annual periods beginning on or after January 1st 2023),
- Amendments to various standards *Improvements to IFRSs 2018–2020 Cycle* (effective for annual periods beginning on or after January 1st 2022).

New standards, amendments to existing standards and interpretations which have not been endorsed by the European Union:

- Amendments to IFRS 14 *Regulatory Deferral Accounts*: the European Commission decided not to commence the process of approval of this interim standard for use in the EU until the final draft of IFRS 14 is issued (effective for annual periods beginning on or after January 1st 2016),
- Amendments to IAS 1 *Presentation of Financial Statements: Classification of Liabilities as Current or Non-current* (effective for annual periods beginning on or after January 1st 2023),
- Amendments to IAS 12 *Income Taxes: Deferred Tax related to Assets and Liabilities arising from a Single Transaction* (effective for annual periods beginning on or after January 1st 2023),
- Amendments to IFRS 10 *Consolidated Financial Statements* and IAS 28 *Investments in Associates and Joint Ventures: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture*, and subsequent amendments (the effective date of the amendments has been postponed until the research project on the equity method has been concluded),
- Amendments to IFRS 17 *Insurance Contracts: Initial Application of IFRS 17 and IFRS 9 Financial Instruments – Comparative Information* (effective for annual periods beginning on or after January 1st 2023).

The effective dates are stated in relevant standards issued by the International Accounting Standards Board. The dates of application of standards in the EU may differ from the effective dates stated in those standards and are announced upon their endorsement by the EU.

The Group has not elected to early adopt any of the standards, interpretations, or amendments endorsed by the EU which were not effective as at December 31st 2021.

7. Other factors with a bearing on the Group's financial statements

Impact of the COVID-19 pandemic on results of the Group

In 2021, the Group's results continued to be impacted by the COVID-19 pandemic.

Since March 2020, the market environment of the Group has been extremely volatile and unpredictable. The Group has been operating in an environment prone to rapid changes triggered by the pandemic and by measures taken to contain its impact, both in Poland and globally.

The balance and liquidity in international trade, including trade in goods and services, has been disturbed and passenger traffic has fallen markedly. Restrictions were imposed on both air and road transport. Many countries banned non-essential travel, restricted the use of services, retail outlets, institutions of culture and schools. Borders were closed for tourist traffic and migrant workforce. On March 14th 2020, the state of epidemic emergency was introduced in Poland.

The effects of the pandemic were also seen in 2021, despite the much lower scale of the imposed restrictions compared with 2020.

The year 2021 saw a strong recovery in the global market for oil and related products, driven by increased demand. Uneven and unexpectedly high demand for energy commodities led to a surge in their market prices in 2021, particularly crude oil and natural gas, which also had a positive impact on the Group's revenue and operating results, which reflects an accelerating rebound in, and an improved outlook for, key markets, supported by the increasing number of COVID-19 vaccines administered worldwide. However, the risk of market instability cannot be ruled out, given the progress of successive waves of the pandemic.

Impairment of non-current assets

As at December 31st 2021, the Group assessed whether there was any indication of impairment of non-financial non-current assets. When analysing indications of asset impairment, both the macroeconomic environment, influencing assets' potential to generate value, and internal factors affecting the ability to use this potential in practice, should be taken into account. Among external indications of possible impairment, COVID-19 was a significant event in the reporting period and continues to be considered a disrupting factor. Following analyses of the current macroeconomic environment, an analysis of impairment indicators for individual cash-generating units and calculation of their recoverable amount, in 2021 the Group identified the need to reverse some of the impairment losses on non-current assets recognised in previous years and to recognise impairment losses on property, plant and equipment and intangible assets (for more information, see Notes 10.1.1.1 and 10.1.2.2), as well as impairment losses on shares in equity-accounted joint ventures (Note 10.2).

Inventory measurement

The strong increase in crude oil and gas prices associated with the market disruptions caused by the COVID-19 pandemic is having an impact both on demand for and the cost to purchase, manufacture and sell the Group's products. The Group estimated net realisable value of inventory as at December 31st 2021, and did not identify any indication of impairment of inventories as at that date.

Assessment of expected credit loss (ECL)

Large-scale operational disruptions that could potentially entail liquidity constraints for certain entities may also have an adverse impact on the credit quality of various actors along the supply chain. As at December 31st 2021, the Group assessed the potential impact of the COVID-19 pandemic on its calculation of expected credit losses and the related impairment losses on financial assets. The Group's credit policy, security instruments used and factoring agreements in place allow it to assume that the loss ratio for receivables recognised as at the reporting date will remain largely unchanged. The Group monitors market developments and any information on its customers that could suggest a deterioration of their financial standing. Based on relevant analyses, the Group has not changed the assumptions used to evaluate its expected credit loss as at December 31st 2021 from those used at December 31st 2020.

Liquidity

The liquidity position of the Group is monitored on an ongoing basis by the liquidity and financing team, whose task is to ensure adequate security and high efficiency of the Group's financing, and to strengthen coordination of implementation of the Group's financial strategy.

As at the date of these consolidated financial statements, the Group remains liquid and has financing available for its operating and investing activities.

In 2021, despite the persisting unfavourable conditions caused by the COVID-19 pandemic, the Group optimally managed its own financial resources as well as the resources of other Group entities. Its key financial and liquidity ratios, including current ratio (1.7; 2020: 1.4), quick ratio (0.9; 2020: 0.8), as well as total debt ratio (43.0%; 2020: 47.0%) remained at safe levels, with liabilities were being serviced in a timely manner. Cash flows provided by operating activities were sufficient to meet the capex requirements and partly repay the outstanding debt. As a consequence of a PLN 2,574.2m increase in working capital, the ratio of working capital to total assets was 18.1%, compared with 9.7% in 2020. The turnover ratios also changed. The inventory turnover was shorter by 22.9 days compared with the year before, at 50.2 days. As a result of a 0.9% increase in average trade receivables and growing revenue (an increase of 58.4%), the average collection period shortened to 23.9 days, compared with 37.7 days in 2020. As a result of higher average trade payables (by 11.7%) and higher cost of sales (up 37.7%), the average payment period was 27.2 days, having shortened by 6.5 days year on year. These changes led to the cash conversion cycle of 46.9 days, compared with 77.1 days in 2020.

The Group has in place a centralised cash management system (cash pool) covering the majority of Group companies. The cash pool makes it possible to effectively use any surplus funds, while reducing the system participants' demand for day-to-day funding. In addition, as at December 31st 2021 the Group had undrawn overdraft facility, credit facility and factoring limits.

Currently, the Group's economic performance, liquidity position and debt remain at comfortable levels, with no significant risks identified as at the date of issue of these consolidated financial statements that could adversely affect this situation.

Effect of climate issues on the Group's financial statements

In recent years, wide-ranging efforts have been afoot (both globally and locally) to tackle climate change. The European Green Deal is the new economic development strategy for the European Union. The transition of the EU economy towards climate neutrality is a means of achieving the objective of changing the EU's status from the world's third largest greenhouse gas emitter into the first climate neutral region. The transition is expected to be completed within three decades. The Fit for 55 legislative proposal presented in July 2021, which includes more than a dozen legislative acts, is to provide the basis for achieving the EU's objective of reducing greenhouse gas emissions by 55% by 2030 (compared to 1990). The final regulations that will result from Fit for 55, will have a significant impact on the operations and development of the refining industry. Through changes in the taxation regime, higher prices of CO_2 emission allowances, higher costs to finance certain projects and growing requirements regarding the share of renewable energy in transport, these initiatives will affect the LOTOS Group's operating expenses and results.

Regulatory risk at the national and European level has strong relevance to the LOTOS Group's operations. The most important regulatory risks currently faced by the organisation are related to climate change. The Group monitors the legal environment and communicates its position as part of legislative processes, which is always formulated so as to make the best use of opportunities and reduce the potential adverse impact of new regulations.

The LOTOS Group pursues a number of projects which contribute to climate neutrality, including projects in such areas as advanced biofuels, alternative fuels (such as hydrogen) and gas fuels: LNG, i.e., liquefied natural gas and CNG, i.e., compressed natural gas, as well as energy efficiency improvement projects aimed at reducing emissions and increasing the share of energy from renewable sources.

Climate-related risks stem from the Group's obligation to meet certain targets relating to a minimum share of other renewable fuels and biocomponents contained in fuels used across all modes of transport, relative to the total amount of liquid fuels and biofuels consumed during a calendar year in road and railway transport, calculated according to their calorific value. This National Indicative Target (NIT) obligation is stated in the Act on Biocomponents and Liquid Biofuels of August 25th 2006. To date, the Group has met its National Indicative Target, in keeping with the applicable regulations (adjusted by the reduction coefficient and emission charge). For information on the provision for the NIT substitute fee, see Note 10.13.

A reduction of greenhouse gas emissions over the entire fuel life cycle per energy unit is another metric used. This obligation, referred to as the National Reduction Target (NRT), follows from the Act on Fuel Quality Monitoring and Control System of August 25th 2006. For information on the provision for the NRT fee and for any penalties, see Notes 10.13 and 10.13.1.

Under the Energy Law, which implements the support of production of electricity generated from renewable energy sources in the internal market, the LOTOS Group, as an energy company, is subject to an obligation to acquire and present certificates of origin for redemption or to pay a substitute fee resulting from the obligation to acquire and present for redemption certificates of origin in a given year, for which it recognises a provision (see Note 10.13).

The Group's production facilities are covered by the EU ETS (European Union Emissions Trading System/Scheme). The projected shortfall of free CO_2 emission allowances granted to the Group under the EU ETS in the settlement period of 2021-2025, in relation to the planned emissions in this period, may result in the need to purchase additional allowances. Therefore, the Group is exposed to the risk of higher prices of carbon dioxide emission allowances (CO_2), which may have a direct effect on the Group's operating costs. The year 2021 saw a significant increase in the price of CO_2 emission allowances. In addition, the changes proposed in the Fir for 55 strategy may significantly reduce the pool of free allowances available in the ETS, and thus further increase their prices. For information on the management of the CO_2 emission allowance price risk and its impact on the Group's results, see Note 11.2.2. For information on the accounting treatment of CO_2 emission allowances and the provision for the costs of covering their shortfall, see Notes 10.1 and 10.13.

Processes carried out by the LOTOS Group, such as exploration for, development and production of hydrocarbons, refining production, product transport and logistics involve a risk of impact on the natural environment. The Group has an obligation to decommission oil and gas extraction facilities or to demolish, disassemble or remove other property, plant and equipment and restore the site to its original condition. At each reporting date, the Group analyses the costs necessary to decommission oil and gas extraction facilities and the expenditure to be incurred on future site restoration (see note 10.13.1). In parallel with the recognition and remeasurement of provisions for decommissioning of oil and gas extraction facilities, the Group recognises corresponding assets for future costs of decommissioning of oil and gas extraction facilities. Assets for future costs of decommissioning of crude oil and gas extraction facilities are depreciated using the units-of-production method, where depreciation per unit of produced crude oil or natural gas is charged to expenses. For information on assets related to future costs of decommissioning of oil and gas extraction facilities, see Note 10.1.2.3.

At the end of the reporting period, the Group assesses the impact of climate issues on the estimates underlying the future cash flows included in the impairment tests of property, plant and equipment and intangible assets. The Group also reviews annually the adopted useful lives and residual values of these assets based on current estimates.

As at the date of authorisation of these financial statements for issue, the Management Board of the Parent did not find any threat to the Group companies continuing as going concerns in the foreseeable future.

8. Business segments

Accounting policies

For management purposes, the LOTOS Group is divided into business units which correspond to the business segments, whereas for financial reporting purposes the Group's operating activity comprises two main reportable operating segments:

- *Exploration & Production segment – comprising activities related to the acquisition of crude oil and natural gas reserves, and crude oil and natural gas production,*
- *Refining & Marketing segment – comprising the production and processing of refined petroleum products and their wholesale and retail sale, as well as auxiliary, transport and service activities.*

The reportable operating segments are identified at the Group level. The Parent is included in the Refining & Marketing segment.

Segment performance is assessed on the basis of revenue, EBIT and EBITDA.
EBIT is operating profit/(loss)
and EBITDA is operating profit/(loss) before depreciation and amortisation.

The results, assets and liabilities of individual segments are measured using the same accounting policies as those applied in the preparation of these consolidated financial statements.

Segments' revenue and results were determined before intersegment consolidation adjustments.

	Exploration & Production		Refining & Marketing		Consolidation adjustments		Consolidated	
	2021	2020	2021	2020	2021	2020	2021	2020
Revenue:	1,858.9	1,111.5	31,850.5	20,319.5	(585.8)	(522.4)	33,123.6	20,908.6
Intersegment sales	533.0	464.1	52.8	58.3	(585.8)	(522.4)	-	-
External sales	1,325.9	647.4	31,797.7	20,261.2	-	-	33,123.6	20,908.6
Operating profit/(loss) (EBIT)	1,210.7	(764.2)	3,278.0	(615.1)	(10.8)	(17.5)	4,477.9	(1,396.8)
of which (impairment losses)/reversal of impairment losses on property, plant and equipment and intangible assets	*254.6*	*(895.2)*	*(129.7)*	*(9.6)*	-	-	*124.9*	*(904.8)*
Finance income							261.9	125.8
Finance costs							(288.7)	(370.5)
(Impairment losses)/reversal of impairment losses on financial instruments							0.8	(9.4)
Share in net profit/(loss) of equity-accounted joint ventures							4.6	(1.9)
Profit/(loss) before tax							4,456.5	(1,652.8)
Depreciation and amortisation	264.9	322.0	784.1	767.9	-	-	1,049.0	1,089.9
Operating profit/(loss) before depreciation and amortisation (EBITDA)	1,475.6	(442.2)	4,062.1	152.8	(10.8)	(17.5)	5,526.9	(306.9)

	Exploration & Production		Refining & Marketing		Consolidation adjustments		Consolidated	
	2021	2020	2021	2020	2021	2020	2021	2020
Total assets as at the reporting date	5,763.3	4,307.7	22,641.6	20,013.2	(2,440.1)	(2,464.5)	25,964.8	21,856.4
Increase in non-current assets [1]	710.1	384.8	819.6	631.5	-	-	1,529.7	1,016.3

[1] Increase in non-current assets includes capital expenditure on property, plant and equipment and intangible assets, capitalised borrowing costs, and increase in right-of-use assets under new lease contracts.

Geographical breakdown of non-current assets [2]	Dec 31 2021	Dec 31 2020
Poland	11,542.7	11,493.8
Norway	1,900.9	1,320.9
Lithuania	50.6	50.1
Total	13,494.2	12,864.8

[2] The geographical breakdown of non-current assets includes property, plant and equipment (including right-of-use assets) and intangible assets.

9. Notes to the statement of comprehensive income

9.1 Revenue

Accounting policies

Revenue is recognised when the Group satisfies (or is in the process of satisfying) a performance obligation by transferring a promised good or service to a customer (which is when the customer obtains control of that good or service). In the statement of comprehensive income, revenue from contracts with customers is recognised as revenue from the Group's day-to-day activities (i.e., revenue from sales of products, services, merchandise and materials), less value added tax (VAT), excise tax, fuel surcharge, emission fee and adjusted by the result from the settlement of instruments hedging future cash flows.

Contracts with customers are presented in the Group's statement of financial position as a contract asset or a contract liability, depending on the relationship between the Group's performance and the customer's payment. Only the Group's unconditional rights to receive consideration are presented on a separate basis as trade receivables (e.g., where an invoice has been issued to a customer or where it received another legal title requiring it to make payment by a specified deadline). Conditional rights (where the passage of time is not the only condition for payment) are presented as contract assets. If several obligations arise under a single contract with respect to which both contract assets and contract liabilities have been recognised, such assets and liabilities are presented in net amounts in the statement of financial position.

There is no significant financing element in the Group's contracts with customers.

Professional judgement

Based on its analysis of sales contracts, the Group has identified an agency model, mainly in the area of base oil sales by LOTOS Oil to target customers. In other transactions, the Group acts as principal.

The liability in respect of the Group's loyalty scheme, NAVIGATOR, arises at the time of sale of goods and services at its own and partner stations for each individual sales transaction and consists in the accrual of points that give entitlement to discounts on future purchases. The calculation of the value of the points-related liability accruing under the scheme is based on such variables as the percentage of customers' participating in the scheme, the percentage of redemption of rewards (points redeemed in exchange for rewards), and the share of individual rewards in the total offering. The Group determines the maximum pool of points to be spent on rewards by scheme participants during the term of the scheme and estimates the value of the total catalogue of rewards by calculating purchase prices (market value) of the rewards as well as prices of individual rewards expressed in points, and by forecasting the share of individual rewards that will be actually delivered to scheme participants in exchange for redeemed points. On this basis, the Group calculates the full cost of the scheme, including assumed prices of the rewards, which is recognised as income deferred until the points are redeemed.

Type of goods or services	Exploration & Production		Refining & Marketing		Consolidated	
	2021	2020	2021	2020	2021	2020
Revenue from contracts with customers:	1,325.9	647.4	31,831.7	20,501.4	33,157.6	21,148.8
Products and services	1,324.5	646.4	30,303.8	19,360.9	31,628.3	20,007.3
Merchandise and materials	1.4	1.0	1,527.9	1,140.5	1,529.3	1,141.5
Effect of cash flow hedge accounting	-	-	(34.0)	(240.2)	(34.0)	(240.2)
Total revenue	1,325.9	647.4	31,797.7	20,261.2	33,123.6	20,908.6

Performance obligations

The Group, under the terms of its contracts, undertakes to supply to its customers mainly refinery products and energy commodities, i.e., crude oil and natural gas. Under these contracts, the Group acts primarily as a principal, except where it acts as an agent in export sales of base oils.

Transaction prices in contracts with customers are not subject to any restrictions. There are no contracts that would provide for material discounts, rebates, refunds, credits, price concessions, incentives, performance bonuses, penalties or other similar obligations. The Group does not identify revenue for which the receipt of payment is contingent and, accordingly, does not present the line item Assets under contracts with customers.

For the vast majority of the Group's contracts with customers, consideration is based on a fixed transaction price. Contracts with variable consideration are recognised by the Group as revenue in the amount of consideration, which is highly probable that no significant reversal of previously recognised revenue will be required. As a result, the Group does not recognise revenue until uncertainty regarding receipt of remuneration ceases to exist, in particular in relation to the customers' rights to discounts, bonuses and penalties.

Contract warranties are warranties that provide a customer with assurance that the related product complies with agreed-upon specifications. Contract warranties do not consist in the provision of a separate service to the customer.

The Group sells mainly on a deferred payment basis. In the Refining and Marketing segment sales are also made with no deferred payment terms (for cash). In most contracts with customers, payment terms not do not exceed 30 days. Payment is usually due upon delivery of the goods or after completion of the service.

In the supply of goods, where there is a transfer of control to the customer and benefits are satisfied at a point in time, customers are billed and revenue recognised after each delivery. If a customer simultaneously receives and consumes the benefits of provided goods or services, then the supply of such goods and services is recognised over time.

Revenue from contracts with customers by timing of performance of obligations

The Group recognises revenue for the satisfaction of a performance obligation at a given time in accordance with the INCOTERMS delivery terms (CPT, DAP, DDP, EXW, FCA).

9.1.1 Revenue from contracts with customers by product groups

		Exploration & Production		Refining & Marketing		Consolidated	
	Note	2021	2020	2021	2020	2021	2020
Gasolines		-	-	4,603.7	3,032.7	4,603.7	3,032.7
Naphtha		-	-	1,092.9	752.7	1,092.9	752.7
Diesel oils		-	-	18,890.6	11,814.0	18,890.6	11,814.0
Bunker fuel		-	-	245.6	156.3	245.6	156.3
Light fuel oil		-	-	785.9	492.1	785.9	492.1
Heavy fuel oil		-	-	168.6	198.2	168.6	198.2
Aviation fuel		-	-	824.6	418.1	824.6	418.1
Lubricants		-	-	518.6	345.4	518.6	345.4
Base oils		-	-	795.0	320.7	795.0	320.7
Bitumens		-	-	1,336.1	1,010.8	1,336.1	1,010.8
LPG		-	-	755.7	470.5	755.7	470.5
Crude oil		303.3	332.7	2.4	37.6	305.7	370.3
Natural gas		956.1	248.1	1.0	1.1	957.1	249.2
Xylene fraction		-	-	143.3	140.1	143.3	140.1
Slack wax		-	-	165.1	158.3	165.1	158.3
Reformate		-	-	152.2	64.9	152.2	64.9
Other refining products, merchandise and materials		0.4	0.2	316.9	187.5	317.3	187.7
Other products, merchandise and materials		9.4	5.7	643.1	546.0	652.5	551.7
Services		56.7	60.7	390.4	354.4	447.1	415.1
Total	9.1	1,325.9	647.4	31,831.7	20,501.4	33,157.6	21,148.8

9.1.2 Revenue from contracts with customers by geographical market

		Exploration & Production		Refining & Marketing		Consolidated	
	Note	2021	2020	2021	2020	2021	2020
Poland		12.9	15.6	28,282.2	17,744.4	28,295.1	17,760.0
Belgium		23.1	-	340.6	291.2	363.7	291.2
Czech Republic		-	-	109.0	144.2	109.0	144.2
Denmark		18.0	49.2	182.2	70.7	200.2	119.9
France		1.7	3.1	433.7	171.8	435.4	174.9
Netherlands		77.3	82.8	722.1	574.0	799.4	656.8
Germany		658.8	224.0	612.8	478.6	1,271.6	702.6
Norway		190.0	83.6	19.0	19.4	209.0	103.0
Sweden		10.3	10.7	97.7	235.1	108.0	245.8
United Kingdom		174.4	84.8	46.9	152.6	221.3	237.4
Other countries		159.4	93.6	985.5	619.4	1,144.9	713.0
Total	9.1	1,325.9	647.4	31,831.7	20,501.4	33,157.6	21,148.8

In 2020–2021, there were no customers with a share in excess of 10% of the LOTOS Group's total revenue.

9.2 Costs by nature of expense

	Note	2021	2020
Depreciation and amortisation	8	1,049.0	1,089.9
Raw materials and consumables used [1]		23,953.0 [2]	15,462.7
Services		1,496.5	1,433.1
Taxes and charges		762.1	764.1
Employee benefits expense	9.3	981.3	938.7
Other costs by nature of expense		358.8	273.8
Merchandise and materials sold		1,243.4	977.7
Total costs by nature of expense		29,844.1	20,940.0
Change in products and adjustments to cost of sales		(1,060.0)	435.6
Total		28,784.1	21,375.6
including:			
Cost of sales		26,775.1	19,441.7
Selling expenses		1,455.3	1,412.9
Administrative expenses		553.7	521.0

[1] Including PLN 78.7m of foreign exchange losses related to operating activities, recognised as cost of sales (2020: PLN 3.8m of foreign exchange losses); see Note 11.1.3.

[2] Raw materials and consumables used increased as a result of higher prices of commodities and energy.

9.3 Employee benefits expense

	Note	2021	2020
Current service costs		731.7	702.1
Social security and other employee benefits		218.1	209.4
Length-of-service awards, retirement and other post-employment benefits	10.12.1	31.5	27.2
Total employee benefits expense	9.2	**981.3**	938.7
Change in products and adjustments to cost of sales		(10.9)	6.0
Total		**970.4**	944.7
including:			
Cost of sales		568.1	559.7
Selling expenses		51.8	49.7
Administrative expenses		350.5	335.3

For information on the accounting policies applicable to employee benefits, see Note 10.12.

9.4 Other income

	Note	2021	2020
Reversal of impairment loss on property, plant and equipment and intangible assets:		124.9	-
Reversal of impairment losses:		298.8	-
•on oil and gas production assets:	10.1.2.2	296.0	-
- Poland: B-3 field		116.2	-
- Poland: B-8 field		135.0	-
- Norway: Heimdal area, Vale field		35.1	-
- Lithuania: Nausodis Vėžaičiai and Girkaliai fields		9.7	-
•refinery and other non-current assets:		2.8	-
- ships	10.1.2.4	1.5	-
- other assets		1.3	-
Impairment losses:		(173.9)	-
•oil and gas exploration and evaluation assets:	10.1.2.1	(0.6)	-
- Poland: Górowo Iławeckie		(0.3)	-
- Poland: Kamień Pomorski area		(0.3)	-
•on oil and gas production assets:	10.1.2.2	(42.3)	-
- Norway: Utgard field		(39.2)	-
- Lithuania: Girkaliai field		(3.1)	-
•refinery and other non-current assets:	10.1.1.1	(131.0)	-
- service stations		(3.6)	-
- assets subject to the remedies		(127.0)	
- other assets		(0.4)	-
Provisions:		30.5	-
- remeasurement of provisions for costs of decommissioning of offshore oil and gas extraction facilities – YME	10.13.1	20.9	-
- remeasurement of provisions for costs of decommissioning of offshore oil and gas extraction facilities – Heimdal	10.13.1	11.2	-
- revaluation of estimate of restructuring provisions		(3.8)	-
- provisions for disputed claims		2.8	-
- other provisions		(0.6)	-
Grants		5.3	3.0
Damages		16.0	23.9
Lease modifications		3.5	5.5
Early termination of lease contracts		6.8	3.6
Supply of materials related to combating COVID-19 pandemic	12.2.1	-	37.2
Settlement of costs to build, equip and operate temporary COVID-19 hospital	12.2.1	36.4	-
Other		7.6	7.1
Total		231.0	80.3

The Group offsets similar transaction items in accordance with IAS 1 *Presentation of Financial Statements*, Sections 34 and 35. Material items of income and expenses charged to profit or loss are disclosed separately, as presented in the table above.

9.5 Other expenses

	Note	2021	2020
Impairment losses on property, plant and equipment and intangible assets:		-	904.8
Impairment losses:		-	923.8
•oil and gas exploration and evaluation assets:	10.1.2.1	-	15.8
- Poland: Górowo Iławeckie		-	10.5
- Poland: Młynary area		-	5.3
•on oil and gas development assets: Norway: YME field	10.1.2.2	-	460.6
•on oil and gas production assets:	10.1.2.2	-	437.4
- Poland: B-3 field		-	118.3
- Poland: B-8 field		-	135.0
- Norway: Utgard field		-	155.0
- Lithuania: Nausodis, Genciai, Vėžaičiai and Girkaliai fields		-	29.1
•refinery and other non-current assets:	10.1.1.1	-	10.0
- service stations		-	8.8
- other assets		-	1.2
Reversal of impairment losses:		-	(19.0)
•on oil and gas production assets:	10.1.2.2	-	(17.5)
- Poland: B-3 field		-	(0.9)
- Norway: Heimdal area, Vale field		-	(16.6)
• refinery and other non-current assets:		-	(1.5)
- ships	10.1.2.4	-	(1.1)
- other assets		-	(0.4)
Loss on disposal of non-financial non-current assets		7.4	2.2
Loss on discontinued projects		3.6	1.0
•oil and gas exploration and evaluation assets:	10.1.2.1	0.4	-
- Poland: Młynary area		0.3	-
- Poland: Kamień Pomorski area		0.1	-
•oil and gas production assets: Poland: B-3 field	10.1.2.2	1.7	-
• refining and other non-current assets:	10.1.1.1	1.5	1.0
- service stations		1.5	0.9
- other assets		-	0.1
Provisions:		-	17.8
- provisions for disputed claims	12.1.1	-	32.1
- remeasurement of provision for contingent payments – Sleipner assets acquisition agreement	10.13.1	-	(4.5)
- remeasurement of provisions for costs of decommissioning of oil and gas extraction facilities – Heimdal	10.13.1	-	(13.8)
- restructuring provisions		-	3.7
- other provisions		-	0.3
Fines and compensation		0.7	1.6
Damage to property arising in ordinary course of business		1.5	1.2
Membership fees		3.6	3.5
Charitable donations		11.1	19.4
Funds allocated to build, equip and operate temporary COVID-19 hospital	12.2.1	37.9	-
Supply of materials related to combating COVID-19 pandemic	12.2.1	15.6	48.7
Other		5.7	5.2
Total		87.1	1,005.4

The Group offsets similar transaction items in accordance with IAS 1 *Presentation of Financial Statements*, Sections 34 and 35. Material items of income and expenses charged to profit or loss are disclosed separately, as presented in the table above.

9.6 Finance income

Accounting policies

Dividend is recognised as finance income as at the date on which the appropriate governing body of the dividend payer resolves on distribution of profit, unless the resolution specifies another dividend record date. The Group has decided to classify dividend income as finance income due to the common practice among entities that are not financial institutions to report dividend income as finance income in accordance with IFRS. The Group applies this classification policy in a consistent manner.

Interest income is recognised as the interest accrues (using the effective interest rate). The Group recognises interest income under finance income, following a common (and commonly accepted) practice among entities, other than financial institutions, applying IFRSs. The Group applies this classification policy in a consistent manner.

	Note	2021	2020
Dividends:		1.7	3.0
- equity-accounted joint ventures		-	-
- equity investments measured at fair value through other comprehensive income	11.1.3	1.7	3.0
Interest:		16.8	9.8
• interest calculated using the effective interest method:		16.3	9.6
- on trade receivables	11.1.3	1.2	2.4
- on cash	11.1.3	0.2	1.3
- on deposits	11.1.3	1.2	5.4
- on loans	11.1.3	13.6	0.4
- other		0.1	0.1
• interest on leases		0.5	0.1
• other interest		-	0.1
Exchange differences:		-	42.2
- on bank borrowings	11.1.3	-	39.9
- on realised foreign-currency transactions in bank accounts	11.1.3	-	(7.7)
- on notes	11.1.3	-	2.4
- on cash	11.1.3	-	16.2
- on leases	11.1.3	-	(4.1)
- on investment commitments	11.1.3	-	(6.8)
- on trade receivables and trade payables	11.1.3	-	2.3
Revaluation of derivative financial instruments:		242.7	65.7
- measurement	11.1.3	136.9	43.1
- settlement	11.1.3	105.8	22.6
Loan commission		-	4.9
Other		0.7	0.2
Total		261.9	125.8

The Group offsets similar transaction items in accordance with IAS 1 *Presentation of Financial Statements*, paragraphs 34 and 35. Material items of income and expenses charged to profit or loss are disclosed separately, as presented in the table above.

9.7 Finance costs

	Note	2021	2020
Interest:		191.7	225.8
• interest calculated using the effective interest method:		73.0	92.7
- on bank borrowings	11.1.3	66.1	82.3
- on non-bank borrowings	11.1.3	1.1	1.5
- on notes	11.1.3	5.2	8.0
- other		0.6	0.9
• interest on leases	11.1.3	72.7	75.8
• other interest		46.0	57.3
- discount on provisions for oil and natural gas extraction facilities and for site restoration, and other provisions	10.13.1	41.4	51.7
- cost of discount on employee benefit obligations	10.12	3.4	4.4
- other		1.2	1.2
Exchange differences:		70.5	-
- on bank borrowings	11.1.3	66.6	-
- on realised foreign-currency transactions in bank accounts	11.1.3	(21.7)	-
- on notes	11.1.3	17.8	-
- on cash	11.1.3	(2.8)	-
- on leases	11.1.3	14.2	-
- on investment commitments	11.1.3	(0.1)	-
- on trade receivables and trade payables	11.1.3	(0.7)	-
- on cash pool	11.1.3	(2.7)	-
- other		(0.1)	-
Impairment losses on shares in equity-accounted joint ventures	10.2	2.8	114.5
Bank fees		18.4	7.9
Provision for disputed claims	12.1.1	-	17.6
Tax risk provision		4.1	4.2
Other		1.2	0.5
Total		288.7	370.5

The Group offsets similar transaction items in accordance with IAS 1 *Presentation of Financial Statements*, paragraphs 34 and 35. Material items of income and expenses charged to profit or loss are disclosed separately, as presented in the table above.

9.8 (Impairment losses)/reversal of impairment losses on financial instruments

	Note	2021	2020
Impairment losses on receivables	11.1.3	(5.5)	(4.7)
- impairment losses		(11.4)	(10.5)
- reversal of impairment losses		5.9	5.8
Impairment losses on loans	11.1.3	0.8	(9.4)
Total		(4.7)	(14.1)

9.9 Income tax

Accounting policies

Mandatory decrease in profit/(increase in loss) comprises current income tax (CIT) and deferred income tax. The current portion of income tax is calculated based on net profit/(loss) (taxable income) for a given financial year. Net profit/(loss) for tax purposes differs from net profit/(loss) for accounting purposes due to temporary differences between revenue amounts calculated for these two purposes, including income which is taxable and costs which are tax-deductible in a period other than the current accounting period, as well as permanent differences attributable to income and cost which will never be accounted for in tax settlements. Tax expense is calculated based on tax rates effective in a given financial year.

For the purposes of financial reporting, tax liabilities are calculated taking into account all temporary differences existing as at the end of the reporting period between the tax base of assets and liabilities and their carrying amounts disclosed in the financial statements.

Deferred tax liability is recognised for all taxable temporary differences:

- *except to the extent that the deferred tax liability arises from the initial recognition of goodwill or the initial recognition of an asset or liability in a transaction which is not a business combination and which, at the time of its execution, affects neither accounting profit before tax nor taxable income or tax loss, and*
- *in the case of taxable temporary differences associated with investments in subsidiaries, jointly-controlled entities or associates and interests in joint ventures, unless the investor is able to control the timing of reversal of temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future.*

Deferred tax assets are disclosed in relation to all deductible temporary differences, unused tax assets, and unused tax losses brought forward, in the amount of the probable taxable income which would enable these differences, assets and losses to be used:

- *except to where the deferred tax assets related to deductible temporary differences arise from the initial recognition of an asset or liability in a transaction which is not a business combination and which, at the time of its execution, affects neither accounting profit before tax nor taxable income or tax loss, and*
- *in the case of deductible temporary differences associated with investments in subsidiaries, jointly-controlled entities or associates and interests in joint ventures, the related deferred tax assets are recognised in the statement of financial position to the extent it is probable that in the foreseeable future the temporary differences will be reversed and taxable income will be generated which will enable the deductible temporary differences to be offset.*

Notwithstanding the above rules, the Group recognises deferred tax liabilities with respect to temporary differences related to the rights to use assets and assets related to future decommissioning of oil and gas extraction facilities, as well as deferred tax assets with respect to temporary differences related to lease liabilities and provisions for the decommissioning and restoration costs.

The carrying amount of deferred tax assets is revised as at the end of each reporting period and is subject to appropriate reduction to the extent it is no longer probable that taxable income sufficient for its partial or full realisation would be generated.

Deferred tax assets and deferred tax liabilities are measured using tax rates expected to be effective at the time of realisation of particular asset or liability, based on tax rates (and tax legislation) effective as at the end of the reporting period or tax rates (and tax legislation) which as at the end of the reporting period are certain to be effective in the future. The effect of deferred tax is recognised in profit or loss for the period, with the exception of taxes arising from transactions or events, which are recognised in other comprehensive income or directly in equity, and taxes arising from business combinations.

Deferred tax assets and deferred tax liabilities are presented in the statement of financial position in the amount obtained after they are offset for particular consolidated entities.

Estimates

Deferred tax assets

The Group recognises deferred tax assets if it is assumed that taxable income will be generated in the future against which the assets can be utilised. If taxable profit deteriorates in the future, this assumption may prove invalid. The Parent's Management Board reviews its estimates regarding the likelihood of recovering deferred tax assets taking into account changes in the factors on which such estimates were based, new information and past experience.

