2019

CONSOLIDATED FINANCIAL STATEMENTS OF ORLEN GROUP FOR THE YEAR ENDED 31 DECEMBER 2019

PREPARED IN ACCORDANCE WITH INTERNATIONAL FINANCIAL REPORTING STANDARDS AS ADOPTED BY EUROPEAN UNION

SELECTED DATA FOR 2019

ORLEN GROUP

- EBITDA PLN 8,862 million
- EBITDA before net impairment allowances PLN 9,041 million
- EBIT PLN 5,365 million
- Net profit PLN 4,298 million
- Assets PLN 71,202 million
- CAPEX PLN 8,773 million
- Total equity PLN 38,607 million
- Total equity per share 90.26
- Total equity attributable to equity owners of the parent PLN 38,596 million
- Number of shares 427,709,061
- Total equity attributable to equity owners of the parent PLN 90.24 per share
- Dividend payment for 2018:
  PLN 1,497 billion / PLN 3.5 per share
- Net debt PLN 2,448 million
- Net financial gearing 6.3%

DOWNSTREAM

Production Sales Power Industry

- Sales revenues PLN 90,703 million
- EBITDA PLN 6,479 million
- EBITDA before net impairment allowances PLN 6,536 million
- EBIT PLN 4,099 million
- Assets PLN 47,199 million
- CAPEX PLN 4,036 million

RETAIL

- Sales revenues PLN 39,089 million
- EBITDA PLN 3,061 million
- EBITDA before net impairment allowances PLN 3,045 million
- EBIT PLN 2,431 million
- Assets PLN 9,945 million
- CAPEX PLN 3,365 million

UPSTREAM

- Sales revenues PLN 608 million
- EBITDA PLN 164 million
- EBITDA before net impairment allowances PLN 295 million
- EBIT PLN (155) million
- Assets PLN 4,440 million
- CAPEX PLN 635 million

EBIT - profit/(loss) from operations
EBITDA - profit/(loss) from operations increased by depreciation and amortization
EBITDA before net impairment allowances – EBITDA before consideration of net impairment allowances (reversal/recognition of impairment allowances of property, plant and equipment and intangible assets, other non-current assets and non-current assets classified as held for sale
CAPEX - increase of property, plant and equipment, intangible assets, investment property and ight-of-use assets together with the capitalisation of borrowing costs and a decrease on received/due penalties for delayed execution of the contract
Net debt: non-current and current loans and bonds lower by cash and cash equivalents
Net financial gearing: net debt/equity (calculated as at the end of the period) x 100%

TABLE OF CONTENTS

ORLEN GROUP (in PLN million)

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

	NOTE	2019	2018	change (y/y) value	%
Sales revenues	9, 11.1, 11.2, 11.3	111 203	109 706	1 497	1.4
revenues from sales of finished goods and services		*93 009*	*91 014*	*1 995*	*2.2*
revenues from sales of merchandise and raw materials		*18 194*	*18 692*	*(498)*	*(2.7)*
Cost of sales	11.8	(97 301)	(97 265)	(36)	(0,0)
cost of finished goods and services sold		*(81 266)*	*(80 781)*	*(485)*	*0.6*
cost of merchandise and raw materials sold		*(16 035)*	*(16 484)*	*449*	*(2.7)*
Gross profit on sales		**13 902**	**12 441**	**1 461**	**11.7**
Distribution expenses		(6 355)	(4 745)	(1 610)	33.9
Administrative expenses		(1 806)	(1 590)	(216)	13.6
Other operating income	11.9	1 246	2 150	(904)	(42.0)
Other operating expenses	11.10	(1 717)	(1 152)	(565)	49.0
(Loss)/reversal of loss due to impairment of financial instruments	11.12	(41)	(16)	(25)	156.3
Share in profit from investments accounted for using the equity method	12.3	136	127	9	7.1
Profit from operations		**5 365**	**7 215**	**(1 850)**	**(25.6)**
Finance income	11.11.1	890	1 413	(523)	(37.0)
Finance costs	11.11.2	(901)	(1 517)	616	(40.6)
Net finance income and costs		**(11)**	**(104)**	**93**	**(89.4)**
(Loss)/reversal of loss due to impairment of financial instruments	11.12	(2)	(1)	(1)	**100.0**
Profit before tax		**5 352**	**7 110**	**(1 758)**	**(24.7)**
Tax expense	11.13	(1 054)	(1 506)	452	(30.0)
current tax		*(1 000)*	*(1 181)*	*181*	*(15.3)*
deferred tax		*(54)*	*(325)*	*271*	*(83.4)*
Net profit		**4 298**	**5 604**	**(1 306)**	**(23.3)**
Other comprehensive income:					
which will not be reclassified subsequently into profit or loss		**(35)**	**(24)**	**(11)**	**45.8**
actuarial gains and losses		*(21)*	*(5)*	*(16)*	*320.0*
gains/(losses) on investments in equity instruments at fair value through other comprehensive income		*(20)*	*(23)*	*3*	*(13.0)*
deferred tax	11.13.2	*6*	*4*	*2*	*50.0*
which will be reclassified into profit or loss		**105**	**462**	**(357)**	**(77.3)**
hedging instruments		*(148)*	*12*	*(160)*	*-*
hedging costs		*115*	*38*	*77*	*202.6*
exchange differences on translating foreign operations		*138*	*415*	*(277)*	*(66.7)*
deferred tax	11.13.2	*-*	*(3)*	*3*	*-*
		70	**438**	**(368)**	**(84.0)**
Total net comprehensive income		**4 368**	**6 042**	**(1 674)**	**(27.7)**
Net profit/(loss) attributable to		**4 298**	**5 604**	**(1 306)**	**(23.3)**
equity owners of the parent		*4 300*	*5 556*	*(1 256)*	*(22.6)*
non-controlling interest		*(2)*	*48*	*(50)*	*-*
Total net comprehensive income attributable to		**4 368**	**6 042**	**(1 674)**	**(27.7)**
equity owners of the parent		*4 370*	*5 937*	*(1 567)*	*(26.4)*
non-controlling interest		*(2)*	*105*	*(107)*	*-*
Net profit and diluted net profit per share attributable to equity owners of the parent (in PLN per share)		10.05	12.99	(2.94)	(22.63)

