15. Trade receivables and other assets

	Note	December 31st 2018	December 31st 2017
Non-current financial assets:		**515.3**	**293.2**
Security deposits receivable		16.6	18.0
Finance lease receivables	15.2	9.1	12.8
Oil and Gas Extraction Facility Decommissioning Fund (1)		38.7	34.1
Cash pledged as security for contractual obligations related to future asset decommissioning		430.6	207.9
Security deposits related to licensed activities and other		10.5	10.6
Shares		9.8	9.8
Current financial assets:		**2,075.8**	**2,843.4**
Trade receivables		1,880.4	2,677.0
- including from related entities	30.1	23.1	34.5
Security deposits receivable		12.5	26.3
Deposits		33.9	37.0
Cash for removal of the MOPU from the YME field (2)		2.8	55.1
Security deposits related to the use of gas fuel distribution and transmission system and other		14.4	16.0
Damages receivable		116.0	3.2
Receivables under payment cards (service stations)		5.8	14.6
Finance lease receivables	15.2	6.6	7.1
Other receivables		3.4	7.1
Financial assets		**2,591.1**	**3,136.6**
Non-current non-financial assets		**10.5**	**10.6**
Property and other insurance		3.0	-
Borrowing costs		5.2	6.1
Prepayments for rebates		0.5	2.8
Other		1.8	1.7
Current non-financial assets:		**262.2**	**222.3**
Value-added tax receivable		110.3	78.4
Property and other insurance		21.5	20.9
Settlements under joint operations (Norwegian fields) (3)		66.0	58.9
Excise duty on inter-warehouse transfers		49.3	46.6
Prepaid deliveries		4.1	4.6
Prepayments for rebates		1.5	2.9
Prepayments for IT services		5.0	5.3
Other		4.5	4.7
Non-financial assets		**272.7**	**232.9**
Total		**2,863.8**	**3,369.5**
including:			
long-term		525.8	303.8
current:		2,338.0	3,065.7
- trade receivables		1,880.4	2,677.0
- other		457.6	388.7

(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 25.1.
(2) Cash held in an escrow account associated with the agreement concluded between the parties involved in the YME project in Norway (for more details on the agreement, see Note 29.1).
(3) Receivables of LOTOS Exploration and Production Norge AS (LOTOS Upstream Group, the upstream segment) under mutual settlements between the operator and consortium members concerning specific Norwegian fields.

As at December 31st 2018 and December 31st 2017, Deposits comprised deposits securing payment of interest on credit facilities contracted to finance the 10+ Programme and to finance or refinance inventories, amounting to PLN 33.9m and PLN 29.0, respectively.

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

As at December 31st 2018, the Group's receivables of PLN 30.3m were assigned by way of security for the Group's liabilities (December 31st 2017: PLN 44.7m).

For description of financial instruments, see Note 7.20. For description of objectives and policies of financial risk management, see Note 27.
For currency risk sensitivity analysis of financial assets, see Note 27.3.1.
For interest rate risk sensitivity analysis of financial assets, see Note 27.4.1.
For maximum credit risk exposure of financial assets, see Note 27.6.

15.1 Change in impairment losses on receivables

	2018	2017
At beginning of period	**104.2**	**165.3**
Recognised	13.6	7.5
Used	(4.4)	(64.7)
Reversed	(3.5)	(3.9)
At end of period	**109.9**	**104.2**

Recognition included PLN 11.7m in respect of the principal amount (2017: PLN 6.9m) and PLN 1.9m in respect of interest (2017: PLN 0.6m).

Reversal included PLN 1.9m in respect of the principal amount (2017: PLN 3.5m) and PLN 1.6m in respect of interest (2017: PLN 0.4m).

In 2018, the Group recognised and reversed impairment losses on the principal portion of receivables under other expenses, in the amount of PLN 6.4m, including: PLN 8.3m under recognised impairment losses and PLN 1.9m under reversed impairment losses (see Note 9.4).

In 2017, the Group recognised and reversed impairment losses on the principal portion of receivables under other expenses, in the amount of PLN 2.0m, including: PLN 5.5m under recognised impairment losses and PLN 3.5m under reversed impairment losses (see Note 9.4).

Ageing of unimpaired past due receivables:	December 31st 2018	December 31st 2017
Up to 1 month	45.0	34.1
From 1 to 3 months	4.1	1.9
From 3 to 6 months	10.9	0.7
From 6 months to 1 year	10.5	0.2
Over 1 year	2.6	2.8
Total	**73.1**	**39.7**

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 2018, the share of trade receivables from the Group's five largest customers as at the end of the reporting period was 19% (December 31st 2017: 48%) of total trade receivables (individually: 0%–7%). 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.

15.2 Finance lease receivables

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.

	Minimum lease payments		Present value of minimum lease payments	
	December 31st 2018	December 31st 2017	December 31st 2018	December 31st 2017
Up to 1 year	6.7	7.2	6.6	7.1
From 1 to 5 years	9.1	12.9	9.1	12.8
Total	**15.8**	**20.1**	**15.7**	**19.9**
Less unrealised finance income	(0.1)	(0.2)	-	-
Present value of minimum lease payments	**15.7**	**19.9**	**15.7**	**19.9**
including:				
non-current			9.1	12.8
current			6.6	7.1

16. Inventories

	December 31st 2018	December 31st 2017
Finished goods	1,382.4	903.3
Semi-finished products and work in progress	550.1	488.7
Merchandise	165.8	133.6
Materials	2,750.6	2,034.0
Total	**4,848.9**	**3,559.6**
including inventories measured at:		
cost	4,837.2	3,553.0
net realisable value	11.7	6.6

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 2018, inventories securing liabilities under bank borrowings were valued at PLN 4,108.7m (December 31st 2017: PLN 3,165.9m).

16.1 Change in inventory write-downs

	2018	2017
At beginning of period	**4.0**	**2.1**
Recognised	8.0	11.4
Used	(0.2)	(0.1)
Reversed	(3.1)	(9.4)
At end of period	**8.7**	**4.0**

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

17. Cash and cash equivalents

	Note	December 31st 2018	December 31st 2017
Cash and cash equivalents in the statement of financial position	26.1	1,941.3	1,920.7
Overdraft facilities		(3.0)	(0.1)
Total cash and cash equivalents in the statement of cash flows		1,938.3	1,920.6

Cash at banks bears interest at variable rates linked to short-term interest rates prevailing on the interbank market. Short-term deposits are placed for a range of maturities, from one day to one month, depending on the Group's current cash needs, and bear interest at interest rates set for them.

As at December 31st 2018, the amount of undrawn funds available to the Group under working capital facilities in respect of which all conditions precedent had been fulfilled was PLN 936.4m (December 31st 2017: PLN 891.3m).

In July 2018, the Group began using the VAT split payment mechanism. As at December 31st 2018, the cash balance in VAT accounts was PLN 83.3m.

As at December 31st 2018, cash in bank accounts serving as security for the Group's liabilities was PLN 412.2m (December 31st 2017: PLN 302.2m).

18. Share capital

	December 31st 2018	December 31st 2017
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 2018 and December 31st 2017, 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.

19. 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**

20. 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	2018	2017
At beginning of period		**(225.2)**	**(812.8)**
Valuation of cash flow hedging instruments	26.2	(77.8)	725.4
- effective portion		(78.7)	724.7
- ineffective portion		0.9	0.7
Income tax on valuation of cash flow hedging instruments	10.1	14.8	(137.8)
At end of period		**(288.2)**	**(225.2)**

21. 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.

Furthermore, retained earnings include actuarial gains/losses relating to defined post-employment benefits, recognised inclusive of the tax effect, which are posted under Other comprehensive income/(loss), net in the statement of comprehensive income.

As at December 31st 2018 and December 31st 2017, Grupa LOTOS S.A. was restricted in its ability to distribute dividends, as described in detail in Note 12.

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

In 2018 and 2017, the ability of the LOTOS Group subsidiaries to transfer funds to Grupa LOTOS S.A. in the form of dividends was restricted due to the following arrangements:

- The amount of cash surplus generated by LOTOS Paliwa Sp. z o.o. in a financial year that is available for distribution depends on the achievement of certain ratios defined in credit facility agreements.
- At LOTOS Asfalt Sp. z o.o., dividend payment is restricted under 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.

These restrictions were applicable as at December 31st 2018 and December 31st 2017.

22. Bank borrowings, non-bank borrowings, notes and finance lease liabilities

	Note	December 31st 2018	December 31st 2017
Bank borrowings	22.1	3,421.2	3,903.0
Non-bank borrowings	22.2	55.8	68.3
Notes	22.3	227.0	313.0
Finance lease liabilities	22.4	180.0	141.6
Total		**3,884.0**	**4,425.9**
including:			
non-current		2,345.3	2,738.3
current		1,538.7	1,687.6

	December 31st 2018	December 31st 2017
At beginning of period	**4,425.9**	**5,557.2**
Proceeds from borrowings	366.6	925.8
Issue of notes	128.2	296.1
Repayment of borrowings	(1,122.3)	(1,236.2)
Redemption of notes	(214.8)	(160.2)
Decrease in finance lease liabilities	(33.0)	(36.8)
Interest, fees and commissions paid	(224.3)	(203.3)
Interest, fees and commissions accrued	206.9	204.7
Prepayments and accruals	17.5	13.6
Exchange differences	313.4	(906.7)
Change in overdraft facilities	2.9	(13.8)
Change in deposits securing payment of interest and principal	(58.7)	(15.8)
Other	75.7	1.3
At end of period	**3,884.0**	**4,425.9**

22.1 Bank borrowings

	December 31st 2018	December 31st 2017
Investment facilities	3,078.4	3,426.9
Working-capital facilities	8.8	139.4
Inventory financing and refinancing facility	752.8	696.8
Funds in bank deposits securing payment of interest and principal(1)	(418.8)	(360.1)
Total	**3,421.2**	**3,903.0**
including:		
non-current	2,158.1	2,633.6
current	1,263.1	1,269.4

* In accordance with IAS 32, Grupa LOTOS S.A. offsets the financial asset (cash reserved for repayment of the facilities) against financial liabilities under the facilities as it has a legally enforceable title to set off the amounts and intends to realise the asset and settle the liability simultaneously. Accumulation of funds for the repayment of credit facilities is expressly provided for in the documentation relating to the investment facilities obtained to finance the 10+ Programme, as well as the inventory financing and refinancing facility. The Company is required to set aside and maintain funds for repayment of principal and interest due over the next six months. The purpose of adopting the net-basis presentation approach in the statement of financial position is to reflect the expected future cash flows from the settlement of two or more financial instruments.

Repayment of the above facilities is secured with:

- power of attorney over bank accounts, blank promissory notes and bank guarantees,
- registered pledges over bank accounts, inventories, existing and future movables, and shares in subsidiaries,
- mortgage,
- transfer of title to property, plant and equipment,
- 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 and the right to compensation from the State Treasury payable in the event that the Group is required to sell emergency stocks below market price,
- assignment by way of security of rights under licence agreements, design agreements and agreements for sale of products,
- assignment by way of security of rights under oil supply agreements,
- assignment by way of security of rights under a conditional loan agreement,
- representation on voluntary submission to enforcement.