9.9.1 Tax expense

	Note	2021	2020
Current tax		631.5	58.6
Deferred tax	9.9.3	613.2	(565.2)
Total income tax charged to net profit or loss	9.9.2	1,244.7	(506.6)
Tax expense recognised in other comprehensive income (net), including:		(7.9)	40.6
- cash flow hedging	10.8.3	(6.8)	42.0
- gains/(losses) on investments in equity instruments		(2.3)	-
- actuarial gain/(loss) relating to post-employment benefits		1.2	(1.4)

For the entities operating in Poland, the current and deferred portion of income tax was calculated at the rate of 19% of taxable income.

In the case of Norwegian subsidiary LOTOS Exploration and Production Norge AS, the marginal tax rate is 78% of the tax base. LOTOS Exploration and Production Norge AS's activities are subject to taxation under two parallel tax systems: the corporate income tax system (22% tax rate) and the petroleum tax system (additional tax rate of 56%).

In the case of Lithuanian subsidiaries (AB LOTOS Geonafta Group), the current and deferred portion of income tax was calculated at the rate of 15%.

9.9.2 Corporate income tax calculated at effective tax rate and reconciliation of profit before tax to taxable income

	2021	2020
Profit/(loss) before tax	4,456.5	(1,652.8)
Income tax at 19%	846.7	(314.0)
Permanent differences:	10.9	49.7
Tax effect of impairment losses on deferred tax assets due to tax losses settled over time	(24.7)	36.2
Tax effect of tax losses deducted in the period	(1.5)	-
Tax effect of share in profit of equity-accounted entities	(0.8)	(0.4)
Adjustments disclosed in current year related to tax for previous years	(0.5)	(0.1)
Difference resulting from the application of tax rates other than 19%:	414.6	(278.0)
- Norway	*413.2*	*(281.1)*
- Lithuania	*0.7*	*3.0*
- other	*0.7*	*0.1*
Income tax	1,244.7	(506.6)
Effective tax rate	27.9%	30.7%

9.9.3 Deferred income tax

		Statement of financial position		Change
	Note	Dec 31 2021	Dec 31 2020	
Deferred tax assets		189.7	384.2	(194.5)
Deferred tax liabilities		(556.7)	(144.5)	(412.2)
Net deferred tax assets/(liabilities)	9.9.4	(367.0)	239.7	(606.7)
Exchange differences on translating deferred tax of foreign operations				1.4
Deferred tax recognised in other comprehensive income/(loss), net	9.9.1			(7.9)
Deferred tax expense charged to net profit or loss	9.9.1			(613.2)

Taxable temporary differences are expected to expire in 2022–2098.

Deferred tax assets on tax losses carried forward are assessed in terms of their realisability. The assessment is made on the basis of current tax results achieved by individual Group companies and forecasts concerning the companies' future activities and financial results. Based on the assessment, it was decided to write off a portion of the deferred tax assets for tax losses incurred in the current and prior years. As at December 31st 2021, unrecognised tax assets on account of tax losses were PLN 10.2m (December 31st 2020: PLN 36.2m). The period during which tax losses for which no tax asset has been recognised may be settled in accordance with applicable tax laws expires in 2026.

9.9.4 Deferred tax assets and liabilities

	Note	Dec 31 2020	Deferred tax recognised in net profit or loss	Deferred tax recognised in other comprehensive income/(loss)	Exchange differences on translating deferred tax of foreign operations	Dec 31 2021
Deferred tax assets						
Employee benefit obligations		80.6	3.5	(1.2)	0.2	83.1
Provisions for/assets related to decommissioning of oil and gas extraction facilities and site restoration		725.7	86.0	-	34.8	846.5
Difference between current tax value and carrying amount of settlements under joint operations (Norwegian fields)		10.8	(11.4)	-	0.6	-
Cash flow hedge accounting		5.8	-	6.8	-	12.6
Tax losses carried forward		267.2	(87.7)	-	-	179.5
Other		125.7	8.3	-	-	134.0
		1,215.8	(1.3)	5.6	35.6	1,255.7
Deferred tax liabilities						
Difference between current tax value and carrying amount of property, plant and equipment and intangible assets		832.2	609.2	-	33.7	1,475.1
Difference between current tax value and carrying amount of settlements under joint operations (Norwegian fields)		-	3.7	-	0.4	4.1
Difference on accounting and tax measurement of lease contracts		17.1	(11.2)	-	(0.1)	5.8
Fair value measurement of equity instruments		-	-	(2.3)	-	(2.3)
Other		126.8	10.2	-	3.0	140.0
		976.1	611.9	(2.3)	37.0	1,622.7
Net deferred tax assets/(liabilities)	9.9.3	239.7	(613.2)	7.9	(1.4)	(367.0)

9.10 Earnings/(loss) per share

	2021	2020
Net profit/(loss) attributable to owners of the Parent (PLNm) (A)	3,211.8	(1,146.2)
Weighted average number of shares (million) (B)	184.9	184.9
Earnings/(loss) per share (PLN) (A/B)	17.37	(6.20)

Earnings/(loss) per share for each reporting period are calculated by dividing net profit/(loss) for the reporting period by the weighted average number of shares in the reporting period.

Diluted earnings/(loss) per share are equal to basic earnings/(loss) per share as there are no instruments with a dilutive effect.

10. Notes to the statement of financial position

10.1 Property, plant and equipment and intangible assets

Accounting policies

Property, plant and equipment

Items of property, plant and equipment other than land are measured at cost less accumulated depreciation and impairment losses. Land is measured at cost less impairment losses.

Initial value of an item of property, plant and equipment comprises its cost, which includes all costs directly related to its acquisition and bringing it to working condition for its intended use. The cost also includes the cost of replacing component parts of plant and equipment, which is recognised when incurred, provided that relevant recognition criteria are fulfilled. Costs incurred on an asset which is already in service, such as costs of repairs and overhauls or operating fees, are expensed in the reporting period in which they were incurred.

The initial value of property, plant and equipment includes borrowing costs.

Borrowing costs (i.e. interest and other costs incurred in connection with borrowings) are recognised as an expense in the period in which they were incurred, With the exception of costs directly attributable to the acquisition, construction or production of a qualifying asset (including exchange differences where they are regarded as an adjustment to interest costs, and exchange differences on fees and commissions), which are capitalised as part of the cost of such asset (a qualifying asset is one that necessarily takes a substantial period of time to get ready for its intended use or sale).

To the extent that funds are borrowed specifically for the purpose of acquiring a qualifying asset, the amount of the borrowing costs which may be capitalised as part of such asset is determined as the difference between the actual borrowing costs incurred in connection with a given credit facility or loan in a given period and the proceeds from temporary investments of the borrowed funds.

To the extent that funds are borrowed without a specific purpose and are later allocated for the acquisition of a qualifying asset, the amount of the borrowing costs which may be capitalised is determined by applying an appropriate capitalisation rate to the expenditure on that asset.

Items of property, plant and equipment (including their components), other than land and property, plant and equipment comprising production infrastructure, are depreciated using the straight-line method over their estimated useful lives.

Items of property, plant and equipment comprising production infrastructure used in crude oil and natural gas extraction are depreciated using the units-of-production method, where depreciation per unit of produced crude oil or natural gas charged to expenses. The depreciation rate is estimated by reference to forecasts of crude oil and gas production from a given geological area. If the estimated hydrocarbon reserves (2P – proved and probable reserves) change materially as at the end of the reporting period, depreciation per unit of produced crude oil or natural gas is remeasured and the revised depreciation rate is applied starting from the new financial year.

Items of property, plant and equipment under construction are measured at the amount of aggregate costs directly attributable to their acquisition or production (including finance costs) less impairment losses, if any. Items of property, plant and equipment under construction are not depreciated until they are ready for their intended use.

	Depreciation method	Depreciation period/useful life
Land (excluding perpetual usufruct rights)	Not depreciated	
Property, plant and equipment under construction	Not depreciated	
Other items of property, plant and equipment:		
Buildings, structures	Straight-line method	From 1 to 80 years
Plant and equipment	Straight-line method	From 1 to 25 years
Vehicles, other	Straight-line method	From 1 to 15 years
Property, plant and equipment comprising production infrastructure used in crude oil and natural gas extraction	Units-of-production method	The depreciation rate is estimated by reference to forecasts of crude oil and gas production from a given geological area (2P – proved and probable reserves).

The residual values, useful economic lives and depreciation methods are reviewed on an annual basis and adjusted, if required, with effect as of the beginning of the next financial year.

An item of property, plant and equipment may be removed from the statement of financial position if it is sold or if the entity does not expect to realise any economic benefits from its further use. Any gains or losses on derecognition of an asset from the statement of financial position (calculated as the difference between net proceeds from its sale, if any, and the carrying amount of the asset) are disclosed in the statement of comprehensive income in the period of derecognition.

Property, plant and equipment comprising the Group's production infrastructure include assets corresponding to the amount of the provision for decommissioning of oil and gas extraction facilities. These assets are recognised in accordance with IAS 16 Property, Plant and Equipment, which states: "Cost of an item of property, land and equipment includes […] the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, the obligation for which an entity incurs when the item is acquired or as a consequence of having used the item during a particular period for purposes other than to produce inventories during that period". The Group's obligated to incur costs of decommissioning of oil and gas extraction facilities, perform demolition, disassembly, removal of other fixed assets and restore the place of their assembly to their original shape. In addition, the Group's obligated to review the value of the assets periodically, at least as at the end of each reporting period in accordance with IAS 16 (Section 63).

Revaluation of the assets may be caused by:

- *change in the estimate of the cash outflow that will be necessary to ensure performance of the decommissioning obligation,*
- *change in the current market discount rate,*
- *change in the inflation rate.*

Expenditure on property, plant and equipment used in exploration for and evaluation of crude oil and natural gas resources is capitalised until the deposit volume and the economic viability of production are determined; such expenditure is presented in a separate item of property, plant and equipment in accordance with IFRS 6 Exploration for and Evaluation of Mineral Resources. Upon confirmation of existence of reserves in the case of which extraction is technically feasible and economically viable, such expenditure is transferred to relevant items of property, plant and equipment classified as development or production assets, and is subsequently depreciated using the units-of-production method (see above) based on the volume of reserves and actual production.

If expenditure on property, plant and equipment under construction does not result in discovery of any reserves in the case of which extraction is technically feasible and economically viable, impairment losses on property, plant and equipment under construction are recognised and charged to profit or loss of the period in which it is found that commercial production from the deposits is not viable.

Intangible assets

Intangible assets other than goodwill comprise oil exploration and production licences in Lithuania acquired as part of a business combination, expenditure incurred on oil and gas exploration licences on the Norwegian Continental Shelf, other production and exploration licences in Poland, software licences, patents, trademarks, acquired CO_2 emission allowances and intangible assets under development.

Intangible assets are initially recognised at cost if they are acquired in separate transactions. Intangible assets acquired as part of a business combination are recognised at fair value as at the transaction date. Subsequent to initial recognition, intangible assets are carried at amounts reflecting accumulated amortisation and impairment losses.

Purchased CO_2 emission allowances are measured at cost less impairment losses, if any, and carried as non-depreciable intangible assets. If the purchased rights are used to cover a shortage of allowances at the date of settlement of emissions for a given year, then the used allowances at their carrying amount are settled against the previously recognised provision for covering the shortage of CO_2 emission allowances. These allowances are accounted for using the First In First Out (FIFO) method. Income from sale of unused emission allowances is recognised in the statement of comprehensive income at the time of sale. CO_2 emission allowances received free of charge are presented by the Group in its financial statements in accordance with the net liability approach (see Note 10.13). Under this method, allowances received free of charge are not disclosed in the statement of financial position.

Licences obtained in Lithuania during the step acquisition of the AB LOTOS Geonafta Group companies are disclosed under intangible assets classified as development or production assets and amortised using the unit-of-production method, where amortisation per unit of produced crude oil is charged to expenses. The amortisation rate is estimated by reference to forecasts of hydrocarbon production from a given field. If the estimated hydrocarbon reserves (2P – proved and probable reserves) change materially as at the end of the reporting period, amortisation per unit of produced crude oil or natural gas is remeasured and the revised amortisation rate is applied starting from the new financial year.

Expenditure on oil and gas exploration licences on the Norwegian Continental Shelf is presented as a separate item of intangible assets, as required under IFRS 6 Exploration for and Evaluation of Mineral Resources, and is not amortised until the technical feasibility and commercial viability of extraction is demonstrated. For more information on the accounting policies concerning expenditure on exploration for and evaluation of mineral resources, see Note 10.1.2.1.

Except capitalised development expenditure, expenditure on intangible assets produced by the Group is not capitalised, but is charged to expenses in the period in which it was incurred.

	Depreciation method	*Depreciation period/useful life*
Oil and gas development and production assets		
Licences (Lithuania, Poland)	*Units-of-production method*	*The amortisation rate is estimated by reference to forecasts of hydrocarbon production from a given field (2P – proved and probable reserves).*
Oil and gas exploration and evaluation assets		
Oil and gas exploration licences on the Norwegian Continental Shelf	*Not amortised until the technical feasibility and commercial viability of extraction is demonstrated*	
Other intangible assets		
Software licences, patents and trademarks	*Straight-line method*	*from 2 to 40 years.*
Acquired CO_2 emission allowances	*Not depreciated*	
Intangible assets under development	*Not depreciated*	

The amortisation period and the amortisation method for an intangible asset are reviewed at the end of each financial year. Changes in the expected useful life or pattern of generation of the future economic benefits embodied in an intangible asset are reflected by changing the amortisation period or amortisation method, as appropriate, and are treated as changes in accounting estimates.

Impairment losses on non-financial non-current assets

As at the end of each reporting period, the Group assesses whether there is an indication of impairment of any of its assets. If the Group finds that there is such indication or if it is required to perform annual impairment tests, the recoverable amount of the asset is estimated.

The recoverable amount of an asset is equal to the higher of:
- *the fair value of the asset or cash generating unit in which such asset is used less cost to sell, or*
- *the value in use of the asset or cash generating unit in which such asset is used.*

The recoverable amount is determined for the individual assets unless a given asset does not generate separate cash flows largely independent from those generated by other assets or asset groups. If the carrying amount of an asset is higher than its recoverable amount, the value of the asset is impaired and an impairment loss is recognised, reducing the asset's carrying amount to the established recoverable amount.

In assessing value in use, the projected cash flows are discounted to their present value (at a pre-tax discount rate) which reflects current market assessments of the time value of money and risks specific to the asset. Any impairment losses on non-financial assets used in operations are recognised under other expenses.

The Group assesses at the end of each reporting period whether there is any indication that previously recognised impairment of an asset no longer exists or should be reduced. If there is such indication, the Group again estimates the recoverable amount of the asset, and the recognised impairment loss is reversed if, and only if, there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised. In such a case, the carrying amount of the asset is increased up to its recoverable amount. Such increased amount may not exceed the carrying amount of the asset that would have been determined (net of accumulated amortisation or depreciation) had no impairment loss been recognised for the asset in previous years. Reversal of an impairment loss on a non-financial non-current asset is immediately recognised as other income. Following reversal of an impairment loss, in the subsequent periods the amortisation/depreciation charge for a given asset is adjusted so that its revised carrying amount, less residual value, can be regularly written off over the remaining useful life of that asset.

The Group offsets corresponding items of other income and expenses, including impairment losses and their reversals, in accordance with IAS 1 Presentation of Financial Statements (Section 34) and recognises them in the statement of comprehensive income on a net basis.

Professional judgement

Classification of natural gas and crude oil assets in financial statements

The Group classifies its natural gas and crude oil assets as exploration and evaluation assets, development assets or production assets, relying on its professional judgement.

Once the size of a deposit is confirmed and its production plan is approved, the expenditure on natural gas and crude oil assets is transferred from exploration and evaluation assets to appropriate items of property, plant and equipment or intangible assets classified as development or production assets.

The decision to present natural gas and crude oil assets in the financial statements under development assets or production assets is made taking into account all conditions and circumstances related to the upstream project and the subsequent production from the field.

Estimates

Depreciation and amortisation

Depreciation and amortisation of the assets of onshore and offshore oil and gas extraction facilities is calculated (using the units-of-production method) based on 2P hydrocarbon reserve estimates (proved and probable reserves), evaluated, revised and updated by the Group, as well as forecast production volumes from the individual oil and gas fields based on geological data, test production, subsequent production data and the schedule of work adopted in the long-term strategy.

Depreciation and amortisation rates for refining and other non-current assets are determined based on the expected useful lives of property, plant and equipment and intangible assets. The Group reviews the useful lives of its assets annually, based on current estimates. The relevant estimate update which had an effect on the Group's financial statements for 2021 concerned primarily the Parent, where depreciation/amortisation expense decreased by PLN 1.1m.

Impairment of cash-generating units, individual items of property, plant and equipment, and intangible assets

If there is any indication of impairment, the Group estimates the recoverable amounts of assets and cash-generating units. To determine the recoverable amount, the Group takes into account such key variables as discount rates, growth rates and price indices, as well as macroeconomic factors, including oil prices, the differential, refining margins and cracks.

As at December 31st 2021, following an analysis of cash flows for individual cash-generating units and the required impairment tests for assets, the Group made necessary adjustments to assets and disclosed detailed information on the test assumptions and results.

(PLNm)

	Note	Dec 31 2021	Dec 31 2020
Non-current assets – Refining & Marketing	10.1.1	9,536.4	9,627.9
Property, plant and equipment, including:	10.1.1.1	9,343.5	9,466.9
Group-owned		8,027.5	8,126.7
Right-of-use assets	10.1.3	1,316.0	1,340.2
Intangible assets, including:		192.9	161.0
Goodwill	10.1.1.2	45.6	45.6
Other intangible assets	10.1.1.3	147.3	115.4
Non-current assets – Exploration & Production	10.1.2	3,957.8	3,236.9
Property, plant and equipment, including:		3,540.5	2,923.1
Group-owned		3,209.9	2,890.5
Right-of-use assets	10.1.3	330.6	32.6
Intangible assets, including:		417.3	313.8
Goodwill		1.1	1.1
Other intangible assets		416.2	312.7
Total property, plant and equipment and intangible assets		13,494.2	12,864.8
including:			
Property, plant and equipment, including:		12,884.0	12,390.0
Group-owned		11,237.4	11,017.2
Right-of-use assets		1,646.6	1,372.8
Intangible assets		610.2	474.8

10.1.1 Non-current assets – Refining & Marketing

10.1.1.1 Property, plant and equipment of the Refining & Marketing segment

	Note	Land	Buildings, structures	Plant and equipment	Vehicles, other	Property, plant and equipment under construction	Total	
Gross carrying amount Jan 1 2021		1,225.6	5,801.6	7,100.4	1,395.5	440.2	15,963.3	
Capital expenditure		-	-	-	33.7	559.5	593.2	(1)
Transfer from property, plant and equipment under construction		31.3	307.7	271.1	122.1	(732.2)	-	
Borrowing costs		-	-	-	-	2.3	2.3	
Leases		41.7	11.1	-	106.9	-	159.7	(2)
Sale		(1.9)	(12.9)	(19.6)	(11.3)	(4.7)	(50.4)	
Written-off expenditure on abandoned project	9.5	-	-	-	-	(1.5)	(1.5)	(3)
Other		-	0.4	(2.7)	(1.8)	(8.0)	(12.1)	
Gross carrying amount Dec 31 2021		1,296.7	6,107.9	7,349.2	1,645.1	255.6	16,654.5	
Accumulated depreciation Jan 1 2021		92.6	2,362.1	3,183.4	709.9	-	6,348.0	
Depreciation and amortisation		38.8	223.1	319.2	189.6	-	770.7	
Leases		(3.6)	(1.1)	-	(43.9)	-	(48.6)	(4)
Sale		(1.7)	(9.5)	(17.8)	(7.7)	-	(36.7)	
Other		-	-	0.1	1.1	-	1.2	
Accumulated depreciation Dec 31 2021		126.1	2,574.6	3,484.9	849.0	-	7,034.6	
Impairment losses Jan 1 2021		27.4	100.9	12.1	6.9	1.1	148.4	
Recognised	9.4	10.9	81.0	21.5	-	17.6	131.0	(5)
Used/Reversed		-	(1.3)	(1.0)	(0.3)	(0.4)	(3.0)	
Impairment losses Dec 31 2021		38.3	180.6	32.6	6.6	18.3	276,4	
Net carrying amount Dec 31 2021		1,132.3	3,352.7	3,831.7	789.5	237.3	9,343.5	

(1) Capital expenditure mainly involved expansion of the service station network (PLN 190.2m), acquisition of rolling stock (PLN 80.3m), purchase of catalysts (PLN 70.7m), purchase of spare parts (PLN 33.2m), Oil Hydrocracker (HBO) Project (PLN 23.4m), construction of the rail tank loading station (PLN 12.5m), construction and modernisation of the Fuel Depot (PLN 16.8m), redevelopment of the Claus unit (sulfur recovery) (PLN 13.8m) and upgrade of LPG storage and loading capacities (PLN 9.6m).

(2) Including: new lease contracts, early termination of a lease contract, termination of lease contracts, modification of lease contracts, recognised decommissioning asset (see Note 10.1.3).

(3) Write-off of expenditure on abandoned gas station projects.

(4) Including: early termination of a lease contract, termination of lease contracts, modification of lease contracts (see Note 10.1.3.).

(5) Including impairment losses on assets subject to the remedies (PLN 127.0m) and impairment losses on the service station network (PLN 3.6m).

(PLNm)

	Note	Land	Buildings, structures	Plant and equipment	Vehicles, other	Property, plant and equipment under construction	Total	
Gross carrying amount Jan 1 2020		1,180.1	5,690.2	6,982.5	1,231.8	349.8	15,434.4	
Capital expenditure		-	-	-	21.7	403.6	425.3	(1)
Transfer from property, plant and equipment under construction		10.5	86.9	134.6	79.0	(311.0)	-	
Borrowing costs		-	-	-	-	6.1	6.1	
Leases		40.2	28.4	-	80.0	(0.4)	148.2	(2
Sale		(5.2)	(4.1)	(15.4)	(13.0)	(0.2)	(37.9)	
Written-off expenditure on abandoned project	9.5	-	-	-	-	(1.0)	(1.0)	(3)
Other		-	0.2	(1.3)	(4.0)	(6.7)	(11.8)	
Gross carrying amount Dec 31 2020		1,225.6	5,801.6	7,100.4	1,395.5	440.2	15,963.3	
Accumulated depreciation Jan 1 2020		55.9	2,148.7	2,875.0	577.3	-	5,656.9	
Depreciation and amortisation		37.2	215.5	321.0	179.7	-	753.4	
Leases		-	(0.3)	-	(37.8)	-	(38.1)	(4
Sale		(0.5)	(2.1)	(13.3)	(10.8)	-	(26.7)	
Other		-	0.3	0.7	1.5	-	2.5	
Accumulated depreciation Dec 31 2020		92.6	2,362.1	3,183.4	709.9	-	6,348.0	
Impairment losses Jan 1 2020		19.8	99.3	12.0	6.9	1.1	139.1	
Recognised	9.5	7.6	1.7	0.6	0.1	-	10.0	(5)
Used/Reversed		-	(0.1)	(0.5)	(0.1)	-	(0.7)	
Impairment losses Dec 31 2020		27.4	100.9	12.1	6.9	1.1	148.4	
Net carrying amount Dec 31 2020		1,105.6	3,338.6	3,904.9	678.7	439.1	9,466.9	

(1) Capital expenditure mainly involved construction of delayed coking unit with auxiliary infrastructure under the EFRA Project (PLN 64.3m), expansion of the service station network (PLN 140.5m), construction of rail tank loading station (PLN 49.2m), purchase of rolling stock (PLN 54.3m) and purchase of spare parts (PLN 21.7m).

(2) Including: new lease contracts, early termination of the lease contract, termination of lease contracts, modification of lease contracts, recognised decommissioning asset, unsettled and settled upfront payments (see Note 10.1.3).

(3) Including write-off of expenditure on abandoned gas station projects of PLN 0.9m.

(4) Including: early termination of a lease contract, termination of lease contracts, modification of lease contracts (see Note 10.1.3.).

(5) Including impairment losses on the service station network of PLN 8.8m.

10.1.1.1.1 Impairment testing of service station network

In 2021, LOTOS Paliwa Sp. z o.o. recognised an impairment loss on service station assets totalling PLN 3.6m, as presented in Note 9.4., due to the insufficient level of return of the employed assets (2020: PLN 8.8m, see Note 9.5.)

The recoverable amount of property, plant and equipment related to the service station network was determined based on the value in use of each station, calculated with the discounted cash flow method. Future cash flows were calculated on the basis of cash flow projections over the useful life of individual stations, prepared based on the provisional budget for 2022 and the plan of cash inflows and outflows for subsequent years derived from the development strategy. The development paths for each station were individually assessed by the Business Unit with operational responsibility for the stations. LOTOS Paliwa Sp. z o.o.'s net weighted average cost of capital (WACC) based on the company's financing structure was assumed at 6.96% (2020: 5.65%).

Calculation of the value in use of cash-generating units is most sensitive to the following variables:

- Gross margin, which depends on average values of unit margins for the budget period. In the first year of the budget period, the unit fuel margin has stayed close to the 2021 level, taking into account micro-markets of the relevant service stations.
- The assessment of 2021 was performed without taking into account the results of the fourth quarter of the year, due to their incidental and disruptive nature. In terms of the realised unit margin, the fourth quarter 2021 results were significantly different from the typical results achieved in previous periods. The market situation, heavily affected by the decision of the largest competitor (which also has the greatest influence on prices at fuel stations in Poland) to refrain from increasing retail prices, prevented the Company from achieving the projected margins.
- The level of the unit fuel margin is planned so that it covers operating costs and their potential increase during the budget year. The level of the unit margin in subsequent years reflects macroeconomic inflation indices applied in the model. The unit margin on non-fuel sales assumed for the budget period is on average 1% higher than in the year preceding the budget period. A gradual return to pre-COVID-19 levels is assumed. The unit non-fuel margin is expected to rise in subsequent years reflecting a change in the product mix, with a growing share of high-margin products, mainly food and beverage, in total sales.
- Discount rate which reflects the expected rate of return on assets at a specific risk level, after taking into account the marginal tax rate of 19% (the rate is calculated in accordance with the WACC and CAPM methodologies using such inputs as the median of 10-year treasury bond prices, market risk premium (MRP), country risk premium (CRP), and the market structure of financing).
- Volumes based on the dynamics of fuel consumption growth in the retail segment and on business analysis taking into account the nature of micro-markets at the analysed locations.
- Market share in the budget period (the market share was assumed to be maintained).
- The growth rate used to estimate cash flows outside the budget period (2.5%).

10.1.1.1.2 Impairment testing of assets covered by the remedies

As a result of the conditional agreements for the sale of LOTOS assets (see Note 2.1), as at December 31st 2021 the Group analysed the indications of impairment of the assets covered by the remedies.

The analysis identified the need to test for impairment some of the assets, i.e., the assets of LOTOS Terminale S.A., LOTOS Infrastruktura S.A. and RCEkoenergia Sp. z o.o. (jointly "logistics assets") and refining assets, in order to assess their value in use.

Given the conditional nature of the sale agreements, the value of the tested assets was measured using the scenario method, i.e., taking into account the estimated value in use of the assets generated in the course of the LOTOS Group's day-to-day operations (the "base-case scenario") and at the value in use resulting from estimating future cash flows taking into account the execution of final asset sale agreements and other agreements governing future cooperation with the investors (the "transaction scenario"). The asset value-in-use forecast was developed using the most current financial projections, and the scenarios were assigned appropriate weights based on an assessment of the likelihood of their occurrence.

The key macroeconomic assumptions adopted to assess the value of the assets include forecasts of foreign exchange rates, inflation, oil and natural gas prices and cracks, based on current market scenarios. In this respect, the detailed forecast period includes forecasts until 2026. Beyond 2026, it is assumed that macroeconomic fundamentals are not volatile in the long term, and continue at the 2026 level, taking into account the impact of inflation on the price level. For logistics assets, the assumptions take into account the current trading conditions and rules of settlement applied with respect to utilities and services, adjusted for inflation.

The pre-tax discount rates used were estimated using the CAPM method and taking into account the nature of the tested assets. The rates are:

- 6.40% - LOTOS Terminals S.A.,
- 5.80% - LOTOS Infrastruktura S.A.,
- 7.37% - RCEkoenergia Sp. z o.o.,
- 8.85% - Refining assets.

No impairment losses were recognised in respect of the refining assets.

Given the significant impact of the transaction scenario on the test results, a need to recognise PLN 127.0m impairment losses on the logistics assets of: LOTOS Terminale S.A. and RCEkoenergia Sp. z o.o. was identified. The value in use of the impaired tested assets, net of the impairment losses, is PLN 20.8m.

The results of the tests are mainly sensitive to the assumed discount rate and projected EBITDA. A 0.5 pp change in the discount rate results in a +/- PLN 8m change in the test result. A 5% change in the projected annual EBITDA of the companies with impaired assets results in a PLN +/- 7m change in the test result.

10.1.1.2 Goodwill of the Refining & Marketing segment

Accounting policies

The acquirer recognises the acquiree's goodwill as at the acquisition date, in the amount equal to the excess of the difference between the amount of consideration transferred, measured at its acquisition-date fair value, including the value of any non-controlling interests in the acquiree, the acquisition-date fair value of the acquirer's previously held equity interest in the acquiree (in the case of a business combination achieved in stages), and the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed measured at fair values as at the transaction date.

In the case of a business combination achieved in stages, the acquirer remeasures its previously held equity interest in the acquiree at its acquisition-date fair value and recognises the resulting gain or loss in the statement of comprehensive income.

Following initial recognition, goodwill is carried at cost less cumulative impairment losses. Goodwill is tested for impairment once a year. Once written off goodwill is not reversed. It is not amortised.

As at the acquisition date, the acquired goodwill is allocated to each of the identified cash-generating units that may benefit from the synergies of the business combination, provided that goodwill may not be allocated to a cash-generating unit higher than an operating segment. The Group calculates impairment of value by estimating the recoverable amount of a cash-generating unit ("CGU") to which goodwill has been allocated. If the recoverable amount of the CGU is lower than its carrying amount, an impairment loss is recognised. The impairment loss is not reversible. If goodwill is a part of a CGU and the Group sells a part of the CGU's business, the goodwill pertaining to the sold business is included in the carrying amount of the sold business for the purpose of calculating gain or loss on disposal of the part of business. In such a case, goodwill pertaining to the sold business should be measured using the relative value of the sold business, pro-rata to the interest in the retained part of the CGU.

Goodwill is allocated to the cash-generating units presented in the table below.

	Dec 31 2021	Dec 31 2020
Goodwill arising on the acquisition of an organised part of business by LOTOS Paliwa Sp. z o.o.:		
- wholesale of LPG	10.0	10.0
- service stations networks (ESSO, Slovnaft Polska)	33.7	33.7
Total	43.7	43.7
Goodwill arising on acquisition of other entities	1.9	1.9
Total goodwill	45.6	45.6

As at December 31st 2021 and as at December 31st 2020, impairment tests of individual cash-generating units to which goodwill was allocated did not reveal any impairment indicators.

The Group determines the recoverable amount of cash-generating units based on their respective values in use, calculated on the basis of a five-year cash flow projection. The residual value for the discounted cash flows was calculated using the growing perpetuity formula. The discount rate used for the calculation reflects the weighted average cost of capital (WACC) of 6.96% (2020: 5.65%). It was assumed that the cash flow rate will remain constant after the forecast period, at 2.5%.

The most material factors affecting the estimated values in use of cash-generating units were gross margin, discount rate, volumes forecast, projected market shares in the budget period and estimated growth rate beyond the forecast period.

The Group believes that no reasonably probable change in the key parameters identified above would result in goodwill impairment.

10.1.1.3 Other intangible assets of the Refining & Marketing segment

	Patents, trademarks and licences	Other		Intangible assets under development	Total	
Gross carrying amount Jan 1 2021	242.5	35.9		5.7	284.1	
Capital expenditure	-	13.1		36.5	49.6	(1)
Transfer from intangible assets under development	7.9	0.3		(8.2)	-	
Borrowing costs	-	-		0.2	0.2	
Sale	(0.4)	(5.0)		-	(5.4)	
Other	-	(0.2)		-	(0.2)	
Gross carrying amount Dec 31 2021	250.0	44.1		34.2	328.3	
Accumulated depreciation Jan 1 2021	152.3	16.4		-	168.7	
Depreciation and amortisation	12.4	1.0		-	13.4	
Sale	(0.4)	(0.7)		-	(1.1)	
Accumulated depreciation Dec 31 2021	164.3	16.7		-	181.0	
Impairment losses Jan 1 2021	-	-		-	-	
Recognised	-	-		-	-	
Used/Reversed	-	-		-	-	
Impairment losses Dec 31 2021	-	-		-	-	
Net carrying amount Dec 31 2021	85.7	27.4		34.2	147.3	
Gross carrying amount Jan 1 2020	231.3	29.6		8.1	269.0	
Capital expenditure	-	16.5		9.4	25.9	(1)
Transfer from intangible assets under development	11.4	0.5		(11.9)	-	
Borrowing costs	-	-		0.1	0.1	
Sale	(0.2)	(0.2)		-	(0.4)	
Used	-	(10.2)	(2)	-	(10.2)	
Other	-	(0.3)		-	(0.3)	
Gross carrying amount Dec 31 2020	242.5	35.9		5.7	284.1	
Accumulated amortisation Jan 1 2020	139.2	15.4		-	154.6	
Depreciation and amortisation	13.2	1.2		-	14.4	
Sale	(0.1)	(0.2)		-	(0.3)	
Accumulated depreciation Dec 31 2020	152.3	16.4		-	168.7	
Impairment losses Jan 1 2020	-	-		-	-	
Recognised	-	-		-	-	
Used/Reversed	-	-		-	-	
Impairment losses Dec 31 2020	-	-		-	-	
Net carrying amount Dec 31 2020	90.2	19.5		5.7	115.4	

(1) Capital expenditure mainly involved the Oil Hydrocracking (HBO) project (2021: PLN 26.2m) and purchase of (CO_2) (2021: PLN 12.9m, 2020: PLN 16.0m)

(2) Carbon dioxide (CO_2) emission allowances

Intangible assets of the Refining & Marketing segment include licences relating to technological processes, including licences for technologies used in the refinery, licences for fuel production, storage and trading, software licences, patents, trademarks and acquired CO_2 emission allowances.

10.1.2 Non-current assets – Exploration & Production

	Note	Dec 31 2021	Dec 31 2020
Oil and gas exploration and evaluation assets	10.1.2.1	431.5	328.3
Property, plant and equipment		52.9	50.8
Intangible assets		378.6	277.5
Oil and gas development and production assets	10.1.2.2	3,237.4	2,602.4
Property, plant and equipment		3,201.1	2,568.7
Intangible assets		36.3	33.7
Other non-current assets of the Exploration & Production segment	10.1.2.4	288.9	306.2
Property, plant and equipment		286.5	303.6
Intangible assets		2.4	2.6
Total non-current assets of the Exploration & Production segment		3,957.8	3,236.9
including:			
Property, plant and equipment		3,540.5	2,923.1
Intangible assets		417.3	313.8

10.1.2.1 Oil and gas exploration and evaluation assets

Accounting policies

Exploration for and evaluation of mineral resources means the search for crude oil and natural gas resources and the determination of the technical feasibility and commercial viability of their extraction.