(in PLN million)

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

	NOTE	31/12/2019	31/12/2018	change (y/y) value	%
ASSETS					
Non-current assets					
Property, plant and equipment	12.1	32 363	31 390	973	3.1
Intangible assets	12.2	1 600	1 323	277	20.9
Right-of-use asset	14.2.1	3 952	-	3 952	-
Investments accounted for using the equity method	12.3	678	650	28	4.3
Deferred tax assets	11.13.2	51	70	(19)	(27.1)
Derivatives	12.8	310	161	149	92.5
Long-term lease receivables	14.2.2	13	-	13	-
Other assets	12.8	310	338	(28)	(8.3)
		39 277	**33 932**	**5 345**	**15.8**
Current assets					
Inventories	12.5.1	15 074	14 362	712	5.0
Trade and other receivables	12.5.2	9 669	10 479	(810)	(7.7)
Current tax assets		262	114	148	129.8
Cash and cash equivalents	12.6.2	6 159	4 192	1 967	46.9
Derivatives	12.8	243	524	(281)	(53.6)
Short-term lease receivables	14.2.2	12	-	12	-
Other assets	12.8	468	336	132	39.3
Non-current assets classified as held for sale		38	202	(164)	(81.2)
		31 925	**30 209**	**1 716**	**5.7**
Total assets		**71 202**	**64 141**	**7 061**	**11.0**
EQUITY AND LIABILITIES					
EQUITY					
Share capital	12.7.1	1 058	1 058	-	-
Share premium	12.7.2	1 227	1 227	-	-
Hedging reserve	13.4	328	361	(33)	(9.1)
Revaluation reserve		(33)	(15)	(18)	120.0
Exchange differences on translating foreign operations		847	709	138	19.5
Retained earnings	12.7.3	35 169	32 387	2 782	8.6
Equity attributable to equity owners of the parent		**38 596**	**35 727**	**2 869**	**8.0**
Non-controlling interests	12.7.4	**11**	**12**	**(1)**	**(8.3)**
Total equity		**38 607**	**35 739**	**2 868**	**8.0**
LIABILITIES					
Non-current liabilities					
Loans and bonds	12.6.1	8 185	8 598	(413)	(4.8)
Provisions	12.9	1 113	1 055	58	5.5
Deferred tax liabilities	11.13.2	1 474	1 445	29	2.0
Derivatives	12.8	2	42	(40)	(95.2)
Lease liabilities	14.2.1	3 380	-	3 380	-
Other liabilities	12.8	161	366	(205)	(56.0)
		14 315	**11 506**	**2 809**	**24.4**
Current liabilities					
Trade and other liabilities	12.5.3	15 132	13 697	1 435	10.5
Lease liabilities	14.2.1	618	-	618	-
Liabilities from contracts with customers	12.5.4	246	231	15	24.4
Loans and bonds	12.6.1	422	1 193	(771)	(64.6)
Provisions	12.9	1 236	1 019	217	21.3
Current tax liabilities		124	473	(349)	(73.8)
Derivatives	12.8	266	193	73	37.8
Other liabilities	12.8	236	90	146	162.2
		18 280	**16 896**	**1 384**	**8.2**
Total liabilities		**32 595**	**28 402**	**4 193**	**14.8**
Total equity and liabilities		**71 202**	**64 141**	**7 061**	**11.0**

ORLEN GROUP (in PLN million)

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

	Equity attributable to equity owners of the parent							
	Share capital and share premium	Hedging reserve	Revaluation reserve	Exchange differences on translating foreign operations	Retained earnings	Total	Non-controlling interests	Total equity
NOTE	12.7.1, 12.7.2	13.4			12.7.3		12.7.4	
01/01/2019 (approved data)	2 285	361	(15)	709	32 387	35 727	12	35 739
Impact of IFRS 16 adoption	-	-	-	-	(4)	(4)	-	(4)
01/01/2019 (converted data)	2 285	361	(15)	709	32 383	35 723	12	35 735
Net profit/(loss)	-	-	-	-	4 300	4 300	(2)	4 298
Components of other comprehensive income	-	(33)	(18)	138	(17)	70	-	70
Total net comprehensive income	**-**	**(33)**	**(18)**	**138**	**4 283**	**4 370**	**(2)**	**4 368**
Issuance of shares attributable to non-controlling interest	-	-	-	-	-	-	1	1
Dividends	-	-	-	-	(1 497)	(1 497)	-	(1 497)
31/12/2019	**2 285**	**328**	**(33)**	**847**	**35 169**	**38 596**	**11**	**38 607**
01/01/2018	2 285	331	5	334	29 233	32 188	3 014	35 202
Net profit	-	-	-	-	5 556	5 556	48	5 604
Components of other comprehensive income	-	30	(20)	375	(4)	381	57	438
Total net comprehensive income	**-**	**30**	**(20)**	**375**	**5 552**	**5 937**	**105**	**6 042**
Change in structure	-	-	-	-	(1 115)	(1 115)	(3 107)	(4 222)
Dividends	-	-	-	-	(1 283)	(1 283)	-	(1 283)
31/12/2018	**2 285**	**361**	**(15)**	**709**	**32 387**	**35 727**	**12**	**35 739**