Bank borrowings by currency

	Currency of credit facility advanced to the Group		
	USD	PLN	Total
December 31st 2018	3,200.2	221.0	**3,421.2**
December 31st 2017	3,627.9	275.1	**3,903.0**

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,
- O/N, 1M or 3M WIBOR - in the case of PLN-denominated facilities.

The bank margins on the contracted facilities are within the range of 0.85pp. – 3.1pp.

As at December 31st 2018, the average effective interest rate for the credit facilities denominated in US dollars was approximately 4.46% (December 31st 2017: 3.50%). The average effective interest rate for PLN-denominated facilities (excluding the syndicated facilities contracted by the Parent) was approximately 3.54% (December 31st 2017: 3.60%).

For sensitivity analysis of borrowings with respect to currency and interest rate risks, see Notes 27.3.1 and 27.4.1 respectively. For analysis of contractual maturities of the borrowings, see Note 27.5.

In connection with its investment credit facilities and the credit facility incurred to finance and refinance inventories, the Parent is required to maintain its Tangible Consolidated Net Worth (TCNW) at the level specified in the facility agreements. Under the facility agreement for refinancing and financing of inventories, the Parent 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 2018 and December 31st 2017, the Parent complied with this requirement.

Proceeds from and repayment of bank borrowings

In 2018, proceeds from the Group's bank borrowings were PLN 366.6m (2017: PLN 925.8m), while cash outflows on repayment of borrowings were PLN 1,109.5m (2017: PLN 1,223.4m). 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 borrowings, respectively.

In 2018, proceeds from bank borrowings related to:

- investment facilities for the financing of the EFRA Project (PLN 233.4m),
- working capital facilities of AB LOTOS Geonafta (PLN 133.2m).

In 2018, repayments of bank borrowings related mainly to:

- the Parent's investment facilities for the financing of the 10+ Project (PLN 632.5m),
- investment facilities for the financing of the EFRA Project (PLN 78m),
- LOTOS Paliwa Sp. z o.o.'s investment credit facilities for the financing and refinancing of the purchase of service stations (PLN 36.8m),
- credit facilities of LOTOS Exploration and Production Norge AS (PLN 181.3m),
- credit facilities of AB LOTOS Geonafta (PLN 163.7m),
- SPV Baltic Sp. z o.o.'s investment facility for the purchase of the company's multi-purpose platform (PLN 12.1m).

In 2018 and 2017, there were no defaults under the facilities.

As at December 31st 2017, a covenant was not complied with and the non-current portion of liabilities under the credit facility agreement concluded by SPV Baltic Sp. z o.o. with PKO BP, amounting to PLN 51.1m, was presented under current liabilities. As at the date of preparation of the financial statements for 2017, SPV Baltic Sp. z o.o had a letter from PKO BP stating that the bank waived its right to treat the non-compliance with the covenant as an event of default. As at December 31st 2018, the company complied with all covenants under the agreement.

In addition, because as at December 31st 2017 one of the covenants under credit facility agreements of AB LOTOS Geonafta was not complied with, the long-term portion of liabilities under those credit facilities of PLN 8.5m was presented under current liabilities. As at December 31st 2017, the bank did not accelerate the facilities. As at the date of preparation of the financial statements for 2017, AB LOTOS Geonafta had a letter from the bank stating that the bank waived its right to treat the non-compliance with the covenant as an event of default.

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 2018.

22.2 Non-bank borrowings

	December 31st 2018	December 31st 2017
Provincial Fund for Environmental Protection and Water Management in Gdańsk (WFOŚiGW)	4.6	5.2
Agencja Rozwoju Przemysłu S.A.	51.2	63.1
Total	**55.8**	**68.3**
including:		
non-current	42.2	4.4
current	13.6	63.9

The loan advanced by Agencja Rozwoju Przemysłu S.A. was intended for the financing of a purchase of a drilling rig; the other loans were taken out to partly finance upgrade of locomotives and a rail tank car cleaning facility, as well as upgrade of the dust removal unit at a CHP plant.

Repayment of the loans is 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 loans are denominated in the Polish złoty. The loans bear interest based on 1M WIBOR or the rediscount rate.

As at December 31st 2018, the average effective interest rate for the loans was approximately 4.60% (December 31st 2017: 4.61%).

For interest rate risk sensitivity analysis of the loans, see Note 27.4.1.
For analysis of contractual maturities of the loans, see Note 27.5.

Proceeds from and repayment of non-bank borrowings

In 2018 and 2017, the Group did not contract any non-bank borrowings, whereas repayments of non-bank borrowings were PLN 12.8m (2017: PLN 12.8m). These amounts are presented in the consolidated statement of cash flows as cash flows from financing activities under Proceeds from non-bank borrowings and Repayment of non-bank borrowings, respectively.

As at December 31st 2017, one of the covenants under the loan agreement concluded by SPV Baltic Sp. z o.o. with Agencja Rozwoju Przemysłu was not complied with and the non-current portion of liabilities under the loan, amounting to PLN 51.1m, was presented under current liabilities. As at the date of preparation of the financial statements for 2017, SPV Baltic Sp. z o.o had a letter from Agencja Rozwoju Przemysłu stating that it waived its right to treat the non-compliance with the covenant as an event of default. As at December 31st 2018, the company complied with all covenants under the agreement.

22.3 Notes

In 2016, the SPV B8 Spółka z ograniczoną odpowiedzialnością Baltic S.K.A. (upstream segment) 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.

Security under the above agreements includes:

- pledges over shares,
- pledge over bank accounts,
- pledge over receivables,
- pledge over assets.

As at December 31st 2017, due to an event of default under the terms and conditions of the notes, there were grounds for their early redemption at the option of PFR and BGK. The financing entities did not exercise this right. 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 acquired 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. As at December 31st 2018, the company had the right to issue additional notes for USD 27.9 under the agreement. All the issued notes are due at dates falling in the period from September 30th 2020 to June 30th 2022. In relation to the outstanding notes of B8 Spółka z ograniczoną odpowiedzialnością Baltic S.K.A., because as at December 31st 2018 there was a default on one of the financial covenants changed by the annex, the non-current portion of liabilities under the agreement, amounting to PLN 227m, was presented under current liabilities. As at December 31st 2018, BGK did not accelerate the liabilities.

As at December 31st 2018, the liability under the outstanding notes issued by B8 Spółka z ograniczoną odpowiedzialnością Baltic S.K.A., net of issue costs, was PLN 227m (December 31st 2017: PLN 201.3m).

In 2013, LOTOS Petrobaltic S.A. (upstream segment) issued medium-term notes under an agreement with Bank Pekao S.A. of October 29th 2013. In 2018, LOTOS Petrobaltic S. A. redeemed all outstanding notes. As at December 31st 2017, the liability under LOTOS Petrobaltic S.A.'s outstanding notes, net of issue costs, was PLN 111.7m.

The security created in respect of the note issue programme comprised:

- assignment by way of security,
- power of attorney over bank accounts,
- blank promissory note,
- representation on voluntary submission to enforcement,
- mortgage,
- assignment by way of security of claims under property insurance agreements and agreement for drilling rig services.

Proceeds from and payments under notes

In 2018, proceeds from notes issued by the Group were PLN 128.2m (2017: PLN 296.1m) and were related to the special purpose vehicle B8 Spółka z ograniczoną odpowiedzialnością Baltic S.K.A. In the same period, outflows on note redemption amounted to PLN 214.8m (2017: PLN 160.2m) and were related to the following companies: LOTOS Petrobaltic S.A. (PLN 113.8m) and B8 Spółka z ograniczoną odpowiedzialnością BALTIC S.K.A. (PLN 101.0m). These amounts are presented in the statement of cash flows as cash flows from financing activities under: Issue of notes and Redemption of notes, respectively.

For sensitivity analysis of the notes with respect to currency and interest rate risks, see Notes 27.3.1 and 27.4.1, and for analysis of their contractual maturities see Note 27.5.

22.4 Finance lease liabilities

	Minimum lease payments		Present value of minimum lease payments	
	December 31st 2018	December 31st 2017	December 31st 2018	December 31st 2017
Up to 1 year	56.6	57.4	35.0	41.3
From 1 to 5 years	161.3	121.6	106.3	100.3
Over 5 years	43.1	-	38.7	-
Total	**261.0**	**179.0**	**180.0**	**141.6**
Less finance costs	(81.1)	(37.4)	-	-
Present value of minimum lease payments	**179.9**	**141.6**	**180.0**	**141.6**
including:				
non-current			145.0	100.3
current			35.0	41.3

The Group uses finance leases primarily to finance rolling stock assets.

For sensitivity analysis of finance lease liabilities with respect to currency and interest rate risks, see Notes 27.3.1 and 27.4.1, and for analysis of their maturities, see Note 27.5.

22.4.1 Undisclosed liabilities under operating lease agreements

As at December 31st 2018 and December 31st 2017, future minimum lease payments under non-cancellable operating leases were as follows:

	December 31st 2018	December 31st 2017
Up to 1 year	177.5	156.0
From 1 to 5 years	225.3	318.2
Over 5 years	969.2	918.9
Total	**1,372.0**	**1,393.1***

*During the work on the implementation of IFRS 16 and following a thorough analysis of contracts, contracts not previously recognised as operating lease payments were identified. The Group has restated the presentation data for 2017. Operating lease payments are recognised as an expense over the lease term on a straight-line basis, therefore the change did not affect the reporting items in the comparative period.

23. Derivative financial instruments

	Note	December 31st 2018	December 31st 2017
Non-current financial assets:		**9.1**	**2.7**
Commodity swaps (raw materials and petroleum products)		2.1	0.7
Interest rate swap (IRS)		7.0	2.0
Current financial assets:		**15.3**	**161.8**
Commodity swaps (raw materials and petroleum products)		11.7	34.0
Currency forward and spot contracts		-	13.1
Interest rate swap (IRS)		0.8	7.3
Currency swap		2.8	107.4
Financial assets	**26.1**	**24.4**	**164.5**
Non-current financial liabilities:		**6.9**	**6.7**
Commodity swaps (raw materials and petroleum products)		6.6	0.1
Interest rate swap (IRS)		0.3	6.6
Current financial liabilities:		**47.4**	**72.7**
Commodity swaps (raw materials and petroleum products)		15.0	3.7
Currency forward and spot contracts		21.8	9.5
Interest rate swap (IRS)		6.8	21.2
Currency swap		3.8	38.3
Financial liabilities	**26.1**	**54.3**	**79.4**

For description of the derivative financial instruments, see Note 7.22. For description of objectives and policies of financial risk management, see Note 27. For classification of derivative financial instruments by fair value hierarchy, see Note 23.1.