From the moment of obtaining the right to explore for hydrocarbons in a given area to the moment when the technical feasibility and commercial viability of extracting mineral resources is determined, expenditure directly connected with exploration for and evaluation of oil and gas resources is recognised in accordance with IFRS 6 Exploration for and Evaluation of Mineral Resources as a separate item of non-current assets. The expenditure includes the costs of acquisition of exploration rights, costs of exploration rigs, salaries and wages, consumables and fuel, insurance, costs of geological and geophysical surveys, as well as costs of other services.

The Group classifies its hydrocarbon exploration and evaluation assets as property, plant and equipment or intangible assets, depending on the type of the acquired assets, and applies this classification policy in a consistent manner.

Once the size of a deposit is confirmed and its production plan is approved, the expenditure is transferred to appropriate items of property, plant and equipment or intangible assets classified as development and production assets.

The Group examines the need to recognise impairment losses on exploration and evaluation assets by considering whether in relation to a specific area:

- *the period for which the Group has the right to explore in the specific area has expired during the current financial year or will expire in the near future, and is not expected to be renewed,*
- *no substantial expenditure on further exploration for and evaluation of mineral resources is anticipated,*
- *exploration for and evaluation of mineral resources have not led to discovery of commercially viable quantities of mineral resources and the Group has decided to discontinue such activities,*
- *sufficient data exist to indicate that, although development in the specific area is likely to proceed, the carrying amount of the exploration and evaluation asset is unlikely to be recovered in full from successful development or by sale.*

If expenditure on property, plant and equipment under construction does not result in discovery of any reserves in the case of which extraction is technically feasible and economically viable, impairment losses on property, plant and equipment under construction are recognised and charged to profit or loss of the period in which it is found that commercial production from the deposits is not viable.

	Note	Property, plant and equipment classified as exploration and evaluation assets	Intangible assets classified as exploration and evaluation assets			Total
		Poland	Poland	Norway	Lithuania	
Gross carrying amount Jan 1 2021		178.5	14.1	296.8	11.1	500.5
Capital expenditure		2.8	-	87.3	-	90.1
Exchange differences on translating foreign operations		-	-	15.9	-	15.9
Written-off expenditure on abandoned project	9.5	(79.4) (1)	(0.9) (2)	-	-	(80.3)
Gross carrying amount Dec 31 2021		101.9	13.2	400.0	11.1	526.2
Accumulated depreciation Jan 1 2021		-	12.0	-	-	12.0
Depreciation and amortisation		-	0.8	-	-	0.8
Written-off expenditure on abandoned project	9.5	-	(0.6) (2)	-	-	(0.6)
Accumulated depreciation Dec 31 2021		-	12.2	-	-	12.2
Impairment losses Jan 1 2021		127.7	-	21.4	11.1	160.2
Recognised	9.4	0.6	-	-	-	0.6
Exchange differences on translating foreign operations		-	-	1.0	-	1.0
Written-off expenditure on abandoned project	9.5	(79.3) (1)	-	-	-	(79.3)
Used/Reversed		-	-	-	-	-
Impairment losses Dec 31 2021		49.0	-	22.4	11.1	82.5
Net carrying amount Dec 31 2021		52.9	1.0	377.6	-	431.5
Gross carrying amount Jan 1 2020		176.2	14.1	281.2	10.2	481.7
Capital expenditure		2.3	-	9.7	-	12.0
Exchange differences on translating foreign operations		-	-	5.9	0.9	6.8
Gross carrying amount Dec 31 2020		178.5	14.1	296.8	11.1	500.5
Accumulated amortisation Jan 1 2020		-	11.1	-	-	11.1
Depreciation and amortisation		-	0.9	-	-	0.9
Accumulated depreciation/amortisation Dec 31 2020		-	12.0	-	-	12.0
Impairment losses Jan 1 2020		111.9	-	21.0	10.2	143.1
Recognised	9.5	15.8	-	-	-	15.8
Exchange differences on translating foreign operations		-	-	0.4	0.9	1.3
Used/Reversed		-	-	-	-	-
Impairment losses Dec 31 2020		127.7	-	21.4	11.1	160.2
Net carrying amount Dec 31 2020		50.8	2.1	275.4	-	328.3

(1) Write-off of expenditure on abandoned projects on the B-21, Kamień Pomorski and Górowo Iławieckie fields.
(2) Write-off of expenditure on abandoned project on the Młynary field.

Property, plant and equipment are classified as exploration and evaluation assets until the technical feasibility and commercial viability of extracting the discovered resources are demonstrated.

10.1.2.2 Oil and gas development and production assets

(PLNm)

	Note	Oil and gas development assets		Oil and gas production assets				Total
		Norway	Total	Poland	Norway	Lithuania	Total	
Gross carrying amount Jan 1 2021		1,281.4	1,281.4	2,394.2	1,926.6	697.8	5,018.6	6,300.0
Capital expenditure		151.9	151.9	67.0	74.7	-	141.7	293.6
Exchange differences on translating foreign operations		31.8	31.8	-	132.0	(2.3)	129.7	161.5
Estimated costs of decommissioning of oil and gas extraction facilities		-	-	(59.8)	1.6	3.1	(55.1)	(55.1)
Reclassification to crude oil and natural gas production assets		(1,426.4) [1]	(1,426.4)	-	1,426.4 [1]	-	1,426.4	-
Borrowing costs		-	-	5.2	-	-	5.2	5.2
Written-off expenditure on abandoned project		-	-	(1.7) [2]	-	-	(1.7)	(1.7)
Transfer from property, plant and equipment under construction		-	-	2.4	-	-	2.4	2.4
Leases	10.1.3	-	-	0.1	281.4	0.2	281.7	281.7
Sale		-	-	(6.5)	-	(2.5)	(9.0)	(9.0)
Other		-	-	(0.1)	-	(0.9)	(1.0)	(1.0)
Gross carrying amount Dec 31 2021		38.7	38.7	2,400.8	3,842.7	695.4	6,938.9	6,977.6
Accumulated depreciation Jan 1 2021		-	-	623.8	1,412.2	363.1	2,399.1	2,399.1
Depreciation and amortisation		-	-	108.1	86.4	8.3	202.8	202.8
Exchange differences on translating foreign operations		-	-	-	68.7	(1.1)	67.6	67.6
Sale		-	-	(5.0)	-	(2.5)	(7.5)	(7.5)
Other		-	-	-	-	(0.7)	(0.7)	(0.7)
Accumulated depreciation Dec 31 2021		-	-	726.9	1,567.3	367.1	2,661.3	2,661.3
Impairment losses Jan 1 2021		462.6	462.6	256.1	294.4	285.4	835.9	1,298.5
Recognised	9.4	-	-	-	39.2 [4]	3.1 [6]	42.3	42.3
Exchange differences on translating foreign operations		11.3	11.3	-	24.9	(0.9)	24.0	35.3
Reclassification to crude oil and natural gas production assets		(473.9) [1]	(473.9)	-	473.9 [1]	-	473.9	-
Used/Reversed		-	-	(252.4) [3]	(35.1) [5]	(9.7) [7]	(297.2)	(297.2)
Impairment losses Dec 31 2021		0.0	0.0	3.7	797.3	277.9	1,078.9	1,078.9
Net carrying amount Dec 31 2021		38.7	38.7	1,670.2	1,478.1	50.4	3,198.7	3,237.4

[1] YME field.
[2] B-3 field
[3] Fields: B-3, B-8
[4] Utgard field
[5] Vale field
[6] Girkaliai field
[7] Fields: Nausodis and Vėžaičiai

(PLNm)

	Note	Oil and gas development assets		Oil and gas production assets				Total
		Norway	Total	Poland	Norway	Lithuania	Total	
Gross carrying amount Jan 1 2020		1,964.9	1,964.9	2,213.8	1,884.8	643.5	4,742.1	6,707.0
Capital expenditure		228.8	228.8	103.2	16.9	0.2	120.3	349.1
Exchange differences on translating foreign operations		(5.1)	(5.1)	-	35.3	53.6	88.9	83.8
Estimated costs of decommissioning of oil and gas extraction facilities		26.1	26.1	73.5	(10.4)	0.5	63.6	89.7
Borrowing costs		-	-	8.0	-	-	8.0	8.0
Leases	10.1.3	-	-	-	-	0.1	0.1	0.1
Sale		(942.9) (1)	(942.9)	(4.3)	-	(0.1)	(4.4)	(947.3)
Other		9.6	9.6	-	-	-	-	9.6
Gross carrying amount Dec 31 2020		1,281.4	1,281.4	2,394.2	1,926.6	697.8	5,018.6	6,300.0
Accumulated amortisation Jan 1 2020		-	-	574.0	1,183.0	325.3	2,082.3	2,082.3
Depreciation and amortisation		-	-	52.7	195.4	10.5	258.6	258.6
Exchange differences on translating foreign operations		-	-	-	33.8	27.4	61.2	61.2
Sale		-	-	(2.9)	-	(0.1)	(3.0)	(3.0)
Accumulated depreciation/amortisation Dec 31 2020		-	-	623.8	1,412.2	363.1	2,399.1	2,399.1
Impairment losses Jan 1 2020		956.8	956.8	3.7	144.8	235.8	384.3	1,341.1
Recognised	9.5	460.6 (2)	460.6	253.3 (3)	155.0 (5)	29.1 (7)	437.4	898.0
Exchange differences on translating foreign operations		(11.9)	(11.9)	-	11.2	20.5	31.7	19.8
Used/Reversed		(942.9) (1)	(942.9)	(0.9) (4)	(16.6) (6)	-	(17.5)	(960.4)
Impairment losses Dec 31 2020		462.6	462.6	256.1	294.4	285.4	835.9	1,298.5
Net carrying amount Dec 31 2020		818.8	818.8	1,514.3	220.0	49.3	1,783.6	2,602.4

(1) Decommissioning of YME assets
(2) YME field
(3) Fields: B-3, B-8
(4) B-3 field (see Note 9.5)
(5) Utgard field
(6) Vale field (see Note 9.5)
(7) Fields: Nausodis, Genciai, Vėžaičiai and Girkaliai

Impairment testing of assets in the B-8 field in the Baltic Sea

As a result of the indications identified in 2021 that the amount of the impairment loss recognised in previous reporting periods had decreased or the loss no longer existed, the Group estimated the recoverable amount of the B-8 field assets. The recoverable amount was calculated using the value in use method due to the absence of an active market. As at December 31st, the amount was determined as PLN 1,531.5m.

Key assumptions underlying the calculation of the recoverable amount of the tested assets:

- the cash flow projection period assumed to equal the assets' planned life;
- the discount rate assumed to equal the weighted average cost, at 10.11% (2020: 7.26%) after taxation at the 19% marginal tax rate;
- production volumes as reported by the reservoir auditor Miller and Lents;
- sales volumes, capital expenditure and operating expenses assumed in line with current projections for the B8 field.

The following price assumptions were adopted for the estimates as part of the impairment test as at December 31st 2021:
- for crude oil in USD/bbl (per barrel of oil equivalent):

- 2022–2026 – prices in line with price assumptions in available market scenarios;
- 2027 and beyond – prices remaining stable in the long term on par with the 2026 level, adjusted for inflation.

The following price assumptions were adopted for the estimates as part of the impairment test as at December 31st 2020:
- for crude oil in USD/bbl (per barrel of oil equivalent):

- 2021–2025 – prices in line with the price assumptions in available market scenarios, adjusted for inflation;
- 2026 and beyond – prices remaining stable in the long term on par with the 2025 level, adjusted for inflation.

The excess of recoverable amount over the carrying amount of the B-8 field assets became the basis for reversing the PLN 135.0 million impairment losses recognised in previous reporting periods (see Note 9.4). The key factor contributing to the improved test results was an uptrend in Brent crude prices continuing from late 2020 and early 2021, which was directly reflected in the macroeconomic assumptions prepared for the purposes of the calculation.

In 2020, the assets were tested for impairment and as a result PLN 135.0 million impairment losses on the B-8 field oil and gas production assets were recognised (see Note 9.5). The key reason for recognising the impairment losses was the macroeconomic environment created by the global Covid-19 pandemic, which caused a significant deterioration in key calculation parameters, such as Brent oil prices and US dollar exchange rates.

Due to significant market volatility, particularly seen in crude oil prices, the adopted assumptions may be subject to justifiable changes, and such changes may necessitate a revision of the carrying amounts of the field's assets in the future. Therefore, the Group points to several uncertainties as to the recoverable amount of the assets:

- volatility of market prices of crude oil,
- estimates of investment expenditure related to contracts for which no contractor has yet been selected,
- amount of site restoration commitments,
- volatility of the PLN/USD exchange rate,
- discount rates.

To determine the effect of key factors on the test results, the Group carried out an analysis of sensitivity to a -15%/+15% change in oil and gas prices, -15%/+15% change in production volumes, -15%/+15% change in the USD/PLN exchange rate, and -0.5pp/+0.5pp change in the discount rate.

Below is presented an estimate of the amount of impairment losses (-) on the assets of the B8 field with the key assumptions modified relative to those used in the test.

As at December 31st 2021

		Effect of changes in key factors on impairment losses (PLNm)	
Factor	Change	Change (+)	Change (-)
Crude oil and gas prices	+/- 15%	-	-269.0
Production volume	+/- 15%	-	-245.9
USD/PLN exchange rate	+/- 15%	-	-264.4
Discount rate	+/- 0.5 pp	-	-

As at December 31st 2020

		Effect of changes in key factors on impairment losses (PLNm)	
Factor	Change	Change (+)	Change (-)
Crude oil and gas prices	+/- 15%	-	-244.4
Production volume	+/- 15%	-	-197.0
USD/PLN exchange rate	+/- 15%	-	-238.8
Discount rate	+/- 0.5 pp	-	-

The above analyses assume that the positive impact of a change in key assumptions cannot lead to an increase in the value of the tested assets above their carrying amount.

Impairment testing of assets in the B-3 field in the Baltic Sea

Having identified indicators potentially justifying reversals of impairment losses on assets recognised in prior reporting periods, as at December 31st 2021 the Group calculated the recoverable amount of the assets associated with the B-3 field. As at the end of the reporting period, the recoverable amount, estimated using the value in use method, was PLN 194.3 million.

Key assumptions applied to calculate the recoverable amount of the tested assets:
- the cash flow projection period assumed to equal the assets' planned life;
- the discount rate was assumed to equal the weighted average cost of capital after taxation at the marginal tax rate of 19% – at 10.11% (2020: 7.56%);
- production volumes as reported by the reservoir auditor Miller and Lents, for 2020 consistent with current projections, including current geological information,
- sales volumes, capital expenditure and operating expenses were assumed in line with current projections.

The following price assumptions were adopted for the estimates as part of the impairment test as at December 31st 2021:
- for crude oil in USD/bbl (per barrel of oil equivalent):
  - 2022–2026 – prices in line with price assumptions in available market scenarios;
  - 2027 and beyond – prices remaining stable in the long term on par with the 2026 level, adjusted for inflation.

The following price assumptions were adopted for the estimates as part of the impairment test as at December 31st 2020:
- for crude oil in USD/bbl (per barrel of oil equivalent):
  - 2021–2025 – prices in line with the price assumptions in available market scenarios, adjusted for inflation;
  - 2026 and beyond – prices remaining stable in the long term on par with the 2025 level, adjusted for inflation.

As a result of the calculations, the excess of value in use relative over the carrying amount of assets became the basis for reversing the impairment losses of PLN 116.2 million recognised in 2020 (see Note 9.4). Several factors led to improved test results. One of them was an uptrend in Brent crude prices continuing from late 2020 and early 2021, which, coupled with the adopted assumptions regarding the development of USD/PLN exchange rates, influenced the macroeconomic assumptions prepared for the purposes of the tests. Also, the production profile changed following completion of the B3-13C side-track, leading to increased production volumes.

Based on the tests carried out in 2020, PLN 118.3 million impairment losses were recognised on B3 oil and gas production assets (see Note 9.5). The key reason for recognising the impairment losses was the macroeconomic environment created by the global Covid-19 pandemic, which caused a significant deterioration in key calculation parameters, such as Brent oil prices and US dollar exchange rates.

Due to the significant market volatility and given the prevailing uncertainty as well as sensitivity of judgements and estimates (in particular with respect to crude oil prices), the adopted assumptions may be subject to reasonable changes, and such changes may necessitate a revision of the carrying amounts of the field assets in the future. The Group points to several uncertainties as to the recoverable amount of the assets:
- volatility of market prices of crude oil,
- estimates of investment expenditure related to contracts for which no contractor has yet been selected,
- volatility of the PLN/USD exchange rate,
- discount rates.

To determine the effect of key factors on the test results, the Group carried out an analysis of sensitivity to a -15%/+15% change in oil and gas prices, -15%/+15% change in production volumes, -15%/+15% change in the USD/PLN exchange rate, and -0.5pp/+0.5pp change in the discount rate.

Below is presented an estimate of the amount of impairment losses (-) on the assets of the B3 field with the key assumptions modified relative to those used in the test.

As at December 31st 2021

		Effect of changes in key factors on impairment losses (PLNm)	
Factor	Change	Change (+)	Change (-)
Crude oil and gas prices	+/- 15%	-	-76.7
Production volume	+/- 15%	-	-76.6
USD/PLN exchange rate	+/- 15%	-	-56.8
Discount rate	+/- 0.5 pp	-	-

As at December 31st 2020

		Effect of changes in key factors on impairment losses (PLNm)	
Factor	Change	Change (+)	Change (-)
Crude oil and gas prices	+/- 15%	-	-107.1
Production volume	+/- 15%	-	-104.9
USD/PLN exchange rate	+/- 15%	-	-104.6
Discount rate	+/- 0.5 pp	-	-

The above analyses assume that the positive impact of a change in key assumptions cannot lead to an increase in the value of the tested assets above their carrying amount.

Progress of the YME field development project in Norway

At the end of October 2021, production from the Yme field was launched. The field is currently in the hot commissioning phase. Injection of gas into production wells and gas turbines is scheduled to begin in early 2022. Other existing Gamma production wells are also gradually coming online. A 24-hour production test is also planned on the Yme field in February 2022, and new Gamma and Beta production wells are to be drilled later during the year. Given that the project is progressing in line with the Operator's assumptions, in 2021 the Group did not identify any operating factors that would justify the need to test the Yme field for impairment.

Verification of the recoverable amount as at December 31st 2020, carried out using the value in use method, revealed the need to recognise impairment losses on the YME field totalling PLN 460.6m (see Note 9.5).

Key assumptions underlying computation of the recoverable amount as at December 31st 2020:

- the cash flow projection period assumed to equal the assets' planned life;
- The discount rate was assumed to equal the weighted average cost of capital, at 6.70% – after taxation at the marginal tax rate of 78% (applicable in Norway);
- production and sales volumes, capital expenditure, operating expenses and field decommissioning costs were assumed in line with the field operator's projections and based on the information available to the Group.

The assumptions for crude oil prices (USD/bbl) made for the purposes of the December 31st 2020 test estimates were as follows:
- 2021–2025 – prices in line with price assumptions in available market scenarios;
- 2026 and beyond – prices stable in the long term, on par with the 2025 level, adjusted for inflation.

To determine the effect of key factors on the test results, the Group carried out an analysis of sensitivity to a -15%/+15% change in oil and gas prices, -15%/+15% change in production volumes, -15%/+15% change in the USD/NOK exchange rate, and -0.5pp/+ 0.5pp change in the discount rate.

The table below presents the estimated amounts of impairment losses for recognition (-) and reversal (+) in the three months to December 31st 2020 with the key assumptions modified in relation to those originally applied:

		Effect of changes in key factors on impairment losses (PLNm)	
Factor	Change	Change (+)	Change (-)
Crude oil and gas prices	+/- 15%	+185.5	-290.2
Production volume	+/- 15%	+176.9	-281.6
USD/NOK exchange rate	+/- 15%	+176.9	-281.6
Discount rate	+/- 0.5 pp	-74.3	-28.6

Impairment testing of the production assets of the offshore gas and condensate production facility in the Heimdal field and of the Sleipner and Utgard gas field in Norway

In 2021, the Group tested for impairment each cash-generating unit's production assets for the producing Heimdal fields (Atla, Vale, Skirne, Heimdal) and the Sleipner and Utgard fields. The recoverable amount was estimated using the value in use method.

The key assumptions underlying computation of the recoverable amount of the tested assets:
- the cash flow projection period assumed to equal the assets' planned life;
- the discount rate was assumed to equal the weighted average cost, at 8.55% (2020: 6.70%) after taxation with the 78% marginal tax rate (applicable in Norway);
- production and sales volumes, capital expenditure, operating expenses and field decommissioning costs were assumed as projected by the field operators.

For the purposes of the tests performed as at December 31st 2021, the following prices were assumed for crude oil (in USD/bbl) and for natural gas (in USD/boe):
- 2022–2026 – prices in line with price assumptions in available market scenarios;
- 2027 and beyond – prices stable in the long term, on par with the 2026 level, adjusted for inflation;

For the purposes of the tests performed as at December 31st 2020, the following prices were assumed for crude oil (in USD/bbl) and for natural gas (in USD/boe):
- 2021–2025 – prices in line with price assumptions in available market scenarios;
- 2026 and beyond – prices stable in the long term, on par with the 2025 level, adjusted for inflation;

In 2021, the recoverable amount of the Vale field was estimated at NOK 79.5m (PLN 36.6m), leading to reversal of impairment losses of PLN 35.1m (see Note 9.4), which resulted from the extension of the production horizon until July 2023 and improvement of the Vale field's production efficiency.

As at December 31st 2021, the recoverable amount of the Utgard field was estimated at NOK 40.9m (PLN 18.8m), which resulted in recognition of impairment losses of PLN 39.2m (see Note 9.4). This reflected the declining output trend due to high water breakthrough in production wells and the need to cut off some of these wells. The excessive proportion of water in the oil produced causes technical limitations to the processing of oil on the Sleipner platform, to which the Utgard field is connected. In late December 2020 and early January 2021, repair operations were carried out on a production well at the Utgard field to eliminate the breakthrough. As a result, production from the field increased temporarily. As water breakthrough was observed again in May 2021, in August 2021, another intervention was carried out to repair the G-4 and G-1 wells, which, however, brought about only a short improvement, and therefore production was continued from the G-4 well only. At the beginning of December, the Utgard field operator resumed production from the G-1 well and then the G-4 well, and now both wells are producing hydrocarbons. According to the operator's most recent forecasts, production from the Utgard field is expected to be discontinued by May 2022 at the latest. Future cyclical production intervals are possible.

In 2020, the Group tested for impairment each cash-generating unit’s production assets for the producing Heimdal fields (Atla, Vale, Skirne, Heimdal) and the Sleipner and Utgard fields. The tests demonstrated the need to recognise impairment losses on the Utgard field of PLN 155.0m (see Note 9.5). As at December 31st 2020, a PLN 16.6m impairment loss on the Vale field was reversed (see Note 9.5) due to an extension of the production horizon.

Due to significant market volatility, in particular with respect to oil and gas prices, the adopted assumptions may be subject to justifiable changes, and such changes may necessitate a revision of the carrying amounts of the LOTOS E&P Norge's assets in the future.

To determine the effect of key factors on the test results, the Group carried out an analysis of sensitivity to a -15%/+15% change in oil and gas prices, -15%/+15% change in production volumes, -15%/+15% change in the USD/NOK exchange rate, and -0.5pp/+ 0.5pp change in the discount rate.

The table below presents the estimated amounts of recognised (-) and reversed (+) impairment losses on the tested Heimdal, Sleipner and Utgard assets, with the key assumptions modified in relation to those originally applied:

As at December 31st 2021

		Effect of changes in key factors on impairment losses (PLNm)	
Factor	Change	Change (+)	Change (-)
Crude oil and gas prices	+/- 15%	+28.4	-1.5
Production volume	+/- 15%	+32.5	-5.6
USD/NOK exchange rate	+/- 15%	+28.2	-1.3
Discount rate	+/- 0.5 pp	+13.7	+13.2

As at December 31st 2020

		Effect of changes in key factors on impairment losses (PLNm)	
Factor	Change	Change (+)	Change (-)
Crude oil and gas prices	+/- 15%	+51.0	+5.2
Production volume	+/- 15%	+52.7	+3.5
USD/NOK exchange rate	+/- 15%	+50.5	+5.7
Discount rate	+/- 0.5 pp	+27.5	+28.7

Impairment testing of onshore oil and gas extraction facilities in Lithuania

As a result of the calculation of the recoverable amount of deposits and production infrastructure in Lithuania performed in 2021, a total impairment loss of PLN 6.6 million on license-related expenditures was reversed (see Note 9.4). The recoverable amount was determined at EUR 8.6 million (PLN 39.6 million).

As a result of impairment tests performed for the resources and production infrastructure in Lithuania, as at December 31st 2020 the Group recognised impairment losses of PLN 29.1m on the capital expenditure associated with the Lithuanian licences (see Note 9.5).

The Group determines the recoverable amount of the tested assets as their value in use measured using the discounted future cash flows method.

Key assumptions underlying computation of the recoverable amount of the tested assets in Lithuania:

- the cash flow projection period assumed to equal the assets' planned life;
- the discount rate was assumed to equal the weighted average cost, at 8.63% (2020: 6.95%),
- production volumes were assumed to be in line with a competent person report prepared by Miller & Lents based on the most recent available geological information;
- capital expenditure was assumed to match the projected production volumes.

The following crude oil price assumptions (USD/bbl) were adopted for the purposes of the estimates made in 2021:
- 2022–2026 – prices in line with price assumptions in available market scenarios;
- 2027 and beyond – prices stable in the long term, on par with the 2026 level, adjusted for inflation.

Crude oil price assumptions (USD/bbl) adopted for the purposes of the estimates as at December 31st 2020:
- 2020–2025 – prices in line with the price assumptions of available market scenarios;
- 2026 and beyond – prices stable in the long term, on par with the 2025 level, adjusted for inflation.

Due to significant market volatility, in particular with respect to crude oil prices, the adopted assumptions may be subject to reasonable changes, and such changes may necessitate a revision of the carrying amounts of the assets in the future.

To determine the effect of key factors on the test results, the Group carried out an analysis of sensitivity to a -15%/+15% change in oil prices, -15%/+15% change in production volumes, -15%/+15% change in the USD/EUR exchange rate, and -0.5%/+0.5% change in the discount rate.

Presented below is the estimated amount of recognition (-) and reversal (+) of impairment losses following changes in the key assumptions.

As at December 31st 2021

		Effect of changes in key factors on impairment losses (PLNm)	
Factor	Change	Change (+)	Change (-)
Crude oil and gas prices	+/- 15%	+36.1	-8.2
Production volume	+/- 15%	+28.7	-5.2
USD/NOK exchange rate	+/- 15%	+33.4	-7.5
Discount rate	+/- 0.5 pp	+6.1	+8.4

As at December 31st 2020

		Effect of changes in key factors on impairment losses (PLNm)	
Factor	Change	Change (+)	Change (-)
Crude oil and gas prices	+/- 15%	+17.8	-21.8
Production volume	+/- 15%	+12.1	-19.4
USD/NOK exchange rate	+/- 15%	+15.7	-21.2
Discount rate	+/- 0.5 pp	-9.6	-7.0

10.1.2.3 Assets related to future costs of decommissioning of oil and gas extraction facilities

As part of its development and production assets, the Group discloses assets related to future costs of decommissioning of oil and gas extraction facilities depreciated with the units-of-production method. These assets are recognised along with the recognition and remeasurement of provisions for decommissioning of oil and gas extraction facilities.

	Oil and gas development assets	Oil and gas production assets				Total
	Norway	Poland	Norway	Lithuania	Total	
Gross carrying amount Jan 1 2021	161.7	242.1	729.2	4.9	976.2	1,137.9
Estimated costs of decommissioning of oil and gas extraction facilities	-	(59.8)	1.6	3.1	(55.1)	(55.1)
Exchange differences on translating foreign operations	3.8	-	38.5	(0.1)	38.4	42.2
Reclassification to crude oil and natural gas production assets	(165.5)	-	165.5	-	165.5	-
Gross carrying amount Dec 31 2021	-	182.3	934.8	7.9	1,125.0	1,125.0
Accumulated depreciation Jan 1 2021	-	91.9	599.7	2.6	694.2	694.2
Depreciation and amortisation	-	16.4	17.2	0.8	34.4	34.4
Exchange differences on translating foreign operations	-	-	28.7	-	28.7	28.7
Accumulated depreciation Dec 31 2021	-	108.3	645.6	3.4	757.3	757.3
Impairment losses Jan 1 2021	122.0	-	72.7	-	72.7	194.7
Recognised	-	-	4.7	-	4.7	4.7
Exchange differences on translating foreign operations	2.8	-	5.5	-	5.5	8.3
Used/Reversed	-	-	(31.8)	-	(31.8)	(31.8)
Reclassification to crude oil and natural gas production assets	(124.8)	-	124.8	-	124.8	-
Impairment losses Dec 31 2021	-	-	175.9	-	175.9	175.9
Net carrying amount Dec 31 2021	-	74.0	113.3	4.5	191.8	191.8
Gross carrying amount Jan 1 2020	131.6	168.6	726.7	4.1	899.4	1,031.0
Estimated costs of decommissioning of oil and gas extraction facilities	26.1	73.5	(10.4)	0.5	63.6	89.7
Exchange differences on translating foreign operations	4.0	-	12.9	0.3	13.2	17.2
Gross carrying amount Dec 31 2020	161.7	242.1	729.2	4.9	976.2	1,137.9
Accumulated amortisation Jan 1 2020	-	85.7	538.5	2.1	626.3	626.3
Depreciation and amortisation	-	6.2	48.2	0.3	54.7	54.7
Exchange differences on translating foreign operations	-	-	13.0	0.2	13.2	13.2
Accumulated depreciation/amortisation Dec 31 2020	-	91.9	599.7	2.6	694.2	694.2
Impairment losses Jan 1 2020	119.8	-	65.3	-	65.3	185.1
Recognised	-	-	8.3	-	8.3	8.3
Exchange differences on translating foreign operations	2.2	-	1.6	-	1.6	3.8
Used/Reversed	-	-	(2.5)	-	(2.5)	(2.5)
Impairment losses Dec 31 2020	122.0	-	72.7	-	72.7	194.7
Net carrying amount Dec 31 2020	39.7	150.2	56.8	2.3	209.3	249.0

10.1.2.4 Other non-current assets of the Exploration & Production segment

	Note	Land	Buildings, structures	Plant and equipment	Vehicles, other		Property, plant and equipment under construction	Intangible assets	Total
Gross carrying amount Jan 1 2021		16.3	60.0	74.6	620.4		17.4	16.5	805.2
Capital expenditure		-	-	0.1	4.8		7.6	1.1	13.6
Transfer from property, plant and equipment under construction		-	-	1.6	7.3		(11.3)	-	(2.4)
Leases	10.1.3	-	-	-	(28.5)	(1)	-	-	(28.5)
Exchange differences on translating foreign operations		-	0.4	1.6	17.5		0.1	0.1	19.7
Sale		-	-	(0.3)	(0.2)		-	-	(0.5)
Other		-	(1.2)	-	(0.4)		-	-	(1.6)
Gross carrying amount Dec 31 2021		16.3	59.2	77.6	620.9		13.8	17.7	805.5
Accumulated depreciation Jan 1 2021		5.5	29.6	45.7	397.1		-	13.9	491.8
Depreciation and amortisation		0.5	3.0	3.2	55.6		-	1.2	63.5
Leases		-	-	-	(57.9)	(2)	-	-	(57.9)
Exchange differences on translating foreign operations		-	0.1	1.0	13.2		-	0.2	14.5
Sale		-	-	(0.3)	(0.2)		-	-	(0.5)
Other		-	(0.5)	-	(0.4)		-	-	(0.9)
Accumulated depreciation Dec 31 2021		6.0	32.2	49.6	407.4		-	15.3	510.5
Impairment losses Jan 1 2021		-	-	0.6	6.6		-	-	7.2
Recognised		-	-	-	-		-	-	-
Exchange differences on translating foreign operations		-	-	-	0.4		-	-	0.4
Used/Reversed	9.4	-	-	-	(1.5)		-	-	(1.5)
Impairment losses Dec 31 2021		-	-	0.6	5.5		-	-	6.1
Net carrying amount Dec 31 2021		10.3	27.0	27.4	208.0		13.8	2.4	288.9

(1) New contracts, termination of contracts and lease modifications (see Note 10.1.3)
(2) Termination of lease contracts (see Note 10.1.3)

(PLNm)

	Note	Land	Buildings, structures	Plant and equipment	Vehicles, other	Property, plant and equipment under construction	Intangible assets	Total
Gross carrying amount Jan 1 2020		14.3	59.7	74.1	602.4	23.7	15.2	789.4
Capital expenditure		-	-	0.3	6.4	7.9	1.1	15.7
Transfer from property, plant and equipment under construction		-	0.1	0.5	13.6	(14.2)	-	-
Leases	10.1.3	2.0	-	-	0.3	-	-	2.3
Exchange differences on translating foreign operations		-	0.2	(0.2)	(2.2)	-	0.2	(2.0)
Sale		-	-	(0.1)	(0.1)	-	-	(0.2)
Gross carrying amount Dec 31 2020		16.3	60.0	74.6	620.4	17.4	16.5	805.2
Accumulated amortisation Jan 1 2020		5.1	26.6	42.6	342.1	-	12.8	429.2
Depreciation and amortisation		0.4	2.9	3.3	57.4	-	1.0	65.0
Exchange differences on translating foreign operations		-	0.1	(0.2)	(2.3)	-	0.1	(2.3)
Sale		-	-	-	(0.1)	-	-	(0.1)
Accumulated depreciation/amortisation Dec 31 2020		5.5	29.6	45.7	397.1	-	13.9	491.8
Impairment losses Jan 1 2020		-	-	0.6	7.8	-	-	8.4
Recognised		-	-	-	-	-	-	-
Exchange differences on translating foreign operations		-	-	-	(0.1)	-	-	(0.1)
Used/Reversed	9.5	-	-	-	(1.1)	-	-	(1.1)
Impairment losses Dec 31 2020		-	-	0.6	6.6	-	-	7.2
Net carrying amount Dec 31 2020		10.8	30.4	28.3	216.7	17.4	2.6	306.2

Other property, plant and equipment and intangible assets of the Exploration & Production segment include ships and a multi-purpose mobile drilling rig.

10.1.3 Right-of-use assets

Accounting policies

The Group uses a single accounting model for leases under which the lessee recognises right-of-use assets and lease liabilities for all leases except short-term leases and leases of low-value assets.

Short-term leases are leases with a term of 12 months or less, containing no purchase options. In particular, the Group defines as short-term leases contracts made for an indefinite term which may be terminated on a short notice (up to 12 months) without any significant penalty imposed on the party.
The materiality level defined by the Group to identify low-value leases is PLN 20 thousand for entities whose functional currency is PLN, and the equivalent of USD 5 thousand for entities whose functional currency is other than PLN. The value of the underlying asset is measured based on the value of the asset when it is new, regardless of the age of the leased asset.