ORLEN GROUP (in PLN million)

CONSOLIDATED STATEMENT OF CASH FLOWS

	NOTE	2019	2018	change (y/y) value	%
Cash flows from operating activities					
Profit before tax		**5 352**	**7 110**	**(1 758)**	**(24.7)**
Adjustments for:					
Share in profit from investments accounted for using the equity method	12.3	(136)	(127)	(9)	7.1
Depreciation and amortisation	11.8	3 497	2 673	824	30.8
Foreign exchange (gain)/loss	11.11.4	(72)	319	(391)	-
Net interest	11.11.3	272	203	69	34.0
Dividends	11.11.1	(5)	(4)	(1)	25.0
(Profit)/Loss on investing activities		316	(1 100)	1 416	-
recognition/(reversal) of impairment allowances of property, plant and equipment, intangible assets and other non-current assets	11.9, 11.10	*179*	*(704)*	*883*	-
settlement and valuation of derivative financial instruments		*161*	*(434)*	*595*	-
Change in provisions	12.9	1 035	736	299	40.6
Change in working capital	12.5	1 182	(3 059)	4 241	-
inventories		*(709)*	*(1 729)*	*1 020*	*(59.0)*
receivables		*942*	*(1 069)*	*2 011*	-
liabilities		*949*	*(261)*	*1 210*	-
Other adjustments		(624)	(732)	108	(14.8)
rights received free of charge		*(683)*	*(494)*	*(189)*	*38.3*
security deposits		*(367)*	*(1)*	*(366)*	*36 600.0*
change in settlements of settled derivatives not designated for hedge accounting purposes		*268*	*(247)*	*515*	-
Income tax (paid)	11.13.3	(1 498)	(1 039)	(459)	44.2
Net cash from operating activities		**9 319**	**4 980**	**4 339**	**87.1**
Cash flows from investing activities					
Acquisition of property, plant and equipment, intangible assets and right-of-use asset		(4 450)	(4 454)	4	(0.1)
Acquisition of shares		-	(25)	25	-
Disposal of property, plant and equipment, intangible assets and right-of-use asset		245	161	84	52.2
Dividends received		112	196	(84)	(42.9)
Settlement of derivatives not designated as hedge accounting		82	339	(257)	(75.8)
Other		17	(15)	32	-
Net cash (used) in investing activities		**(3 994)**	**(3 798)**	**(196)**	**5.2**
Cash flows from financing activities					
Change in cash related to acquisition of non-controlling interest of UNIPETROL, a.s		190	(4 222)	4 412	-
Proceeds from loans received	12.6	381	2 232	(1 851)	(82.9)
Bonds issued		-	600	(600)	-
Repayment of loans	12.6	(492)	(97)	(395)	407.2
Redemption of bonds	12.6	(1 000)	(200)	(800)	400,0
Interest paid from loans and bonds	11.11.3, 12.6	(218)	(222)	4	(1.8)
Interest paid on lease	11.11.3, 12.6	(68)	(9)	(59)	655.6
Dividends paid		(1 497)	(1 284)	*(213)*	*16.6*
to equity owners of the parent	12.7.6	*(1 497)*	*(1 283)*	*(214)*	*16.7*
to non-controlling interest		-	*(1)*	*1*	-
Payments of liabilities under lease agreements	12.6	(656)	(32)	(624)	1.950
short-term and low-value lease payments		*(149)*	-	*(149)*	-
Other		(3)	(3)	-	-
Net cash (used) in financing activities		**(3 363)**	**(3 237)**	**(126)**	**3.9**
Net increase/(decrease) in cash and cash equivalents		**1 962**	**(2 055)**	**4 017**	**-**
Effect of changes in exchange rates		5	3	2	66.7
Cash and cash equivalents, beginning of the period		4 192	6 244	(2 052)	(32.9)
Cash and cash equivalents, end of the period		**6 159**	**4 192**	**1 967**	**46.9**
including restricted cash		*1 086*	*87*	*999*	*1 148.3*

(in PLN million)

BASIC INFORMATION

1. PRINCIPAL ACTIVITY OF ORLEN GROUP

PRINCIPAL INFORMATION ABOUT ORLEN GROUP	
NAME OF THE PARENT COMPANY	Polski Koncern Naftowy ORLEN Spółka Akcyjna
REGISTERED OFFICE	ul. Chemików 7, 09-411 Płock, Poland
NATIONAL COURT REGISTER NUMBER (KRS)	0000028860
INDUSTRY IDENTIFICATION NUMBER (REGON)	610188201
TAX IDENTIFICATION NUMBER (NIP)	774-00-01-454
PRINCIPAL ACTIVITY	- crude oil processing, - production of fuel, petrochemical and chemical goods, - retail and wholesale of fuel products, - exploration, recognition and extraction of hydrocarbons, - generates, distributes and trades of electricity and heat, - service-related activity: storage of crude oil and fuels, transportation, maintenance and overhaul services, laboratory, security, design, administrative, insurance and financial services.

Polski Koncern Naftowy ORLEN Spółka Akcyjna ("Company", "PKN ORLEN", "Issuer", "Parent Company") was founded by incorporation of Petrochemia Płock S.A. with Centrala Produktów Naftowych S.A., on 7 September 1999.
PKN ORLEN along with the entities comprising the Capital Group of Polski Koncern Naftowy ORLEN S.A. ("ORLEN Group", "Group") is one of the biggest and most modern fuel and power companies in Central Europe, operating on the Polish, Lithuanian, Czech, German and Canadian markets. The Group also possesses entities located in Malta, Sweden, the Netherlands, Slovakia, Hungary, Estonia, Latvia and the USA.
Since 26 November 1999 PKN ORLEN shares are listed on the main market of the Warsaw Stock Exchange (WSE) in the continuous quotations system.

2. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS

The consolidated financial statements have been prepared in accordance with accounting principles contained in the International Financial Reporting Standards (IFRS), comprising International Accounting Standards (IAS) as well as Interpretations of Standing Interpretation Committee (SIC) and the International Financial Reporting Interpretations Committee (IFRIC), which were adopted by the European Union (EU). The accounting principles applied by the Group are based on standards and interpretations adopted by the European Union and applicable to the period beginning on 1 January 2019 or earlier periods.
The consolidated financial statements have been prepared on a historical cost basis, except derivatives measured at fair value and assets measured at fair value through other comprehensive income. This consolidated financial statements have been prepared using the accrual basis of accounting except from the consolidated financial statement of cash flows.
The scope of consolidated financial statements is compliant with the Minister of Finance Regulation of 29 March 2018 on current and periodical information to be published by issuers of securities and conditions of consideration of information required by the law of non-member country's law as equal (Official Journal 2018, item 757) and covers the annual reporting period from 1 January to 31 December 2019 and the comparative period from 1 January to 31 December 2018. Presented consolidated financial statements present a true and fair view of the ORLEN Group's financial position as at 31 December 2019, results of its operations and cash flows for the year ended 31 December 2019.
The consolidated financial statements have been prepared on the assumption that the ORLEN Group will continue to operate as a going concern in the foreseeable future. As at the date of approval of this consolidated financial statements, there is no evidence indicating that ORLEN Group will not be able to continue its operations as a going concern. The Parent Company and the entities comprising ORLEN Group have unlimited period of operations.

3. FUNCTIONAL CURRENCY AND PRESENTATION CURRENCY OF FINANCIAL STATEMENTS AND METHODS APPLIED TO TRANSLATION OF FINANCIAL DATA FOR CONSOLIDATION PURPOSES

The functional currency of the Parent Company and presentation currency of this consolidated financial statements is Polish Złoty (PLN). Possible differences in the amount of PLN 1 million when summing up the items presented in the explanatory notes result from the adopted roundings.
Translation into PLN of financial statements of foreign entities, for consolidation purposes:
– particular assets and liabilities – at spot exchange rate as at the end of the reporting period,
– items of the statement of profit or loss and other comprehensive income and the statement of cash flows - at the average exchange rate for the reporting period (arithmetic average of daily average exchange rates published by the National Bank of Poland ("NBP") in a given period).

Foreign exchange differences resulting from the above recalculations are recognised in equity in the line exchange differences on translating foreign operations.

(in PLN million)

CURRENCY	Average exchange rate for the reporting period		Exchange rate as at the end of the reporting period	
	2019	2018	31/12/2019	31/12/2018
EUR/PLN	4.2987	4.2614	4.2585	4.3000
USD/PLN	3.8399	3.6113	3.7977	3.7597
CZK/PLN	0.1675	0.1662	0.1676	0.1673
CAD/PLN	2.8939	2.7861	2.9139	2.7620

4. ACCOUNTING PRINCIPLES

Significant accounting principles and significant values based on judgements and estimates are presented as a part of the specific explanatory notes to the consolidated financial statements. The Group applied the accounting principles consistently to all presented reporting periods, except for:

- the impact of new standards applied for the first time in 2019, described below (note 5),
- changes in accounting policy regarding the issue of CO_2 emission allowances and determining the value of the provision for CO_2 emission costs.

From 1 January 2019 the Group recognises cost flows of CO_2 emission allowances at weighted average method against FIFO method (First In, First Out) applied until 31 December 2018. The effect of changing the cost method for CO_2 allowances as at 31 December 2018 was immaterial and was recognised in the financial result of the current year and as a change in value of provision for CO_2 emission in the statement of financial position. In the opinion of the Management Board of PKN ORLEN, the change in cost method better reflects commercial substance of legal situation and economic conditions in terms of volatility of market prices for CO_2 emission rights.

The preparation of consolidated financial statements in accordance with IFRSs requires that the Management Board makes professional judgements, estimates and assumptions that affect the presented amounts. The estimates and related assumptions are based on historical expertise and other factors regarded as reliable in given circumstances and their effects provide grounds for professional judgment of the carrying amount of assets and liabilities which is not based directly on any other factors.
In the matters of considerable weight, the Management Board might base its judgments, estimates or assumptions on opinions of independent experts. The judgments, estimates and related assumptions are verified on a regular basis.

Selected accounting principles	Note	Page
Investments in subsidiaries, jointly controlled entities and associates	7.1	14
Operating segments	8	19
Sales revenues	11.1	21
Costs	11.8	24
Income tax expenses (tax expense)	11.13	26
Property, plant and equipment	12.1	28
Exploration and extraction of mineral resources	12.1	28
Intangible assets	12.2	29-30
Investments accounted for under equity method	12.3	31
Impairment of property, plant and equipment and intangible assets	12.4	33
Inventories	12.5.1	36
Trade and other receivables	12.5.2	37
Trade and other liabilities	12.5.3	38
Cash, loans and bonds	12.6	38
Equity	12.7	41
Provisions	12.9	43-44
Financial instruments	13	46-47
Fair value measurement	13	46-47
Lease	14.2	61
Contingent assets and liabilities	14.4	62-63

5. IMPACT OF IFRS CHANGES ON CONSOLIDATED FINANCIAL STATEMENTS OF ORLEN GROUP

➢ IFRS 16 Lease (IFRS 16)

Application for the first time

IFRS 16 “Lease” issued on 13 January 2016 was adopted by the European Union on 31 October 2017.