For sensitivity analysis of derivative financial instruments in terms of market risk related to changes in raw material and petroleum product prices, see Note 27.1.1.

For currency risk sensitivity analysis of derivative financial instruments, see Note 27.3.1.

For interest rate sensitivity analysis of derivative financial instruments, see Note 27.4.1.

For information on contractual maturities of derivative financial instruments, see Note 27.5.
For information on maximum credit risk exposure of derivative financial instruments (financial assets), see Note 27.6.

23.1 Fair value hierarchy

	December 31st 2018	December 31st 2017
	Level 2	
Financial assets		
Commodity swap	13.8	34.7
Currency forward and spot contracts	-	13.1
Interest rate swap (IRS)	7.8	9.3
Currency swap	2.8	107.4
Total	**24.4**	**164.5**
Financial liabilities		
Commodity swap	21.6	3.8
Currency forward and spot contracts	21.8	9.5
Interest rate swap (IRS)	7.1	27.8
Currency swap	3.8	38.3
Total	**54.3**	**79.4**

24. Employee benefit obligations

	Note	December 31st 2018	December 31st 2017
Non-current liabilities:	**24.1**	**170.4**	**169.3**
Post-employment benefits	24.1	40.9	41.8
Length-of-service awards and other benefits	24.1	129.5	127.5
Current liabilities		**156.2**	**145.3**
Post-employment benefits	24.1	7.4	8.2
Length-of-service awards and other benefits	24.1	13.4	13.0
Bonuses, awards and unused holidays		100.9	93.5
Salaries and wages payable		34.5	30.6
Total		**326.6**	**314.6**

24.1 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
January 1st 2018		**46.4**	**140.5**	**186.9**
Current service cost	24.2	2.7	10.7	13.4
Cost of discount	24.2; 9.6	1.3	4.1	5.4
Past service cost	24.2	1.6	0.1	1.7
Benefits paid		(4.3)	(12.8)	(17.1)
Actuarial (gain)/loss under profit or loss	24.2	-	0.3	0.3
Actuarial (gain)/loss under other comprehensive income	24.2	(0.2)	-	(0.2)
December 31st 2018		**47.5**	**142.9**	**190.4**
including:				
non-current		40.4	129.5	169.9
current		7.1	13.4	20.5
Obligations under length-of-service awards and post-employment benefits at foreign companies [(1)]		0.8	-	0.8
December 31st 2018		**48.3**	**142.9**	**191.2**
including:				
non-current		40.9	129.5	170.4
current		7.4	13.4	20.8

	Note	Post-employment benefits	Length-of-service awards and other benefits	Total
January 1st 2017		**45.3**	**142.5**	**187.8**
Current service cost	24.2	2.6	10.8	13.4
Cost of discount	24.2; 9.6	1.3	4.5	5.8
Benefits paid		(2.5)	(13.1)	(15.6)
Actuarial (gain)/loss under profit or loss	24.2	-	(4.2)	(4.2)
Actuarial (gain)/loss under other comprehensive income	24.2	(0.3)	-	(0.3)
December 31st 2017		**46.4**	**140.5**	**186.9**
including:				
non-current		38.5	127.5	166.0
short-term		7.9	13.0	20.9
Obligations under length-of-service awards and post-employment benefits at foreign companies [(1)]		3.6	-	3.6
December 31st 2017		**50.0**	**140.5**	**190.5**
including:				
non-current		41.8	127.5	169.3
short-term		8.2	13.0	21.2

[(1)] Given the different nature of pension plans operated by the Group's foreign companies LOTOS Exploration and Production Norge AS and the companies of the AB LOTOS Geonafta Group – and their immaterial effect on the Group's total 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.

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

	Note	2018	2017
Items recognised in profit or loss:		**20.8**	**15.1**
Length-of-service awards, retirement and other post-employment benefits	9.2	15.4	9.3
- current service cost	24.1	13.4	13.4
- past service cost	24.1	1.7	-
- effect of foreign operations		-	0.1
- actuarial (gain)/loss	24.1	0.3	(4.2)
Cost of discount	24.1; 9.6	5.4	5.8
Items recognised in other comprehensive income:		**(0.4)**	**1.5**
Actuarial (gain)/loss	24.1	(0.2)	(0.3)
Effect of foreign operations		(0.2)	1.8
Total comprehensive income		**20.4**	**16.6**

24.3 Actuarial assumptions

Key assumptions adopted by the actuary	December 31st 2018	December 31st 2017
Discount rate (%)	3.00%	3.30%
Expected inflation rate (%)	2.50%	2.50%
Employee turnover ratio (%)	3.30%	2.41%
Expected growth rate of salaries and wages (%) in the following year	1.30% + PLN 150	0.00%
Expected growth rate of salaries and wages (%) in the following years	2.50%	2.50%

- The employee attrition probability is based on the historical data on employee turnover at the Group and statistical data on the Polish labour market. The employee turnover ratios applied by the actuary were determined separately for five 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 2016, published by the Polish Central Statistics Office (GUS), and assume that the Company's employee population is representative of the average Polish population in terms of mortality (December 31st 2017: Life Expectancy Tables of Poland for 2016).
- 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 3.0%, i.e. reflecting the assumption made at the corporate level (December 31st 2017: 3.3%, i.e. reflecting the assumption made at the corporate level).

24.4 Termination benefits

In 2018 , termination benefits and compensation payable in respect of the non-compete obligation totalled PLN 8.1m (2017: PLN 8.5m).

In 2018, provisions for termination benefits totalled PLN 0.2m (2017: PLN 0.4m).

24.5 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

Salaries and wages growth rate	Discount rate	Length-of-service awards	Old-age and disability retirement severance payments	Death benefits	Social benefits fund	Total [(1)]
base	base	127.2	42.1	11.5	9.6	190.4
base + 1%	base	136.3	45.9	12.3	11.2	205.7
base - 1%	base	117.8	38.4	10.6	8.3	175.1
base	base + 0.5%	122.2	40.1	11.0	9.0	182.3
base	base - 0.5%	131.1	43.8	11.8	10.3	197.0

[(1)] Given the different nature of pension plans operated by the Group's foreign companies – LOTOS Exploration and Production Norge AS and the companies of the AB LOTOS Geonafta Group – and their negligible effect on the Group's obligations under length-of-service awards and post-employment benefits, such companies' obligations were not presented in the review.

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

Current service cost projected for 2019

Salaries and wages growth rate	Discount rate	Length-of-service awards	Old-age and disability retirement severance payments	Death benefits	Social benefits fund	Total [(1)]
base	base	10.5	2.5	1.0	0.5	14.5
base + 1%	base	11.5	2.9	1.1	0.7	16.2
base - 1%	base	9.6	2.2	0.9	0.4	13.1
base	base + 0.5%	10.1	2.4	0.9	0.5	13.9
base	base - 0.5%	10.9	2.7	1.0	0.6	15.2

Cost of discount projected for 2019

Salaries and wages growth rate	Discount rate	Length-of-service awards	Old-age and disability retirement severance payments	Death benefits	Social benefits fund	Total [(1)]
base	base	3.4	1.0	0.3	0.3	5.0
base + 1%	base	3.7	1.2	0.3	0.3	5.5
base - 1%	base	3.2	0.9	0.3	0.2	4.6
base	base + 0.5%	3.8	1.2	0.3	0.3	5.6
base	base - 0.5%	3.0	0.9	0.3	0.3	4.5

Total current service cost and cost of discount projected for 2019

Salaries and wages growth rate	Discount rate	Length-of-service awards	Old-age and disability retirement severance payments	Death benefits	Social benefits fund	Total [(1)]
base	base	13.9	3.5	1.3	0.8	19.5
base + 1%	base	15.2	4.1	1.4	1.0	21.7
base - 1%	base	12.8	3.1	1.2	0.6	17.7
base	base + 0.5%	13.9	3.6	1.2	0.8	19.5
base	base - 0.5%	13.9	3.6	1.3	0.9	19.7

[(1)] Given the different nature of pension plans operated by the Group's foreign companies – LOTOS Exploration and Production Norge AS and the companies of the AB LOTOS Geonafta Group – and their negligible effect on the Group's obligations under length-of-service awards and post-employment benefits, such companies' obligations were not presented in the review.

25. Trade payables, other liabilities and provisions

	Note	December 31st 2018	December 31st 2017
Non-current financial liabilities:		**26.1**	**26.5**
Investment commitments		9.5	7.6
Liabilities towards the Polish National Foundation		15.3	17.2
Other		1.3	1.7
Current financial liabilities:		**2,167.1**	**2,397.2**
Trade payables		1,913.7	2,201.7
- including to related entities	30.1	5.2	-
Investment commitments		69.9	126.6
Liabilities to insurers		6.4	4.2
Settlements under joint operations (Norwegian fields) (1)		119.5	46.1
Liabilities towards the Polish National Foundation		2.5	2.5
Security deposit – ICE Futures		32.7	5.8
Other		22.4	10.3
- including to related entities	14	1.7	-
Financial liabilities		**2,193.2**	**2,423.7**
Non-current non-financial liabilities:		**1,170.7**	**1,045.9**
Provisions	25.1	1,159.5	1,034.0
Grants	25.2	8.8	9.4
Other		2.4	2.5
Current non-financial liabilities:		**1,670.1**	**1,681.5**
Provisions	25.1	121.8	40.3
Value-added tax payable		443.8	547.4
Excise duty and fuel charge payable		786.7	870.8
Other liabilities to the state budget other than corporate income tax		106.1	103.1
Grants	25.2	29.5	26.6
Settlements under joint operations (Norwegian fields) (1)		13.2	5.4
Prepaid deliveries		10.2	6.8
Liabilities under the NAVIGATOR loyalty programme		28.1	21.5
Provision for deficit in CO_2 emission allowances	27.2	40.7	14.4
Cost of services		30.3	7.6
Other		59.7	37.6
Non-financial liabilities		**2,840.8**	**2,727.4**
Total		**5,034.0**	**5,151.1**
including:			
non-current		1,196.8	1,072.4
current:		3,837.2	4,078.7
- trade receivables		1,913.7	2,201.7
- other		1,923.5	1,877.0

(1) Liabilities of LOTOS Exploration and Production Norge AS (LOTOS Upstream Group, the upstream 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 during a financial year.

For currency risk sensitivity analysis of trade and other payables, see Note 27.3.1.
For information on contractual maturities of trade and other payables, see Note 27.5.