An asset is typically identified by being explicitly specified in a contract, but an asset can also be identified by being implicitly specified at the time it is made available for use by the customer. The Group recognises a right-of-use asset and a lease liability upon commencement of a contract under which control of the use of specified assets is transferred for a certain period of time. The date of commencement of a lease contract is the date on which the leased asset is made available to the Group as the lessee.

A right-of-use asset is initially measured at cost which includes:
- *the amount of the initial measurement of the lease liability,*
- *any lease payments made at or prior to commencement, less any lease incentives received,*
- *any initial direct costs incurred by the lessee,*
- *the initial estimate of the costs of dismantling and removing the underlying asset and restoring the site on which it is located.*

Right-of-use assets are recognised in the statement of financial position as property, plant and equipment (property, plant and equipment of the Refining & Marketing segment and property, plant and equipment of the Exploration & Production segment). Perpetual usufruct right to land acquired for a consideration or received free of charge is recognised in the same manner as other lease contracts (as right-of-use assets and lease liabilities). To calculate assets and liabilities related to perpetual usufruct, the Group conducts an analysis to determine the anticipated term of perpetual usufruct. Once the anticipated term of perpetual usufruct has been determined, the lease liability is calculated in accordance with general principles.

After the lease commencement date, the right-of-use asset is measured at cost less accumulated depreciation and accumulated impairment losses. If there is a lease modification, the right-of-use asset is adjusted to the remeasurement of the lease liability (reflecting changes resulting from the lease modification or revision of the discount rate).

The right-of-use asset is amortised on a straight-line basis over the period corresponding to the estimated useful life of the asset. The estimated useful lives of right-of-use assets are determined in the same manner as estimated useful lives of property, plant and equipment.

If the lease transfers the ownership of an asset to the Company before the end of the lease term, or if the cost of the right-of-use asset reflects that the Company will exercise a purchase option, the Company depreciates the right-of-use asset from the commencement date to the end of the useful life of the underlying asset. In other cases, the Company depreciates the right-of-use assets from the commencement date to the earlier of the end of the useful life of the asset or the end of the lease term.

Decommissioning costs are capitalised as part of the right-of-use asset and amortised over the estimated useful life of the asset. The fair value of decommissioning costs is estimated by the Group in accordance with the methodology specified in IFRIC 1.

When the Group establishes a provision for the contractually required inspection or overhaul of a leased asset (for example, rolling stock), it recognises the value of the established provision as an asset component (rights of use) at the date of its initial recognition. The component should be fully depreciated by the time of the first contracted repair or overhaul (this component is used against the last repair required under the lease contract). If more than one overhaul of the asset is required before the end of the lease contract, the Group capitalizes the costs of the overhaul and amortizes it until the next overhaul. The last overhaul required for a given contract results in the termination of the provision recognised at the commencement of the contract.

(PLNm)

Right-of-use assets of the Refining & Marketing segment

Refining & Marketing	Land	Buildings, structures	Plant and equipment	Vehicles, other	Property, plant and equipment under construction	Total
Gross carrying amount Jan 1 2021	892.2	174.8	0.1	759.6	-	1,826.7
New leases	30.1	9.3	-	134.9	-	174.3
Early termination of lease contract	(3.0)	(2.6)	-	(49.2)	-	(54.8)
Termination of leases	(3.2)	(0.2)	-	(5.4)	-	(8.8)
Purchase of asset – transfer to property, plant and equipment	-	-	-	(41.0)	-	(41.0)
Lease modifications	17.7	4.6	-	26.6	-	48.9
Recognition of liquidation assets	0.1	-	-	-	-	0.1
Other	-	-	-	1.2	-	1.2
Gross carrying amount Dec 31 2021	933.9	185.9	0.1	826.7	-	1,946.6
Accumulated depreciation Jan 1 2021	74.0	36.7	0.1	346.2	-	457.0
Depreciation and amortisation	37.5	19.3	-	150.9	-	207.7
Early termination of lease contract	(0.5)	(0.9)	-	(35.3)	-	(36.7)
Termination of leases	(3.1)	(0.2)	-	(5.1)	-	(8.4)
Purchase of asset – transfer to property, plant and equipment	-	-	-	(15.1)	-	(15.1)
Lease modifications	-	-	-	(3.5)	-	(3.5)
Accumulated depreciation Dec 31 2021	107.9	54.9	0.1	438.1	-	601.0
Impairment losses Jan 1 2021	26.1	3.4	-	-	-	29.5
Recognised	0.1	-	-	-	-	0.1 [(1)]
Used/Reversed	-	-	-	-	-	-
Impairment losses Dec 31 2021	26.2	3.4	-	-	-	29.6
Net carrying amount Dec 31 2021	799.8	127.6	-	388.6	-	1,316.0

[(1)] Impairment losses on the service station network (see Note 9.4).

(PLNm)

Refining & Marketing	Land	Buildings, structures	Plant and equipment	Vehicles, other	Property, plant and equipment under construction	Total
Gross carrying amount Jan 1 2020	852.0	146.4	0.1	729.8	0.4	1,728.7
New leases	30.0	27.6	-	116.5	-	174.1
Early termination of lease contract	-	(1.5)	-	(24.6)	-	(26.1)
Termination of leases	-	-	-	(17.1)	-	(17.1)
Purchase of asset – transfer to property, plant and equipment	-	-	-	(50.9)	-	(50.9)
Lease modifications	10.0	2.3	-	(7.0)	-	5.3
Recognition of liquidation assets	0.2	-	-	-	-	0.2
Unsettled upfront payments	-	-	-	-	11.8	11.8
Settled upfront payments	-	-	-	12.2	(12.2)	-
Other	-	-	-	0.7	-	0.7
Gross carrying amount Dec 31 2020	892.2	174.8	0.1	759.6	0.0	1,826.7
Accumulated amortisation Jan 1 2020	38.0	17.9	-	254.2	-	310.1
Depreciation and amortisation	36.0	19.1	0.1	147.5	-	202.7
Early termination of lease contract	-	(0.2)	-	(15.6)	-	(15.8)
Termination of leases	-	-	-	(16.7)	-	(16.7)
Purchase of asset – transfer to property, plant and equipment	-	-	-	(16.3)	-	(16.3)
Lease modifications	-	(0.1)	-	(5.5)	-	(5.6)
Other	-	-	-	(1.4)	-	(1.4)
Accumulated depreciation Dec 31 2020	74.0	36.7	0.1	346.2	-	457.0
Impairment losses Jan 1 2020	18.5	2.9	-	-	-	21.4
Recognised	7.6	0.5	-	-	-	8.1 [1]
Used/Reversed	-	-	-	-	-	-
Impairment losses Dec 31 2020	26.1	3.4	-	-	-	29.5
Net carrying amount Dec 31 2020	792.1	134.7	-	413.4	0.0	1,340.2

[1] Impairment losses on the service station network (see Note 9.5).

(PLNm)

Right-of-use assets of the Exploration & Production segment

Exploration & Production	Oil and gas production assets	Other non-current assets					Total
		Land	Buildings, structures	Plant and equipment	Vehicles, other	Total	
Gross carrying amount Jan 1 2021	2.4	14.7	6.6	-	61.7	83.0	85.4
New leases	281.9	-	-	-	25.6	25.6	307.5
Termination of leases	-	-	-	-	(57.9)	(57.9)	(57.9)
Lease modifications	(0.2)	-	-	-	3.8	3.8	3.6
Exchange differences on translating foreign operations	6.4	-	0.3	-	3.3	3.6	10.0
Gross carrying amount Dec 31 2021	290.5	14.7	6.9	-	36.5	58.1	348.6
Accumulated depreciation Jan 1 2021	0.7	5.0	2.4	-	44.3	51.7	52.4
Depreciation and amortisation	0.9	0.5	1.2	-	18.9	20.6	21.5
Termination of leases	-	-	-	-	(57.9)	(57.9)	(57.9)
Exchange differences on translating foreign operations	-	-	0.1	-	1.5	1.6	1.6
Accumulated depreciation Dec 31 2021	1.6	5.5	3.7	-	6.8	16.0	17.6
Impairment losses Jan 1 2021	0.4	-	-	-	-	-	0.4
Recognised	-	-	-	-	-	-	-
Used/Reversed	-	-	-	-	-	-	-
Impairment losses Dec 31 2021	0.4	-	-	-	-	-	0.4
Net carrying amount Dec 31 2021	288.5	9.2	3.2	-	29.7	42.1	330.6

(PLNm)

Exploration & Production	Oil and gas production assets	Other non-current assets					Total
		Land	Buildings, structures	Plant and equipment	Vehicles, other	Total	
Gross carrying amount Jan 1 2020	2.3	12.7	6.5	0.9	61.9	82.0	84.3
New leases	-	-	-	-	0.3	0.3	0.3
Termination of leases	0.1	-	-	-	-	-	0.1
Purchase of asset – transfer to property, plant and equipment	-	-	-	(0.9)	-	(0.9)	(0.9)
Lease modifications	-	2.0	-	-	-	2.0	2.0
Exchange differences on translating foreign operations	-	-	0.1	-	(0.5)	(0.4)	(0.4)
Gross carrying amount Dec 31 2020	2.4	14.7	6.6	-	61.7	83.0	85.4
Accumulated amortisation Jan 1 2020	0.3	4.6	1.2	0.5	21.5	27.8	28.1
Depreciation and amortisation	0.4	0.4	1.1	-	23.7	25.2	25.6
Purchase of asset – transfer to property, plant and equipment	-	-	-	(0.5)	-	(0.5)	(0.5)
Exchange differences on translating foreign operations	-	-	0.1	-	(0.9)	(0.8)	(0.8)
Accumulated depreciation Dec 31 2020	0.7	5.0	2.4	-	44.3	51.7	52.4
Impairment losses Jan 1 2020	0.4	-	-	-	-	-	0.4
Recognised	-	-	-	-	-	-	-
Used/Reversed	-	-	-	-	-	-	-
Impairment losses Dec 31 2020	0.4	-	-	-	-	-	0.4
Net carrying amount Dec 31 2020	1.3	9.7	4.2	-	17.4	31.3	32.6

Leasing costs recognised in the statement of comprehensive income		2021	2020
Depreciation and amortisation	Costs by nature of expense	227.0	225.9
Short-term leases	Costs by nature of expense: Services	48.5	45.1
Leases of low-value assets other than short-term leases	Costs by nature of expense: Services	0.3	0.4
Variable lease payments not included in the measurement of lease liabilities	Costs by nature of expense: Services	16.1	11.9
Interest on lease liabilities	Finance costs	72.7	75.8
Total		364.6	359.1

Allocation of depreciation expense	2021	2020
Cost of sales	168.1	171.3
Selling expenses	52.4	50.0
Administrative expenses	6.5	4.6
Total depreciation/amortisation expense recognised in the statement of comprehensive income	227.0	225.9
Capital expenditure	2.2	2.4
Total	229.2	228.3

For information on lease liabilities, see Note 10.9.4.

In 2020, the total amount of expenditure under lease contracts, disclosed in the statement of cash flows as cash flows from financing and operating activities, was PLN 356.5m (2020: PLN 347.2m).

10.1.4 Other information on property, plant and equipment and intangible assets

Allocation of depreciation expense	Note	2021	2020
Cost of sales		867.1	944.4
Selling expenses		134.7	127.0
Administrative expenses		32.5	31.5
Change in products and adjustments to cost of sales		14.7	(13.0)
Total depreciation/amortisation expense recognised in the statement of comprehensive income	9.2	1,049.0	1,089.9
Capital expenditure		2.2	2.4
Total		1,051.2	1,092.3

In 2021, the Group capitalised finance costs of PLN 7.7m as property, plant and equipment under construction and intangible assets under development (2020: PLN 14.2m).

As at December 31st 2021, cumulative borrowing costs capitalised as property, plant and equipment under construction, intangible assets under development, and property, plant and equipment related to oil and gas production totalled PLN 49.2m (December 31st 2020: PLN 71.2m).

As at December 31st 2021, property, plant and equipment as well as intangible assets serving as collateral for the Group's liabilities totalled PLN 2,836.2m (December 31st 2020: PLN 4,345.6m).

As at December 31st 2021, the Group's future contractual commitments related to purchases of property, plant and equipment and intangible assets, undisclosed in the statement of financial position, totalled PLN 301.1m (December 31st 2020: PLN 458.9m). As at December 31st2021, the contracted expenditure was related, among others, the hydrogen recovery unit (HRU), purchase of intermodal rolling stock, as well as the upgrade of the Fuel Depot in Piotrków Trybunalski. As at December 31st 2020, the contracted expenditure was related, among others, to the upgrade of the Fuel Depot in Piotrków Trybunalski, upgrade of the Claus unit (sulfur recovery), construction of rail tank loading station, development of the B-8 field, expansion of the service station network and purchase of intermodal rolling stock.

10.2 Equity-accounted joint ventures

Accounting policies

IFRS 11 defines a joint arrangement as a contractual arrangement under which the business of two or more parties is subject to joint control. Joint control exists only when decisions about the relevant activities under the arrangement require the unanimous consent of all the parties.

Joint arrangements are classified into two types – joint operations and joint ventures. The distinction between the two is based on different rights and obligations of the parties under the joint arrangement.

If under the joint arrangement the parties with joint control of the arrangement have rights to the net assets of the arrangement, then it is a joint venture, which in principle requires the establishment of a separate vehicle. The Group's joint ventures include LOTOS-Air BP Polska Sp. z o.o., a jointly-controlled entity operating in the Refining & Marketing segment, and the following entities operating in the Exploration & Production segment: Baltic Gas Sp. z o.o., Baltic Gas spółka z ograniczoną odpowiedzialnością i wspólnicy sp.k., and UAB Minijos Nafta.

Investments in joint ventures measured in accordance with IFRS 11 Joint Arrangements are accounted for with the equity method and recognised in the statement of financial position at cost, adjusted for subsequent changes in the Group's share of the net assets of such entities, less impairment losses, if any. The statement of comprehensive income reflects the share in the results of operations of such entities, and if a change is recognised directly in their equity, the Group recognises its share in each change and, if applicable, discloses it in the statement of changes in equity and in the statement of comprehensive income under other comprehensive income, net.

Joint arrangements under which the parties with joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement, are defined as joint operations.

The Group holds interests in joint operations in the Exploration & Production segment through a Norwegian company, LOTOS Exploration and Production Norge AS, a subsidiary of LOTOS Petrobaltic S.A. In accordance with IFRS 11, the Group recognises its interest in assets, liabilities, costs and expenses related to its joint operations in the Heimdal field in Norway.

Considering the IFRS 11 criteria, not all operations involving a number of participants are joint operations or joint ventures as defined in the standard. In some situations, the Group is a party to an arrangement whose nature is that of joint operations, but has no joint control of the arrangement. This happens when there is more than one combination of the parties that can agree to make significant decisions about the operations. For the purposes of correct recognition of revenues, costs, assets and liabilities, the Group does not apply IFRS 11 in such situations, but other relevant IFRSs, taking into account its interest in the arrangement underlying the operations.

The Group is a party to arrangements involving joint operations in the Sleipner fields in Norway which are not subject to IFRS 11. The Group recognises the operations proportionately, i.e. according to its share in revenue, costs, receivables and liabilities relating to joint exploration and production of crude oil and natural gas in the Sleipner field. Therefore, there is no practical difference in recognising transactions relating to operations under the Sleipner licences with respect to the requirement to recognise joint operations under the Heimdal licence, which meet the definition of joint operations in accordance with IFRS 11.

Joint control of an investee

The Group and all other investors collectively control an investee when they must act together to direct the relevant activities. In such cases, because no investor can direct the activities without the cooperation of other investors, no investor individually controls the investee. The Group assesses whether it shares control of an arrangement, which – in accordance with IFRS 11 Joint Arrangements – may be defined either as a joint venture or a joint operation, taking into consideration whether all parties to the arrangement have control of it, whether they share exposure, or rights, to variable returns from their involvement with the investee, and whether they have the ability to jointly use their power over the investee to affect the amount of their returns.

The Group holds interests in equity-accounted joint ventures, which include:

- Joint venture agreement between Grupa LOTOS S.A. and BP Europe SE on joint operations related to supply of aviation fuel through LOTOS - Air BP Polska Sp. z o.o.
- Agreement on cooperation between LOTOS Petrobaltic S.A. and CalEnergy Resources Poland Sp. z o.o. with respect to development and production of gas and condensate reserves from the B-4 and B-6 fields in the Baltic Sea, performed through special purpose vehicles Baltic Gas spółka z ograniczoną odpowiedzialnością i wspólnicy sp.k. and Baltic Gas Sp. z o.o. (general partner).
- Joint venture set up for the purpose of oil exploration and production operations in Lithuania, operated in the form of UAB Minijos Nafta.

	Registered office	Principal business	The Group's ownership interest of shares		Carrying amount (PLNm)	
			Dec 31 2021	Dec 31 2020	Dec 31 2021	Dec 31 2020
Refining & Marketing						
LOTOS-Air BP Polska Sp. z o.o.	Gdańsk	Sale of aviation fuel and logistics services	50.00%	50.00%	28.0	26.1
Exploration & Production						
Baltic Gas Sp. z o.o.	Gdańsk	Crude oil and gas production (support activities for crude oil and gas production)	50.00%	50.00%	-	-
Baltic Gas spółka z ograniczoną odpowiedzialnością i wspólnicy sp.k. [1]	Gdańsk	Crude oil and gas production	46.05%	45.99%	-	-
UAB Minijos Nafta	Lithuania, Gargždai	Crude oil exploration and production	50.00%	50.00%	-	-
Total					28.0	26.1

[1] The ownership interests as at December 31st 2021 were determined based on the value of contributions made by individual partners relative to the sum of all contributions:
- Baltic Gas Sp. z o.o. (general partner) 0.001% (December 31st 2020: 0.001%),
- LOTOS Upstream Sp. z o.o. (limited partner) 46.051% (December 31st 2020: LOTOS Petrobaltic S.A.: 45.992%),
- CalEnergy Resources Poland Sp. z o.o. ("CalEnergy") (limited partner) 53.948% (December 31st 2020: 54.008%).

The Group's indirect ownership interest in Baltic Gas spółka z ograniczoną odpowiedzialnością i wspólnicy sp. k. (jointly-controlled entity) is 46.05% (December 31st 2020: 45.99%).

In 2021, LOTOS Upstream Sp. z o.o. made the agreed cash contributions to Baltic Gas spółka z ograniczoną odpowiedzialnością i wspólnicy sp. k., of PLN 2.9m (2020: PLN 7.0m), which resulted in the change of the Group's ownership interest in the company. The expenditure on cash contributions made by LOTOS Upstream Sp z o.o was disclosed by the Group in the consolidated statement of cash flows in the line item Cash contributions – equity-accounted joint ventures.

	The Group's share in the companies' net profit or loss	
	2021	2020
Refining & Marketing		
LOTOS-Air BP Polska Sp. z o.o.	4.6	(1.7)
Exploration & Production		
Baltic Gas spółka z ograniczoną odpowiedzialnością i wspólnicy sp.k. [1]	-	(0.2)
Total	4.6	(1.9)

[1] In the partnership agreement, the shares of each of the partners in the profit or loss of Baltic Gas Sp. z o.o. i wspólnicy sp.k. were defined as follows:
- Baltic Gas Sp. z o.o. holds a 0.001% share in profit and a 100% share in loss,
- LOTOS Upstream Sp. z o.o holds a 50.9995% share in profit,
- CalEnergy holds a 48.9995% share in profit.

Accordingly, for IFRS purposes, Baltic Gas Sp. z o.o. i wspólnicy sp.k is an entity jointly controlled by the Group (equity-accounted joint venture under IFRS 11).

Condensed financial information on equity-accounted joint ventures

Statement of comprehensive income	LOTOS-Air BP Polska Sp. z o.o.		Baltic Gas Sp. z o.o. i wspólnicy sp.k.		UAB Minijos Nafta	
	2021	2020	2021	2020	2021	2020
Revenue	525.1	162.1	-	-	16.5	9.9
Cost of sales	(473.4)	(142.1)	-	-	(13.3)	(11.2)
Gross profit/(loss)	51.7	20.0	-	-	3.2	(1.3)
Selling expenses	(33.2)	(18.4)	-	-	-	(0.2)
Administrative expenses	(5.6)	(4.9)	(0.2)	(0.3)	(2.7)	(2.7)
Net other income/(expenses)	-	0.4	-	-	-	0.1
Operating profit/(loss)	12.9	(2.9)	(0.2)	(0.3)	0.5	(4.1)
Net finance income/(costs)	(1.7)	(1.3)	-	-	0.3	(0.1)
Profit/(loss) before tax	11.2	(4.2)	(0.2)	(0.3)	0.8	(4.2)
Income tax	(2.2)	0.7	-	-	-	-
Net profit/(loss)	9.0	(3.5)	(0.2)	(0.3)	0.8	(4.2)
Other comprehensive income/(loss), net	-	-	-	-	-	-
Total comprehensive income/(loss)	9.0	(3.5)	(0.2)	(0.3)	0.8	(4.2)
Depreciation and amortisation	(3.3)	(3.0)	-	-	-	(2.0)

Statement of financial position	Note	LOTOS - Air BP Polska Sp. z o.o.		Baltic Gas Sp. z o.o. i wspólnicy sp.k.		UAB Minijos Nafta	
		Dec 31 2021	Dec 31 2020	Dec 31 2021	Dec 31 2020	Dec 31 2021	Dec 31 2020
Non-current assets		18.2	20.9	252.4	243.5	10.4	14.4
Current assets, including:		74.0	40.0	4.9	7.6	12.9	9.3
Cash and cash equivalents		22.7	23.7	3.3	6.1	6.7	4.1
Total assets		92.2	60.9	257.3	251.1	23.3	23.7
Non-current liabilities		8.8	10.2	-	-	18.2	21.3
Current liabilities		40.1	12.0	2.4	1.7	3.2	2.2
Total liabilities		48.9	22.2	2.4	1.7	21.4	23.5
Net assets		43.3	38.7	254.9	249.4	1.9	0.2
		50.00%	50.00%	*	*	50.00%	50.00%
Share of net assets		21.7	19.4	117.4	114.5	0.9	0.1
Impairment losses on shares		-	-	(117.3) (2)	(114.5)	-	-
Fair value measurement		6.7 (1)	6.7	-	-	-	(0.1)
Elimination of intercompany transactions		(0.4)	-	-	-	-	-
Adjustment of share in net assets to recoverable amount (3)		-	-	(0.1)	-	(0.9)	-
Interest in joint ventures	10.2	28.0	26.1	-	-	-	-

*For IFRS purposes, Baltic Gas Sp. z o.o. i wspólnicy sp.k is an entity jointly controlled by the Group (equity-accounted joint venture under IFRS 11; see Note 14 above).

(1) PLN 6.7m in gain on fair value measurement of a retained interest in a previously controlled entity as at the date of loss of control.

(2) The project to develop the B-4 and B-6 gas fields in the Baltic Sea is being implemented by special purpose vehicles Baltic Gas spółka z ograniczoną odpowiedzialnością i wspólnicy sp.k. and Baltic Gas Sp. z o.o. (General Partner) in partnership with CalEnergy Resources and LOTOS Upstream Sp z o.o.
The project is currently at the stage of preparation for the final investment decision (FID). The technical aspects of the project were defined and the project was prepared for FID in early 2020. However, the original timing of the FID decision coincided with the onset of the Covid-19 pandemic and the crisis in the market for commodities, particularly natural gas, that saw the lowest price levels in history. These factors were not conducive to undertaking FID as originally planned.
Over the course of 2021, there was a reversal of trends in the natural gas market, with the commodity now trading at record high levels. However, the market is strongly volatile, with high uncertainty as to the level of prices in the medium to long term. In addition, concerns about yet more coronavirus mutations and their negative impact on the global economy are resurfacing. The current market volatility and uncertainty are not conducive to making business decisions about new projects, and the final investment decision concerning the B4/B6 project cannot be expected until the market situation is considered stable.
Taking into account the principle of prudent valuation of assets, in the opinion of the Company the uncertainty justifies recognition of a PLN 2.8m impairment loss (see Note 9.7).

(3) The effect of taking the value of the shares to zero as a result of the decision taken in previous reporting periods to write off the entire amount of the investment.

Transactions with equity-accounted joint ventures

Equity-accounted joint ventures		2021	2020
Sale		484.4	141.5
Purchases		16.0	9.5
	Note	Dec 31 2021	Dec 31 2020
Receivables	10.3	30.4	6.7
Liabilities	10.13	2.6	1.2

In 2021and 2020, material transactions were made by the Group with LOTOS-Air BP Polska Sp. z o.o. and involved mainly sale of aviation fuel. The aggregate value of the transactions made in 2021 was PLN 484.4m (2020: PLN 141.4m). As at December 31st 2021, the balance of outstanding receivables under these transactions was PLN 30.4m (December 31st 2020: PLN 6.7m).

In 2021, the Group also executed transactions with UAB Minijos Nafta, for a total amount of PLN 16.0m (2020: PLN 9.5m). The transactions were crude oil purchases. As at December 31st 2021, the balance of outstanding payables under those transactions was PLN 2.6m (December 31st 2020: PLN 1.2m).

10.3 Trade receivables and other assets

	Note	Dec 31 2021	Dec 31 2020
Non-current financial assets:		168.8	169.6
Security deposits receivable		33.9	24.7
Finance lease receivables	10.3.2	7.1	7.6
Oil and Gas Extraction Facility Decommissioning Fund (1)		47.3	43.8
Cash pledged as security for contractual obligations related to future asset decommissioning		70.4	67.8
Settlements with ICE exchange – margin		-	15.4
Security deposits related to licensed activities and other		10.1	10.3
Current financial assets:		2,690.8	1,732.9
Trade receivables		2,648.5	1,693.9
- including from related entities	10.2	30.4	6.7
Security deposits receivable		13.5	13.2
Investment receivables		0.2	6.1
Security deposits related to the use of gas fuel distribution and transmission system and other		0.4	1.9
Damages receivable		1.9	1.5
Receivables under payment cards (service stations)		8.8	5.8
Finance lease receivables	10.3.2	4.1	5.1
Other receivables		13.4	5.4
Financial assets		2,859.6	1,902.5
Non-current non-financial assets		2.0	8.5
Property and other insurance		0.1	3.9
Borrowing costs		0.3	3.5
Other		1.6	1.1
Current non-financial assets:		456.0	275.3
Value-added tax receivable		138.6	86.5
Other receivables from the state budget other than corporate income tax		1.5	3.6
Property and other insurance		26.4	73.3
Settlements under joint operations (Norwegian fields) (2)		220.6	51.9
Excise duty on inter-warehouse transfers		37.3	34.3
Prepaid deliveries		12.2	13.9
Prepaid bonuses		0.1	0.1
Prepayments for IT services		9.1	6.9
Other		10.2	4.8
Non-financial assets		458.0	283.8
Total		3,317.6	2,186.3
including:			
long-term portion		170.8	178.1
current:		3,146.8	2,008.2
- trade receivables		2,648.5	1,693.9
- other		498.3	314.3

(1) Cash deposited in the bank account of the Oil and Gas Facility Decommissioning Fund (created pursuant to the Geological and Mining Law of February 4th 1994 and the Minister of Economy's Regulation of June 24th 2002) to cover future costs of decommissioning of oil extraction facilities; see Note 10.13.1.

(2) Receivables of LOTOS Exploration and Production Norge AS (LOTOS Upstream Group, the Exploration & Production segment) under mutual settlements between the operator and consortium members concerning specific Norwegian fields.

As at December 31st 2021, the Group's receivables were not assigned (pledged) as security. As at December 31st 2020, receivables for a total amount of PLN 16.1m were assigned (pledged) as security.

As at December 31st 2021, cash of PLN 15.1m deposited in the bank account of the Extraction Facility Decommissioning Fund was pledged as security for repayment of the Group's liabilities (December 31st 2020: PLN 11.9m).

The collection period for trade receivables in the ordinary course of business is 7–35 days.

For description of financial instruments, see Note 11.1.. For description of the objectives and policies of financial risk management, see Note 11.2.
For currency risk sensitivity analysis of financial assets, see Note 11.2.3.1.
For interest rate risk sensitivity analysis of financial assets, see Note 11.2.4.1.
For maximum credit risk exposure of financial assets, see Note 11.2.6.

10.3.1 Change in impairment losses on receivables

Accounting policies

As at the last day of each reporting period, the Group estimates expected credit losses on debt instruments measured at amortised cost and at fair value through other comprehensive income, whether or not there has been any evidence of impairment. The Group applies the following impairment recognition approaches:

- *general (basic) approach,*
- *simplified approach.*

With respect to short-term trade receivables without a significant financing component, the Group applies the simplified approach and measures impairment losses in the amount of credit losses expected over the entire life of the receivable since its initial recognition. The Group applies the provision matrix for calculating impairment losses on trade receivables classified in different age groups or delinquency periods.

For the purpose of determining expected credit losses, receivables are grouped based on the similarity of credit risk characteristics. To determine the overall default rate, an analysis of collectability of receivables for the last three years is carried out. Default rates are calculated for the following periods:

- *up to 30 days;*
- *from 30 to 90 days;*
- *from 90 to 180 days;*
- *more than 180 days.*

To determine the default rate for a given period, the amount of written off trade receivables is compared with the amount of outstanding receivables. The calculation takes into account the effect of future factors on the amount of credit losses.

Impairment losses are calculated taking into account default rates adjusted for the effect of future factors and the amount of receivables outstanding at the reporting date for each period.

Material individual items of receivables (representing more than 5% of total receivables) are analysed on a case-by-case basis.

Intra-group receivables carry a different credit risk than receivables from third parties due to existing links and control. In the event of financial difficulties, the Group usually supports its subsidiaries. Therefore, poor financial performance and position of a subsidiary do not necessarily translate into higher credit risk. In such a case, the Group estimates impairment based on individual analysis. In other cases, where the number of items is significant, they may form a separate portfolio of intra-group receivables based on a portfolio analysis.

The Group applies a three-stage impairment model with respect to financial assets other than trade receivables:

- *Stage 1 – financial instruments that have not had a significant increase in credit risk since initial recognition. Expected credit losses are determined based on the probability of default within 12 months (i.e. the total expected credit loss is multiplied by the probability that the loss will occur over the next 12 months – 12 month ECL);*
- *Stage 2 – financial instruments that have had a significant increase in credit risk since initial recognition, but have no objective evidence of impairment; expected credit losses are calculated based on the probability of default over the life of an asset;*
- *Stage 3 – instruments for which there is objective evidence of impairment.*

To the extent necessary – according to the general approach – to assess whether there has been a significant increase in credit risk, the following factors are taken into account by the Group:

- *delinquency period of at least 30 days;*
- *any legislative, technological or macroeconomic changes with a material adverse effect on the debtor;*
- *a significant adverse event has been reported concerning the loan or another loan taken by the same debtor from another lender, such as termination of a loan agreement, breach of its terms and conditions, or its renegotiation due to financial difficulties, etc.;*
- *the debtor has lost a significant customer or supplier or has experienced other adverse developments on its market.*

The Group considers that there is a default risk for a financial asset if internal and external information indicates that it is unlikely that the Group will receive all remaining contractual cash flows in full. This is the case when the asset is past due 90 days or more. Financial assets are written off, in whole or in part, when the Group has used practically all measures to collect them and determines that they cannot be reasonably expected to be recovered.

Trade receivables are included in Stage 2 or Stage 3:

- *Stage 2 – trade receivables for which a simplified approach to lifetime expected credit losses was applied, except for trade receivables included in Stage 3;*
- *Stage 3 – trade receivables that are more than 90 days past due or are identified as not serviced, with identified impairment.*

	2021	2020
At beginning of period	127.0	217.7
Recognised	18.2	24.0
Used	(6.2)	(7.7)
Reversed	(8.9)	(107.0)
At end of period	130.1	127.0

Ageing of trade receivables and expected credit loss

Dec 31 2021	Gross carrying amount	Expected credit loss	Weighted average rate of expected credit loss	Net carrying amount
Not past due receivables	2,634.6	1.8	0.0007	2,632.8
Past due receivables:	103.8	88.1	-	15.7
Up to 30 days	13.7	-	0.0019	13.7
From 30 to 90 days	1.8	0.1	0.0717	1.7
More than 90 days	88.3	88.0	0.9961	0.3
Trade receivables	2,738.4	89.9	-	2,648.5

Ageing of receivables past due but not impaired	Dec 31 2021	Dec 31 2020
Up to 1 month	13.8	23.0
From 1 to 3 months	1.7	2.4
From 3 to 6 months	1.0	-
From 6 months to 1 year	0.1	0.4
Over 1 year	0.1	0.4
Total	16.7	26.2

No impairment losses were recognised on past due receivables, because they are secured against credit risk with a mortgage, pledge, insurance policy, bank guarantee or surety.

As at December 31st 2021, the share of trade receivables from the Group's five largest customers as at the end of the reporting period was 37% (December 31st 2020: 25%) of total trade receivables (individually: 2%–13%). In the Group's opinion, with the exception of receivables from the above-mentioned customers, there is no material concentration of credit risk. The Group's maximum exposure to credit risk as at the end of the reporting period is best represented by the carrying amounts of those instruments.

10.3.2 Finance lease receivables

Accounting policies

Finance leases are disclosed in the statement of financial position as receivables, at amounts equal to the net investment in the lease less the principal component of lease payments for a given financial year calculated based on a pattern reflecting a constant periodic rate of return on the lessor's net investment outstanding in respect of the finance lease.
Finance income from interest on a finance lease is disclosed in the relevant reporting periods based on a pattern reflecting a constant periodic rate of return on the net investment outstanding in respect of the finance lease.

Income from operating leases is recognised in the statement of comprehensive income on a straight-line basis over the lease term.

The Group has developed and operates the "LOTOS Family" Franchise Programme, which defines the procedures for managing service stations. The Group has entered into franchise agreements with entities operating service stations at their own risk and for their own account (Partners). Receivables under franchise agreements represent mainly expenditure on the design of DOFO service stations operated by dealers under agreements executed for periods from 5 to 10 years.

	Lease payments		Present value of lease payments	
	Dec 31 2021	Dec 31 2020	Dec 31 2021	Dec 31 2020
Up to 1 year	4.1	5.1	4.1	5.1
From 1 to 5 years	7.2	7.7	7.1	7.6
Total	11.3	12.8	11.2	12.7
Less unrealised finance income	(0.1)	(0.1)	-	-
Present value of lease payments	11.2	12.7	11.2	12.7
including:				
long-term portion			7.1	7.6
short-term portion			4.1	5.1

10.4 Loans

Loan to Grupa Azoty Polyolefins S.A.

The Group did not grant loans to other entities in 2021. In 2020, the Group advanced a PLN 200.0m loan to Grupa Azoty Polyolefins S.A. as part of the Company's interest in the financing of the Polimery Police project. Amounts disbursed under the loan are presented in the statement of cash flows as cash flows from investing activities under Loans. The loan repayment date is December 15th 2037. The loan is secured by assignment of receivables, and it bears interest at a variable annual rate based on WIBOR.

As at December 31st 2021, the total amount of loans outstanding was PLN 210.3m (December 31st 2020: PLN 195.9m).