Since 1 January 2019, the Group has applied the new Standard in the recognition, measurement, and presentation of lease agreements. The application of the new Standard was made in accordance with the transitional provisions contained in IFRS 16.
Implementation of IFRS 16 within the Group was carried out using the modified retrospective approach, and therefore, comparative data for the year 2018 was not converted and any cumulative effect of the first application of the new Standard was included as an adjustment to the opening balance of retained earnings on the first day of application. Application of IFRS 16 did not affect the recognition of lease contracts by the Group in which the Group is the lessor. Additional information regarding lease contracts is presented in note 14.2.

As at 1 January 2019 the Group has recognised right-of-use asset in the amount of PLN 3,316 million and lease liability in the amount of PLN 3,352 million, what resulted in a difference to be recognised in the position of retained earnings in the amount of PLN 4 million due to recognition of impairment losses as a result of impairment tests and the recognition of receivables from subleasing in the amount of PLN 32 million.

ORLEN GROUP (in PLN million)

Reconciliation of future minimum lease payments disclosed as at 31 December 2018 with lease liabilities recognised in the statement of financial position as at 1 January 2019

Value of future minimum lease payments under operating lease	5 675
Value of future minimum lease payments under finance lease	286
Contractual lease liabilities as at 31/12/2018	**5 961**
Discount	(2 380)
Present value of lease liabilities as at 01/01/2019	**3 581**
Present value of contractual finance lease liabilities as at 31/12/2018	(229)
Value of contractual lease liabilities – impact of IFRS 16 adoption as at 01/01/2019	**3 352**

The weighted average incremental borrowing rate of the Group as a lessee applied to the lease liabilities recognised in the statement of financial position as at 1 January 2019 amounted to 2.62%

The Group as a lessee

Identifying a lease

The Group applies new guidelines for identifying a lease only for contracts that it has concluded (or amended) on the day of its first application, i.e. 1 January 2019 or after that date. Thereby, for all contracts concluded before 1 January 2019, the Group applied the practical exemption provided for in IFRS 16, according to which the entity is not required to reassess whether the contract is a lease or contains a lease on the date of first application. As at 1 January 2019 the Group applies IFRS 16 to contracts that were previously identified as leases in accordance with IAS 17 and IFRIC 4.

At the time of conducting a new contract, the Group assesses whether the contract is a lease or whether it contains a lease. An agreement is a lease or contains a lease if it transfers the right to control the use of an identified asset for a given period in exchange for remuneration. In order to assess if an agreement transfers the right to control the use of an identified asset for a given period, the Group shall determine whether throughout the entire period of use the customer enjoys the following rights:

a) the right to obtain substantially all economic benefits from the use of the identified asset and
b) the right to manage the use of the identified asset.

Should the Group have the right to control the use of an identified asset for part of the duration of an agreement only, the agreement contains a lease in respect of this part of the period.

Rights resulting from lease, rental, hire or other agreements which meet the definition of a lease as per IFRS 16 are recognised as right-of-use underlying assets within the framework of non-current assets with a corresponding lease liabilities.

Initial recognition and measurement

The Group recognises the right-of-use asset as well as the lease liability on the date of commencement of the lease.

On the date of commencement the Group measured the right-of-use asset at cost.

The cost of the right-of-use asset is inclusive of the following:

a) the amount of the initial measurement of the lease liability,
b) all lease payments made on or before the date of commencement, less any lease incentives received,
c) all initial costs directly incurred by the lessee, and
d) estimated costs to be incurred by the lessee in connection with the dismantling and removal of underlying assets, the refurbishment of premises within which they were located, or the refurbishment of underlying assets to the condition required by the terms and conditions of the lease, unless these costs are incurred with the aim of creating stocks.

Lease payments included in the evaluation of lease liability include:

- fixed lease payments;
- variable lease payments, which depend on an index or a rate, initially measured using the index or rate as at the commencement date;
- amounts that are expected to be paid by the lessee as part of the guaranteed residual value;
- the call exercise price, should it be assumed with reasonable certainty that the Group shall decide to exercise the call option;
- penalty payments for termination of a lease, unless it can be assumed with reasonable certainty that the Group shall not terminate the lease.

Variable payments, which do not depend on an index or a rate should not be taken into account when calculating lease liability. Such payments are recognised in the profit or loss in the period of the occurrence which renders them payable.

The lease liability on the commencement date shall be calculated on the basis of the current lease payments that are payable by that date and discounted by the incremental borrowing rates of the lessee.

The Group does not discount lease liabilities by the lease interest rate as the calculation of such rates requires information known only to the lessor (the non-guaranteed final value of the leased asset as well as the direct costs incurred by the lessor).

Determining the lessee's incremental borrowing rate

Lessee's incremental borrowing rates were specified as the sum of:

a) the risk free rate, based on the Interest Rate Swap (IRS) in accordance with the maturity of the discount rate, and the relevant basic rate for the given currency, as well as
b) the Group's credit risk premium based on the credit margin calculated inclusive of the credit risk segmentation of all companies which have entered into lease agreements.

Subsequent measurement

After the commencement date, the Group measures the right-of-use asset applying the cost model.

In applying the cost model, the Group shall measure the cost of the right-of-use asset:
a) less any accumulated depreciation and accumulated impairment losses; and
b) adjusted in respect of any updates to the measurement of lease liability not resulting in the necessity for recognition of a separate asset.