25.1 Provisions

	Note	Provisions for decommissioning and site restoration costs – Provision for oil and gas extraction facilities – Poland	Norway	Lithuania	Provisions for retired refining and other units	Total	Other provisions	Total
January 1st 2018		**196.9**	**814.8**	**13.1**	**12.5**	**1,037.3**	**37.0**	**1,074.3**
Recognised		-	-	-	-	-	72.3	72.3
Remeasurement of decommissioning costs		22.0	1.2	1.2	0.6	25.0	-	25.0
Remeasurement of estimated provision for contingent payments	9.4	-	-	-	-	-	69.2	69.2
Change in provisions attributable to approaching due date of liability (discount unwinding effect)	9.6	8.9	33.9	0.9	-	43.7	0.1	43.8
Interest on Oil and Gas Facility Decommissioning Fund		0.4	-	-	-	0.4	-	0.4
Exchange differences on translating foreign operations		-	15.7	0.4	-	16.1	(1.5)	14.6
Used		-	(2.2)	-	-	(2.2)	(11.7)	(13.9)
Reversed		-	-	-	(0.3)	(0.3)	(4.1)	(4.4)
December 31st 2018		**228.2**	**863.4**	**15.6**	**12.8**	**1,120.0**	**161.3**	**1,281.3**
including:								
non-current		228.2	852.6	15.6	12.7	1,109.1	50.4	1,159.5
current		-	10.8	-	0.1	10.9	110.9	121.8

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 and Sleipner 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 a 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: Provision for oil and gas extraction facilities: Poland	Norway	Lithuania	Provisions for retired refining and other units	Total	Other provisions	Total
January 1st 2017		**186.5**	**958.6**	**14.0**	**15.2**	**1,174.3**	**82.8**	**1,257.1**
Recognised		-	-	-	0.2	0.2	4.7	4.9
Remeasurement of decommissioning costs		3.5	(48.8) [1]	(0.9)	-	(46.2)	-	(46.2)
Remeasurement of estimated provision for contingent payments		-	-	-	-	-	0.1	0.1
Change in provisions attributable to approaching due date of liability (discount unwinding effect)	9.6	6.5	35.3	0.8	-	42.6	0.5	43.1
Interest on Oil and Gas Facility Decommissioning Fund		0.4	-	-	-	0.4	-	0.4
Exchange differences on translating foreign operations		-	(122.4)	(0.8)	-	(123.2)	(3.0)	(126.2)
Used		-	(7.9)	-	-	(7.9)	(32.5) [2]	(40.4)
Reversed		-	-	-	(2.9)	(2.9)	(15.6)	(18.5)
December 31st 2017		**196.9**	**814.8**	**13.1**	**12.5**	**1,037.3**	**37.0**	**1,074.3**
including:								
non-current		196.9	810.3	13.1	12.4	1,032.7	1.3	1,034.0
short-term		-	4.5	-	0.1	4.6	35.7	40.3

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 facility in the YME field (including the provision for future costs of MOPU removal) and the oil and gas extraction facilities in the Heimdal and Sleipner 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 a subsidiary Energobaltic Sp. z o.o. (a company of the LOTOS Petrobaltic Group), as well as for site restoration and clean-up.

[1] The amount includes mainly remeasurement of provisions for future costs of decommissioning of crude oil and gas extraction facilities related to the Heimdal and Sleipner assets.
[2] Including PLN 31.4m (NOK 69.3m) related to a provision for contingent payments under the Sleipner assets acquisition agreement.

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 2018, the provision for decommissioning and restoration of the extraction facility in the YME field, totalling PLN 153.0m, 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 2017, the provision was PLN 144.2m.

Provision for removal of the defective MOPU from the YME field

As described in Note 29.1, in March 2013, the operator of the YME field, Talisman Energy Norge AS ("Talisman", "Operator"), and the supplier of the Mobile Offshore Production Unit (MOPU) for operation of the YME field, Single Buoy Moorings Inc. ("SBM"), announced that an agreement had been reached to remove the defective MOPU (evacuated in mid-July 2012) from the YME field and to terminate all existing contracts and agreements between the parties in connection with the YME project. Following the agreement, the Group recognised a provision for the future removal of the MOPU from the YME field, in the amount of PLN 281.9m. The provision was gradually used in subsequent years (PLN 1.9m in 2018). As at December 31st 2018, the provision was PLN 2.4m.

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 2018, the provision was disclosed in the Group's statement of financial position under Other liabilities and provisions at PLN 188.5m. As at December 31st 2017, the provision was PLN 169.5m.

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

Decommissioning of the fixed assets of the offshore oil and gas extraction facility in the Sleipner fields and site restoration work are scheduled for 2026–2038. As at December 31st 2018, the provision was disclosed in the Group's statement of financial position under Other liabilities and provisions at PLN 519.5m. As at December 31st 2017, the provision was PLN 496.9m.

Other provisions

The Group estimated a provision for future liabilities to Exxon Mobil as a final contractual settlement of the purchase of the Sleipner fields as part of a value-adjustment mechanism. The provision reflects the adjusted difference between the forecast production volume and prices in 2018-2020, and the assumptions adopted for transaction purposes. As at December 31st 2018, the provision was PLN 72.1m. As at December 31st 2017, the provision was PLN 4.3m.

The tax risk provision as at December 31st 2018 was PLN 79.0m. As at December 31st 2017, the provision was PLN 20.8m.

25.2 Grants

	Note	2018	2017
At beginning of period		**36.0**	**34.4**
Grants received in period		11.8	18.4
Deferred grants	9.3	(9.5)	(16.8)
At end of period		**38.3**	**36.0**
including:			
non-current	25	8.8	9.4
current	25	29.5	26.6

The grants are primarily related to licences received free of charge and grants from the Eco Fund for the use of waste gas from an offshore oil extraction facility for heating purposes.

26. Financial instruments

26.1 Carrying amount

December 31st 2018	Note	IFRS 9			Total
			Measurement at fair value through:		
		Measurement at amortised cost	Profit or loss	Other comprehensive income	
Financial assets					
Trade receivables	15	1,880.4	-	-	1,880.4
Cash and cash equivalents	17	1,941.3	-	-	1,941.3
Derivative financial instruments	23	-	24.4	-	24.4
Equity investments	15	-	-	9.8	9.8
Other financial assets	15	685.2		-	685.2
Total		**4,506.9**	**24.4**	**9.8**	**4,541.1**
Financial liabilities					
Bank borrowings, non-bank borrowings and notes	22	3,704.0	-	-	3,704.0
Trade payables	25	1,913.7	-	-	1,913.7
Derivative financial instruments	23	-	54.3	-	54.3
Other financial liabilities	25	279.5	-	-	279.5
Total		**5,897.2**	**54.3**	**-**	**5,951.5**

The Group has implemented IFRS 9 without restating comparative data.

December 31st 2017	Note	IAS 39				Total
		Financial assets/liabilities measured at fair value through profit or loss - held for trading	Loans and receivables	Financial assets available for sale (1)	Financial liabilities at amortised cost	
Financial assets						
Trade receivables	15	-	2,677.0	-	-	2,677.0
Cash and cash equivalents	17	-	1,920.7	-	-	1,920.7
Derivative financial instruments	23	164.5	-	-	-	164.5
Other financial assets	15	-	429.9	9.8	-	439.7
Total		**164.5**	**5,027.6**	**9.8**	**-**	**5,201.9**
Financial liabilities						
Bank borrowings, non-bank borrowings and notes	22	-	-	-	4,284.3	4,284.3
Trade payables	25	-	-	-	2,201.7	2,201.7
Derivative financial instruments	23	79.4	-	-	-	79.4
Other financial liabilities	25	-	-	-	222.0	222.0
Total		**79.4**	**-**	**-**	**6,708.0**	**6,787.4**

	Note	December 31st 2018	December 31st 2017
Financial assets			
Finance lease receivables	15.2	15.7	19.9
Financial liabilities			
Finance lease liabilities	22.4	180.0	141.6

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

December 31st 2018	Note	IFRS 9			Total
		Measurement at amortised cost	Measurement at fair value through:		
			Profit or loss	Other comprehensive income	
Trade receivables:					
Interest income	9.5	2.7	-	-	2.7
Foreign exchange (gains)/losses recognised in cost of sales	9.1	23.1	-	-	23.1
Cash and cash equivalents					
Interest income	9.5	4.5			4.5
Other financial assets:					
Income from interest on deposits	9.5	27.0	-	-	27.0
Foreign exchange gains/(losses) on deposits and other cash and on non-bank borrowings recognised in finance income/costs	9.6	58.9	-	-	58.9
Derivative financial instruments (financial assets/liabilities):					
Gains/(losses) on fair value measurement of derivative financial instruments	9.6	-	(116.7)	-	(116.7)
Gains/(losses) on realisation of derivative financial instruments	9.6	-	109.5	-	109.5
Equity investments:					
Dividend income				2.1	2.1
Bank borrowings, non-bank borrowings and notes:					
Interest expense	9.6	(114.4)	-	-	(114.4)
Gains/(losses) on cash flow hedge accounting charged against revenue	8	(91.6)	-	-	(91.6)
Foreign exchange gains/(losses) on bank borrowings, non-bank borrowings, notes, and realised foreign-currency transactions in bank accounts recognised in finance income/(costs)	9.6	(132.1)	-	-	(132.1)
Gains/(losses) on measurement of cash flow hedges recognised in other comprehensive income	20	(77.8)	-	-	(77.8)
Trade and other payables:					
Foreign exchange (gains)/losses recognised in cost of sales	9.1	(89.3)	-	-	(89.3)
Total		**(389.0)**	**(7.2)**	**2.1**	**(394.1)**

(PLNm)

December 31st 2017	Note	IAS 39				
		Financial assets/ liabilities at fair value through profit or loss – held for trading	Loans and receivables	Financial assets available for sale	Financial liabilities at amortised cost	Total
Trade receivables:						
Interest income	9.5	-	2.6	-	-	2.6
Foreign exchange (gains)/losses recognised in cost of sales	9.1	-	(24.1)	-	-	(24.1)
Other financial assets:						
Income from interest on deposits	9.5	-	14.3	-	-	14.3
Foreign exchange gains/(losses) on deposits and other cash and on non-bank borrowings and notes recognised in finance income	9.5	-	(209.9)	-	-	(209.9)
Derivative financial instruments (financial assets/liabilities):						
Gains/(losses) on fair value measurement of derivative financial instruments	9.5	196.7	-	-	-	196.7
Gains/(losses) on realisation of derivative financial instruments	9.5	117.4	-	-	-	117.4
Bank borrowings, non-bank borrowings and notes						
Interest expense	9.6	-	-	-	(133.3)	(133.3)
Gains/(losses) on cash flow hedge accounting charged against revenue	8	-	-	-	(150.5)	(150.5)
Foreign exchange gains/(losses) on bank borrowings, non-bank borrowings, notes, and realised foreign-currency transactions in bank accounts recognised in finance income	9.5	-	-	-	313.8	313.8
Gains/(losses) on measurement of cash flow hedges recognised in other comprehensive income	20	-	-	-	725.4	725.4
Trade and other payables:						
Foreign exchange (gains)/losses recognised in cost of sales	9.1	-	-	-	19.3	19.3
Total		**314.1**	**(217.1)**	**-**	**774.7**	**871.7**

	Note	December 31st 2018	December 31st 2017
Finance lease liabilities:			
Interest expense	9.6	(19.9)	(18.4)
Foreign exchange gains/(losses) recognised in finance income/costs		(1.3)	3.2

27. Objectives and policies of financial risk management

The Group is exposed to financial risks, including:

- market risk (risk related to raw material and petroleum product prices, risk related to prices of CO_2 allowances, currency risk, interest rate risk),
- liquidity risk,
- credit risk related to financial and trade transactions.