10.5 Shares

	Dec 31 2021	Dec 31 2020
Shares in other entities	297.4	309.8
Total	297.4	309.8

As at December 31st 2021 and December 31st 2020, all Grupa Azoty Polyolefins shares held by Grupa LOTOS S.A. were encumbered by financial and registered pledges to secure the financing parties' claims against the Polimery Police Project.

For information on the accounting policies applied to shares in other entities, see Note 11.1.

10.6 Inventories

Accounting policies

Inventories are measured at the lower of cost and net realisable value.

Costs incurred in order to bring an inventory item to its present location and condition are accounted for in the following manner:
- *materials and merchandise – at cost,*
- *finished goods and work-in-progress – at the cost of direct materials and labour and an appropriate portion of indirect production costs, established on the basis of normal capacity utilisation.*

Net realisable value is the selling price realisable as at the end of the reporting period, net of VAT, excise duty and fuel charge, less any rebates, discounts and other similar items, and less the estimated costs to complete and costs to sell.

Net selling prices for the most significant inventory groups are determined as follows:
- *finished goods and merchandise – the average realised selling price of each index during the seven working days of the month following the end of the reporting month,*
- *crude oil (feedstock) – purchase price in the last reporting month,*
- *semi-finished products – prices are estimated using the PIMS production planning optimisation system using the purchase price of oil in the last reporting month,*
- *fast moving inventories – the sale price is equal to the purchase price; for materials in warehouses the sale price is determined on the basis of the analysis of the usability of the inventory; if an item of inventory is classified as redundant and unsaleable, the sale price is equal to zero.*

Decrease in inventories is established with the weighted average method.

Write-downs of finished goods or semi-finished products, resulting from revaluation at net selling prices, are charged to production costs. Write-downs of merchandise are charged to cost of merchandise sold in the statement of comprehensive income.

As at the end of each reporting period, the Group estimates (based on an individual assessment of the usefulness of inventories for the purposes of the Group's business) the amount of write-downs of stored materials. If crude oil and refining product prices go down, the Group recognises an inventory write-down to adjust the carrying amount of inventories, given the difference between their cost and net realisable value, in accordance with IAS 2. Write-downs of stored materials due to their impairment are charged to cost of sales.

If the reason for making an inventory write-down no longer exists, the value of the inventory item is increased by an amount equal to the entire or part of the write-down. For the sake of clarity and because of the economic substance of the operation, if a write-down is used, its reversal is reflected in cost of sales.

The Group maintains emergency stocks as required by the following acts:
- *Act on Stocks of Crude Oil, Petroleum Products and Natural Gas, and on the Rules to be Followed in the Event of Threat to National Fuel Security or Disruptions on the Petroleum Market of February 16th 2007 (Dz.U. of 2007, No. 52, item 343, dated March 23rd 2007, as amended).*
- *Regulation of the Minister of Economy, Labour and Social Policy, on fuel stocks at energy sector companies, dated February 12th 2003 (Dz.U. No. 39, item 338, as amended).*

These regulations define the rules for creating, maintaining and financing stocks of crude oil, petroleum products and fuels at energy sector companies.

Emergency stocks are disclosed as current assets given their short turnover cycle. The Group's emergency stocks include crude oil, petroleum products (liquid fuels), LPG and coal. In the Refining & Marketing segment, emergency stocks are maintained mainly by the Parent.

	Dec 31 2021	Dec 31 2020
Finished goods	1,421.5	877.7
Semi-finished products and work in progress	841.6	382.7
Merchandise	226.3	180.4
Materials	3,122.3	2,054.9
Total	5,611.7	3,495.7
including inventories measured at:		
cost	5,526.8	3,487.2
net realisable value	84.9	8.5

Inventories are measured at the lower of cost or cost less write-downs to net realisable value less cost to sell.

As at December 31st 2021, the amount of inventories securing liabilities under bank borrowings was valued at PLN 4,654.8m (December 31st 2020: PLN 2,704.0m).

Change in inventory write-downs

	2021	2020
At beginning of period	9.5	9.5
Recognised	0.7	908.5
Used / Reversed	(7.2)	(908.5)
At end of period	3.0	9.5

The effect of revaluation of inventories is taken to cost of sales.

10.7 Cash and cash equivalents

Accounting policies

Cash in hand and at banks, as well as short-term deposits held to maturity are measured at amortised cost.

Cash and cash equivalents disclosed in the consolidated statement of cash flows comprise cash in hand, overdraft facilities, and those bank deposits maturing within three months which are not classified as investments.

	Note	Dec 31 2021	Dec 31 2020
Cash and cash equivalents in the statement of financial position	11.1.1	2,572.1	2,145.6
Overdraft facilities		-	(222.2)
Total cash and cash equivalents in the statement of cash flows		2,572.1	1,923.4

Cash and cash equivalents consist mainly of funds held in current accounts with banks bearing interest at variable interest rates. The level of interest on the deposited funds and its changes are based on the general terms of service of the individual banks. In addition, depending on the current cash requirements, if cash surplus is available, the Group companies make short-term deposits for various tenors, which bear interest at individually-determined rates.

As at December 31st 2021, the Group had undrawn credit of PLN 595.9m (December 31st 2020: PLN 471.5m) under working capital facilities for which all conditions precedent are met.

In July 2018, the Group began using the VAT split payment mechanism. Under this mechanism, the Group has separate bank accounts used to process VAT payments as part of settlements with trading partners and to pay other public charges. The Group uses the funds in these accounts to make payments on a regular basis. As at December 31st 2021, the balance of cash in VAT accounts was PLN 81.5m (December 31st 2020: PLN 175.0m).

As at December 31st 2021, cash in bank accounts pledged as security for the Group's liabilities was PLN 947.8m (December 31st 2020: PLN 799.2m).

10.8 Equity

Accounting policies

Equity is recognised in the consolidated financial statements by categories, in accordance with applicable laws and constitutional documents of the consolidated entities.

The share capital of the LOTOS Group is the share capital of the Parent and is recognised at its par value, in the amount specified in the Company's Articles of Association and in the relevant entry in the National Court Register.

Cash flow hedging reserve

The Group has elected the option to continue to apply the existing requirements of IAS 39 as of January 1st 2019 and not to apply the new hedge accounting requirements of IFRS 9 until the International Accounting Standards Board has completed work on accounting for macro hedging.

The Parent applies cash flow hedge accounting for USD-denominated borrowings designated as a hedging instrument for future highly probable USD-denominated revenue from sales of commodities and petroleum products exposed to the risk of USD/PLN exchange rate movements.

The objective of cash flow hedge accounting is to guarantee a specific Polish złoty value of revenue generated in USD. The hedged items comprise a number of highly probable and planned USD-denominated refined product sale transactions, in particular the first portion of revenue (up to the amount of the designated principal repayment) in USD generated in a given calendar month, or if the amount of revenue in a given month is lower than the amount of the designated principal payment – the first portion of revenue generated in three successive months. If a subsequent portion of revenue is designated in a given calendar month, the hedged item is the first portion of revenue generated after the previously designated portion of revenue in USD in a given calendar month, or if the amount of revenue in a given month is lower than the amount of the designated principal repayment – a subsequent portion of revenue generated in three successive months. A hedged item is linked to relevant hedging instruments based on an individual document designating the hedging relationship.

The designated hedging instruments cover an obligation to repay a USD-denominated credit facility, whose settlement dates fall on business days of specified calendar months, in accordance with the principal repayment schedule.

Changes in the fair value of financial instruments designated as cash flow hedges are charged directly to other comprehensive income to the extent they represent an effective hedge, while the ineffective portion is charged to other finance income or costs in the reporting period.

At the time when a hedge is undertaken, the Group formally designates and documents the hedging relationship, as well as its risk management objective and strategy for undertaking the hedge. The relevant documentation identifies: (i) the hedging instrument, (ii) the hedged item or transaction, (iii) the nature of the hedged risk, and (iv) specifies how the Company will assess the hedging instrument's effectiveness in offsetting changes in the fair value of the hedged item or cash flows attributable to the hedged risk. The hedge is expected to be highly effective in offsetting changes in fair value or cash flows attributable to the hedged risk. The hedge is assessed on an ongoing basis to determine whether it remains highly effective during all the reporting periods for which it was undertaken.

10.8.1 Share capital

	Dec 31 2021	Dec 31 2020
Series A shares	78.7	78.7
Series B shares	35.0	35.0
Series C shares	16.2	16.2
Series D shares	55.0	55.0
Total	184.9	184.9

As at December 31st 2021 and December 31st 2020, the share capital comprised 184,873,362 ordinary shares, fully paid-up, with a par value of PLN 1 per share. Each share confers the right to one vote at the General Meeting and carries the right to dividend.

10.8.2 Share premium

Share premium represents the excess of the issue price over the par value of Series B, C and D shares, net of costs directly attributable to the share issue.

	Series B	Series C	Series D	Total
Share premium	980.0	340.8	940.5	2,261.3
Costs directly attributable to the share issue	(9.0)	(0.4)	(23.6)	(33.0)
Total	971.0	340.4	916.9	2,228.3

10.8.3 Cash flow hedging reserve

Cash flow hedging reserve comprises changes in the valuation of foreign-currency bank borrowings used as cash flow hedges for USD-denominated sales, less the effect of deferred income tax.

Changes in the fair value of derivative financial instruments designated as cash flow hedges are charged to the cash flow hedging reserve to the extent they represent an effective hedge, while the ineffective portion is charged to finance income or costs in the reporting period.

	Note	2021	2020
At beginning of period		(24.4)	(203.6)
Valuation of cash flow hedging instruments	11.1.3	(35.7)	221.2
- effective portion		(35.7)	221.2
- ineffective portion		-	-
Income tax on valuation of cash flow hedging instruments	9.9.1	6.8	(42.0)
At end of period		(53.3)	(24.4)

10.8.4 Retained earnings

Retained earnings comprise capital reserves created and used in accordance with the rules stipulated by the applicable laws and deeds of incorporation, as well as current period's profit.

Retained earnings also include actuarial gains/losses relating to defined post-employment benefits, recognised inclusive of the tax effect, which are disclosed in the statement of comprehensive income in the line item Other comprehensive income/(loss), net.

As at December 31st 2021 and December 31st 2020, Grupa LOTOS S.A. was restricted in its ability to distribute dividends; see Note 10.8.4.1.

10.8.4.1 Restricted ability of subsidiaries to transfer funds to the Parent in the form of dividends

As a result of repayment of all investment facilities by LOTOS Paliwa Sp. z o.o., the restriction stipulated in the facility agreements and concerning the amount of cash surplus generated in a financial year that could be allocated to dividend payment ceased to apply.

As at December 31st 2020, the ability of LOTOS Asfalt Sp. z o.o. to pay dividend was restricted the credit facility agreement for the financing of the EFRA Project, whereby distribution of dividends is not permitted before the first instalment of the credit facility is paid and the EFRA Project is completed (the first instalment was paid on December 21st 2018) . Payment of dividends from operating cash flows is conditional upon fulfilment of the requirements defined in the agreement, including generation of a sufficient cash surplus and achievement of financial ratios at prescribed levels. As of December 31st 2021, the above restriction was not in effect.

10.8.5 Dividends

As at December 31st 2021, Grupa LOTOS S.A. was restricted in its ability to distribute funds in the form of dividends pursuant to a credit facility agreement of July 2nd 2019 entered into to refinance the 10+ Programme credit facilities, discussed in Note 22.1 to the full-year consolidated financial statements for 2019. The agreement limits the ability of Grupa LOTOS S.A. to pay dividends and makes it conditional on achievement of certain levels of financial ratios.

On June 30th 2021, the General Meeting of Grupa LOTOS S.A. passed a resolution to fully cover the Company's net loss for 2020 of PLN 881.4m from statutory reserve funds.

10.9 Bank and non-bank borrowings, notes and lease liabilities

Accounting policies

Bank and non-bank borrowings and notes

All bank and non-bank borrowings and notes are initially recognised at cost, equal to the fair value, less cost of obtaining the financing.

Following initial recognition, bank and non-bank borrowings and notes are measured at amortised cost, using the effective interest rate method. Amortised cost includes the cost of obtaining financing and discounts, as well as premiums received on settlement of the liability. Upon removal of the liability from the statement of financial position or recognition of an impairment loss, gains or losses are recognised in the statement of comprehensive income.

Leases

A lease liability is initially measured at the present value of lease payments outstanding at that date, including:

- *fixed lease payments net of any lease incentives;*
- *variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;*
- *amounts expected to be payable by the lessee under residual value guarantees;*
- *the exercise price of a purchase option if exercise of that option by the lessee is reasonably certain;*
- *lease termination penalties if the lessee is entitled to exercise the option to terminate the lease.*

Lease payments do not include variable charges that depend on external factors. Variable lease payments not included in the initial measurement of a lease liability are recognised directly in profit or loss.

After initial recognition, the Group measures lease liabilities by:

- *increasing the carrying amount to reflect interest on the lease liability,*
- *reducing the carrying amount to reflect the lease payments made, and*
- *remeasuring the carrying amount in order to take into account a lease reassessment or modification, or to take account of revised substantially fixed lease payments, including increases or reductions due to index changes in the case of index-linked contracts.*

Upon lease commencement, and to the extent that the costs are not included in the carrying amount of another asset in accordance with applicable standards other than IFRS 16, the lessee recognises in profit or loss both interest on the lease liability and variable lease payments not included in the measurement of the lease liability in the period in which the event or condition that triggers the payments occurs.

Lease payments are discounted using the interest rate implicit in the lease or the Group's incremental borrowing rate when the interest rate implicit in the lease cannot be readily determined. To determine the incremental borrowing rate, the Group takes into account the type of contract, the duration of the contract, the currency of the contract and the potential margin it would have to pay to external financial institutions if it wanted to enter into such a transaction on the financial market.

The Group determined incremental borrowing rates in a breakdown by contract currency and taking into account contract term, based on the time brackets presented below:

- *short-term contracts (12 months or shorter),*
- *contracts for a term of 1 to 2 years (inclusive),*
- *contracts for a term of 2 to 5 years (inclusive),*
- *contracts for a term of 5 to 10 years (inclusive),*
- *contracts for a term of more than 10 years.*

Professional judgement

For each type of lease contract, the Group estimates the discount rate which will affect the final value of the contracts. The Group takes into account characteristics of the contract, its term and currency as well as potential margin it would have to pay to external financial institutions if it wanted to enter into such a transaction on the financial market.

The process of determining the current incremental borrowing rate consists of the following steps:

- *analysis of the lessee's current financing structure (e.g., debt instruments held by the lessee and their terms);*
- *determination of the appropriate reference rate – assuming specific currency, economic conditions and lease term;*
- *analysis of other material lease terms, including the nature of the underlying assets.*

To calculate discount rates for leasing purposes, the Group assumes that the discount rate should reflect the cost that it would have to pay to borrow the funds necessary to purchase the leased asset.

The Group enters into lease contracts based on the three principal currencies to which it has assigned the base discount rate, These are PLN at the WIBOR base rate for short-term periods and interest rates on government bonds for long-term periods, EUR at the EURIBOR base rate for short-term periods and interest rate on government bonds for long-term periods, and USD at the LIBOR base rate for short-term periods and interest rate on government bonds for long-term periods.

Current discount rates are determined every quarter, and the discount rates so determined are then used for lease calculations in accordance with IFRS 16 for the period until the next determination of the discount rates.

	Note	Dec 31 2021	Dec 31 2020
Bank borrowings	10.9.1	1,424.1	2,559.8
Borrowings	10.9.2	27.5	35.6
Notes	10.9.3	228.1	231.7
Leases	10.9.4	1,559.5	1,246.4
Total		3,239.2	4,073.5
including:			
long-term portion		2,191.1	2,717.7
short-term portion		1,048.1	1,355.8

For currency risk sensitivity analysis, see Note 11.2.3.1.
For interest rate risk sensitivity analysis, see Note 11.2.4.1.
For information on contract maturities, see Note 11.2.5.

	Bank borrowings	Non-bank borrowings	Notes	Leases	Total
Jan 1 2021	2,559.8	35.6	231.7	1,246.4	4,073.5
Net proceeds	558.6	-	-	-	558.6
Net repayments	(1,640.2)	(8.3)	(21.9)	(220.6)	(1,891.0)
Interest, fees and commissions paid	(41.8)	(1.1)	(4.6)	(71.0)	(118.5)
New leases	-	-	-	481.7	481.7
Interest, fees and commissions accrued	66.5	1.3	5.2	72.7	145.7
Prepayments and accruals	7.1	-	-	-	7.1
Exchange differences	136.3	-	17.7	22.9	176.9
Change in overdraft facilities	(222.2)	-	-	-	(222.2)
Other	-	-	-	27.4	27.4
Dec 31 2021	1,424.1	27.5	228.1	1,559.5	3,239.2

	Bank borrowings	Non-bank borrowings	Notes	Leases	Total
Jan 1 2020	2,865.2	43.4	231.8	1,276.0	4,416.4
Net proceeds	74.4	-	-	-	74.4
Net repayments	(563.6)	(7.9)	-	(202.8) [1]	(774.3)
Interest, fees and commissions paid	(114.4)	(1.5)	(5.7)	(75.2)	(196.8)
New leases	-	-	-	174.5	174.5
Interest, fees and commissions accrued	76.8	1.6	8.0	75.8	162.2
Prepayments and accruals	19.8	-	-	-	19.8
Exchange differences	(20.6)	-	(2.4)	5.0	(18.0)
Change in overdraft facilities	222.2	-	-	-	222.2
Other	-	-	-	(6.9)	(6.9)
Dec 31 2020	2,559.8	35.6	231.7	1,246.4	4,073.5

[1] The item 'Payment of lease liabilities' in the statement of cash flows includes upfront lease payments of PLN 11.8m.

10.9.1 Bank borrowings

	Dec 31 2021	Dec 31 2020
Investment facilities	1,017.8	2,149.2
Working-capital facilities	-	222.4
Inventory financing and refinancing facility	406.3	188.2
Total	1,424.1	2,559.8
including:		
long-term portion	683.1	1,641.4
short-term portion	741.0	918.4

Repayment of the above facilities is secured with:

- power of attorney over bank accounts, blank promissory notes, sureties and bank guarantees,
- registered pledges on assets, bank accounts, inventory, shares
- mortgages,
- assignment by way of security of rights under insurance agreements, including insurance of inventories,
- assignment by way of security of rights under inventory storage agreements,
- assignment of receivables,
- representation on voluntary submission to enforcement.

Bank borrowings by currency

	Currency of credit facility advanced to the Group				
	USD	EUR	NOK	PLN	Total
Dec 31 2021	1.377,6	-	-	46.5	1,424.1
Dec 31 2020	2,389.4	27.0	4.4	139.0	2,559.8

Bank borrowings bear interest based on:

- 1M, 3M or 6M LIBOR (USD), depending on the interest period selected at a given time – in the case of USD-denominated facilities,
- 1M EURIBOR – in the case of EUR-denominated facilities,
- 1M or 3M WIBOR – in the case of PLN-denominated facilities.

As at December 31st 2021, the average effective interest rate for the credit facilities denominated in US dollars was approximately 1.49% (December 31st 2020: 1.96%). The average effective interest rate for PLN-denominated facilities (excluding the syndicated facilities contracted by the Parent) was approximately 4.66% (December 31st 2020: 2.03%).

Bank borrowings of the Parent

Inventory financing and refinancing facility

On October 28th 2021, the conditions stipulated in the consent letter, which confirmed the approval of the financing banks for the contribution of the organised part of the enterprise by Grupa LOTOS S.A. to LOTOS Asfalt Sp. z o.o., were fulfilled. As a result, technical changes were made in the credit facility agreement to reflect the transfer to LOTOS Asfalt Sp. z o.o. of the tank depot which is now part of the refinery in Gdansk.

On December 7th 2021, an amendment was signed to the agreement for the financing and refinancing of inventories of October 10th 2012 to extend the term of the agreement until December 16th 2022.

As at December 31st 2021, the nominal amount drawn under the facility was PLN 406.0m (USD 100m). As at December 31st 2020, the amount was PLN 187.9m (USD 50m).

In connection with the credit facility incurred to finance and refinance inventories, Grupa LOTOS S.A. is required to maintain the Tangible Consolidated Net Worth (TCNW) as specified in the facility agreement. The Company is also required to comply with the covenant requiring it to maintain the Loan to Pledged Inventory Value Ratio at or below the level specified in the facility agreement. As at December 31st 2021 and December 31st 2020, the Company complied with these requirements.

Refinancing of the 10+ Programme credit facilities

On July 2nd 2019, Grupa LOTOS S.A. and a bank syndicate signed credit facility agreements for a total amount of USD 500m to refinance credit facilities contracted in 2008 to finance the 10+ Programme.

Under the agreements, the bank syndicate extended to the Company:
- a USD 400m term facility,
- a USD 100m working capital facility, disbursable in USD, EUR or PLN.

On October 28th 2021, the conditions stipulated in the consent letter, which confirmed the approval of the financing banks for the contribution of the organised part of the enterprise by Grupa LOTOS S.A. to LOTOS Asfalt Sp. z o.o., were fulfilled. As a result, the credit facility agreement was automatically amended, with new provisions added whereby additional security was created in the form of a guarantee provided by LOTOS Asfalt Sp. z o.o. The surety agreement of October 15th 2021 whereby LOTOS Asfalt Sp. z o.o. guarantees repayment of liabilities by the Company entered into force on the date of transfer of an organised part of business to LOTOS Asfalt Sp. z o.o., i.e., on November 2nd 2021.

As at December 31st 2021, the nominal amount drawn under the term facility was PLN 974.4m (USD 240m). As at December 31st 2020, the nominal amount drawn under the term facility was PLN 1,202.7m (USD 320m). The Company also had liabilities of PLN 222.2m under the working capital facility.

Under the facility agreements discussed above, Grupa LOTOS S.A. is required to maintain its net debt/ EBITDA ratio at a specified level. As at December 31st 2021, the Company complied with these requirements. As at December 31st 2020, one of the ratios specified in the credit facility agreements was not complied with. In anticipation of the breach of covenants, the Company requested a waiver from the financing banks. On December 29th 2020, the Company received a letter from the banks confirming their consent for the breach of covenants as at December 31st 2020.

Bank borrowings at other Group companies

Credit facilities contracted by LOTOS Asfalt Sp. z o.o.

On June 21st 2021, LOTOS Asfalt Sp. z o.o. made voluntary and full repayment of the credit facility contracted under an agreement of June 30th 2015 to finance the EFRA Project. At the same time, a working capital facility under the agreement was cancelled and settled, and interest rate hedging transactions related to the facility were settled. Also, repayment of the credit facility resulted in the release of related security interests, including a ceiling mortgage over LOTOS Asfalt Sp. z o.o.'s rights to property, registered pledges over a set of LOTOS Asfalt Sp. z o.o.'s all movables and rights, inventories, receivables from bank accounts, and shares in LOTOS Asfalt Sp. z o.o. held by the Parent. The facility was repaid from the company's own funds and a PLN 400m loan provided to the company by the Parent. Repayment of the principal of USD 223m (PLN 840.5m) was disclosed in the statement of cash flows from financing activities, under Repayment of bank and non-bank borrowings

Credit facilities contracted by LOTOS Paliwa Sp. z o.o.,

On September 30th 2021, LOTOS Paliwa Sp. z o.o. made voluntary and full repayment of the credit facilities contracted under agreements of March 6th 2013 with a syndicate of PKO BP S.A. and Pekao S.A. and agreements with Pekao S.A. and mBank S.A. of January 26th 2015 to finance expansion of the service station network. Expenses incurred on early repayment of the principals of USD 70.8m were disclosed in the statement of cash flows from financing activities, under Repayment of bank and non-bank borrowings

Proceeds from and repayment of bank borrowings

In 2021, proceeds from the Group's bank borrowings were PLN 558.6m (2020: PLN 74.4m), while cash outflows on repayment of borrowings were PLN 1,640.2m (2020: PLN 563.6m). These amounts are presented in the consolidated statement of cash flows as cash flows from financing activities under Proceeds from bank borrowings and Repayment of bank and non-bank borrowings, respectively.

In 2021, proceeds from bank borrowings included:
- proceeds from the inventory financing and refinancing facility (PLN 554.1m),
- proceeds from credit facilities contracted by LOTOS Terminale S.A. (PLN 4.5m).

In 2021, repayments of bank borrowings included:
- repayment of the investment credit facilities contracted by the Parent (PLN 301.9m),
- repayment of the inventory financing and refinancing facility (PLN 396.4m),
- repayment of credit facilities contracted by LOTOS Asfalt Sp. z o.o. (PLN 840.5m).
- repayment of investment credit facilities contracted by LOTOS Paliwa Sp. z o.o. to finance and refinance purchase of service stations (PLN 84.1m),
- repayment of an investment facility contracted by SPV Baltic Sp. z o.o. to finance purchase of a multi-purpose platform (PLN 7.7m),
- repayment of a credit facility contracted by LOTOS Terminale S.A. (PLN 5.1m),
- repayment of a credit facility contracted by LOTOS Exploration and Production Norge AS (PLN 4.5m).

In 2021 and 2020, there were no defaults under the facilities.

For more information on the Group's bank borrowings, see the Directors' Report on the operations of Grupa LOTOS S.A. and the LOTOS Group in 2021.

10.9.2 Non-bank borrowings

	Dec 31 2021	Dec 31 2020
Provincial Fund for Environmental Protection and Water Management in Gdańsk (WFOŚiGW)	2.4	3.0
Agencja Rozwoju Przemysłu S.A.	25.1	32.6
Total	27.5	35.6
including:		
long-term portion	18.8	27.4
short-term portion	8.7	8.2

The borrowing from Agencja Rozwoju Przemysłu S.A. was incurred to finance purchase of a drilling rig; the other borrowings were taken out to partly finance upgrade of locomotives and the rail tank car cleaning facility.

The borrowings are secured with:
- registered pledge over assets,
- registered and financial pledges over shares,
- assignment by way of security of rights under insurance policies and sale agreements,
- assignment by way of security of claims related to bank accounts,
- blank promissory notes and representation on voluntary submission to enforcement,
- sureties issued by Group companies.

The borrowings are denominated in the Polish złoty, and bear interest based on 1M WIBOR or the rediscount rate.

As at December 31st 2021, the average effective interest rate of the borrowings was approximately 5.13% (December 31st 2020: 3.27%).

Proceeds from and repayment of non-bank borrowings

In 2021 and 2020, the Group did not contract any non-bank borrowings, while repayments of non-bank borrowings were PLN 8.3m (2020: PLN 7.9m). These amounts are presented in the consolidated statement of cash flows as cash flows from financing activities under Repayment of bank and non-bank borrowings

10.9.3 Notes

In 2016, the SPV B8 Spółka z ograniczoną odpowiedzialnością Baltic S.K.A. concluded agreements with Bank Gospodarstwa Krajowego S.A. (BGK) and Polski Fundusz Rozwoju S.A. (the Polish Development Fund, PFR) (Fundusz Inwestycji Infrastrukturalnych – Dłużny Fundusz Inwestycyjny Zamknięty Aktywów Niepublicznych) for the financing of the development of the B8 oil field in the Baltic Sea, including senior notes and subordinated notes programme agreements. On July 25th 2018, B8 spółka z ograniczoną odpowiedzialnością Baltic S.K.A. and BGK concluded an annex to the senior note programme agreement and annexes to the terms and conditions of the notes issued by the company and subscribed for by BGK. On July 27th 2018, B8 Spółka z ograniczoną odpowiedzialnością Baltic S.K.A. issued notes with a total nominal value of USD 30m. The issue proceeds were used to redeem all notes acquired by Polski Fundusz Rozwoju S.A. All notes currently outstanding are due at dates falling in the period from March 31st 2021 to June 30th 2022.

With respect to the currently outstanding notes of B8 Spółka z ograniczoną odpowiedzialnością Baltic S.K.A., as at December 31st 2020 the project schedule and budget were exceeded and one of the covenants was breached, and therefore the long-term portion of the liabilities under the agreement is presented in current liabilities. On December 14th 2020, an amendment to the senior note programme agreement and amendments to the terms and conditions of the notes were signed, whereby the liabilities were not accelerated by BGK as at December 31st 2020, and the stand still was extended until January 31st 2021.

On January 29th 2021, an amendment to the senior note programme agreement, amendments to the terms and conditions of the notes and an amendment to the commission letter were signed, extending the funding availability period until June 30th 2021 and setting the repayment dates for the end of each quarter from September 30th 2021 to December 31st 2024. On September 30th 2021, notes with a total nominal amount of USD 5.6m (PLN 21.9m) were redeemed in accordance with the schedule. On December 28th 2021, the senior notes programme agreement and the terms and conditions of the notes were amended, with the total nominal amount of the notes reduced from USD 89.7m to USD 84.1m, the financing availability period extended until January 31st 2022, and the redemption dates of some of the tranches postponed, including from December 31st 2021 to June 30th 2024; the final repayment date of the liabilities under the programme remained unchanged (December 31st 2024). Therefore, as at December 31st 2021, the outstanding notes of B8 Spółka z ograniczoną odpowiedzialnością Baltic S. K. A. are presented under both non-current and current liabilities, depending on their maturity.

Security under the above agreements includes:
• pledges over shares,
• pledge over bank accounts,
• pledge over receivables,
• pledge over assets.
• maritime mortgage on the Petrobaltic rig,
• representation on voluntary submission to enforcement,
• power of attorney over bank accounts.

As at December 31st 2021, the liability under the outstanding notes issued by B8 Spółka z ograniczoną odpowiedzialnością BALTIC S.K.A., net of issue costs, was PLN 228.1m (December 31st 2020: PLN 231.7m).

On January 31st 2022, the Company issued notes with a nominal amount of USD 9.3m (PLN 38m). The issue proceeds were used between February 1st and February 3rd 2022 to finance and refinance capital expenditure.

10.9.4 Leases

	Lease payments		Present value of lease payments	
	Dec 31 2021	Dec 31 2020	Dec 31 2021	Dec 31 2020
Up to 1 year	233.6	222.5	207.5	197.5
From 1 to 5 years	702.7	570.3	489.7	383.2
From 5 to 10 years.	539.3	333.3	427.7	237.5
From 10 to 30 years.	393.8	228.5	223.2	177.2
From 30 to 50 years.	182.1	614.9	120.7	159.6
From 50 to 90 years.	116.0	169.3	90.7	91.4
Total	2,167.5	2,138.8	1,559.5	1,246.4
Less finance costs	(608.0)	(892.4)	-	-
Present value of lease payments	1,559.5	1,246.4	1,559.5	1,246.4
including:				
long-term portion			1,352.0	1,048.9
short-term portion			207.5	197.5

Lease liabilities are secured with promissory notes and assignment of receivables.

10.10 Capital management

The objective of the LOTOS Group financial policy is to maintain long-term liquidity, while using an appropriate level of financial leverage to support the achievement of the principal objective of maximising the return on equity for shareholders.

This is achieved through constant effort to develop the desired capital structure at the Group level.

The LOTOS Group uses the debt to equity ratio, calculated as net debt to equity, to monitor its financing structure.

Net debt comprises bank and non-bank borrowings, notes and lease liabilities less cash and cash equivalents. Equity includes equity attributable to owners of the Parent plus non-controlling interests.

As at December 31st 2021 and December 31st 2020, the ratio of debt to equity was significantly more favourable than the maximum level of the ratio assumed by the Group for its financing structure.

	Note	Dec 31 2021	Dec 31 2020
Non-current liabilities			
Bank borrowings	10.9.1	683.1	1,641.4
Borrowings	10.9.2	18.8	27.4
Notes	10.9.3	137.2	-
Leases	10.9.4	1,352.0	1,048.9
Total		2,191.1	2,717.7
Current liabilities			
Bank borrowings	10.9.1	741.0	918.4
Borrowings	10.9.2	8.7	8.2
Notes	10.9.3	90.9	231.7
Leases	10.9.4	207.5	197.5
Total		1,048.1	1,355.8
Cash and cash equivalents	10.7	(2,572.1)	(2,145.6)
Net debt		667.1	1,927.9
Equity attributable to owners of the Parent		14,793.8	11,573.7
Non-controlling interests		0,1	0.1
Total equity		14,793.9	11,573.8
Net debt to equity		0.05	0.17

10.11 Derivative financial instruments

Accounting policies

Derivative instruments used by the Group to hedge against currency risk include in particular FX forwards. The Group also uses commodity swaps to hedge its exposure to commodity and petroleum product price risk, and in the case of sale of products at fixed prices with an embedded option it uses commodity options. The Group uses futures contracts to manage its exposure to prices of carbon dioxide (CO_2) emission allowances, In order to hedge the interest rate risk, the Group permits use of interest rate swaps (IRSs) and forward rate agreements (FRAs). Such financial derivatives are measured at fair value in line with the fair value hierarchy.

Based on the fair value measurement methods applied, the Group classifies its individual financial assets and liabilities according to the following levels (fair value hierarchy):

- *Level 1: Financial assets and liabilities whose fair values are measured directly on the basis of quoted prices (used without adjustment) from active markets for identical assets or liabilities.*
- *Level 2: Financial assets and liabilities whose fair values are measured using measurement models when all significant input data is observable on the market either directly (unadjusted market prices) or indirectly (data based on market prices).*
- *Level 3: Financial assets and liabilities whose fair values are measured using measurement models when the input data is not based on observable market data (unobservable input data).*

Derivatives outside the hedge accounting are classified as: financial assets measured at fair value through profit or loss and financial liabilities measured at fair value through profit or loss, and are measured at fair value with gains and losses on changes in fair value recognised in profit or loss.

The fair value of commodity swaps is established by reference to discounted cash flows connected with the transactions, calculated on the basis of the difference between the average market price and the transaction price. The fair value is established on the basis of prices quoted on active markets, as provided by an external consultancy. (Level 2 in the fair value hierarchy).

Fair value of commodity options is established by reference to cash flows connected with the transactions, calculated on the basis of the difference between the option premium paid and the current market price of the option. The fair value is established on the basis of prices quoted on active markets provided by an external consultancy (Level 2 in the fair value hierarchy).

The fair value of spots, forwards and currency swaps in the case of Grupa LOTOS S.A. is established by reference to future discounted cash flows from the transactions, calculated on the basis of the difference between the forward rate and the transaction price. The forward rate is calculated on the basis of the fixing rate quotations of the National Bank of Poland and the interest rate curve implied in FX swaps (Level 2 in the fair value hierarchy).

The fair value of FRAs in the case of Grupa LOTOS S.A. is established by reference to future discounted cash flows connected with the transactions, calculated on the basis of the difference between the forward rate and the transaction price. The forward rate is calculated using the zero-coupon interest rate curve based on 6M or 3M LIBOR, depending on the type of transaction (Level 2 in the fair value hierarchy). The fair value of FRAs held by LOTOS Asfalt Sp. z o.o. is presented based on the information provided by the banks which are counterparties to those transactions (Level 2 in the fair value hierarchy).

The fair value of futures hedging the risk of prices of carbon dioxide (CO_2) emission allowances is determined based on the difference between the market price quoted on the valuation date by the Intercontinental Exchange (ICE) and the transaction price. (Level 1 in the fair value hierarchy).