After the date of commencement the Group shall measure the lease liability by:
a) increasing the carrying amount to reflect interest on the lease liability,
b) decreasing the carrying amount to reflect any lease payments made, and
c) remeasuring the carrying amount to reflect any reassessment or lease modifications or to revise in-substance fixed lease payments.

The Group shall remeasure the lease liability in cases where there is a change in future lease payments as a result of a change in the index or rate used to determine lease payments (e.g. a change in payment associated with the right of perpetual use), in cases where there is a change in the amount expected by the Group to be payable under the residual amount guarantee, or if the Group reassesses the likelihood of the exercise of the call option, or the extension or termination of the lease.

Updating the lease liability also adjusts the value of the right-of-use asset. In a situation where the carrying amount of the right-of-use asset has been reduced to zero, further reductions in the measurement of the lease liability shall be recognised by the Group as profit or loss.

Depreciation

The right-of-use asset is depreciated linearly over the shorter of the following two periods: the period of lease or the useful life of the underlying asset. However in cases where the Group can be reasonably sure that it will regain ownership of the asset prior to the end of the lease term, right-of-use shall be depreciated from the day of commencement of the lease until the end of the useful life of the asset.
The useful life of right-of-use asset is determined in the same manner as for property, plant and equipment.

The Group has leases agreements regarding mainly:
a) Land, including:
   - perpetual usufruct of land for a fixed period of up to 99 years,
   - land for petrol stations and motorway service areas concluded for a specified period up to 30 years,
b) Buildings and construction, including petrol stations, storage tank, office spaces for a fixed period up to 30 years.
c) Vehicles and other, including:
   - railway tank concluded for a specified period of 3 to 10 years,
   - cars for a fixed period up to 3 years,
   - locomotives for a fixed period up to 3 years.

Impairment

The Group applies IAS 36 Impairment of Assets to determine whether the right-of-use asset was impaired and to account for any impairment loss identified.

Exemptions, simplifications and practical solutions in the application of IFRS 16

Exemptions

Following agreements within the Group are not included within the scope of IFRS 16:
- lease for the exploration or use of natural resources,
- licences granted and recognised in accordance with IFRS 15 – "Revenue from Contracts with Customers", and
- lease of intangible assets in accordance with IAS 38 - Intangible Assets

The Group does not apply IFRS 16 to lease agreements or similar for intangible assets.

Simplifications and practical solutions

Short-term lease

The Group applies a practical solution for all asset classes in relation to short-term lease contracts, which are characterised by a maximum possible contract term of up to 12 months, including any options to extend.

Simplifications regarding these contracts involve the settlement of lease payments as costs:
- on a straight-line basis, for the duration of the lease agreement, or
- another systematic method, if it better reflects the way of spreading the benefits gained by the user in time.

Leases of low-value assets

The Group does not apply the rules concerning recognition, measurement and presentation outlined in IFRS 16 to lease agreements of low-value assets.

As low-value assets are considered assets which, when are new, have the value up to USD 5,000, which corresponds to the amount of PLN 18,799 at the time of first application, translated using the exchange rate as at 1 January 2019 or the equivalent in other currency at the average closing rate of the National Bank of Poland at the time of initial recognition for each concluded lease agreement.
Simplifications in respect of such contracts are due to the settlement of costs on:
- a straight-line basis for the term of the lease contract; or
- another systematic method basis should it be more representative of the time pattern of the user's benefit.

An asset covered by a lease must not be counted as a low-value asset if the asset would typically not be of low value when new. As low-value items, the Group includes for example: gas cylinders, coffee machines, and small items of furniture.

The underlying asset may have a low-value only if:

a) the Group may benefit from use of the underlying asset itself or in conjunction with other resources which are readily available to him, and
b) the underlying asset is not highly dependent on or related to other assets.

If the Group transfers asset into subleasing or expects the asset to be transferred to subleasing, then the main lease does not qualify as lease of a low-value asset.

Determining the lease term: indefinite contracts

When establishing the term for indefinite leases contracts, the Group determines the lease period, in which termination of the contract will not be justified by making professional judgment and taking into account, among others:

- expenditure incurred in connection with the contract or
- potential costs connected with the termination of the lease contract, including the costs involved in obtaining a new lease contracts, such as negotiation costs; reallocation costs, costs of identifying other underlying asset suitable for the lessee's needs; costs of integrating a new asset into the Group operations; or termination penalties and similar costs, including costs associated with returning the underlying asset in a contractually specified condition or to a contractually specified location or
- existing business plans and other existing contracts justifying the use of the leased item in the given period.

In cases where the costs connected with the termination of the lease contract are substantial, the lease term adopted is equal to that adopted for the depreciation period of a similar fixed asset with parameters similar to the subject of the lease.

In cases where expenditure incurred in connection with the contract is substantial, the lease term adopted is equal to that of the expected period of economic benefits derived from the incurred expenses.

The value of the incurred expenses represents a separate asset to the right-of-use asset.

Separating non-lease components
From contracts, that include lease and non-lease components, the Group separates and recognises non-lease components separately for all asset classes e.g. service of assets constituting the subject of the contract and allocates consideration based on the terms of the contract, unless all non-lease items are considered immaterial in the context of the whole contract.

PROFESSIONAL JUDGEMENT

Determining the lease term
In determining the lease term, the Group considers all important facts and events resulting in existence of the economic incentives to make use of the option to extend the lease or not to exercise the option of its termination. The Group also makes a professional judgment to determine the period of contract enforceability (lease term in which termination of the contract will not be justified) in the case of contracts concluded for an indefinite period.
An assessment of a lease term is carried out on the date of commencement of the lease. A reassessment is made upon the occurrence of either a significant event or a significant change in circumstances, that the lessee controls, that impact such an assessment.