The Parent has appropriate units (Finance Management Office, Financial Risk Analysis and Control Office together with the Credit Risk and Transaction Documentation Team) 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 2018, the Parent continued to apply the hedge accounting policies implemented in 2011 and 2012 with respect to its cash flows (i.e. foreign-currency facilities used to finance the 10+ Programme, designated as hedges of future USD-denominated petroleum product sale transactions).

27.1 Risk related to commodity and petroleum product prices

The Group considers risk related to prices of commodities and petroleum products 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.

Open commodity swaps as at December 31st 2018:

Type of contract	Underlying 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 Rrdam	Mar 2019–Jun 2021	183,433	0.5	(21.5)
Commodity swap	Gasoil 0.1 pct Crg CIF NWE_ARA	Mar 2019–Jun 2021	(17,010)	3.3	(0.1)
			Total	**3.8**	**(21.6)**

The above swap transactions for a total of 183,433 tonnes based on the FuelOil 3.5 pct Brg FOB Rrdam liquid index in the period from March 2019 to June 2021 and (17,010) 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 relating to the prices of raw materials and petroleum products and arising in connection with the sale of bitumen components at fixed prices.

Type of contract	Underlying index	Valuation period	Amount in cubic metres in the valuation period	Fair value measurement	
				Financial assets	Financial liabilities
Commodity swap	Ethanol T2 FOB Rdam Barge Eur/cm	Jan 2019–Dec 2019	24,300	10.0	-
			Total	**10.0**	**-**

Furthermore, in connection with the execution of an annual contract for the purchase of ethanol, in 2018 the Parent entered into commodity swaps to hedge the price risk.

Open commodity swaps as at December 31st 2017

Type of contract	Underlying index	Valuation period	Amount in tonnes in the valuation period	Fair value measurement	
				Financial assets	Financial liabilities
Commodity swap	3.5 pct Brg FOB Rrdam	Mar 2018 – Jun 2019	111,877	34.7	-
Commodity swap	Gasoil 0.1 pct Crg CIF NWE_ARA	Mar 2018 – Jun 2019	(10,339)	-	(3.8)
			Total	**34.7**	**(3.8)**

The above swap transactions for a total of 111,877 tonnes based on the 3.5 PCT Barges FOB Rotterdam liquid index in the period from March 2018 to June 2019 and (10,339) 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 relating to the prices of raw materials and petroleum products and arising in connection with the sale of bitumen components at fixed prices.

27.1.1 Sensitivity analysis: market risk related to commodity and petroleum product price movements

Below is presented an analysis of the sensitivity of the Group's financial transactions to the risk of fluctuations in prices of commodities and petroleum products as at December 31st 2018 and 2017, assuming price increase/decrease corresponding to the implied annual volatility of the underlying index:

	December 31st 2018			December 31st 2017		
	Carrying amount	Change*		Carrying amount	Change**	
		+ implied volatility	- implied volatility		+ imp. vol.	-imp. vol.
Financial assets	13.8	1.5	(1.5)	34.7	37.3	(37.3)
Financial liabilities	21.6	(62.1)	62.1	3.8	4.3	(4.3)
Effect on profit/loss		**63.6**	**(63.6)**		**33.0**	**(33.0)**

* With respect to instruments held as at December 31st 2018, the above deviations of underlying index prices were calculated based on the implied annual volatility of the underlying index for December 31st 2018, as published by *SuperDerivatives*. The volatility was +/- 37.28% for the FuelOil 3.5 pct Brg FOB Rrdam index, +/- 38.11% for Gasoil 0.1 pct Crg CIF NWE_ARA, and +/- 16.42% for Ethanol T2 FOB Rdam Barge Eur/cm.

** With respect to instruments held as at December 31st 2017, the above deviations of underlying index prices were calculated based on the implied annual volatility of the underlying index for December 31st 2017, as published by *SuperDerivatives*. The volatility was +/- 27.39% for the FuelOil 3.5 pct Brg FOB Rrdam index and +/- 21.23% for Gasoil 0.1 pct Crg CIF NWE_ARA.

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

27.2 Risk related to prices of carbon dioxide (CO_2) emission allowances

The risk related to prices of carbon dioxide emission allowances is managed within the Parent on an ongoing basis in line with the assumptions set forth in the strategy for managing the risk approved by the Grupa LOTOS Management Board. The Group balances its future CO_2 emission allowance deficits and surpluses depending on the market situation and within defined limits. In line with the approved strategy and limits, the Parent executes the following transactions for emission units:

- EUA (Emission Unit Allowance) – represents an allowance to emit one tonne of CO_2,
- CER (Certified Emission Reduction unit) – represents one tonne of CO_2 equivalent (tCO_2e) effectively reduced. CERs are obtained in connection with investment projects implemented in developing countries where no CO_2 emission limits have been defined.
- ERU (Emission Reduction Unit) – represents one tonne of CO_2 equivalent (tCO_2e) effectively reduced. ERUs are certified emission units, obtained through investment projects implemented in countries where CO_2 reduction costs are lower.

As at December 31st 2018, the Parent's deficit of allowances in the 2013–2020 trading period (Phase III) was 1,142,876 tonnes. However, taking into account derivative transactions for a total of 1,159,000 tonnes, the Parent had surplus emission allowances for 16,124 tonnes, which were purchased in view of the market situation and the strategic nature of the emission allowances deficit expected after 2020.

As at December 31st 2017, the Parent's deficit of allowances in the 2013–2020 trading period (Phase III) was 1,103,796 tonnes. However, taking into account derivative transactions for a total of 1,554,000 tonnes, the Parent had surplus emission allowances for 450,204 tonnes, which were purchased in view of the market situation and the strategic nature of the emission allowances deficit expected after 2020.

To manage risk related to carbon dioxide emission allowances, the Group evaluates the risk of deficit of free emission allowances allocated under the National Allocation Plan on a case-by-case basis.

The CO_2 emission allowances for 2013–2020 presented below include allowances granted pursuant to the Regulations of the Council of Ministers, as well as other free allowances allocated by the European Commission.

Number of free CO_2 emission allowances for 2013–2020 and actual CO_2 emissions:

in million tonnes	2013	2014	2015	2016	2017	2018	2019	2020	Total
Allowances allocated under the National Allocation Plan(1)	1.8	1.7	1.6	1.6	1.6	1.5	1.5	1.5	12.8
Actual CO_2 emissions (2)	1.7	1.9	1.9	2.0	1.8	2.0	-	-	11.3

(1) Number of free CO_2 allowances in 2013–2020 as per the National Allocation Plan (NAP), based on the Regulation of the Polish Council of Ministers of March 31st 2014 (Dz.U. of 2014, item 439) and the Regulation of the Polish Council of Ministers of April 8th 2014 (Dz.U. of 2014, item 472), containing a list of installations covered by the greenhouse gas emission allowance trading scheme along with the number of allowances allocated to them. The figures also account for additional free emission allowances from the European Commission reserve, allocated in connection with the expansion of the refinery's production capacities following from the use of natural gas in hydrogen production.

(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. 59 of the Act on Trading in Greenhouse Gas Emission Allowances of April 28th 2011.

As at December 31st 2018, considering the proposed amount of allowances to be allocated under the European Union Emissions Trading Scheme for 2018 and the actual volume of emissions, the Group reported a deficit of allocated CO_2 emission allowances, and therefore recognised a liability PLN 40.7m as at December 31st 2018 (December 31st 2017: PLN 14.4m). The PLN 26.3m effect of the provision on EBIT (see Note 9.4) is presented under other expenses (2017: PLN 4.6m; see Note 9.3).

If required, futures contracts to purchase carbon dioxide (CO_2) allowances open as at the last day of the reporting period are settled by the Group through physical delivery, with the intention to potentially use the allowances to offset actual CO_2 emissions. The valuation of contracts settled through physical delivery is not disclosed under financial assets/liabilities in the financial statements. However, the Group internally monitors and performs the valuation of such contracts as part of an overall assessment of the effectiveness of its CO_2 risk management (off balance sheet).

EUA futures contracts open as at December 31st 2018 which the Group considered likely to be settled through physical delivery and used for the Group's own purposes were not disclosed in the financial statements as at the last day of the reporting period, and their fair value was recorded only as an off-balance sheet item.

Contract position as at December 31st 2018 and 2017:

Open CO_2 allowances contracts as at December 31st 2018:

Type of contract	Contract settlement period	Contract volume (in tonnes)	Phase	Fair value measurement*	
				Financial assets	Financial liabilities
EUA Futures	Dec 2019 – Dec 2020	1,159,000	Phase III	50.1	(0.8)

*Off-balance-sheet value, used exclusively for statistical purposes and as part of monitoring in risk management.

Open CO_2 allowances contracts as at December 31st 2017:

Type of contract	Contract settlement period	Contract volume (in tonnes)	Phase	Fair value measurement*	
				Financial assets	Financial liabilities
EUA Futures	Dec 2018 – Dec 2020	1,554,000	Phase III	8.7	(0.1)

*Off-balance-sheet value, used exclusively for statistical purposes and as part of monitoring in risk management.

27.2.1 Sensitivity analysis: market risk related to movements in prices of carbon dioxide (CO_2) emission allowances

As at December 31st 2018 and 2017, the Group held futures for the purchase of carbon dioxide (CO_2) emission allowances.

The Group does not perform a sensitivity analysis for the fair value of futures contracts to purchase CO_2 emission allowances held by it as at the end of the reporting period if it intends to settle the contracts through physical delivery and use them to cover its allowance deficits under the carbon emission reduction system. Therefore, no sensitivity analysis was performed with reference to the EUA futures held as at December 31st 2018 and 2017.

27.3 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 Company 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 financing the 10+ Programme 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).

Under the EFRA Project, the Group concluded EUR/USD currency contracts designed to hedge EUR-denominated capital expenditure against USD as the main financing currency.