The fair value of derivative instruments does not take into account counterparty risk or the Group's own credit risk. Analysis showed that the credit value adjustment (CVA) accounting for counterparty credit risk and the debit value adjustment (DVA) accounting for the Group's credit risk would have no material effect on the measurement results. The effect of credit risk on the fair value of derivative instruments was analysed using conservative assumptions. A method estimating CVA as the hypothetical cost to purchase credit default swaps (CDS) for the projected exposure of derivatives entered into with a given counterparty was used for this purpose. The exposure forecast is made based on the current level of forward prices without taking into account their volatility. If no CDS are published on the market for a given entity, unsecured bond spreads over government bonds are used first, or, if no such spreads are published, Fitch, S&P and Moody's ratings are used to determine the hypothetical CDS level.

To manage the risk related to carbon dioxide emission allowances, the Group assesses, on a case-by-case basis, the risk of expected deficit of emission allowances allocated free of charge under the carbon emission reduction system and manages the risk of changes in the price of emission allowance traded on an active market.

In the statement of financial position, financial derivatives are presented separately as either current or non-current, depending on the expected time of realisation of assets and liabilities. If their amount is immaterial, they are recognised under other assets and liabilities.
The Group applies hedge accounting. Changes in the fair value of derivative financial instruments designated to hedge cash flows, to the extent representing an effective hedge, are charged directly to other comprehensive income. For more information on hedge accounting, see Note 10.8.3.

(PLNm)

	Note	Dec 31 2021	Dec 31 2020
Non-current financial assets:		135.2	1.2
Commodity swaps (commodities and petroleum products)		6.6	1.2
Futures (CO_2 emissions)		128.6	-
Current financial assets:		81.5	65.9
Commodity swaps (commodities and petroleum products)		19.7	31.8
Currency forward and spot contracts		1.5	1.0
Currency swap		12.0	18.3
Futures (CO_2 emissions)		48.3	14.8
Financial assets	11.1.1	216.7	67.1
Non-current financial liabilities:		1.1	1.0
Commodity swaps (commodities and petroleum products)		1.1	1.0
Interest rate swap (IRS)		-	-
Current financial liabilities:		31.0	18.5
Commodity swaps (commodities and petroleum products)		3.1	4.1
Futures (CO_2 emissions)		0.5	-
Currency forward and spot contracts		11.2	-
Interest rate swap (IRS)		-	8.2
Currency swap		16.2	6.2
Financial liabilities	11.1.1	32.1	19.5

For description of objectives and policies of financial risk management, see Note 11.2.
For classification of derivative financial instruments by fair value hierarchy, see Note 11.1.2.
For analysis of sensitivity of the derivative financial instruments to the risk of movements in commodity and petroleum product prices, see Note 11.2.1.1.
For analysis of sensitivity of the derivative financial instruments to the risk of movements in prices of carbon dioxide (CO_2) emission allowances, see Note 11.2.2.1.
For currency risk sensitivity analysis of the derivative financial instruments, see Note 11.2.3.1.
For interest rate sensitivity analysis of the derivative financial instruments, see Note 11.2.4.1.
For information on contractual maturities of the derivative financial instruments, see Note 11.2.5.
For information on maximum credit risk exposure of the derivative financial instruments (financial assets), see Note 11.2.6.

10.12 Employee benefit obligations

Accounting policies

Retirement severance payments, length-of-service awards and other employee benefits

In accordance with the Collective Bargaining Agreement, the Group's employees are entitled to length-of-service awards and severance payments upon retirement due to old age or disability, as well as death benefits.

Also, the employees, retired employees, and pensioners covered by the Group's social benefits are entitled to benefits from a separate social fund, which is established pursuant to applicable national regulations (Company Social Benefits Fund).

In accordance with IAS 19 Employee Benefits, retirement severance payments and contributions to the Company Social Benefits Fund are classified as defined post-employment benefit plans, while length-of-service awards, death benefits, and contributions to the Fund for current retired employees are recognised under other employee benefits.

Present value of future post-employment benefit obligations as at the end of the reporting period is calculated by an independent actuary using the projected unit credit method, and represents the discounted value of future payments the employer will have to make to fulfil its obligations related the employees' services in previous periods (until the end of the reporting period), defined individually for each employee, taking into account employee turnover (probability of employees leaving), without including future employees.

The value of future employee benefit obligations includes length-of-service awards, old-age and disability retirement severance payments, as well as benefits paid to currently retired employees and the amount of estimated death benefits.

Length-of-service awards are paid after a specific period of employment. Old-age and disability retirement severance payments are one-off and paid upon retirement. Amounts of severance payments and length-of-service awards depend on the length of employment and the average remuneration of an employee. The amount of death benefit depends on the length of employment of the deceased employee, and the benefit is payable to the family, in accordance with the rules set forth in the Polish Labour Code.

Actuarial gains and losses on post-employment benefits are recognised in other comprehensive income, and actuarial gains and losses on other employee benefits are taken to profit or loss.

Employees of the Group companies are also entitled to holidays in accordance with the applicable provisions of the Polish Labour Code. The Group calculates the cost of employee holidays on an accrual basis using the liability method. The amount of compensation for holiday entitlements is recognised based on the difference between the balance of holidays actually used and the balance of holidays established proportionately to the passage of time, and disclosed in the financial statements as current employee benefits.

Obligations under other employee benefits also include bonuses and awards granted as part of the Group's incentive pay systems.

The Group recognises the cost of discount on its employee benefit obligations in finance costs.

Given the different nature of retirement plans at the AB LOTOS Geonafta Group companies, and their immaterial effect on the Group's obligations under length-of-service awards and post-employment benefits, those companies' obligations are presented separately under Obligations under length-of-service awards and post-employment benefits at foreign companies.

Profit allocated for employee benefits and special accounts

In accordance with the business practice in Poland, shareholders have the right to allocate a part of profit to employee benefits by making contributions to the social benefits fund and to other special accounts. However, in the financial statements such distributions are charged to operating expenses of the period to which the profit distribution relates.

	Note	Dec 31 2021	Dec 31 2020
Non-current liabilities:	10.12.1	236.9	230.2
Post-employment benefits	10.12.1	58.0	62.7
Length-of-service awards and other benefits	10.12.1	178.9	167.5
Current liabilities		200.7	196.1
Post-employment benefits	10.12.1	5.4	6.0
Length-of-service awards and other benefits	10.12.1	17.3	14.4
Bonuses, awards and holiday entitlements		136.8	135.6
Salaries and wages payable		41.2	40.1
Total		437.6	426.3

10.12.1 Obligations under length-of-service awards and post-employment benefits

In accordance with the Group's remuneration systems, the Group employees are entitled to post-employment benefits upon retirement. Length-of-service awards are paid after a specific period of employment. Therefore, based on valuations prepared by professional actuary firms or based on own estimates, the Group recognises the present value of obligations under length-of-service awards and post-employment benefits. The table below provides information on the amount of the obligations and reconciliation of changes in the obligations during the reporting period.

	Note	Post-employment benefits		Length-of-service awards and other benefits		Total	
		2021	2020	2021	2020	2021	2020
Jan 1		67.6	58.7	181.9	169.8	249.5	228.5
Current service cost		4.9	4.0	14.4	14.0	19.3	18.0
Cost of discount	9.7	0.9	1.1	2.5	3.3	3.4	4.4
Settlement of the scheme		-	(0.1)	-	(0.4)	-	(0.5)
Benefits paid		(4.2)	(3.8)	(15.1)	(14.2)	(19.3)	(18.0)
Actuarial (gains)/losses under profit or loss		-	-	12.5	9.4	12.5	9.4
Actuarial (gains)/losses under other comprehensive income		(6.6)	7.7	-	-	(6.6)	7.7
Dec 31		62.6	67.6	196.2	181.9	258.8	249.5
including:							
long-term portion		57.3	62.0	178.9	167.5	236.2	229.5
short-term portion		5.3	5.6	17.3	14.4	22.6	20.0
Obligations under length-of-service awards and post-employment benefits at foreign companies [(1)]		0.8	1.1	-	-	0.8	1.1
Dec 31		63.4	68.7	196.2	181.9	259.6	250.6
including:							
long-term portion		58.0	62.7	178.9	167.5	236.9	230.2
short-term portion		5.4	6.0	17.3	14.4	22.7	20.4

[(1)] Given the different nature of retirement plans at the AB LOTOS Geonafta Group companies, and their immaterial effect on the Group's obligations under length-of-service awards and post-employment benefits, those companies' obligations are presented separately in the line item Obligations under length-of-service awards and post-employment benefits at foreign companies.

Total cost of future employee benefit payments charged to profit or loss

	Note	2021	2020
Items recognised in profit or loss:		34.9	31.6
Length-of-service awards, retirement and other post-employment benefits	9.3	31.5	27.2
- current service cost		19.3	18.0
- effect of foreign operations		(0.3)	(0.2)
- actuarial (gains)/losses		12.5	9.4
Cost of discount	9.7	3.4	4.4
Items recognised in other comprehensive income:		(6.6)	7.8
Actuarial (gains)/losses		(6.6)	7.7
Effect of foreign operations		-	0.1
Total comprehensive income		28.3	39.4

Actuarial assumptions

Key assumptions adopted by the actuary	Dec 31 2021	Dec 31 2020
Discount rate (%)	3.50%	1.40%
Expected inflation rate (%)	2.50%	2.60%
Employee turnover ratio (%)	3.19%	4.40%
Expected wage growth rate (%) in the following year	10.00%	3.30%
Expected wage growth rate (%) in subsequent years	3.50%	2.50%

- In 2021, the employee attrition probability was based on the historical data on employee turnover at the Company and sector statistical data. The employee turnover ratios applied by the actuary were determined separately for age categories in five-year intervals. In 2020, the employee attrition probability was based on the historical data on employee turnover at the Company and statistical data on the Polish labour market. The employee turnover ratios applied by the actuary were determined separately for age categories in ten-year intervals. The employee turnover ratio is now calculated on an average basis.
- The mortality and life expectancy ratios are based on the Life Expectancy Tables of Poland for 2019-2020, published by Statistics Poland (GUS), and assume that the Company's employee population is representative of the average Polish population in terms of mortality (December 31st 2020: Life Expectancy Tables of Poland for 2019).
- It was assumed that employees would retire in accordance with the standard procedure, as prescribed by the Pensions Act, with the exception of employees who, according to the information provided by the Company, meet the conditions for early retirement entitlement.
- The discount rate on future benefits was assumed at 3.5%, i.e. reflecting the assumption made at the corporate level (December 31st 2020: 1.4%, i.e. reflecting the assumption made at the corporate level).

Sensitivity analysis

The table below presents results of calculations for changed key actuarial assumptions: the salaries and wages growth rate and the discount rate.

Initial obligation balance

Wage growth rate	Discount rate	Length-of-service awards	Old-age and disability retirement severance payments	Death benefits	Social benefits fund	Total (1)
base	base	178.9	53.0	10.2	16.7	258.8
base + 1%	base	193.8	59.0	11.1	20.2	284.1
base - 1%	base	163.1	47.8	9.3	14.1	234.3
base	base + 0.5%	171.3	50.0	9.7	15.3	246.3
base	base - 0.5%	187.1	56.2	10.6	18.3	272.2

(1) Given the different nature of retirement plans at the AB LOTOS Geonafta Group companies, and their immaterial effect on the Group's obligations under length-of-service awards and post-employment benefits, those companies' obligations are not included in the analysis.

The tables below present results of calculations for changed key actuarial assumptions: the salaries and wages growth rate and the discount rate.

Current service cost projected for 2022

Wage growth rate	Discount rate	Length-of-service awards	Old-age and disability retirement severance payments	Death benefits	Social benefits fund	Total (1)
base	base	14.6	3.5	0.9	0.9	19.9
base + 1%	base	16.3	4.1	1.0	1.2	22.6
base - 1%	base	13.2	3.0	0.8	0.7	17.7
base	base + 0.5%	13.9	3.2	0.8	0.8	18.7
base	base - 0.5%	15.5	3.8	0.9	1.0	21.2

Cost of discount projected for 2022

Wage growth rate	Discount rate	Length-of-service awards	Old-age and disability retirement severance payments	Death benefits	Social benefits fund	Total (1)
base	base	5.6	1.7	0.3	0.6	8.2
base + 1%	base	6.2	1.9	0.4	0.7	9.2
base - 1%	base	5.2	1.5	0.3	0.5	7.5
base	base + 0.5%	6.2	1.8	0.4	0.6	9.0
base	base - 0.5%	5.1	1.5	0.3	0.5	7.4

Total current service cost and cost of discount projected for 2022

Wage growth rate	Discount rate	Length-of-service awards	Old-age and disability retirement severance payments	Death benefits	Social benefits fund	Total (1)
base	base	20.2	5.2	1.2	1.5	28.1
base + 1%	base	22.5	6.0	1.4	1.9	31.8
base - 1%	base	18.4	4.5	1.1	1.2	25.2
base	base + 0.5%	20.1	5.0	1.2	1.4	27.7
base	base - 0.5%	20.6	5.3	1.2	1.5	28.6

(1) Given the different nature of retirement plans at the AB LOTOS Geonafta Group companies, and their immaterial effect on the Group's obligations under length-of-service awards and post-employment benefits, those companies' obligations are not included in the analysis.

10.12.2 Termination benefits

In 2021, termination benefits and compensation payable in respect of the non-compete obligation totalled PLN 9.0m (2020: PLN 7.6m).

In 2020, the amount of provisions for termination benefits was PLN 0.1m.

10.13 Trade payables, other liabilities and provisions

Accounting policies

Short-term trade and other payables are reported at nominal amounts payable.

The Group derecognises a financial liability when it is extinguished, that is when the obligation specified in the contract is either discharged or cancelled or expires. When a debt instrument between the same parties is replaced by another instrument whose terms are substantially different, the Group treats such replacement as if the former financial liability was extinguished and recognises a new liability. Similarly, material modifications to the terms of a contract concerning an existing financial liability are presented as extinguishment of the former and recognition of a new financial liability. Any differences in the respective carrying amounts arising in connection with the replacement are charged to profit or loss.

Other non-financial liabilities include in particular value added tax, excise duty and fuel charge liabilities to the tax authorities and liabilities under received prepayments, which are to be settled by delivery of goods or tangible assets, or performance of services. Other non-financial liabilities are measured at nominal amounts payable.

Accrued expenses are recognised at probable amounts of current-period liabilities. The Group discloses accrued expenses and deferred income under other non-financial liabilities or, if they are related to employee benefits, under employee benefit obligations.

Provision for deficit in CO_2 emission allowances

CO_2 emission allowances are presented by the Group in its financial statements in accordance with the net liability approach.

In accordance with this method, in the statement of financial position:

- *CO_2 emission allowances received free of charge are not presented,*
- *the provision to cover CO_2 emission costs is estimated if there is a shortfall in CO_2 emission allowances received free of charge in relation to actual emissions during the reporting period.*

The Group monitors emissions from installations covered by the European Union Emissions Trading System/Scheme during the financial year and compares them with the emission allowances granted free of charge under the EU ETS. A provision for CO_2 emissions is recognised when the cumulative emissions since the beginning of a given year have exceed the limit of allowances allocated free of charge for the year. The effect of the provision on profit or loss is presented in cost of sales (taxes and charges).

When establishing the amount of the provision, the part of the shortage which can be covered by allowances purchased earlier is measured at the carrying amount of the allowances held, and for the part of the shortage remaining to be covered - at the current market prices of the allowances on the day ending the reporting period.

(PLNm)

	Note	Dec 31 2021	Dec 31 2020
Non-current financial liabilities:		19.6	19.3
Investment commitments		6.8	7.1
Liabilities to Polish National Foundation		9.2	11.3
Other		3.6	0.9
Current financial liabilities:		2,751.3	1,902.7
Trade payables		2,360.1	1,636.0
- including to related entities	10.2	2.6	1.2
Investment commitments		137.3	150.1
Liabilities to insurers		0.6	2.4
Settlements under joint operations (Norwegian fields) (1)		131.6	92.4
Liabilities to Polish National Foundation		2.5	2.5
Security deposit – ICE Futures		86.6	-
Other		32.6	19.3
Financial liabilities		2,770.9	1,922.0
Non-current non-financial liabilities:		1,428.1	1,401.2
Provisions	10.13.1	1,375.3	1,377.1
Grants	10.13.2	52.4	23.8
Other		0.4	0.3
Current non-financial liabilities:		2,171.6	2,161.4
Provisions	10.13.1	211.0	179.2
Value-added tax payable		634.1	492.3
Excise duty and fuel charge payable		885.0	939.8
Other liabilities to the state budget other than corporate income tax		149.6	152.0
Grants	10.13.2	22.2	22.1
Prepaid deliveries		8.3	5.5
Liabilities under the NAVIGATOR loyalty programme		34.2	30.6
Provision for deficit in CO_2 emission allowances	11.2.2	37.9	142.0
National Reduction Target Provision		42.8	75.1
Provision for NIT emission charge		61.5	62.6
Provision for RES emission charge		43.0	17.4
Cost of services		16.2	17.0
Other		25.8	25.8
Non-financial liabilities		3,599.7	3,562.6
Total		6,370.6	5,484.6
including:			
long-term portion		1,447.7	1,420.5
current:		4,922.9	4,064.1
- trade receivables		2,360.1	1,636.0
- other		2,562.8	2,428.1

(1) Liabilities of LOTOS Exploration and Production Norge AS (LOTOS Upstream Group, the Exploration & Production segment) under mutual settlements between the operator and consortium members in relation to individual Norwegian fields.

Trade payables do not bear interest and are typically paid in 7-60 days. Other liabilities do not bear interest and their average payment period is one month. Amounts resulting from the difference between value added tax receivable and value added tax payable are paid to the relevant tax authorities on a monthly basis. Interest payable is usually settled on a monthly basis throughout the financial year.

For currency risk sensitivity analysis of trade and other payables, see Note 11.2.3.1.

For information on contractual maturities of trade and other payables, see Note 11.2.5.

10.13.1 Provisions

Accounting policies

Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and the amount of the obligation can be reliably estimated. If the Group anticipates that the costs for which provisions have been recognised will be recovered, e.g. under an insurance agreement, the recovery of such funds is recognised as a separate asset, but only when such recovery is practically certain to occur. The cost related to a given provision is disclosed in the statement of comprehensive income net of any recoveries. If the effect of the time value of money is significant, the amount of provisions is determined by discounting projected future cash flows to their present value at a pre-tax discount rate reflecting the current market estimates of the time value of money and risks, if any, specific to a given obligation. If the discount method is applied, an increase in the provision as a result of passage of time is recognised as finance costs. Provisions, other than provisions for decommissioning and site restoration costs, are charged against operating expenses, other expenses, or finance costs, depending on what circumstances the future obligation relates to.

Provisions for decommissioning and restoration costs

Provisions for decommissioning and restoration costs are recognised when the Group has an obligation to decommission oil and gas extraction facilities or to demolish, disassemble or remove other property, plant and equipment and restore the site to its original condition, and when a reliable estimate can be made of the amount of the obligation.

If a decommissioning obligation arises with respect to new property, plant and equipment, such as production and transport infrastructure (pipelines) or refinery installations, it is recognised on completion of construction or installation. If a decommissioning obligation arises with respect to a production well, it is recognised on completion of drilling, irrespective of the hydrocarbon flow recorded.

A decommissioning obligation may be further adjusted over the useful life of a well, production or transport infrastructure, etc. to reflect changes in applicable laws or a decision to suspend certain operations. The recognised amount of the obligation is the present value of future expenditures, estimated for the local conditions and requirements.

The amount of the decommissioning provision is adjusted to reflect changes to the present value of estimated decommissioning and restoration costs, other than provision discount reversals. Adjustments are also made for foreign exchange gains or losses arising from translation of a decommissioning obligation denominated in a foreign currency when it is certain that the obligation will be settled in that currency.

Periodic discount unwinding is recognised as finance costs in the statement of comprehensive income.

Deferred tax assets and liabilities are recognised in respect of the decommissioning provision and the corresponding decommissioning asset.

A portion of the provision for decommissioning and restoration costs of deposits located in Poland also includes a provision recognised under Polish Geological and Mining Law of February 4th 1994 (Dz.U.05.228.1947, as amended), the Gas Extraction Facility Decommissioning Fund, which may only be used to cover the cost of decommissioning of an oil and gas extraction facility or its designated part.

The amount of contribution to the Fund is calculated separately for each facility and represents an equivalent of 3% or more of the depreciation charge recognised on the facility's property, plant and equipment, determined in accordance with applicable corporate income tax laws. The Group is required to accumulate the fund in a separate bank account until the commencement of decommissioning of the extraction facility and presents these funds as non-current financial assets.

Estimates

Provision for decommissioning of the Exploration & Production segment's facilities and site restoration

As at the end of each reporting period, the Group analyses the costs necessary to decommission oil and gas extraction facilities and the expenditure to be incurred on future site restoration. As a result of those analyses, the Group adjusts the value of the site restoration provision recognised in previous years to reflect the estimated amount of necessary future costs. Any changes in the estimated time value of money are also reflected in the amount of the provision.

	Note	Provisions for decommissioning and site restoration costs					Other provisions	Total
		Provision for oil and gas extraction facilities			Provisions for retired refining and other units	Total		
		Poland	Norway	Lithuania				
Jan 1 2021		353.5	985.7	23.2	16.3	1,378.7	177.6	1,556.3
Recognised		-	-	0.1	0.1	0.2	12.1	12.3
Remeasurement of decommissioning costs		(59.8)	(30.5)	3.1	0.1	(87.1)	(4.2)	(91.3)
Change in provisions attributable to approaching due date of liability (discount unwinding effect)	9.7	4.3	40.4	(3.3)	-	41.4	-	41.4
Reclassification		-	-	-	-	-	49.1	49.1
Exchange differences on translating foreign operations		-	46.9	(0.1)	-	46.8	0.6	47.4
Used		-	(3.9)	-	-	(3.9)	(3.5)	(7.4)
Reversed		-	-	-	(0.6)	(0.6)	(20.9)	(21.5)
Dec 31 2021		298.0	1,038.6	23.0	15.9	1,375.5	210.8	1,586.3
including:								
long-term portion		298.0	1,032.3	23.0	15.8	1,369.1	6.2	1,375.3
short-term portion		-	6.3	-	0.1	6.4	204.6	211.0

Provisions for decommissioning and site restoration costs:

Provision for oil and gas extraction facilities in Poland – a provision for future costs of decommissioning of the oil and gas extraction facilities in the B-3 and B-8 licence areas, and the Oil and Gas Extraction Facility Decommissioning Fund, set up to cover future costs of decommissioning of oil and gas extraction facilities in accordance with the Geological and Mining Law of February 4th 1994 and the Minister of Economy's Regulation of June 24th 2002.

Provision for oil and gas extraction facilities in Norway – a provision for future costs of decommissioning of the oil extraction facilities in the YME field, and the oil and gas extraction facilities in the Heimdal, Sleipner and Utgard fields.

Provision for oil and gas extraction facilities in Lithuania – a provision for future costs of decommissioning of the Lithuanian oil extraction facilities.

Provisions for retired refining and other units – a provision for site restoration and the cost of disassembly and decommissioning of the retired units at LOTOS Terminale S.A., a provision for estimated cost of disassembly of the subsea pipeline operated by the subsidiary Energobaltic Sp. z o.o. (a company of the LOTOS Petrobaltic Group), as well as for site restoration and clean-up.

(PLNm)

	Note	Provisions for decommissioning and site restoration costs					Other provisions		Total
		Provision for oil and gas extraction facilities			Provisions for retired refining and other units	Total			
		Poland	Norway	Lithuania					
Jan 1 2020		267.9	938.4	17.4	16.2	1,239.9	106.0		1,345.9
Recognised		-	-	-	0.3	0.3	81.3	(1)	81.6
Remeasurement of decommissioning costs		73.5	1.9	0.5	-	75.9	1.2		77.1
Remeasurement of estimated provision for contingent payments	9.5	-	-	-	-	-	(4.5)		(4.5)
Change in provisions attributable to approaching due date of liability (discount unwinding effect)	9.7	11.8	36.0	3.8	-	51.6	0.1		51.7
Interest on Oil and Gas Facility Decommissioning Fund		0.3	-	-	-	0.3	-		0.3
Exchange differences on translating foreign operations		-	19.1	1.6	-	20.7	1.0		21.7
Used		-	(9.7)	-	-	(9.7)	(5.5)		(15.2)
Reversed		-	-	(0.1)	(0.2)	(0.3)	(2.0)		(2.3)
Dec 31 2020		353.5	985.7	23.2	16.3	1,378.7	177.6		1,556.3
including:									
non-current		353.5	980.0	23.2	16.2	1,372.9	4.2		1,377.1
short-term portion		-	5.7	-	0.1	5.8	173.4		179.2

(1) Including PLN 49.7m in provisions for disputed claims (proceedings involving subsidiary LOTOS Petrobaltic S.A. and AGR Subsea Ltd., see Note 12.1.1).

Provisions for decommissioning and site restoration costs:

Provision for oil and gas extraction facilities in Poland – a provision for future costs of decommissioning of the oil and gas extraction facilities in the B-3 and B-8 licence areas, and the Oil and Gas Extraction Facility Decommissioning Fund, set up to cover future costs of decommissioning of oil and gas extraction facilities in accordance with the Geological and Mining Law of February 4th 1994 and the Minister of Economy's Regulation of June 24th 2002.

Provision for oil and gas extraction facilities in Norway – a provision for future costs of decommissioning of the oil extraction facilities in the YME field, and the oil and gas extraction facilities in the Heimdal, Sleipner and Utgard fields.

Provision for oil and gas extraction facilities in Lithuania – a provision for future costs of decommissioning of the Lithuanian oil extraction facilities.

Provisions for retired refining and other units – a provision for site restoration and the cost of disassembly and decommissioning of the retired units at LOTOS Terminale S.A., a provision for estimated cost of disassembly of the subsea pipeline operated by the subsidiary Energobaltic Sp. z o.o. (a company of the LOTOS Petrobaltic Group), as well as for site restoration and clean-up.

Provision for oil and gas extraction facilities – Norway

Provision for decommissioning and restoration of oil extraction facility in the YME field

As at December 31st 2021, the provision for decommissioning and restoration of the extraction facility in the YME field, totalling PLN 168.2m, was disclosed under Other liabilities and provisions and reflected the current estimate, made based on the Group's best knowledge, of future costs of removal of the YME infrastructure and costs of site restoration, assuming that the project is decommissioned in 2032. As at December 31st 2020, the provision was PLN 211.8m.

Provision for decommissioning and restoration of gas extraction facilities in the Heimdal fields

Decommissioning of the fixed assets of the offshore oil and gas extraction facility in the Heimdal fields and site restoration work are scheduled for 2019–2023. As at December 31st 2021, the provision was disclosed in the Group's statement of financial position under Other liabilities and provisions at PLN 196.2m. As at December 31st 2020, the provision was PLN 194.1m.

Provision for decommissioning and restoration of gas extraction facilities in the Sleipner and Utgard fields

Decommissioning of fixed assets and restoration of the offshore area of the oil and gas extraction facility on the Sleipner fields and the Utgard field, launched in 2019, are scheduled for 2026–2038. As at December 31st 2021, the provision was disclosed in the Group's statement of financial position under Other liabilities and provisions at PLN 674.2m. As at December 31st 2020, the provision was PLN 579.8m.

Other provisions

The tax risk provision as at December 31st 2021 was PLN 91.4m. As at December 31st 2020, the provision was PLN 87.3m.

As at December 31st 2021, the provision for disputed claims was PLN 51.6m. As at December 31st 2020, the provision was PLN 55.1m.

As at December 31st 2021, the National Reduction Target Provision for potential penalties was PLN 49.1m. As at December 31st 2020, the provision was recognised under current non-financial liabilities in the line item National Reduction Target Provision (see Note 10.13).

10.13.2 Grants

Accounting policies

If there is reasonable certainty that a grant will be received and that all related conditions will be fulfilled, grants are recognised at fair value.

If a grant concerns a cost item, it is recognised as income in matching with the expenses it is to compensate for. If it concerns an asset, its fair value is recognised as deferred income, and then it is written off annually in equal parts through the statement of comprehensive income over the estimated useful life of the asset.

	Note	Dec 31 2021	Dec 31 2020
At beginning of period		45.9	30.9
Grants received in the period		40.7	21.7
Deferred grants		(12.0)	(6.7)
At end of period		74.6	45.9
including:			
long-term portion	10.13	52.4	23.8
short-term portion	10.13	22.2	22.1

The grants mainly include EU funding for the purchase of modern intermodal rolling stock, subsidies for the use of railway infrastructure in Germany, free licences and subsidies from the EcoFund to finance use of waste gas from offshore oil extraction facilities for heating purposes.

11. Notes on financial instruments and financial risk

11.1 Financial instruments

Accounting policies

Financial assets

The Group classifies financial assets into the following measurement categories:

- *measured at amortised cost,*
- *measured at fair value through profit or loss,*
- *measured at fair value through other comprehensive income.*

The classification depends on the model adopted by the Group to manage financial assets and on the terms of contractual cash flows. The Group reclassifies investments in debt instruments only when the management model changes.

The Group assesses the model of managing debt financial assets (including trade receivables) based on the following three possible criteria:

- *held to collect cash flows,*
- *held to collect cash flows and sell,*
- *other (effectively meaning assets held for disposal).*

Measurement upon initial recognition

On initial recognition, the Group measures a financial asset at fair value plus transaction costs that are directly attributable to the acquisition of the financial asset if it is not measured at fair value through profit or loss. Transaction costs related to financial assets at fair value through profit or loss are recognised in profit or loss.

Derecognition

Financial assets are recognised when the Group becomes a party to the contractual provisions covering the instrument. Financial assets are derecognised when the rights to receive cash flows from financial assets have expired or have been transferred, and the Group has transferred substantially all risks and rewards related to ownership of assets.

Measurement after initial recognition

Financial assets measured at amortised cost

Debt instruments held to collect contractual cash flows which comprise solely payments of principal and interest ("SPPI") are measured at amortised cost. Interest income is calculated using the effective interest rate method and recognised under interest income in profit or loss. Impairment losses are recognised in accordance with the accounting policy set out in Note 10.3.1 and presented under Impairment losses on financial assets.

In this category, the Group classifies in particular:

- *trade receivables other than factoring receivables within the factoring limit granted to the Group,*
- *loans that meet the SPPI classification test and, in line with the business model, are recognised as 'held to collect cash flows',*
- *cash and cash equivalents,*
- *deposits, security deposits, investment receivables and other financial receivables.*

Financial assets measured at amortised cost are classified as non-current assets if they mature more than 12 months after the reporting date.

If the effect of time value of money is material, the value of receivables is determined by discounting the projected future cash flows to their present value using a pre-tax discount rate reflecting the current market estimates of the time value of money.

Financial assets measured at fair value through other comprehensive income

Debt instruments giving rise to cash flows which are solely payments of principal and interest and which are held to collect contractual cash flows and to sell are measured at fair value through other comprehensive income. Changes in the carrying amount are recognised through other comprehensive income, except for impairment gains and losses, interest income and foreign exchange gains and losses, which are recognised in profit or loss. If a financial asset is derecognised, the total gain or loss previously recognised in other comprehensive income is reclassified from equity to profit or loss and recognised as other gains/(losses). Interest income on such financial assets is calculated using the effective interest rate method and recognised in the line item Interest income. Impairment due to expected credit losses is recognised in accordance with the accounting policy applicable to impairment of financial assets and presented in the line item Impairment allowance for expected credit losses.

Financial assets at fair value through profit or loss

Assets which do not meet the criteria for measurement at amortised cost or at fair value through other comprehensive income are measured at fair value through profit or loss.

In particular, the Group classifies loans that do not meet the SPPI test (i.e. cash flows from these loans are not solely payments of principal and interest) at fair value through profit or loss.

The fair value of trade receivables subject to factoring within the limit available as at the last day of the reporting period is determined on the basis of the factoring agreement with the factor.

Gain or loss on fair value measurement of debt investments is recognised in profit or loss and presented under 'Gains/(losses) on changes in the fair value of financial instruments' in the period in which they arise. Gains/(losses) on fair value measurement include interest received on financial instruments classified as measured at fair value.

The instruments classified at fair value through profit or loss include the derivative instruments described in Note 10.11.

Equity instruments measured at fair value through other comprehensive income.

Interests in other entities include such equity instruments in other entities which do not confer control, joint control or significant influence over such entities.

Interests in other entities are initially recognised at fair value plus transaction costs. Subsequently, they are measured at fair value. For all its investments, the Group has elected to present gains and losses on changes in the fair value of equity instruments in other comprehensive income as such investments are not held for short-term returns. If such election is made, gains and losses on changes in fair value are not reclassified to profit or loss when the investment is derecognised.

Dividends from such investments are recognised in profit or loss once the Group's right to receive payment is established.

Financial liabilities

Financial liabilities are initially recognised at fair value less transaction costs and subsequently at amortised cost using the effective interest rate method.

Under financial liabilities at amortised cost, the Group recognises mainly trade payables, investment commitments and other liabilities, bank and non-bank borrowings, and debt instruments. Such liabilities are recognised in the statement of financial position under: Bank and non-bank borrowings, notes and lease liabilities; Trade payables; Other liabilities and provisions.

Financial liabilities denominated in foreign currencies are translated into the functional currency using the exchange rate prevailing at the date of the transaction. Foreign exchange gains and losses on settlement of those liabilities and translation at the exchange rates prevailing at the reporting date are recognised in profit or loss unless their recognition in other comprehensive income is deferred when they qualify as cash flow hedging.

If contractual terms of a financial liability are modified in a way that does not result in derecognition of the existing liability, the gain or loss is immediately recognised in profit or loss. Profit or loss is calculated as the difference between the present value of modified and original cash flows, discounted using the original effective interest rate of the liability.

Estimates

Fair value of financial instruments

The fair value of financial instruments for which no active market exists is measured using appropriate valuation techniques. In selecting the methods and assumptions appropriate for these objectives, the Group relies on professional judgement.

(PLNm)

11.1.1 Carrying amount

		IFRS 9								outside IFRS 9		Total	
		Measurement at amortised cost		Measurement at fair value through:				Total					
				Profit or loss		Other comprehensive income							
	Note	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
Financial assets													
Trade receivables	10.3	2,648.5	1,693.9	-	-	-	-	2,648.5	1,693.9	-	-	2,648.5	1,693.9
Derivative financial instruments	10.11	-	-	216.7	67.1	-	-	216.7	67.1	-	-	216.7	67.1
Finance lease receivables	10.3.2	-	-	-	-	-	-	-	-	11.2	12.7	11.2	12.7
Equity investments	10.5	-	-	-	-	297.4	309.8	297.4	309.8	-	-	297.4	309.8
Other financial assets	10.3; 10.4	410.2	391.8	-	-	-	-	410.2	391.8	-	-	410.2	391.8
Cash and cash equivalents	10.7	2,572.1	2,145.6	-	-	-	-	2,572.1	2,145.6	-	-	2,572.1	2,145.6
Total		5,630.8	4,231.3	216.7	67.1	297.4	309.8	6,144.9	4,608.2	11.2	12.7	6,156.1	4,620.9
Financial liabilities													
Bank and non-bank borrowings and notes	10.9	1,679.7	2,827.1	-	-	-	-	1,679.7	2,827.1	-	-	1,679.7	2,827.1
Leases	10.9	-	-	-	-	-	-	-	-	1,559.5	1,246.4	1,559.5	1,246.4
Derivative financial instruments	10.11	-	-	32.1	19.5	-	-	32.1	19.5	-	-	32.1	19.5
Trade payables	10.13	2,360.1	1,636.0	-	-	-	-	2,360.1	1,636.0	-	-	2,360.1	1,636.0
Other financial liabilities	10.13	410.8	286.0	-	-	-	-	410.8	286.0	-	-	410.8	286.0
Total		4,450.6	4,749.1	32.1	19.5	-	-	4,482.7	4,768.6	1,559.5	1,246.4	6,042.2	6,015.0

11.1.2 Fair value measurement

Dec 31 2021	Note	Carrying amount	Fair value	Fair value hierarchy		
				Level 1	Level 2	Level 3
Financial assets						
Financial assets measured at fair value through other comprehensive income	10.5	297.4	297.4	-	-	297.4
Loans	10.4	210.3	237.4	-	237.4	-
Derivative financial instruments	10.11	216.7	216.7	176.9	39.8	-
Total		724.4	751.5	176.9	277.2	297.4
Financial liabilities						
Bank borrowings	10.9.1	1,424.1	1,425.5	-	1,425.5	-
Notes	10.9.3	228.1	229.3	-	229.3	-
Derivative financial instruments	10.11	32.1	32.1	0.5	31.6	-
Total		1,684.3	1,686.9	0.5	1,686.4	-

For the other classes of financial assets and liabilities, the fair value corresponds to their carrying amounts.