ESTIMATIONS

The useful life of right-of-use asset
The estimated useful life of right-of-use asset is determined in the same manner as for property, plant and equipment.
Determining the lessee's incremental borrowing rate
Due to the fact that the Group does not have information regarding the interest rate for lease contracts, it uses the incremental borrowing rate to measure lease liabilities, that the Group would have to pay, to borrow, over a similar term and with a similar security, the funds in a given currency necessary necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment.

Standards adopted by International Accounting Standards Board (IASB), approved by the European Union but not yet effective

- Amendments to IAS 1 - Presentation of financial statements and IAS 8 - Accounting policies, changes in accounting estimates and errors: Definition of Material
- Amendments to IFRS 9 - Financial Instruments, IAS 39 - Financial Instruments: Recognition and Measurement and IFRS 7 - Financial Instruments: Disclosures: Interest Rate Benchmark Reform
- Amendments to references to the conceptual framework in IFRS Standards, effective for annual periods beginning on or after 1 January 2020

Standards adopted by International Accounting Standards Board (IASB), waiting for approval by the European Union

- IFRS 17 - Insurance Contracts
- Amendment to IFRS 3 - Business combinations
- Amendments to IFRS 10 - Consolidated Financial Statements and IAS 28 - Investments in Associates and Joint Ventures: sale or contribution of assets between an investor and its associate or joint venture and further amendments
- Amendments to IAS 1 "Presentation of Financial Statements" - Classification of Liabilities as Current or Non-Current, effective for annual periods beginning on or after 1 January 2022

The Group expects that the above standards will have no material impact on consolidated financial statements of ORLEN Group.

The Group intends to adopt new IFRS standards listed above that are published by the International Accounting Standards Board, but not effective as at the date of publication of this consolidated financial statements, in accordance with their effective date.

(in PLN million)

6. DIFFERENCES BETWEEN DATA REPORTED IN THE CONSOLIDATED FINANCIAL STATEMENTS AND PREVIOUSLY PREPARED AND PUBLISHED FINANCIAL REPORTS

Changes introduced to financial data as presented in the condensed financial statements for the 4th quarter of 2019 published on 30 January 2020 with an effect on total assets and net profit.

	Data disclosed in the quarterly financial information for the Q4 2019	Adjustment	Data disclosed in the consolidated financial statements for 2019
Assets, incl.:	**71 376**	**(174)**	**71 202**
Property, plant and equipment	32 351	12	32 363
Right-of-use asset	3 953	(1)	3 952
Deferred tax assets	79	(28)	51
Inventories	15 324	(250)	15 074
Current tax assets	264	(2)	262
Other assets, incl.:	215	95	310
investment property	*124*	*95*	*219*
Liabilities, incl.:	**71 376**	**(174)**	**71 202**
Retained earnings	35 358	(189)	35 169
Current and Non-curren Provisions	2 313	36	2 349
Deferred tax liabilities	1 508	(34)	1 474
Trade and other liabilities	15 125	7	15 132
Current tax liabilities	127	(3)	124
Non-current lease liabilities	3 371	9	3 380
Profit from operations, incl.:	**5 562**	**(197)**	**5 365**
Cost of sales	(97 218)	(83)	(97 301)
Administrative expenses	(1 804)	(2)	(1 806)
Other operating income	1 119	127	1 246
Other operating expenses	(1 478)	(239)	(1 717)
Income tax	(1 062)	8	(1 054)
Net profit	**4 487**	**(189)**	**4 298**

The above changes affecting the financial result concerned mainly:
- updating of inventories impairment allowances to net realizable value in the amount of PLN (93) million,
- reversal of impairment allowances of non-current assets in Retail and Upstream segment in the amount of PLN 72 million,
- recognition of impairment allowances on fixed assets in the Upstream segment in the amount of PLN (35) million,
- revaluation of the investment property to fair value of in the amoun of PLN 51 million,
- recognition of provisions for potential tax liabilities in the amount of PLN (36) million,
- shortages of materials in external warehouses in the amount of PLN (156) million.

ORLEN GROUP (in PLN million)

7. ORLEN GROUP STRUCTURE

7.1 Group structure
7.2 Changes in shareholder structure of ORLEN Group

7.1. GROUP STRUCTURE

SELECTED ACCOUNTING PRINCIPLES

Basis of consolidation
The consolidated financial statements of the Group include assets, liabilities, equity, income, expenses and cash flows of the Parent Company and its subsidiaries that are presented as those of a single economic entity and are prepared as at the same reporting period as separate financial statements of the Parent Company and using uniform accounting principles in relation to similar transactions and other events in similar circumstances.
The subsidiaries are consolidated using full consolidation method, non-controlling interests shall be presented in the consolidated statement of financial position as non-controlling interest, separately from the equity of the owners of the Parent Company.
Joint operations are presented by recognition of respective share in assets, liabilities, revenues and cost.
The joint ventures as well as investments in associates are accounted for under equity method. The Group's share in net profit or loss of the investee is recognised in the Group's profit or loss as other operating activity. For investments in associates - the Group has a significant influence if it holds, directly or indirectly (i.e. through subsidiaries), from 20% to 49% of the voting rights of an entity, in which the Group invested, unless it can be clearly stated otherwise.

PROFESSIONAL JUDGEMENT

Investments in subsidiaries and jointly controlled entities
The Group, regardless of the nature of its involvement in the entity (the entity in which it invested) defines its status by assessment, whether it controls the entity in which the investment was made, and whether it has a joint control in a joint venture, after consideration of all the facts and circumstances.