Open currency contracts as at December 31st 2018:

Type of contract	Purchase/sale	Contract settlement period	Currency pair (base/quote)	Amount in base currency (million)	Fair value measurement	
					Financial assets	Financial liabilities
Currency spot	Sales	Jan 2019	EUR/PLN	(1.6)	-	-
Currency forward	Purchase	Jan 2019	USD/PLN	11.5	-	(0.4)
Currency forward	Purchase	Jan-Dec 2019	EUR/USD	125.0	-	(14.1)
Currency forward	Sales	Jan–Jun 2019	USD/PLN	(110.0)	-	(7.3)
Currency swap	Purchase	May 2019	EUR/USD	19.0	-	(0.6)
Currency swap	Purchase	Jan 2019	EUR/PLN	60.0	0.1	-
Currency swap	Sales	Jan–Jul 2019	USD/PLN	(261.6)	2.7	(3.2)
				Total	**2.8**	**(25.6)**

Open currency contracts as at December 31st 2017:

Type of contract	Purchase/sale	Contract settlement period	Currency pair (base/quote)	Amount in base currency (million)	Fair value measurement	
					Financial assets	Financial liabilities
Currency spot	Purchase	Jan 2018	USD/PLN	54.0	-	(0.6)
Currency spot	Purchase	Jan 2018	EUR/PLN	0.1	-	-
Currency forward	Purchase	Jan 2018	USD/PLN	124.0	-	(8.3)
Currency forward	Purchase	Jan–Mar 2018	EUR/PLN	10.0	-	(0.6)
Currency forward	Purchase	Jan−Jun 2018	EUR/USD	25.8	5.8	-
Currency forward	Sales	Jun–Oct 2018	USD/PLN	(60.0)	6.2	-
Currency forward	Sales	Mar 2018	EUR/PLN	(10.0)	1.1	-
Currency swap	Purchase	Jan–Jun 2018	USD/PLN	162.6	-	(38.3)
Currency swap	Purchase	Jan 2018	EUR/USD	14.3	1.1	-
Currency swap	Sales	Jan–Oct 2018	USD/PLN	(565.7)	106.3	-
				Total	**120.5**	**(47.8)**

27.3.1 Sensitivity analysis: market risk related to currency exchange movements

Currency structure of selected financial instruments as at December 31st 2018

December 31st 2018	Note	(million) USD	USD translated into PLN	(million) EUR	EUR translated into PLN	Carrying amount in foreign currency translated into PLN
Classes of financial instruments						
Financial assets						
Trade receivables		78.0	293.2	6.5	28.4	321.6
Cash and cash equivalents		75.7	284.7	26.7	115.4	400.1
Other financial assets:		75.7	284.5	-	-	284.5
Loans advanced to related entities		64.3	241.4	-	-	241.4
Deposits		9.0	33.9	-	-	33.9
Cash for removal of the MOPU from the YME field	15	0.7	2.8	-	-	2.8
Other		1.7	6.4	-	-	6.4
Total		**229.4**	**862.4**	**33.2**	**143.8**	**1,006.2**
Financial liabilities						
Borrowings		913.4	3,376.6	-	-	3,376.6
Notes		60.4	227.0	-	-	227.0
Finance lease liabilities		-	-	7.8	33.3	33.3
Trade payables		388.8	1,461.9	5.8	25.0	1,486.9
Other financial liabilities		3.2	12.0	11.6	49.9	61.9
Total		**1,365.8**	**5,077.5**	**25.2**	**108.2**	**5,185.7**

Currency structure of selected financial instruments as at December 31st 2017

December 31st 2017	Note	(million) USD	USD translated into PLN	(million) EUR	EUR translated into PLN	Carrying amount in foreign currency translated into PLN
Classes of financial instruments						
Financial assets						
Trade receivables		88.4	307.9	4.3	18.3	326.2
Cash and cash equivalents		271.1	868.4	23.1	102.0	970.4
Other financial assets:		182.4	634.6	4.7	20.0	654.6
Loans advanced to related entities		157.0	546.3	4.7	19.8	566.1
Deposits		8.3	29.0	-	-	29.0
Security deposit (margin)		-	-	-	0.2	0.2
Cash for removal of the MOPU from the YME field	15	15.9	55.1	-	-	55.1
Other		1.2	4.2	-	-	4.2
Total		**541.9**	**1,810.9**	**32.1**	**140.3**	**1,951.2**
Financial liabilities						
Borrowings		1,201.1	4,116.2	-	-	4,116.2
Notes		59.0	205.4	-	-	205.4
Finance lease liabilities		-	-	10.7	44.5	44.5
Trade payables		485.3	1,689.3	5.3	21.9	1,711.2
Other financial liabilities		4.5	15.6	6.4	26.5	42.1
Total		**1,749.9**	**6,026.5**	**22.4**	**92.9**	**6,119.4**

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 7.22). The tables below, presenting sensitivity of financial instruments to currency risk as at December 31st 2018 and December 31st 2017, 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 2018, showing the effect of a +/- 9.950% change in the USD/PLN exchange rate and a +/- 5.512% change in the EUR/PLN exchange rate on net profit or loss

December 31st 2018	Effect of exchange rate increase/decrease on net profit/loss for the year in 2018			
	+9.950%	+5.512%	-9.950%	-5.512%
	USD	EUR	USD	EUR
Classes of financial instruments				
Financial assets				
Derivative financial instruments	(46.7)	14.4	46.7	(14.4)
Trade receivables	29.2	1.6	(29.2)	(1.6)
Cash and cash equivalents	28.3	6.4	(28.3)	(6.4)
Other financial assets:	28.3	-	(28.3)	-
Loans advanced to related entities	24.0	-	(24.0)	-
Deposits	3.4	-	(3.4)	-
Cash for removal of the MOPU from the YME field	0.3	-	(0.3)	-
Other	0.6	-	(0.6)	-
Total financial assets	**39.1**	**22.4**	**(39.1)**	**(22.4)**
Financial liabilities				
Borrowings	143.7 [(1)]	-	(143.7) [(1)]	-
Notes	22.6	-	(22.6)	-
Finance lease liabilities	-	1.8	-	(1.8)
Derivative financial instruments	151.4	(34.0)	(151.4)	34.0
Trade payables	145.5	1.4	(145.5)	(1.4)
Other financial liabilities	0.1	2.8	(0.1)	(2.8)
Total financial liabilities	**463.3**	**(28.0)**	**(463.3)**	**28.0**
Total	**(424.2)**	**50.4**	**424.2**	**(50.4)**

[(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 +/-9.950% change of the USD/PLN exchange rate, the effect of cash flow hedge accounting would potentially lead to a change of PLN (194.1)m/PLN 194.1m in the fair value of borrowings. Furthermore, the calculation takes into account the effect of paid upfront arrangement fees (measured at the exchange rate effective on the payment date), reducing financial liabilities under borrowings, which would potentially result in a change of PLN 1.9m/PLN (1.9)m in the fair value of borrowings, assuming a +/- 9.950% change of the USD/PLN exchange rate.

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 2018, which was 9.950% for USD/PLN and 5.512% for EUR/PLN, as published by Reuters. The sensitivity analysis was performed with reference to the balance of instruments held as at December 31st 2018.

Analysis of the sensitivity to currency risk as at December 31st 2017, showing the effect of a +/- 9.087% change in the USD/PLN exchange rate and a +/- 5.950% change in the EUR/PLN exchange rate on net profit or loss

December 31st 2017	Effect of exchange rate increase/decrease on net profit/loss for the year in 2017			
	+9.087%	+5.950%	-9.087%	-5.950%
	USD	EUR	USD	EUR
Classes of financial instruments				
Financial assets				
Derivative financial instruments	(206.7)	6.7	206.7	(6.7)
Trade receivables	28.0	1.1	(28.0)	(1.1)
Cash and cash equivalents	78.9	6.1	(78.9)	(6.1)
Other financial assets:	57.6	1.2	(57.6)	(1.2)
Loans advanced to related entities	49.6	1.2	(49.6)	(1.2)
Deposits	2.6	-	(2.6)	-
Cash for removal of the MOPU from the YME field	5.0	-	(5.0)	-
Other	0.4	-	(0.4)	-
Total financial assets	**(42.2)**	**15.1**	**42.2**	**(15.1)**
Financial liabilities				
Borrowings	157.2 [(1)]	-	(157.2) [(1)]	-
Notes	18.7	-	(18.7)	-
Finance lease liabilities	-	2.6	-	(2.6)
Derivative financial instruments	95.5	2.5	(95.5)	(2.5)
Trade payables	153.5	1.3	(153.5)	(1.3)
Other financial liabilities	1.4	1.6	(1.4)	(1.6)
Total financial liabilities	**426.3**	**8.0**	**(426.3)**	**(8.0)**
Total	**(468.5)**	**7.1**	**468.5**	**(7.1)**

[(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 +/-9.087% change of the USD/PLN exchange rate, the effect of cash flow hedge accounting would potentially lead to a change of PLN (219.4)m/PLN 219.4m in the fair value of borrowings. Furthermore, the calculation takes into account the effect of paid upfront arrangement fees (measured at the exchange rate effective on the payment date), reducing financial liabilities under borrowings, which would potentially result in a change of PLN 2.6m/PLN (2.6)m in the fair value of borrowings, assuming a +/- 9.087% change of the USD/PLN exchange rate.

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 2017, which was 9.087% for USD/PLN and 5.950% for EUR/PLN, as published by Reuters. The sensitivity analysis was performed with reference to the balance of instruments held as at December 31st 2017.

27.4 Interest rate risk

The Parent is exposed to the risk of changes in cash flows caused by interest rate movements as interest income and interest expense related to certain assets and liabilities accrue based on floating interest rates, including in particular investment credit facilities under the 10+ Programme and the EFRA Project, as well as the financing and refinancing credit facility where the amount of interest is computed by reference to the floating LIBOR USD rate. The Parent manages the interest rate risk within the granted limits using interest rate swaps.

In a long-term perspective, a partial risk mitigation effect was achieved through the choice of a fixed interest rate for a tranche of the term facility contracted to finance the 10+ Programme.

Open interest rate contracts as at December 31st 2018:

Type of contract	Period	Notional amount (USD million)	Company receives	Financial assets	Financial liabilities
Interest rate swap (IRS)	Dec 2015–Jun 2019	2.5	6M LIBOR	0.1	-
Interest rate swap (IRS)	Jan 2015–Dec 2021	522.0	3M LIBOR	7.7	(7.1)
			Total	**7.8**	**(7.1)**

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.

Open interest rate contracts as at December 31st 2017:

Type of contract	Period	Notional amount (USD million)	Company receives	Financial assets	Financial liabilities
Interest rate swap (IRS)	Jul 2011–Jun 2019	207.5	6M LIBOR	0.1	(19.8)
Interest rate swap (IRS)	Jan 2015–Dec 2021	494.0	3M LIBOR	9.2	(8.0)
			Total	**9.3**	**(27.8)**

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.