Dec 31 2020	Note	Carrying amount	Fair value	Fair value hierarchy		
				Level 1	Level 2	Level 3
Financial assets						
Financial assets measured at fair value through other comprehensive income	10.5	309.8	309.8	-	-	309.8
Loans	10.4	195.9	195.9	-	195.9	-
Derivative financial instruments	10.11	67.1	67.1	14.8	52.3	-
Total		572.8	572.8	14.8	248.2	309.8
Financial liabilities						
Bank borrowings	10.9.1	2,559.8	2,572.2	-	2,572.2	-
Notes	10.9.3	231.7	233.6	-	233.6	-
Derivative financial instruments	10.11	19.5	19.5	-	19.5	-
Total		2,811.0	2,825.3	-	2,825.3	-

For the other classes of financial assets and liabilities, the fair value corresponds to their carrying amounts.

(PLNm)

11.1.3 Material items of income, expenses, gains and losses disclosed in the statement of comprehensive income by category of financial instrument

		IFRS 9								outside IFRS 9		Total	
		Measurement at amortised cost		Measurement at fair value through: Profit or loss		Measurement at fair value through: Other comprehensive income		Total					
	Note	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
Trade receivables:													
Interest income	9.6	1.2	2.4	-	-	-	-	1.2	2.4	-	-	1.2	2.4
Foreign exchange gains recognised in cost of sales	9.2	17.5	5.2	-	-	-	-	17.5	5.2	-	-	17.5	5.2
Foreign exchange gains/(losses) recognised in finance income/(costs)	9.6; 9.7	0.8	2.5	-	-	-	-	0.8	2.5	-	-	0.8	2.5
Impairment losses on financial instruments	9.8	(5.5)	(4.7)	-	-	-	-	(5.5)	(4.7)	-	-	(5.5)	(4.7)
Lease receivables:													
Interest income	9.6	-	-	-	-	-	-	-	-	0.5	0.1	0.5	0.1
Equity investments:													
Dividend income	9.6	-	-	-	-	1.7	3.0	1.7	3.0	-	-	1.7	3.0
Loss on fair value measurement		-	-	-	-	(12.3)	-	(12.3)	-	-	-	(12.3)	-
Other financial assets:													
Interest income on deposits, loans	9.6	14.8	5.8	-	-	-	-	14.8	5.8	-	-	14.8	5.8
Foreign exchange gains/(losses) on loans recognised in finance income/(costs)	9.6; 9.7	5.8	(0.8)	-	-	-	-	5.8	(0.8)	-	-	5.8	(0.8)
Gain/(Loss) on impairment of financial instruments	9.8	0.8	(9.4)	-	-	-	-	0.8	(9.4)	-	-	0.8	(9.4)
Cash and cash equivalents													
Interest income	9.6	0.2	1.3	-	-	-	-	0.2	1.3	-	-	0.2	1.3
Foreign exchange gains/(losses) recognised in finance income/(costs)	9.6; 9.7	5.5	16.2	-	-	-	-	5.5	16.2	-	-	5.5	16.2
Derivative financial instruments (financial assets/liabilities):													
Gains on fair value measurement of derivative financial instruments	9.6	-	-	136.9	43.1	-	-	136.9	43.1	-	-	136.9	43.1
Gains/(losses) on realised derivative financial instruments	9.6	-	-	105.8	22.6	-	-	105.8	22.6	-	-	105.8	22.6
Bank and non-bank borrowings and notes:													
Interest expense	9.7	(72.4)	(91.8)	-	-	-	-	(72.4)	(91.8)	-	-	(72.4)	(91.8)
Losses on cash flow hedge accounting charged against revenue	9.1	(34.0)	(240.2)	-	-	-	-	(34.0)	(240.2)	-	-	(34.0)	(240.2)
Foreign exchange gains/(losses) on bank and non-bank borrowings, notes, and realised foreign-currency transactions in bank accounts recognised in finance income/(costs)	9.6; 9.7	(68.5)	35.4	-	-	-	-	(68.5)	35.4	-	-	(68.5)	35.4
Gains on measurement of cash flow hedges recognised in other comprehensive income	10.8.3	(35.7)	221.2	-	-	-	-	(35.7)	221.2	-	-	(35.7)	221.2
Leases													
Interest expense	9.7	-	-	-	-	-	-	-	-	(72.7)	(75.8)	(72.7)	(75.8)
Foreign exchange gains/(losses) recognised in finance income/(costs)	9.6; 9.7	-	-	-	-	-	-	-	-	(14.2)	(4.1)	(14.2)	(4.1)
Trade and other payables:													
Foreign exchange gains/(losses) recognised in cost of sales	9.2	(96.2)	(9.0)	-	-	-	-	(96.2)	(9.0)	-	-	(96.2)	(9.0)
Foreign exchange gains/(losses) recognised in finance income/(costs)	9.6; 9.7	(0.1)	(0.2)	-	-	-	-	(0.1)	(0.2)	-	-	(0.1)	(0.2)
Other financial liabilities:													
Foreign exchange gains/(losses) on investment liabilities recognised in finance income/(costs)	9.6; 9.7	0.1	(6.8)	-	-	-	-	0.1	(6.8)	-	-	0.1	(6.8)
Total		(265.7)	(72.9)	242.7	65.7	(10.6)	3.0	(33.6)	(4.2)	(86.4)	(79.8)	(120.0)	(84.0)

11.2 Objectives and policies of financial risk management

The Group is exposed to financial risks, including:

- market risk (risk of movements in commodity and petroleum product prices, risk of movements in prices of CO_2 allowances, currency risk, interest rate risk),
- liquidity risk,
- credit risk in financial and trade transactions.

The Parent has appropriate units (Finance Management Office, Financial Risk Analysis and Control Office) reporting to the Chief Financial Officer, who coordinates and exercises ongoing supervision of the LOTOS Group's financial risk management processes.

Furthermore, the Price Risk and Trading Committee, appointed by the Management Board, supervises the work on development of policies and procedures, and monitors the implementation of the Group's strategy in the area of its responsibilities. Specifically, the Committee provides opinions on or initiates key price and trading risk management initiatives, issues recommendations, and submits proposals for actions that require the Management Board's approval.

In addition, to ensure effective management of liquidity, debt structure and external finance raising by companies of the LOTOS Group, the Management Board has appointed the Liquidity Optimisation and Financing Coordination Team.

Financial risk management seeks to achieve the following key objectives:

- increase the probability of budget and strategic objectives being met,
- limit cash flow volatility,
- ensure short-term financial liquidity,
- optimise the expected level of cash flows and risk,
- support operating, investment and financial processes, and create value in the long term.

With a view to implementing the above objectives, the Group has put in place appropriate tools and developed a number of documents, approved at the relevant decision-making levels, defining the framework for ensuring effectiveness and safety of the Group's financial activities, including:

- the methodology for quantifying exposures to particular risks,
- the time horizon for hedging a given risk,
- acceptable financial instruments,
- the method of assessing financial risk management,
- limits within risk management,
- the reporting method,
- credit limits,
- documentation and operating standards,
- separation of responsibilities for execution of transactions, risk analysis and control, documentation of and accounting for transactions, and their allocation to different corporate units.

The Parent monitors and reports all managed market risks on an ongoing basis. The Parent uses liquid derivatives which can be measured by applying commonly used valuation models. The valuation of derivative financial instruments is performed based on market inputs provided by reliable sources. Opening positions with respect to risks which do not arise as part of the Group's core business is prohibited.

In July 2019, as part of the refinancing of foreign-currency loans used to finance the 10+ Programme, the existing hedging relationships were terminated and new financing agreements were created to maintain the type of hedge accounting applied (cash flow hedge) and designated as the hedged item for future sales of oil products denominated in USD.

11.2.1 Risk of movements in commodity and petroleum product prices

The Group considers the risk of movements in commodity and petroleum product prices to be particularly important.

The following risk factors are identified in this area:

- volatility of the refining margin, measured as the difference between liquid indices of a reference petroleum product basket (e.g. aviation fuel, gasoline, diesel oil, fuel oil) and a liquid index of reference commodity (e.g. Urals crude),
- volatility of prices with respect to the commodity and product inventory volumes deviating from the required levels of emergency and operational stocks,
- volatility of differentials between the reference indices and indices used in commercial contracts (e.g. Urals-Brent differential, i.e. the difference between different types of crude oil),
- use of non-standard pricing formulae in trade contracts.

The Parent has in place "Grupa LOTOS S.A.'s commodity and petroleum products price risk management policy", which defines the classification system for transaction portfolios and their business functions, describes how risk is understood and how portfolio exposures are measured, specifies permitted financial instruments and limitations on their use, and transaction execution standards, and also provides guidelines on how to evaluate risk management performance and set relevant limits. Transaction limits falling within the scope of that policy are delegated by the Management Board to lower-level decision-makers.

To support the achievement of the policy objectives, the Company uses a leading Energy Trading and Risk Management system (Allegro).

Under the approved policy, the Company may continue to offer petroleum products at fixed prices. To preserve the original price risk profile, the Group has entered into commodity swaps.

In 2018, the Management Board of Grupa LOTOS S.A. approved the "Market Risk Management Policy for the exploration and production segment of the LOTOS Group".

Open commodity swaps as at December 31st 2021:

Type of contract	Reference index	Valuation period	Amount in tonnes in the valuation period	Fair value measurement	
				Financial assets	Financial liabilities
Commodity swap	3.5 PCT Barges FOB Rotterdam	Apr 2022 – Sep 2023	31,040	26.3	-
Commodity swap	Gasoil 0.1 pct Crg CIF NWE_ARA	Apr 2022 – Sep 2023	9,809	-	(4.2)
			Total	26.3	(4.2)

These swap transactions for a total of 31,040 tonnes based on the 3.5 PCT Barges FOB Rotterdam liquid index in the period from April 2022 to September 2023 and 9,809 tonnes based on the Gasoil 0.1 pct Crg CIF NWE ARA liquid index in the same period were entered into to reverse the risk profile of commodity and petroleum product prices arising from the sale of bitumen components at fixed prices.

Open commodity swaps as at December 31st 2020:

Type of contract	Reference index	Valuation period	Amount in tonnes in the valuation period	Fair value measurement	
				Financial assets	Financial liabilities
Commodity swap	FuelOil 3.5 pct Brg FOB Rotterdam	Mar 2021 – Nov 2022	196,939	29.6	(2.8)
Commodity swap	Gasoil 0.1 pct Crg CIF NWE_ARA	Mar 2021 – Nov 2022	(18,203)	3.4	(2.3)
			Total	33.0	(5.1)

These swap transactions for a total of 196,939 tonnes based on the 3.5 PCT Barges FOB Rotterdam liquid index in the period from March 2021 to November 2022 and (18,203) tonnes based on the Gasoil 0.1 pct Crg CIF NWE ARA liquid index in the same period were entered into to reverse the risk profile of commodity and petroleum product prices arising from the sale of bitumen components at fixed prices.

11.2.1.1 Sensitivity analysis: risk of movements in commodity and petroleum product prices

Below is presented an analysis of the sensitivity of the Group's financial transactions to the risk of movements in commodity and petroleum product prices as at December 31st 2021 and 2020, assuming price increase/decrease corresponding to the implied annual volatility of the reference index:

	Dec 31 2021			Dec 31 2020		
	Carrying amount	Change*		Carrying amount	Change**	
		+ implied volatility	- implied volatility		+ implied volatility	- implied volatility
Financial assets	26.3	25.9	(25.9)	33.0	67.3	(67.3)
Financial liabilities	4.2	(8.4)	8.4	5.1	(12.1)	12.1
Effect on profit/loss		34.3	(34.3)		79.4	(79.4)

* With respect to instruments held as at December 31st 2021, the above deviations of reference index prices were calculated based on the implied annual volatility of the reference index for December 31st 2021, as published by SuperDerivatives. The volatility was +/- 51.24% for the 3.5 PCT Barges FOB Rotterdam index and +/- 34.23% for the Gasoil 0.1 pct Crg CIF NWE_ARA index.

** With respect to instruments held as at December 31st 2020, the above deviations of reference index prices were calculated based on the implied annual volatility of the reference index for December 31st 2020, as published on the SuperDerivatives website. The volatility was +/- 44.93% for the 3.5 PCT Barges FOB Rotterdam index and +/- 34.67% for the Gasoil 0.1 pct Crg CIF NWE_ARA index.

The effect of the reference index price changes on the fair value was examined assuming that the currency exchange rates remain unchanged.

11.2.2 Risk of movements in prices of carbon dioxide (CO_2) emission allowances

Following the spin-off of an organised part of the enterprise from the Parent on November 2nd 2021 and the transfer of refining assets to the subsidiary LOTOS Asfalt Sp. z o.o., by operation of law the obligation to redeem CO_2 emission allowances rested with LOTOS Asfalt Sp. z o.o. Based on the model for transferring costs of the subsidiary's participation in the EU ETS provided for in the processing contract, the Parent continues to manage the risk of CO_2 emission allowance prices at the Group.

In accordance with the assumptions of the CO2 emission allowance price risk management policy approved by the Management Board of Grupa LOTOS S.A., the Parent takes decisions as to the manner of balancing future shortage or surplus of CO_2 emission allowances resulting from the processing contract, depending on the market situation and within set limits. The Parent enters into financial transactions for emission unit allowances (EUAs, one EUA representing the right to emit one tonne of CO_2) within the framework of the approved Policy and the available limits.

As at December 31st 2021, the Parent's deficit of allowances in the 2021–2025 trading period (Phase IV) was 1,566,818 tonnes. However, taking into account derivative transactions for a total of 1,746,000 tonnes, the Parent had surplus emission allowances for 179,182 tonnes, which were purchased in view of the market situation and the strategic nature of the emission allowances deficit expected in 2026–2030.

To manage the risk related to carbon dioxide emission allowances, the Group evaluates the risk of deficit of free emission allowances allocated.

The total number of free CO_2 emission allowances for 2021−2025 and total actual CO_2 emissions is presented below:

in million tonnes	2021	2022	2023	2024	2025	Total
Free allowances (1)	1.7	1.7	1.7	1.7	1.7	8.5
Actual CO_2 emissions	1.9(2)	-	-	-	-	1.9

(1) Number of free CO_2 emission allowances for 2021−2025, announced by the Minister of Climate and Environment for installations covered by the scheme, together with the final number of emission allowances allocated for 2021-2025, pursuant to Art. 26e.3 and Art. 64b.8 of the Act on Trading in Greenhouse Gas Emission Allowances of June 12th 2015 (Dz. U. of 2021, items 332 and 1047).

(2) CO_2 emissions, calculated based on the production data for the installations covered by the emissions trading scheme. The data is verified in accordance with Art. 84.1 of the Act on Trading in Greenhouse Gas Emission Allowances of June 12th 2015 (Dz. U. of 2021, items 332 and 1047) and Art. 68 of Commission Regulation (EU) No 2018/2066.

As at December 31st 2021, considering the proposed amount of allowances to be allocated under the European Union Emissions Trading Scheme for 2021 and the actual volume of emissions, the Group reported a deficit of allocated CO_2 emission allowances. Therefore, as at December 31st 2021, the Group recognised PLN 37.9m of these liabilities, disclosed in the statement of financial position under current liabilities as: Other liabilities and provisions (see Note 10.13). The effect of the provision on EBIT is presented under cost of sales.

As at December 31st 2020, liabilities recognised at the Group level in connection with the deficit in CO_2 emission allowances were PLN 142.0m. Of the amount, PLN 133.6 m was used to purchase CO_2 emission allowances for 2020. The PLN 8.4m effect of reversal of the remaining portion of the provision on EBIT is presented under cost of sales.

If required, futures contracts to purchase CO_2 allowances open as at the last day of the reporting period are settled by the Parent through physical delivery to LOTOS Asfalt Sp. z o.o. for redemption to offset actual CO_2 emissions.

The contract positions as at December 31st 2021 and 2020 are presented below.

Open emission allowances contracts as at December 31st 2021:

Type of contract	Contract settlement period	Contract volume (in tonnes)	Phase	Fair value measurement	
				Financial assets	Financial liabilities
EUA Futures	Mar 2022 – Dec 2025	1,746,000	Phase IV	176.9	(0.5)

Open CO_2 allowances contracts as at December 31st 2020:

Type of contract	Contract settlement period	Contract volume (in tonnes)	Phase	Fair value measurement	
				Financial assets	Financial liabilities
EUA Futures	Mar 2021	1,555,000	Phase III	14.8	-

11.2.2.1 Sensitivity analysis: risk of movements in prices of carbon dioxide (CO_2) emission allowances

The analysis of sensitivity of CO_2 contracts' fair value as at December 31st 2021 and December 31st 2020 is presented below:

	Dec 31 2021			Dec 31 2020		
	Carrying	Change*		Carrying	Change**	
	amount	+ implied volatility	- implied volatility	amount	+ implied volatility	- implied volatility
Financial assets	176.9	262.0	(262.0)	14.8	109.4	(109.4)
Financial liabilities	0.5	(50.9)	50.9	-	-	-
Effect on profit/loss		312.9	(312.9)		109.4	(109.4)

*With respect to instruments held as at December 31st 2021, the above deviations of prices of CO_2 emission allowances were calculated based on the implied annual volatility of EUA futures contracts of December 31st 2021, as published by SuperDerivatives; the implied volatility was 47.5%.

**With respect to instruments held as at December 31st 2020, the above deviations of prices of CO_2 emission allowances were calculated based on the implied annual volatility of EUA futures contracts of December 31st 2020, as published by SuperDerivatives; the implied volatility was 46.79%.

11.2.3 Currency risk

In its operations the Group is exposed to currency risks related to:
- trading in raw materials, petroleum products and other commodities,
- investment cash flows,
- cash flows from financing activities, including deposits and borrowings,
- valuation of derivative instruments,

indexed to or denominated in a currency other than the functional currency.

Currency risk is managed by the Parent in line with the assumptions of the Grupa LOTOS S.A. Currency Risk Management Policy. Under the policy, exposure is understood as material positions exposed to currency risk, affecting liquidity within the management horizon when the risk arises. The central risk metric is Cash-Flow-at-Risk (CFaR), computed based on the CorporateMetrics™ methodology, with the CFaR value limit and the maximum hedge ratio being the key limits. The exposure management horizon is linked with the budget forecast horizon, which varies from three to six consecutive quarters depending on the time of the year.

The Group actively manages its currency exposure by optimising the expected values of cash flows and risk within applicable limits, taking into account expected market developments.

As USD is used in market price quotations for crude oil and petroleum products, it was decided that USD is the most appropriate currency for contracting and repaying long-term credit facilities as this would reduce the structural long position and, consequently, also the strategic currency risk.

The Group has a structural long position in USD (it benefits from a rise in the USD/PLN exchange rate) as its cash inflows dependent on the USD exchange rate (mainly revenue from sale of petroleum products) are higher than the corresponding cash outflows (e.g. on purchase of crude oil, credit facility repayments), and it has a short position in EUR resulting mainly from feedstock purchases and payments related to investing activities.

Open currency contracts as at December 31st 2021:

Type of contract	Purchase/sale	Contract settlement period	Currency pair (base/floating)	Amount in base currency	Fair value measurement	
					Financial assets	Financial liabilities
Currency spot	Purchase	Jan 2022	USD/PLN	41.0	-	-
Currency spot	Sale	Jan 2022	USD/PLN	(19.5)	-	-
Currency forward	Purchase	Jan 2022	USD/PLN	11.5	-	(0.2)
Currency forward	Purchase	Jan – Dec 2022	EUR/PLN	60.6	-	(1.8)
Currency forward	Purchase	Apr – Jul 2022	EUR/USD	125.0	-	(9.2)
Currency forward	Sale	Sep 2022	USD/PLN	(80.0)	1.5	-
Currency forward	Sale	Feb 2022	EUR/PLN	(1.3)	-	-
Currency swap	Purchase	Jan – Mar 2022	USD/PLN	260.0	-	(9.0)
Currency swap	Purchase	Jan 2022	EUR/PLN	16.4	-	(0.5)
Currency swap	Purchase	Jan – Mar 2022	EUR/USD	50.4	0.3	-
Currency swap	Sale	Jan – Dec 2022	USD/PLN	(489.7)	10.4	(6.7)
Currency swap	Sale	Jan 2022	EUR/PLN	(27.4)	1.3	-
				Total	13.5	(27.4)

Open currency contracts as at December 31st 2020:

Type of contract	Purchase/sale	Contract settlement period	Currency pair (base/floating)	Amount in base currency	Fair value measurement	
					Financial assets	Financial liabilities
Currency spot	Purchase	Jan 2021	USD/PLN	29.5	1.0	-
Currency spot	Purchase	Jan 2021	EUR/PLN	0.4	-	-
Currency forward	Sale	Apr 2021	USD/PLN	(0.5)	-	-
Currency swap	Sale	Jan – May 2021	USD/PLN	(192.8)	18.3	(3.0)
Currency swap	Sale	Jan – Feb 2021	EUR/PLN	(19.8)	-	(3.2)
				Total	19.3	(6.2)

11.2.3.1 Sensitivity analysis: currency risk

Currency structure of selected financial instruments as at December 31st 2021

Dec 31 2021	USDm	USD translated into PLN	EURm	EUR translated into PLN	Carrying amount in foreign currency translated into PLN as at the reporting date
Financial assets					
Trade receivables	56.0	227.5	6.6	30.3	257.8
Cash and cash equivalents	61.1	248.3	116.2	535.6	783.9
Other financial assets:	19.7	79.9	0.4	1.7	81.6
Loans to related entities	19.7	79.9	-	-	79.9
Security deposits (margins)	-	-	0.1	0.2	0.2
Other	-	-	0.3	1.5	1.5
Total	136.8	555.7	123.2	567.6	1,123.3
Financial liabilities					
Bank and non-bank borrowings	339.6	1,378.9	-	-	1,378.9
Notes	56.2	228.1	-	-	228.1
Leases	74.1	301.2	8.0	36.7	337.9
Trade payables	399.3	1,621.4	42.8	197.0	1,818.4
Other financial liabilities	6.8	27.6	31.5	144.6	172.2
Total	876.0	3,557.2	82.3	378.3	3,935.5

Currency structure of selected financial instruments as at December 31st 2020

Dec 31 2020	USDm	USD translated into PLN	EURm	EUR translated into PLN	Carrying amount in foreign currency translated into PLN as at the reporting date
Financial assets					
Trade receivables	44.5	167.4	6.3	29.0	196.4
Cash and cash equivalents	77.6	294.7	44.6	207.8	502.5
Other financial assets:	22.4	84.1	3.7	16.7	100.8
Loans to related entities	19.7	74.1	-	-	74.1
Security deposits (margins)	-	-	3.4	15.6	15.6
Other	2.7	10.0	0.3	1.1	11.1
Total	144.5	546.2	54.6	253.5	799.7
Financial liabilities					
Bank and non-bank borrowings	645.8	2,392.1	5.9	27.0	2,419.1
Notes	61.6	231.7	-	-	231.7
Leases	-	-	11.2	51.8	51.8
Trade payables	315.9	1,187.3	17.1	78.9	1,266.2
Other financial liabilities	7.5	28.1	16.7	76.8	104.9
Total	1,030.8	3,839.2	50.9	234.5	4,073.7

For the purposes of sensitivity analysis, the currency structure presented above also accounts for intercompany foreign currency transactions sensitive to changes in foreign exchange rates, which affect the Group's currency risk in accordance with IAS 21 The Effects of Changes in Foreign Exchange Rates with respect to recognition of relevant foreign exchange gains or losses in the Group's net profit or loss.

Apart from currency spots, forwards and swaps, the Group held foreign-currency derivatives, including commodity swaps, commodity options, interest-rate swaps and futures. Depending on the type of derivative, the Group applies appropriate methods of fair value measurement, which also determine the method of calculating the effect of changes of foreign exchange rates on the value of individual derivatives (for more detailed information on the derivative measurement methods, see Note 10.11). The tables below, presenting sensitivity of financial instruments to currency risk as at December 31st 2021 and December 31st 2020, also present the effect of currency exchange rate movements on the carrying amounts of the derivative financial instruments.

Analysis of the sensitivity to currency risk as at December 31st 2021, showing the effect of a +/- 8.5% change in the USD/PLN exchange rate and a +/- 5.575% change in the EUR/PLN exchange rate on net profit or loss

Dec 31 2021	Effect of exchange rate increase/decrease on net profit/loss for the year in 2021			
	+8.5%	+5.575%	-8.5%	-5.575%
	USD	EUR	USD	EUR
Financial assets				
Derivative financial instruments	(190.4)	15.0	190.4	(15.0)
Trade receivables	19.3	1.7	(19.3)	(1.7)
Cash and cash equivalents	21.1	29.9	(21.1)	(29.9)
Other financial assets:	6.8	0.1	(6.8)	(0.1)
Loans to related entities	6.8	-	(6.8)	-
Security deposits (margins)	-	-	-	-
Other	-	0.1	-	(0.1)
Total financial assets	(143.2)	46.7	143.2	(46.7)
Financial liabilities				
Bank and non-bank borrowings	34.4 [1]	-	(34.4) [1]	-
Notes	19.4	-	(19.4)	-
Leases	25.6	2.0	(25.6)	(2.0)
Derivative financial instruments	(27.6)	(52.4)	27.6	52.4
Trade payables	137.8	11.0	(137.8)	(11.0)
Other financial liabilities	2.3	8.1	(2.3)	(8.1)
Total financial liabilities	191.9	(31.3)	(191.9)	31.3
Total	(335.1)	78.0	335.1	(78.0)

[1] The calculation of the effect of an exchange rate movement on the balance-sheet item takes into account the effect of cash flow hedge accounting. Assuming an 8.5% change of the USD/PLN exchange rate, the effect of cash flow hedge accounting would potentially lead to a change of PLN (82.8)m/PLN 82.8m in the fair value of borrowings.

The above deviations of carrying amounts in the złoty that are dependent on currency exchange rates were calculated on the basis of the implied annual exchange rate volatility for December 31st 2021, which was 8.5% for USD/PLN and 5.575% for EUR/PLN, as published by Reuters. The sensitivity analysis was performed with reference to the balance of instruments held as at December 31st 2021.

Analysis of the sensitivity to currency risk as at December 31st 2020, showing the effect of a +/- 9.188% change in the USD/PLN exchange rate and a +/- 5.475% change in the EUR/PLN exchange rate on net profit or loss

Dec 31 2020	Effect of exchange rate increase/decrease on net profit/loss for the year in 2020			
	+9.188%	+5.475%	-9.188%	-5.475%
	USD	EUR	USD	EUR
Financial assets				
Derivative financial instruments	(21.8)	0.9	21.8	(0.9)
Trade receivables	15.4	1.6	(15.4)	(1.6)
Cash and cash equivalents	27.1	11.4	(27.1)	(11.4)
Other financial assets:	7.7	1.0	(7.7)	(1.0)
Loans to related entities	6.8	-	(6.8)	-
Security deposits (margins)	-	0.9	-	(0.9)
Other	0.9	0.1	(0.9)	(0.1)
Total financial assets	28.4	14.9	(28.4)	(14.9)
Financial liabilities				
Bank and non-bank borrowings	109.3 [1]	1.5	(109.3) [1]	(1.5)
Notes	21.3	-	(21.3)	-
Leases	-	2.8	-	(2.8)
Derivative financial instruments	33.2	5.0	(33.2)	(5.0)
Trade payables	109.1	4.3	(109.1)	(4.3)
Other financial liabilities	2.6	4.2	(2.6)	(4.2)
Total financial liabilities	275.5	17.8	(275.5)	(17.8)
Total	(247.1)	(2.9)	247.1	2.9

[1] The calculation of the effect of an exchange rate movement on the balance-sheet item takes into account the effect of cash flow hedge accounting. Assuming a 9.188% change of the USD/PLN exchange rate, the effect of cash flow hedge accounting would potentially lead to a change of PLN (110.5)m/PLN 110.5m in the fair value of borrowings.

The above deviations of carrying amounts in the złoty that are dependent on currency exchange rates were calculated on the basis of the implied annual exchange rate volatility for December 31st 2020, which was 9.188% for USD/PLN and 5.475% for EUR/PLN, as published by Reuters. The sensitivity analysis was performed with reference to the balance of instruments held as at December 31st 2020.

11.2.4 Interest rate risk

The Group is exposed to the risk of changes in cash flows caused by interest rate movements, as interest income and expense related to certain assets and liabilities accrues based on floating interest rates. This is driven primarily by the expected facility repayment schedules, as well as the amount of interest computed by reference to the floating USD LIBOR rate. The Group manages the interest rate risk within the set limits using interest rate swaps.

As at December 31st 2021, the Group had no open derivative interest rate contracts.

Open interest rate contracts as at December 31st 2020:

Type of contract	Period	Notional amount (USDm)	Company receives	Financial assets	Financial liabilities
Interest rate swap (IRS)	Sep 2016 – Dec 2021	115.0	3M LIBOR	-	(8.2)
			Total	-	(8.2)

In the table above, IRS contracts are aggregated according to the currency of the notional amount and the reference rate. The 'Period' column shows the earliest start date and the latest end date of the period for contracts classified in a given group.

Reform of interest rate benchmarks (IBOR Reform)

Issued by the European Parliament and the Council (EU) in 2016, the so-called BMR Regulation introduced new rules on the setting and use of reference rates, as well as on the operation and supervision of entities that prepare indices and make them available to other market participants. Alignment with the principles of the Regulation is expected to increase the safety of market participants by improving the reliability of indices and the transparency of their calculation methodology. Since January 2018, when the BMR Regulation came into force, EU member states have been working on the benchmark reform.

As a result of the reform, the method of calculation some interest rate benchmarks (e.g. WIBOR, EURIBOR) was adjusted to the requirements of the BMR Regulation. Therefore, they will continue to be prepared and provided, and there was no need to replace them with other indices. However, for some indices (e.g., LIBOR) the effect of the reform will be to phase out their calculation and publication, and thus there has been or will be a need to replace them with alternative indices.

The following table provides information on when selected benchmarks will cease to be provided and on proposed alternative benchmarks.

Benchmark	Maturities	Cessation date	Alternative benchmark
LIBOR CHF	O/N, 1W, 1M, 2M, 3M, 6M, 12M	Dec 31 2021	SARON
LIBOR EUR	O/N, 1W, 1M, 2M, 3M, 6M, 12M	Dec 31 2021	€STR
LIBOR GBP	O/N, 1W, 2M, 12M	Dec 31 2021	SONIA
LIBOR JPY	S/N, 1W, 2M, 12M	Dec 31 2021	TONA
USD LIBOR	1W, 2M	Dec 31 2021	SOFR
USD LIBOR	ON, 1M, 3M, 6M, 12M	Jun 30 2023	SOFR

The Group companies actively monitored the progress of the reform to the extent applicable to them, including with respect to the hedge accounting requirements, and took all decisions and actions necessary to implement the reform-related changes.

As at December 31st 2021, the Group did not have any financial instruments for which it would be necessary to adopt alternative reference rates as of January 1st 2022 following the cessation of the existing reference rates.

As a rule, the Group's financial instruments are based either on benchmarks that meet the requirements of the BMR Regulation and therefore there is no risk of transition to alternative benchmarks, or on USD LIBOR rates which will continue to be provided until June 30th 2023. The Group also holds cash deposited in bank accounts, including accounts of the Extraction Facilities Decommissioning Fund and the account used for the purposes of transactions on the ICE exchange, as well as loans advanced by the Provincial Fund for Environmental Protection and Water Management and lease contracts, which are not exposed to the risks arising from the benchmark reform due to the applied mechanisms of determining interest rates.

Below is presented information on the Company's financial instruments exposed to interest rate risk which are based on benchmarks that are compliant with the BMR Regulation and therefore will continue to be provided and do not require transition to alternative benchmarks.

Benchmark	Type of financial instrument	Dec 31 2021
	Financial assets	210.3
WIBOR	Loans	210.3
	Financial liabilities	71.6
WIBOR	Bank borrowings	46.5
WIBOR	Borrowings	25.1

The table below presents financial instruments held by the Company as at December 31st 2021 that are based on the USD LIBOR benchmark whose provision is to be discontinued on June 30th 2023.

Benchmark	Type of financial instrument	Termination date	Dec 31 2021
	Financial liabilities		1,605.7
3M USD LIBOR	Bank borrowings	Dec 16 2022	406.3
3M USD LIBOR	Bank borrowings	Jul 15 2024	971.3
3M USD LIBOR	Notes	Dec 31 2024	228.1

In respect of the credit facility agreements and note issue agreements entered into by the Group, where interest rates are based on USD LIBOR benchmarks, an analysis was made of the provisions stipulating the rules to be followed in the event of the cessation of the benchmarks. The relevant clauses were included either in the original wording of the agreements with financing providers or were incorporated in the agreements as amendments.

In principle, the relevant clauses stipulate that if the provision of USD LIBOR is discontinued, the benchmark will be replaced by an alternative index indicated by the regulator or by an index agreed by the parties. The note issue agreements also contain appropriate clauses in the event that the USD LIBOR index is no longer published, which specify how an alternative index will be determined.

As the publication period of the USD LIBOR index has been extended until 30 June 2023, such alternative indices have not yet been determined. In this regard, the Company remains in contact with its financial partners, and discussions regarding the choice of alternative benchmarks will continue in the following year.

The Parent may continue to use the interest rate benchmarks previously applied in its hedge accounting calculations until the uncertainty arising from the interest rate benchmark reform no longer exists (pursuant to Annex 'Interest Rate Benchmark Reform' to Commission Regulation (EU) 2020/34 of January 15th 2020, describing temporary exceptions from applying specific hedge accounting requirements), and it intends to transition to new benchmarks as soon as the conditions set out in the Regulation are met. As the publication of USD LIBOR rates will not be discontinued until June 30th 2023, the Parent has not yet made the transition to new benchmarks.

11.2.4.1 Sensitivity analysis: interest rate risk

Analysis of the Group's sensitivity to interest rate risk as at December 31st 2021, assuming a +/- 0.36% change in interest rates

Dec 31 2021	Note	Carrying amount	Change	
			+0.36%	-0.36%
Classes of financial instruments				
Financial assets				
Cash and cash equivalents	10.7	2,572.1	9.3	(9.3)
Other financial assets:		328.2	1.2	(1.2)
Loans	10.4	210.3	0.8	(0.8)
Oil and Gas Extraction Facility Decommissioning Fund	10.3	47.3	0.2	(0.2)
Cash pledged as security for contractual obligations related to future asset decommissioning	10.3	70.4	0.2	(0.2)
Security deposits (margins)		0.2	0.0	(0.0)
Total		2,900.3	10.5	(10.5)
Financial liabilities				
Bank borrowings	10.9.1	1,424.1	5.1	(5.1)
Borrowings	10.9.2	27.5	0.1	(0.1)
Notes	10.9.3	228.1	0.8	(0.8)
Leases	10.9.4	1,559.5	5.6	(5.6)
Security deposit (margin)	10.13	86.6	0.3	(0.3)
Total		3,325.8	11.9	(11.9)

Analysis of the Group's sensitivity to interest rate risk as at December 31st 2020, assuming a +/- 0.11% change in interest rates

Dec 31 2020	Note	Carrying amount	Change	
			+0.11%	-0.11%
Classes of financial instruments				
Financial assets				
Cash and cash equivalents	10.7	2,145.6	2.4	(2.4)
Other financial assets:		323.5	0.3	(0.3)
Loans	10.4	195.9	0.2	(0.2)
Oil and Gas Extraction Facility Decommissioning Fund	10.3	43.8	0.0	(0.0)
Cash pledged as security for contractual obligations related to future asset decommissioning	10.3	67.8	0.1	(0.1)
Security deposits (margins)		16.0	0.0	(0.0)
Total		2,469.1	2.7	(2.7)
Financial liabilities				
Bank borrowings	10.9.1	2,559.8	2.9 (1)	(2.9) (1)
Borrowings	10.9.2	35.6	0.0	(0.0)
Notes	10.9.3	231.7	0.3	(0.3)
Leases	10.9.4	1,246.4	1.4	(1.4)
Derivative financial instruments (2)	10.11	8.2	(0.4)	0.4
Total		4,081.7	4.2	(4.2)

(1) Net of fixed-rate borrowings and paid arrangement fees reducing liabilities under borrowings.

(2) Interest rate swap (IRS). The difference between the change in the valuation amount, when the interest rate curve moves up or down 0.11%, arises at the time of calculating and discounting future cash flows (relating to the contract settlement) as at the valuation date. The cash flows are discounted at different interest rates (in the first case the interest rate curve movement increases the interest rate by 0.11%, in the second case it reduces the interest rate by 0.11%).

The sensitivity analysis was performed for the instruments held as at December 31st 2021 and December 31st 2020. The effect of the interest rate changes on the fair value was examined assuming that the currency exchange rates remain unchanged. In the case of derivative instruments held as at December 31st 2021 and December 31st 2020, for the purpose of interest rate sensitivity analysis the interest rate curve was moved up or down by the historical annual volatility for December 31st 2021 and December 31st 2020, calculated based on historical volatility data for interest rates on interest rate swaps expiring in one year, as published by Reuters.

11.2.5 Liquidity risk

The liquidity risk management process at the Group consists in monitoring projected cash flows and the portfolio of financial assets and liabilities, matching maturities of the assets and liabilities, analysing working capital, and optimising cash flows within the Group. This process requires that units operating in different business areas closely cooperate in activities undertaken in order to ensure safe and effective allocation of the liquidity.

The majority of the Group's Polish subsidiaries participate in a physical cash pooling arrangement, whereby the Parent manages the structure on an on-going basis to optimise liquidity and interest balances.

In the period covered by the budget, liquidity is monitored on an ongoing basis across the Group as part of the financial risk management process. In the mid- and long term, it is monitored as part of the planning process, which helps to develop a long-term financial strategy.

In the area of financial risk, in addition to active management of market risk, the Group observes the following liquidity management rules:

- no margins in derivative financial instrument trading on the OTC market,
- limited possibility of early termination of financial transactions,
- limits for low-liquidity spot financial instruments,
- credit risk limits for counterparties in financial and trade transactions,
- ensuring adequate availability of diversified sources of funding of appropriate structure and quality,
- internal control processes and organisational efficiency facilitating prompt contingency response.

Below are presented contractual maturities of financial liabilities as at December 31st 2021 and December 31st 2020.

Contractual maturities of financial liabilities:

Dec 31 2021	Note	Carrying amount	Contractual cash flows	Up to 6 months	6–12 months	1–2 years	2–5 years	Over 5 years
Bank borrowings (other than overdraft facilities)	10.9.1	1,424.1	1,449.9	585.2	173.4	348.9	342.4	-
Borrowings	10.9.2	27.5	30.1	4.7	4.8	9.9	10.7	-
Notes	10.9.3	228.1	232.3	46.3	46.3	139.7	-	-
Leases	10.9.4	1,559.5	2,167.5	119.4	114.2	249.3	453.4	1,231.2
Trade payables	10.13	2,360.1	2,360.1	2,359.3	0.8	-	-	-
Other financial liabilities	10.13	410.8	410.8	390.4	0.8	2.9	11.8	4.9
Total		6,010.1	6,650.7	3,505.3	340.3	750.7	818.3	1,236.1
Dec 31 2020								
Bank borrowings (other than overdraft facilities)	10.9.1	2,337.6	2,493.6	450.6	290.3	897.2	855.5	-
Overdraft facilities	10.9.1	222.2	222.2	222.2	-	-	-	-
Borrowings	10.9.2	35.6	38.1	4.6	4.6	9.3	19.6	-
Notes	10.9.3	231.7	236.3	59.3	177.0	-	-	-
Leases	10.9.4	1,246.4	2,138.8	118.9	103.6	206.3	364.0	1,346.0
Trade payables	10.13	1,636.0	1,636.0	1,635.4	0.6	-	-	-
Other financial liabilities	10.13	286.0	286.0	263.8	2.9	3.2	8.8	7.3
Total		5,995.5	7,051.0	2,754.8	579.0	1,116.0	1,247.9	1,353.3

Contractual maturities of derivative financial instruments:

Dec 31 2021	Note	Carrying amount*	Contractual cash flows	Up to 6 months	6–12 months	1–2 years	2–5 years	Over 5 years
Commodity swap	10.11	22.1	22.1	3.8	12.8	5.5	-	-
Currency forward and spot contracts		(9.7)	(9.7)	(10.6)	0.9	-	-	-
Currency swap		(4.2)	(4.2)	(8.6)	4.4	-	-	-
Futures (CO_2 emissions)		176.4	176.4	(0.2)	48.0	54.1	74.5	-
Total		184.6	184.6	(15.6)	66.1	59.6	74.5	-
Dec 31 2020								
Commodity swap	10.11	27.9	27.9	7.5	20.3	0.1	-	-
Currency forward and spot contracts		1.0	1.0	1.0	-	-	-	-
Interest rate swap (IRS)		(8.2)	(8.2)	(4.0)	(4.2)	-	-	-
Currency swap		12.1	12.1	12.1	-	-	-	-
Futures (CO_2 emissions)		14.8	14.8	14.8	-	-	-	-
Total		47.6	47.6	31.4	16.1	0.1	-	-

* Carrying amount (fair value gains on derivative financial instruments plus fair value losses on derivative financial instruments) represents the fair value of derivative financial instruments disclosed in the statement of financial position.

11.2.6 Credit risk

Management of credit risk in financial transactions consists in the verification of creditworthiness of the current and potential counterparties and monitoring of credit exposures against the granted limits.

Credit exposure includes bank deposits, cash balances in bank accounts, measurement of derivative financial instruments, and granted security.

The counterparties must have an appropriate credit rating assigned by leading rating agencies or hold guarantees from institutions meeting the minimum acceptable rating requirement. The Group enters into financial transactions with reputable firms with sound credit standing, and diversifies the group of relationship institutions.

As at December 31st 2021 and December 31st 2020, the concentration of credit risk exposure to any single counterparty in the Parent's financial transactions did not exceed PLN 380m and PLN 577.5m, respectively (3.18% and 6.11% of the Parent's equity, respectively).

As regards management of counterparty risk in non-financial transactions, all customers who request trading on credit terms are subject to credit assessment, whose results determine the level of possible credit limits. The Parent uses an internal rating model to support the process of assigning limits to trading partners. The Parent defines guidelines for managing counterparty risk in non-financial transactions to ensure that appropriate standards of credit analysis and operational security are observed across the entire Group.

As at December 31st 2021 and December 31st 2020, the concentration of credit risk exposure to any single counterparty in the Parent's trade transactions did not exceed PLN 335m and PLN 206.8m, respectively (2.81% and 2.19% of the Parent's equity, respectively).

Credit risk is measured by the maximum exposure to risk of each class of financial assets. Carrying amounts of financial assets represent the maximum credit risk exposure.

Maximum credit risk exposure of financial assets	Note	Dec 31 2021	Dec 31 2020
Derivative financial instruments	10.11	216.7	67.1
Trade receivables	10.3	2,648.5	1,693.9
Cash and cash equivalents	10.7	2,572.1	2,145.6
Loans	10.4	210.3	195.9
Shares	10.5	297.4	309.8
Other financial assets	10.3	211.1	208.6
Total		6,156.1	4,620.9

In the Management Board's opinion, the risk related to non-performing financial assets is reflected in the recognised impairment losses. For information on impairment of financial assets, see Notes 9.8 and 10.3.1.

For discussion of credit risk concentrations for trade receivables, see Note 10.3.1.
For ageing of trade receivables and expected credit losses, see Note 10.3.1.
For ageing of receivables past due but not impaired, see Note 10.3.1.

12. Other notes

12.1 Contingent liabilities and assets

Accounting policies

In line with the policies applied by the Group, consistent with IAS 37 Provisions, Contingent Liabilities and Contingent Assets, a contingent liability is understood as:

- *a possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity, or*
- *a present obligation that arises from past events but is not recognised in the financial statements because:*
  - *(i) it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation, or*
  - *(ii) the amount of the obligation cannot be measured with sufficient reliability.*

Contingent liabilities are not recognised in the statement of financial position, however information on contingent liabilities is disclosed, unless the likelihood of the outflow of resources embodying economic benefits is negligible.

In accordance with the IFRS, the Group defines a contingent asset as a possible asset that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity.

Contingent receivables are not recognised in the statement of financial position, but information on them is disclosed if the inflow of resources embodying economic benefits is likely to occur.

Examples of contingent assets and liabilities include liabilities or receivables related to pending court disputes whose future impacts are neither known nor fully controlled by the entity. For more information on pending court disputes and other contingent liabilities, see Note 12.1.1 and Note 12.1.2, respectively.

12.1.1 Material court, arbitration and administrative proceedings and other risks to the Parent or its subsidiaries

Material court proceedings to which the Parent is a party

Tax settlements

The Company's tax settlements are subject to customs and tax inspections carried out by competent authorities. As at December 31st 2021, the Company disclosed a provision for tax risk, recognised in connection with such proceedings, of PLN 91.4m (December 31st 2020: PLN 87.3m, see Note 10.13.1.)

After the reporting period, on January 21st 2022 the Company was notified of the results of two revenue and customs inspections for the period January–October 2014 and October–December 2015, issued on January 7th 2022. As a result of these inspections, input VAT settlements by the Company, for a total amount of PLN 23.3m (net of interest), were questioned. The company has not filed corrections to the VAT returns for the aforementioned periods as required by the authority because it is of the opinion that there are arguments in favour of taking a different course of action. Due to the failure to submit the corrections by the Company, the tax authority (Head of the Pomeranian Customs and Fiscal Office in Gdynia) will initiate tax proceedings (transform customs and fiscal inspections into two tax proceedings) and issue decisions (both in the first and second instance). It will be possible to file complaints against the decision of the authority of second instance with the Provincial Administrative Court in Gdańsk, and if the court reaches an unfavourable verdict, it will be possible to file a cassation complaint with the Supreme Administrative Court.

In connection with a judgment by the Court of Justice of the European Union of October 16th 2019 in Case C-189/18 Glencore, on January 15th 2020 the Company filed a petition for resumption of proceedings in which the following decisions had been issued:

- decision by the Director of the Tax Chamber in Gdańsk, dated December 29th 2015, upholding the decision by the Director of the Tax Audit Office in Bydgoszcz, dated September 28th 2015, assessing the Company's VAT liabilities for individual months of 2010 at a total amount of PLN 48.4m,
- decision by the Director of the Tax Chamber in Gdańsk, dated February 29th 2016, upholding the decision by the Director of the Tax Audit Office in Bydgoszcz, dated September 28th 2015, assessing the Company's VAT liabilities for individual months of 2011 at a total amount of PLN 112.5m,
- decision by the Director of the Tax Administration Chamber in Gdańsk, dated October 25th 2018, upholding the decision by the Head of the Gdańsk Province Customs and Tax Office in Gdynia, dated January 19th 2018, assessing the Company's VAT liabilities for January 2012 at a total amount of PLN 7.3m,

and after resumption of the proceedings, for:

- reversal of the decisions by the tax authorities of both instances and discontinuation of the tax proceedings – with respect to the proceedings for 2010–2011;
- suspension of the proceedings until final conclusion of the court proceedings – with respect to the proceedings for 2012, in connection with proceedings pending before the Supreme Administrative Court, initiated by the Company's cassation complaint.

On October 8th 2020, the Head of the Tax Administration Chamber in Gdańsk upheld the decisions of the Head of the Tax Chamber in Gdańsk, dated December 29th 2015 and February 29th 2016. On November 23rd 2020, the Company appealed against the unfavourable decisions of the Head of the Tax Administration Chamber in Gdańsk. On December 23rd 2020, the Head of the Tax Administration Chamber in Gdańsk issued decisions refusing to revoke its decision of October 8th 2020, against which the Company filed complaints with the Provincial Administrative Court in Gdańsk. On June 15th 2021, the Provincial Administrative Court of Gdańsk dismissed the Company's complaints against refusal to reverse the final decisions concerning determination of VAT liabilities for the individual months of 2010 and 2011. On September 10th 2021, the Company appealed against the rulings of the Provincial Administrative Court of Gdańsk to the Supreme Administrative Courts.

Court proceedings instigated by or against companies of the LOTOS Group

Proceedings to which LOTOS Petrobaltic S.A. is party

In March 2013, LOTOS Petrobaltic S.A. received a call for payment from AGR Subsea Ltd. ("AGR") for approximately GBP 6.5m as the contract sum payable to AGR for dredging the Baltic Beta rig's legs. LOTOS Petrobaltic S.A. challenged the amount claimed by AGR and proposed that its liability to AGR be set at PLN 16m (i.e. GBP 3.2m at the mid-rate quoted by the National Bank of Poland for December 31st 2012). The dispute between the parties concerns the nature of the contract, reasons for its delayed and incomplete performance, validity of its termination by LOTOS Petrobaltic S.A., as well as the demand for reimbursement of costs incurred to employ the replacement contractor engaged by LOTOS Petrobaltic S.A. to complete the work. AGR Subsea Ltd. did not accept the terms of the settlement proposed by LOTOS Petrobaltic S.A. and took its claim to court. The court decided to refer the case for mediation, to which LOTOS Petrobaltic S.A. agreed. The mediation, initiated in April 2014, was extended on several occasions. Under the Regional Court's decision of February 2016, the case was consolidated for joint examination with LOTOS Petrobaltic S.A.'s claim against AGR, described below.

In October 2013, an action for payment of GBP 5.6m for replacement performance was brought against AGR by LOTOS Petrobaltic S.A. before the Regional Court of Gdańsk. In March 2014, the Regional Court of Gdańsk, 9th Commercial Division, issued an order of payment in writ-of-execution proceedings, against which AGR appealed. In April 2015, the Court referred the parties to mediation, but LOTOS Petrobaltic S.A. did not agree to take part in the mediation process. Pursuant to the Regional Court's decision of February 2016, LOTOS Petrobaltic S.A.'s claim will be consolidated for joint examination with AGR's claim against LOTOS Petrobaltic S.A. On December 16th 2019, a court expert's opinion was delivered stating that no allegation of failure to exercise due care may be raised against AGR for its selecting the dredging equipment. In its pleading, LOTOS Petrobaltic S.A. raised objections to the opinion and requested that a new opinion be prepared; however, the request was dismissed by the Court.

On November 27th 2020, a court hearing was held during which the case was closed and the date of entry of the Court's decision was set. On December 11th 2020, the Court issued a judgment awarding the full claimed amount to AGR, i.e. GBP 6.5m increased by default interest, court expenses and legal representation costs, and dismissed LOTOS Petrobaltic S.A.'s claim.

As the notice stating the date of the Court's hearing closing the case and announcement of the judgment was not effectively served upon LOTOS Petrobaltic S.A.'s attorney, the attorney, without his fault, did not participate in the hearing closing the case held on November 27th 2020, did not become aware of the date of entry of the judgment issued on December 11th 2020, was absent on the date of entry of the judgment, and did not read its content. Therefore, on January 7th 2021 a request was submitted to reinstate the deadline for submitting a request to prepare and deliver the statement of reasons for the judgment. The Company's attorney is of the opinion that the judgment is not final and that the Court will not be able to confirm the final nature of its judgment until a decision regarding reinstatement of the deadline becomes final.

On March 23rd 2021, a Court session was held to examine the request for deadline reinstatement, at which the Court took the relevant procedural steps, including hearing of the witnesses named in LOTOS Petrobaltic S.A.'s motion. Furthermore, in view of certain information of which LOTOS Petrobaltic S.A. had become aware, objections were raised to the Court regarding AGR's capacity to sue and be sued, its entitlement to participate in the proceedings and proper authorisation of its attorneys. These doubts arose in March 2021 as LOTOS Petrobaltic S.A. became aware of the announcement (on May 25th 2015) of a Winding-up procedure with respect to AGR and appointment of a Liquidator to administer and represent AGR. In view of the objections, the Court ordered AGR to address these doubts. The case was adjourned to a date set by the Court. In connection with the formal objections raised by LOTOS Petrobaltic S.A. regarding ADR's capacity to sue and be sued and its proper representation, the Court should take relevant steps to examine these doubts, which it is required to do ex officio. Such examination will certainly delay the time when the judgment becomes final. Given various procedures available for the Court to examine these doubts, it is not possible to give an expected date of the Court session or its decision on the requested deadline reinstatement. On April 2nd 2021, a motion was filed for the resumption of proceedings in the case.

On April 28th 2021, the Court dismissed the motion. On June 18th 2021, a complaint was filed against the Court's decision of April 28th 2021. On May 28th 2021, the Court rejected the complaint as premature. On July 4th 2021, a complaint was filed against the Court's decision of May 28th 2021. By a decision of July 3rd 2021, the Court of Appeal changed the decision of the Court of First Instance to rectify the judgment as to the type of interest awarded.

On May 18th 2021, LOTOS Petrobaltic S.A. filed a motion with the Regional Prosecutor's Office in Gdańsk to raise a complaint for the resumption of proceedings in case No. IX GC 811/13 and IX GC 12/15, due to the fact that the prosecutor, as a participant in civil proceedings, is not bound by limitations in invoking grounds for resumption, which could potentially affect the effectiveness of LOTOS Petrobaltic S.A.'s complaint. (case No. IX GC 325/21). The complaint of the Regional Prosecutor's Office in Gdańsk for the resumption of proceedings in the combined cases was filed with the Court on August 12th 2021.

On December 1st 2021, the Court of Appeal refused to reinstate the deadline, ultimately dismissing the Company's motion of January 7th 2021. On December 9th 2021, AGR applied for enforcement of the judgment. By a decision of December 13th 2021 issued in case IX GC 696/21 (motion for resumption of proceedings – complaint of the Regional Prosecutor's Office), the Regional Court in Gdańsk suspended the enforceability of the judgment of December 11th 2020 covered by the enforcement motion. AGR's enforcement motion was dismissed by a court order dated December 15th 2021.

In view of the above, as at December 31st 2021 LOTOS Petrobaltic S.A. maintained the provision recognised in 2020 for disputed claims of PLN 49.7m (see Note 10.13.1), including a PLN 32.1m principal receivable (see Note 9.5) and interest of PLN 17.6m (see Note 9.7).

Tax settlements of LOTOS Exploration and Production Norge AS

Due to the crisis caused by the COVID-19 pandemic and the sharp decline in commodity prices, the Norwegian government introduced a temporary tax regime for 2020-2021 that allowed companies investing on the Norwegian continental shelf to directly expense capital expenditure and to receive an immediate refund of the tax loss incurred in each of the years. With these solutions, the effective tax rate is significantly lower than the 78% applied in 2021.

In September 2020, the company submitted to the Oil Taxation Office its position on the preliminary decision of the authority concerning thin capitalisation in 2015–2016, along with its response to the 'deviation notice' for the following years 2017 and 2018. In its preliminary decision, OTO challenges the inclusion of all debt service costs and exchange rate differences on debt financing in the company's tax-deductible costs due to the company's equity being too low at the time. In the first matter raised by OTO, the expected tax surcharge for 2015 and 2016 is NOK 175 million. The estimated amount to be paid for 2017 and 2018 is NOK 20m, with the proviso that the letter pertaining to this period has not yet received the status of a tax decision.

The OTO has extended the period under investigation by one year, so the second matter is investigated for years 2017-2019. The company was creditworthy during the period and, therefore, no provision was recognised for the stated amount. Furthermore, in its tax returns for 2017 and 2019 the company did not include in its taxable income finance income arising from foreign exchange gains realised on loans in the case of which the OTO had previously questioned the deductibility of related finance costs. Tax deductions made on this account totalled NOK 88 million (2017: NOK 52 million; 2019: NOK 36 million). It is likely that the OTO will challenge the company's approach.

As at the date of these financial statements, the company received no information or inquiries concerning the issuance of a final tax decision by the OTO for 2015–2016 and 2017–2019. As at December 31st 2021, the total amount of the provision for thin capitalisation liabilities was NOK 263m (PLN 121m).

In the twelve months ended December 31st 2021, there were no material settlements under court or other proceedings, save for those presented above.

12.1.2 Other contingent liabilities

In the period between the end of the previous financial year, i.e. December 31st 2020, and the date of issue of these financial statements, there were no changes in the Company's or its subsidiaries' other material contingent liabilities.

12.2 Related parties

12.2.1 Entity having control of the Group

As at December 31st 2021 and December 31st 2020, the State Treasury held a 53.19% interest in Grupa LOTOS S.A.

In connection with measures introduced to control the COVID-19 pandemic, in 2020 Grupa LOTOS S.A., acting in compliance with an order issued by the Polish Prime Minister pursuant to Art. 11.2 of the Act on Special Measures Related to Preventing, Counteracting and Combating COVID-19, Other Infectious Diseases and Related Crisis Situations of March 2nd 2020 (Dz. U. of 2020, item 1842), purchased personal protection equipment against COVID-19 and delivered it to the Material Reserves Agency. As at December 31st 2021, the Group did not disclose any outstanding receivables from the State Treasury under the transaction (December 31st 2020: PLN 45.8m).

In addition, by way of an administrative decision, the Parent was ordered to build a temporary hospital as another form of support for the society provided by state-controlled entities. In the 12 months ended December 31st 2021, Grupa LOTOS S.A. incurred costs to build, equip and operate the hospital of PLN 37.9m (see Note 9.5), which are to be reimbursed to Grupa LOTOS S.A. under an agreement it signed with the State Treasury on April 6th 2021. In the 12 months to December 31st 2021, the State Treasury approved costs for a total amount of PLN 36.4m (see Note 9.4). As at December 31st 2021, the Group disclosed outstanding receivables from the State Treasury under the transaction of PLN 6.7m (see Note 12.2.5).

12.2.2 Transactions with related entities of which the State Treasury has control or joint control or on which the State Treasury has significant influence

In 2021 and 2020, the Group executed transactions with parties related to it through the State Treasury, the aggregate value of which was material. The Group identified transactions with entities related to it through the State Treasury based on the List of State-Owned Companies sourced from the official website of the Republic of Poland. They were concluded on an arm's length basis in the course of the Group's day-to-day activities. And involved mainly purchase and sale of fuels and natural gas, purchase of crude oil and energy and transport services.

	2021	2020
Sale	1,812.9	1,373.0
Purchases	2,418.2	1,595.7
	Dec 31 2021	Dec 31 2020
Receivables	117.9	123.0
Liabilities	329.0	239.0

In addition, the Group had liabilities under bank and non-bank borrowings, notes and leases towards banks and institutions of which the State Treasury has control or joint control or over which it exercises significant influence. These entities include PKO BP S.A., PEKAO S.A., Bank Gospodarstwa Krajowego and Agencja Rozwoju Przemysłu S.A.

	Dec 31 2021	Dec 31 2020
Bank borrowings	305.2	1,137.3
Borrowings	27.4	35.6
Notes	228.1	231.7
Leases	2.3	7.6
Total	563.0	1,412.2

12.2.3 Remuneration of members of the Company's governing bodies and its key management staff

Remuneration paid to members of the Company's Management and Supervisory	2021	2020
Management Board		
Short-term employee benefits (wages):	6.48	5.39
Zofia Paryła	1.20	0.85
Jarosław Wittstock	1.38	0.71
Piotr Walczak	0.85	0.17
Jarosław Wróbel	0.54	-
Krzysztof Nowicki	0.61	-
Marian Krzemiński	0.77 (1)	0.84
Artur Cieślik	0.36	0.20
Paweł Majewski	0.36	0.60
Jarosław Kawula	0.25	0.94 (2)
Mateusz Bonca	-	0.47 (1)
Patryk Demski	0.01	0.18 (1)
Robert Sobków	0.15	0.26 (1)
Mariusz Machajewski	-	0.17
Supervisory Board		
Short-term employee benefits (wages):	0.54	0.55
Piotr Ciach	0.08	0.08
Dariusz Figura	0.08	0.08
Beata Kozłowska-Chyła	0.10	0.10
Katarzyna Lewandowska	0.08	0.08
Adam Lewandowski	0.05	0.08
Grzegorz Rybicki	0.08	0.08
Katarzyna Maćkowska	0.04	-
Rafał Włodarski	0.03	-
Agnieszka Szklarczyk-Mierzwa	-	0.05
Total (3)	7.02	5.94
including variable remuneration paid:	2.58	1.34
Management Board		
Zofia Paryła	0.42	0.12
Jarosław Wittstock	0.70	-
Piotr Walczak	0.14	-
Marian Krzemiński	0.42	0.12
Artur Cieślik	0.15	-
Paweł Majewski	0.36	-
Jarosław Kawula	0.24	0.28
Mateusz Bonca	-	0.28
Patryk Demski	-	0.15
Robert Sobków	0.15	0.22
Mariusz Machajewski	-	0.17

Other employee benefits	Dec 31 2021	Dec 31 2020
Management Board		
Short-term variable remuneration payable (4):	3.49	2.91 (5)
Zofia Paryła	0.74	0.46
Jarosław Wittstock	0.69	0.70
Piotr Walczak	0.69	0.17
Jarosław Wróbel	0.57	-
Krzysztof Nowicki	0.64	-
Marian Krzemiński	0.07	0.42
Artur Cieślik	0.09	0.21
Paweł Majewski	-	0.38
Jarosław Kawula	-	0.30
Robert Sobków	-	0.27
Total	3.49	2.91

(1) Including non-compete compensation paid.
(2) Including a severance pay for termination of the management service contract and non-compete compensation.
(3) The amount reflects changes in the composition of the Company's Management and Supervisory Boards.
(4) Pursuant to the Act on Rules of Remunerating Persons Who Manage Certain Companies. Payment of variable remuneration is conditional on the achievement of targets set for the Management Board members and consent of the Supervisory Board.
(5) The amount includes short-term variable remuneration payable for 2019.

In 2020 and 2021, the Group did not enter into any material transactions with any Management Board or Supervisory Board members, did not advance any loans, make any advance payments, issue any guarantees to or conclude any other agreements with any Management Board or

Supervisory Board member which would be advanced, made, issued or concluded otherwise than on an arm's length basis or which would have material bearing on these financial statements.

Based on representations submitted by members of the Parent's Management and Supervisory Boards, in 2020 and 2021 Grupa LOTOS S.A. was not aware of any transactions concluded with the Company or other LOTOS Group companies by the spouses, relatives, or relatives by affinity in the direct line up to the second degree, of members of the Management and Supervisory Boards or persons related to them through guardianship or adoption or other persons with whom they have personal relationships.

12.2.4 Remuneration paid or payable to other members of key management staff

Remuneration paid to members of the key management staff (excluding members of the Parent's Management Board)	2021	2020
Short-term employee benefits (salaries)[1], including:	37.2	34.4
- annual bonus paid	10.3[2]	6.4[3]
- length-of-service award paid	0.1	0.1
Other employee benefits	Dec 31 2021	Dec 31 2020
Post-employment benefits, length-of-service awards and other benefits	2.9	10.2
Current liabilities under annual bonus	12.4	15.8
Total	15.3	26.0

[1] The amount of remuneration reflects changes in the Company's Collective Bargaining Agreement.
[2] Payment of the annual bonus for 2019 and 2020.
[3] Payment of the annual bonus for 2019.

The Group did not advance any loans or similar benefits to its key management staff in 2021 or 2020.

12.2.5 Transactions with related parties of members of the Management Board and the Supervisory Board

	2021	2020
Sale	41.5	9.5
Purchases	23.1	92.3
Property compensation received	3.6	2.3
	Dec 31 2021	Dec 31 2020
Receivables	14.5	4.2
Liabilities	1.2	0.1

In 2021, the Group entered into transactions with related parties through members of the Management Board or the Supervisory Board, which mainly involved purchase of third-party liability and property insurance (PLN 14.6m), purchase of natural gas (PLN 6.6m), purchase of chemicals (PLN 1.6m) and sale of fuels (PLN 4.8m).

In 2021, the Parent also signed an agreement with the State Treasury, related to it through members of the Supervisory Board, for reimbursement of cost incurred to build, equip and operate a temporary COVID-19 hospital. Under the agreement, in the reporting period the Company issued invoices for a total amount of PLN 36.4m. As at December 31st 2021, the amount of outstanding receivables under the agreement with the State Treasury was PLN 6.7m (see Note 12.2.1).

The transactions with parties related through members of the Management Board entered into by the Group in 2020 mainly involved purchase of third-party liability and property insurance (PLN 84.5m), purchase of transport services associated with the purchase of personal protective equipment (PLN 6.4m), purchase of chemicals (PLN 1.4m) and sale of fuels (PLN 9.5m).

As at December 31st 2021, the Group had borrowings from banks and financial institutions related to it through a member of the Supervisory Board, for a total amount of PLN 178.6m (December 31st 2020: PLN 659.9m).

All transactions with parties related to the Group through members of the Management Board and the Supervisory Board were executed on an arm's length basis.

12.3 Significant events subsequent to the reporting date

12.3.1 Execution of conditional sale agreements as part of implementation of the Remedies

On January 12th 2022, conditional sales agreements were signed as part of the implementation of the Remedies in the following business areas:

- fuel production and the fuel wholesale market,
- the biofuels market,
- the retail fuel market,
- the aviation fuel market,
- the bitumens market.

For more information on the agreements and the planned merger with Polski Koncern Naftowy ORLEN S.A., see Note 2.1.

12.3.2 Agreement with social partners

On January 10th 2022, agreements were signed setting out the terms and conditions on which certain employees will be transferred outside the LOTOS Group after the sale of assets covered by the remedial measures (see Note 2.1). The documents were signed by: the Management Board of Grupa LOTOS S.A., the Management Boards of the LOTOS Group companies covered by the remedial measures and representatives of trade unions willing to act as social partners in this process. Consequently, after the end of the reporting period, a PLN 41.3m provision was recognised for payment of benefits stipulated in the agreements.

12.3.3 Hostilities in Ukraine

On February 24th 2022, Russia attacked Ukraine, thereby initiating large-scale hostilities in Ukraine. The international community responded by introducing sanctions against Russia. As at the date of authorisation of these consolidated financial statements, it is not possible to predict how the armed conflict and the international response to the conflict will develop further.

The Group does not conduct any direct operations in Ukraine, Belarus or Russia.

The Group is closely monitoring developments on the ground and analysing its potential negative consequences. At present. it is not yet possible to reliably assess their impact on the Group's business in the future or to estimate the impact on the future financial statements of the Group, as this is highly dependent on further development of the war in Ukraine, the reaction of the international community and their effect on the Polish economy and macroeconomic environment.

As at the date of authorisation of these financial statements, the Group did not observe any risk of interruption of the supply chain. The flow of the feedstock remains uninterrupted. The Group prepares for various scenarios, mainly through diversification of supplies from various directions, and the Group's diversification efforts are an ongoing process. Operationally, the Group is ready to pursue various alternative operating schemes and the refinery, being one of the most modern refineries in Europe, is technologically capable of processing different types of crude.

In the past, the Group experienced a disruption of pipeline deliveries of crude oil from the Russian direction during the so-called "chloride crisis", when deliveries were made by sea. The incident did not affect the continuity of production and the execution of sales contracts. The location of the Groups' refinery significantly improves its flexibility in diversifying supply and distribution channels.

In addition, for March and April 2022, the Group planned lower demand for the feedstock due to the scheduled maintenance shutdown of the refinery. Supplies contracted for this purpose are secured and are being delivered.

The Group also holds mandatory reserves of its own and at the State Reserves Agency, which may be released when necessary, subject to approval by the state authorities, in order to secure supplies and thus ensure the country's energy security.

As at the date of authorisation of these financial statements, the Group performs all its commercial contracts in a timely and uninterrupted manner.

The Group's credit exposure to Ukrainian, Belarusian and Russian institutions and entities is immaterial. Large-scale operational disruptions that could potentially entail liquidity constraints for certain entities may also have an adverse impact on the credit quality of various actors along the supply chain. As part of the credit risk management process, the Group monitors on an ongoing basis market developments and information on its customers that could suggest a deterioration of their financial standing and adjusts the structure of credit limits when and as needed. Based on its analyses, the Group has not identified any need to update the assumptions used to assess the expected credit losses after the end of the reporting period and until the date of authorisation of these financial statements.

The events described above do not necessitate an adjustments in these consolidated financial statements of Grupa LOTOS S.A. for 2021. At present, the Group does not identify any indication that it may not be able to continue as a going concern as a result of this situation. At the same time, the Group is not able to reliably estimate its possible effects on future financial statements.

AUTHORISATION OF THE CONSOLIDATED FINANCIAL STATEMENTS FOR ISSUE

These consolidated financial statements were authorised for issue by the Management Board on March 21st 2022.

Signatures of the Management Board members and the person responsible for keeping the accounting books of Grupa LOTOS S.A.

President of the Management Board

Zofia Paryła

Vice President of the Management Board, Chief Investment and Innovation Officer

Jarosław Piotr Wróbel

Vice President of the Management Board, Chief Refining and Marketing Officer

Piotr Aleksander Walczak

Vice President of the Management Board, Corporate Affairs

Jarosław Wittstock

Vice President of the Management Board, Mergers and Acquisitions

Krzysztof Nowicki

Finance and Accounting Centre Director - Chief Accountant

Magdalena Skibińska