27.4.1 Sensitivity analysis: market risk related to interest rate movements

Analysis of the Group’s sensitivity to interest rate risk as at December 31st 2018, assuming a +/- 0.26% change in interest rates

December 31st 2018	Note	Carrying amount	Change	
			+0.26%	**-0.26%**
Classes of financial instruments				
Financial assets				
Derivative financial instruments [2]	23	7.8	3.4	(3.4)
Cash and cash equivalents	17	1,941.3	5.0	(5.0)
Other financial assets:		506.0	1.3	(1.3)
Oil and Gas Extraction Facility Decommissioning Fund	15	38.7	0.1	(0.1)
Deposits	15	33.9	0.1	(0.1)
Cash pledged as security for contractual obligations related to future asset decommissioning	15	430.6	1.1	(1.1)
Cash for removal of the MOPU from the YME field	15	2.8	-	-
Total		**2,455.1**	**9.7**	**(9.7)**
Financial liabilities				
Bank borrowings	22.1	3,421.2	7.7 [1]	(7.7) [1]
Non-bank borrowings	22.2	55.8	0.1	(0.1)
Notes	22.3	227.0	0.6	(0.6)
Finance lease liabilities	22.4	180.0	0.5	(0.5)
Derivative financial instruments [2]	23	7.1	(0.7)	0.7
Total		**3,891.1**	**8.2**	**(8.2)**

[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 0.26%, 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 0.26%, in the second case it reduces the interest rate by 0.26%).

Analysis of the Group's sensitivity to interest rate risk as at December 31st 2017, assuming a +/- 0.30% change in interest rates

December 31st 2017	Note	Carrying amount	Change	
			+0.30%	-0.30%
Classes of financial instruments				
Financial assets				
Derivative financial instruments [2]	23	9.3	7.3	(7.4)
Cash and cash equivalents	17	1,920.7	5.8	(5.8)
Other financial assets:		334.1	1.0	(1.0)
Oil and Gas Extraction Facility Decommissioning Fund	15	34.1	0.1	(0.1)
Deposits	15	37.0	0.1	(0.1)
Cash pledged as security for contractual obligations related to future asset decommissioning	15	207.9	0.6	(0.6)
Cash for removal of the MOPU from the YME field	15	55.1	0.2	(0.2)
Total		**2,264.1**	**14.1**	**(14.2)**
Financial liabilities				
Bank borrowings	22.1	3,903.0	10.0 [1]	(10.0) [1]
Non-bank borrowings	22.2	68.3	0.2	(0.2)
Notes	22.3	313.0	0.9	(0.9)
Finance lease liabilities	22.4	141.6	0.4	(0.4)
Derivative financial instruments [2]	23	27.8	(0.9)	0.9
Total		**4,453.7**	**10.6**	**(10.6)**

(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 0.30%, 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 0.30%, in the second case it reduces the interest rate by 0.30%).

The sensitivity analysis was performed for the instruments held as at December 31st 2018 and December 31st 2017. 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 2018 and December 31st 2017, 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 2018 and December 31st 2017, calculated based on historical volatility data for interest rates on interest rate swaps expiring in one year, as published by Reuters.

27.5 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 financial risk management. 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 limits for counterparties in financial and trade transactions,
- ensuring adequate quality and diversification of available financing sources,
- internal control processes and organisational efficiency facilitating prompt contingency response.

Below are presented contractual maturities of financial liabilities as at December 31st 2018 and December 31st 2017:

(PLNm)

Contractual maturities of financial liabilities:

December 31st 2018	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)	22.1	3,418.2	4,340.4	162.4	1,375.7	929.5	1,853.0	19.8
Overdraft facilities	22.1	3.0	3.0	3.0	-	-	-	-
Non-bank borrowings	22.2	55.8	60.2	8.1	7.9	15.7	27.5	1.0
Notes	22.3	227.0	238.0	238.0	-	-	-	-
Finance lease liabilities	22.4	180.0	261.0	26.7	29.9	50.8	110.5	43.1
Trade payables	25	1,913.7	1,913.7	1,913.7	-	-	-	-
Other financial liabilities	25	279.5	279.5	244.5	8.9	7.4	7.0	11.7
Total		**6,077.2**	**7,095.8**	**2,596.4**	**1,422.4**	**1,003.4**	**1,998.0**	**75.6**
December 31st 2017								
Bank borrowings (other than overdraft facilities)	22.1	3,902.9	4,624.0	89.8	1,164.4	906.5	1,968.4	494.9
Overdraft facilities	22.1	0.1	0.1	0.1	-	-	-	-
Non-bank borrowings	22.2	68.3	69.4	6.5	58.1	0.9	2.2	1.7
Notes	22.3	313.0	306.1	306.1	-	-	-	-
Finance lease liabilities	22.4	141.6	179.0	28.7	28.7	53.2	68.4	-
Trade payables	25	2,201.7	2,201.7	2,196.5	5.2	-	-	-
Other financial liabilities	25	222.0	222.0	188.0	7.4	3.3	7.8	15.5
Total		**6,849.6**	**7,602.3**	**2,815.7**	**1,263.8**	**963.9**	**2,046.8**	**512.1**

Contractual maturities of derivative financial instruments:

December 31st 2018	Note	Carrying amount*	Contractual cash flows	Up to 6 months	6 – 12 months	1–2 years	2–5 years	Over 5 years
Commodity swap	23	(7.8)	(8.4)	3.3	(6.9)	(4.7)	(0.1)	-
Currency forward and spot contracts	23	(21.8)	(22.0)	(16.1)	(5.9)	-	-	-
Interest rate swap (IRS)	23	0.7	0.8	(3.6)	3.0	(0.2)	1.6	-
Currency swap	23	(1.0)	(0.9)	(0.9)	-	-	-	-
Total		**(29.9)**	**(30.5)**	**(17.3)**	**(9.8)**	**(4.9)**	**1.5**	**-**
December 31st 2017								
Commodity swap	23	30.9	31.3	10.6	20.1	0.6	-	-
Commodity options	23	-	-	-	-	-	-	-
Currency forward and spot contracts	23	3.6	3.7	(0.4)	4.1	-	-	-
Interest rate swap (IRS)	23	(18.5)	(18.6)	(21.5)	7.1	(5.9)	1.7	-
Currency swap	23	69.1	69.1	62.9	3.2	3.0	-	-
Total		**85.1**	**85.5**	**51.6**	**34.5**	**(2.3)**	**1.7**	**-**

*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 (excluding CO_2 emission allowance futures purchased with the intention of settlement through physical delivery).

27.6 Credit risk

Management of credit risk related to counterparties in financial transactions consists in the verification of creditworthiness of the current and potential counterparties and monitoring of credit exposures against the granted limits.
The credit exposure is attributable to bank deposits and derivatives measurement.

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

As at December 31st 2018 and December 31st 2017, the concentration of credit risk exposure to any single counterparty in the Group's financial transactions did not exceed PLN 542.7m and PLN 845.7m, respectively (5.44% and 9.51% 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. In 2017, the Parent completed development of a rating model which supports assigning credit limits to counterparties. 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 2018 and December 31st 2017, the concentration of credit risk exposure to any single counterparty in the Group's trade transactions did not exceed PLN 116.4m and PLN 530.5m, respectively (1.17% and 5.97% 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	December 31st 2018	December 31st 2017
Derivative financial instruments	23	24.4	164.5
Trade receivables	15	1,880.4	2,677.0
Cash and cash equivalents	17	1,941.3	1,920.7
Other financial assets	15	710.7	459.6
Total		**4,556.8**	**5,221.8**

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 9.4 and 15.1.

For discussion of credit risk concentrations for trade receivables, see Note 15.1.
For ageing analysis of receivables past due but not impaired, see Note 15.1.

28. 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 liabilities under finance leases less cash and cash equivalents. Equity includes equity attributable to owners of the Parent plus non-controlling interests.

	Note	December 31st 2018	December 31st 2017
Non-current liabilities			
Bank borrowings	22.1	2,158.1	2,633.6
Non-bank borrowings	22.2	42.2	4.4
Notes	22.3	-	-
Finance lease liabilities	22.4	145.0	100.3
Total		**2,345.3**	**2,738.3**
Current liabilities			
Bank borrowings	22.1	1,263.1	1,269.4
Non-bank borrowings	22.2	13.6	63.9
Notes	22.3	227.0	313.0
Finance lease liabilities	22.4	35.0	41.3
Total		**1,538.7**	**1,687.6**
Cash and cash equivalents	17	(1,941.3)	(1,920.7)
Net debt		**1,942.7**	**2,505.2**
Equity attributable to owners of the Parent		12,034.7	10,712.4
Non-controlling interests		0.1	0.1
Total equity		12,034.8	10,712.5
Net debt to equity		**0.16**	**0.23**

29. Contingent liabilities and assets

29.1 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

There were no significant changes with respect to pending material court, arbitration, and administrative proceedings or with respect to other risks to the Company or its subsidiaries in the period between the end of the previous financial year, i.e. December 31st 2017, and the date of issue of these financial statements. For information on pending material proceedings, see Note 30.1 to the consolidated financial statements for 2017.

Tax settlements

In 2015, the Company's VAT settlements for 2010–2011 were subject to two inspections by tax inspection authorities. On June 23rd 2015, the Company received post-inspection reports and challenged some of the findings contained in the reports. On September 30th 2015, the Company received two decisions issued by the Director of the Tax Audit Office in Bydgoszcz, in which the Tax Audit Office assessed the VAT amount payable by the Company for the period from January to December 2010 and from January to December 2011, identifying VAT arrears of PLN 48.4m for 2010 and PLN 112.5m for 2011. In these decisions, the Director of the Tax Audit Office stated that certain transactions with two of the Company's trade partners had involved fraudulent tax practices, arguing that the Company had failed to exercise due care in executing transactions with those trade partners and that it should at least have been aware that the transactions were connected to and resulted from a tax fraud committed at an earlier stage, and therefore the Company had no right to make VAT deductions. Having reviewed the decisions, the Company dismissed the allegations of the Director of the Tax Audit Office as entirely groundless and on October 14th 2015 filed an appeal with the Director of the Tax Chamber in Gdańsk. The Director of the Tax Chamber in Gdańsk upheld the decisions of the Director of the Tax Audit Office in Bydgoszcz, whereas the complaint lodged by the Company with the Provincial Administrative Court in the first half of 2016 was dismissed. In Q3 2016, the Company lodged cassation complaints with the Supreme Administrative Court of Warsaw. On December 11th 2018, the Supreme Administrative Court dismissed the Company's complaint against the ruling of the Provincial Administrative Court of Gdańsk of July 20th 2016, specifying the Company's VAT liability for the individual months of 2011. The date of a hearing concerning VAT for the individual months of 2010 was set for March 27th 2019. In connection with other VAT inspections, provisions for tax risk were recognised, as presented in Notes 9.4 and 9.6.

Agreement to which LOTOS Exploration and Production Norge AS is a party

LOTOS Exploration and Production Norge AS ("LOTOS E&P Norge AS") was a party to proceedings held before an arbitration court in Norway in connection with claims filed by Single Buoy Moorings Inc. ("SBM"), the supplier of the MOPU (Mobile Offshore Production Unit) for operation of the YME field, against Talisman Energy Norge AS, the operator of the YME field ("Talisman", "Operator") and the other YME licence holders. The share of SBM's claims attributable to LOTOS E&P Norge AS was 20%.

In 2013, Talisman Energy Norge AS ("Talisman", the then operator of the YME field) and Single Buoy Moorings Inc. ("SBM", owner of the MOPU) announced that an agreement was reached to terminate all existing contracts and agreements executed by the parties in connection with the YME project and remove the defective MOPU from the YME field.

SBM paid USD 470m to the consortium members, and Talisman Energy, on behalf of the licence holders, agreed to make the necessary preparations and remove the platform from the field. Under the agreement, SBM was responsible for towing the MOPU to the port and its scrapping, whereas following completion of certain works, the ownership of elements of the YME field in situ subsea infrastructure delivered by SBM should be transferred to the consortium members, who would be required to perform site restoration (and disassembly) activities related to the subsea infrastructure. Each of the parties will cover the costs of its scope of decommissioning work as set out in the agreement.

In accordance with the agreement made with SBM, the balance of the Group's share in the amount due to the consortium members under the agreement (USD 81.8m) was transferred to the YME project escrow account, to be gradually released to finance the removal of the MOPU and related infrastructure from the field, in accordance with the agreement.

On August 22nd 2016, the YME project partners completed evacuation of the defective MOPU from the field. In Q1 2017, the caisson (element of the subsea infrastructure) was inspected. As a result of the inspection it was found that the caisson can stand without additional support until 2019 (provided that it is inspected on a semi-annual basis and its condition remains unimpaired).

As at December 31st 2018, available cash deposited in the escrow account, denominated in the presentation currency, was recognised in the amount of PLN 2.8m under Other assets in the statement of financial position. The remaining provision for future costs of removal of the MOPU and disassembly of the related fixed assets amounted to PLN 2.4m and was recognised under the short-term portion of Other liabilities and provisions.

On August 11th 2017, SBM Offshore confirmed the conclusion of an agreement with a majority of MOPU insurers to settle insurance claims relating to the faulty execution of the MOPU. On September 10th 2018, SBM announced that the insurance claim concerning the YME project was fully and finally settled. The gross amount received by SBM as insurance compensation was USD 390m. The share of LOTOS E&P Norge AS (net of the cost of legal services and other expenses) is expected at USD 30.7m. The Group recognised its share in the compensation under Other income, in the amount of PLN 118.3m.

Dispute between LOTOS Kolej Sp. z o.o. and Newag S.A.

In December 2017, Newag S.A. indicated its readiness to deliver five Griffin locomotives produced under lease contracts concluded on December 23rd 2015 with LOTOS Kolej Sp. z o.o. However, as permits to operate these locomotives were subject to certain restrictions, LOTOS Kolej Sp. z o.o. refused to accept them and called on Newag S.A. to provide permits enabling their operation without any restrictions. In connection with the company's refusal to accept the locomotives, on January 26th 2018 Newag S.A. terminated its contract with LOTOS Kolej Sp. z o.o. with immediate effect, arguing that the locomotives were in conformity with the contract and permitted to be used in the area of operation – but excluding the core network. In the Management Board's opinion, the termination was not effective and the risk of imposition of contractual penalties on LOTOS Kolej Sp. z o.o. was low, therefore no provisions were recognised consolidated financial statements. On February 28th 2019, a settlement was reached before a mediator, waiving all risks and counterclaims of the parties in connection with the termination of the lease contracts. The settlement supersedes the previous agreements and re-defines the rights and obligations of the parties.

In the twelve months ended December 31st 2018, there were no material settlements under court or other proceedings, save for those presented above.

29.2 Other contingent liabilities

In the period between the end of the previous financial year, i.e. December 31st 2017, and the date of issue of these financial statements, there were no changes in the Company's or its subsidiaries' other material contingent liabilities.

30. Related parties

30.1 Transactions with related entities in which the Group holds equity interests

Equity-accounted joint ventures		2018	2017
Sales		635.5	431.4
Purchases		26.7	-
	Note	December 31st 2018	December 31st 2017
Receivables	15	23.1	34.5
Liabilities	25	5.2	-

In 2018 and 2017, 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 2018 was PLN 635.4m (2017 PLN 431.3m). As at December 31st 2018, the balance of outstanding receivables under these transactions was PLN 23.1m (December 31st 2017: PLN 34.5m).

In 2018, the Group also executed transactions with UAB Minijos Nafta, for a total amount of PLN 26.7m. The transactions involved purchase of crude oil. As at December 31st 2018, the balance of outstanding payables under those transactions was PLN 5.2m. In the comparative period, the Group did not enter into any material transactions with UAB Minijos Nafta.

For general information on joint ventures in which the Group holds interests, see Note 14.

30.2 Entity having control of the Group

As at December 31st 2018 and December 31st 2017, the State Treasury held a 53.19% interest in Grupa LOTOS S.A. In 2017 and 2018, no transactions were concluded between Grupa LOTOS S.A. and the State Treasury.

30.2.1 Transactions with related entities of which the State Treasury has control or joint control or on which the State Treasury has significant influence

In 2018 and 2017, the Group executed transactions with parties related to it through the State Treasury, the aggregate value of which was material. They were concluded on an arm's length basis in the course of the Group's day-to-day operations and involved mainly purchase and sale of fuels, purchase of crude oil and natural gas, and transport services.

	2018	2017
Sales	661.2	394.0
Purchases	1,922.7	1,587.5
	December 31st 2018	December 31st 2017
Receivables	47.4	82.9
Liabilities	202.8	263.4

In addition, the Group has liabilities under bank borrowings, non-bank borrowings, notes and finance leases towards banks and financial 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.

	December 31st 2018	December 31st 2017
Bank borrowings	1,304.7	1,039.3
Non-bank borrowings	55.8	68.3
Notes	227.0	201.7
Finance lease liabilities	20.3	27.4
Total	**1,607.8**	**1,336.7**

30.3 Remuneration of members of the Management and Supervisory Boards, along with information on loans and other similar benefits granted to members of the management and supervisory staff

Remuneration paid to members of the Parent's Management and Supervisory Boards	2018	2017
Management Board		
Short-term employee benefits (salaries), including:	**3.08**	**3.96**
Mateusz Bonca	0.71	0.60
Piotr Ciach	0.12	-
Patryk Demski	0.37	-
Marcin Jastrzębski[(1)]	0.59	0.72
Jarosław Kawula	0.69	0.61
Robert Sobków	0.35	-
Jarosław Wittstock	0.16	-
Mariusz Machajewski[(2)]	0.09	0.73
Paweł Olechnowicz	-	0.30
Marek Sokołowski[(3)]	-	0.28
Maciej Szozda[(3)]	-	0.05
Zbigniew Paszkowicz[(3)]	-	0.28
Robert Pietryszyn[(3)]	-	0.13
Przemysław Marchlewicz[(4)]	-	0.26
Management Board – subsidiaries [(5)]		
Short-term employee benefits (salaries), including:	**-**	**0.33**
Mateusz Bonca	-	0.09
Marcin Jastrzębski	-	0.09
Mariusz Machajewski	-	0.15
Supervisory Board		
Short-term employee benefits (salaries), including:	**0.60**	**0.56**
Piotr Ciach	0.07	0.08
Dariusz Figura	0.08	0.08
Mariusz Golecki	0.08	0.08
Beata Kozłowska-Chyła	0.10	0.09
Katarzyna Lewandowska	0.08	0.08
Adam Lewandowski	0.08	0.07
Grzegorz Rybicki	0.03	-
Agnieszka Szklarczyk-Mierzwa	0.08	0.08
Katarzyna Lewandowska	-	0.00
Maria Sierpińska	-	0.00
Total [(6)]	**3.68**	**4.85**

Other employee benefits	December 31st 2018	December 31st 2017
Management Board		
Current liabilities under annual bonus[(7)], including:	**3.26**[(8)]	**1.40**
Mateusz Bonca	0.90	0.43
Patryk Demski	0.30	-
Marcin Jastrzębski	0.58	0.46
Jarosław Kawula	1.01	0.51
Robert Sobków	0.30	-
Jarosław Wittstock	0.17	-
Total	**3.26**	**1.40**

(1) Including a severance pay for termination of the employment contract and non-compete compensation paid in 2018.
(2) In 2018, non-compete compensation was paid; the 2017 amount includes the severance pay paid for termination of the employment contract and the non-compete compensation.
(3) In 2017, non-compete compensation paid.
(4) Including a severance pay for termination of the employment contract and non-compete compensation paid in 2017.
(5) Remuneration paid to members of the Parent's Management Board for serving on corporate bodies of direct and indirect subsidiaries.
(6) The amount reflects changes in the composition of the Company's Management and Supervisory Boards.
(7) Pursuant to the Act on Rules of Remunerating Persons Who Manage Certain Companies. Payment of the annual bonus is conditional on the achievement of targets set for the Management Board members and consent of the Supervisory Board.
(8) The amount includes outstanding current liabilities under annual bonus for 2017.

In 2018 and 2017, 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 2018 and 2017 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.

30.4 Remuneration paid or payable to other members of key management staff

Remuneration paid to members of key management staff (other than members of the Grupa LOTOS Management Board)	2018	2017
Short-term employee benefits (salaries), including:	42.8	46.0
- annual bonus paid	5.0 [1]	7.1 [2]
- length-of-service award paid	0.7	0.5
Other employee benefits	**December 31st 2018**	**December 31st 2017**
Post-employment benefits, length-of-service awards and other benefits	6.4	11.0
Current liabilities under annual bonus	12.9	10.5
Total	**19.3**	**21.5**

(1) Remuneration paid in 2018 on account of the annual bonus for 2017.
(2) Remuneration paid in 2017 on account of the annual bonus for 2016.

In 2018, the Group did not advance any loans to its key management staff. In the comparative period, the Group did not advance any material loans to its key management staff.

30.5 Transactions with related parties of members of the Management Board and the Supervisory Board

In 2018, the Group executed transactions with parties related to it through members of the Parent's Management Board and Supervisory Board. The transactions were connected with the Group's day-to-day operations and mainly involved purchase of civil liability insurance policies and property insurance policies for PLN 29.4m (2017: PLN 26.4m). As at December 31st 2018, unsettled transactions with parties related to the Group through members of the Management and Supervisory Boards totalled PLN 3.7m (December 31st 2017: PLN 0.9m).

Moreover, as at December 31st 2018, the Group disclosed liabilities under a loan in the amount of PLN 4.3m.

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.

AUTHORISATION OF THE CONSOLIDATED FINANCIAL STATEMENTS FOR ISSUE

These consolidated financial statements were authorised for issue by the Management Board on March 11th 2019.

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

Mateusz Aleksander Bonca

Vice President of the Management Board,
Chief Investment and Innovation Officer

Patryk Demski

Vice President of the Management Board,
Chief Refining and Marketing Officer

Jarosław Kawula

Vice President of the Management Board,
Corporate Affairs

Jarosław Wittstock

Vice President of the Management Board,
Chief Financial Officer

Robert Sobków

Finance and Accounting Centre Director -
Chief Accountant

Tomasz Południewski