PKN ORLEN as the Parent Company is a multi-segment entity, appropriately allocated to all operating segments and corporate functions.

Name of entity	Parent company	Share in total voting rights		Consolidation method/ Valuation method
		31/12/2019	31/12/2018	
Downstream Segment				
ORLEN Lietuva Group				
AB ORLEN Lietuva	PKN ORLEN S.A.	100%	100%	full
UAB Mazeikiu Naftos prekybos namai	AB ORLEN Lietuva	-	100%	full
OU ORLEN Eesti	AB ORLEN Lietuva	100%	100%	full
SIA ORLEN Latvija	AB ORLEN Lietuva	100%	100%	full
UAB Emas	AB ORLEN Lietuva	-	100%	full
UNIPETROL Group				
PARAMO, a.s.	UNIPETROL, a.s.	100%	100%	full
UNIPETROL RPA, s.r.o.	UNIPETROL, a.s.	100%	100%	full
UNIPETROL Slovensko, s.r.o.	UNIPETROL RPA, s.r.o.	100%	100%	full
UNIPETROL Deutschland GmbH	UNIPETROL RPA, s.r.o.	100%	100%	full
UNIPETROL RPA Hungary Kft.	UNIPETROL RPA, s.r.o.	100%	100%	full
Spolana s.r.o.	UNIPETROL RPA, s.r.o.	100%	100%	full
UNIPETROL DOPRAVA, s.r.o.	UNIPETROL RPA, s.r.o.	100%	100%	full
PETROTRANS, s.r.o.	UNIPETROL RPA, s.r.o.	100%	100%	full
Butadien Kralupy a.s.	UNIPETROL, a.s.	51%	51%	share in assets and liabilities
Basell Orlen Polyolefins Group				
Basell ORLEN Polyolefins Sp. z o.o.	PKN ORLEN S.A.	50%	50%	equity method
Basell ORLEN Polyolefins Sprzedaż Sp. z o.o.	Basell ORLEN Polyolefins Sp. z.o.o.	100%	100%	equity method
ORLEN Południe Group				
ORLEN Południe S.A.	PKN ORLEN S.A.	100%	100%	full
Energomedia Sp. z o.o.	ORLEN POŁUDNIE S.A.	100%	100%	full
Euronaft Trzebinia Sp. z o.o.	ORLEN POŁUDNIE S.A.	-	100%	full
Konsorcjum Olejów Przepracowanych - Organizacja Odzysku S.A.	ORLEN POŁUDNIE S.A.	89%	89%	full
ORLEN Oil Group				
ORLEN Oil Sp. z o.o.	PKN ORLEN S.A.	100%	100%	full
Platinum Oil Wielkopolskie Centrum Dystrybucji S.A.	ORLEN Oil Sp. z o.o.	-	90%	full
ORLEN Asfalt Group				
ORLEN Asfalt Sp. z o.o.	PKN ORLEN S.A.	100%	100%	full
ORLEN Asfalt Ceska Republika s.r.o.	ORLEN ASFALT Sp. z o.o.	100%	100%	full
Anwil S.A.	PKN ORLEN S.A.	100%	100%	full
Inowrocławskie Kopalnie Soli "Solino" S.A.	PKN ORLEN S.A.	100%	100%	full
Kopalnia Soli Lubień Sp. z o.o.	PKN ORLEN S.A.	100%	100%	full
ORLEN Paliwa Sp. z o.o.	PKN ORLEN S.A.	100%	100%	full

ORLEN GROUP (in PLN million)

Name of entity	Parent company	Share in total voting rights 31/12/2019	Share in total voting rights 31/12/2018	Consolidation method/ Valuation method
ORLEN Aviation Sp. z o.o.	PKN ORLEN S.A.	100%	100%	full
ORLEN Eko Sp. z o.o.	PKN ORLEN S.A.	100%	100%	full
Baltic Power Sp. z o.o.	PKN ORLEN S.A.	100%	100%	full
ORLEN KolTrans S.A.	PKN ORLEN S.A.	100%	99.91%	full
Ship-Service S.A.	PKN ORLEN S.A.	60.86%	60.86%	full
ORLEN Serwis Group				
ORLEN Serwis S.A.	PKN ORLEN S.A.	100%	100%	full
UAB Emas	ORLEN Serwis S.A.	*100%*	-	*full*
ORLEN Service Česká Republika s.r.o.	ORLEN Serwis S.A.	*100%*	-	*full*
Retail Segment				
AB ORLEN Baltics Retail [1]	PKN ORLEN S.A.	100%	100%	full
ORLEN Deutschland Group				
ORLEN Deutschland GmbH	PKN ORLEN S.A.	100%	100%	full
ORLEN Detuschland Betriebsgesellschaft mbH	ORLEN Deutschland GmbH	*100%*	-	*full*
ORLEN Budonaft Sp .z o.o.	PKN ORLEN S.A.	100%	100%	full
ORLEN Centrum Serwisowe Sp. z o.o.	PKN ORLEN S.A.	99.33%	99.33%	full
UNIPETROL RPA, s.r.o.	UNIPETROL, a.s.	100%	100%	full
Upstream Segment				
ORLEN Upstream Group				
ORLEN Upstream Sp. z o.o.	PKN ORLEN S.A.	*100%*	*100%*	*full*
ORLEN Upstream Canada Ltd.	ORLEN Upstream Sp. z o.o.	*100%*	*100%*	*full*
1426628 Alberta Ltd.	ORLEN Upstream Canada Ltd.	*100%*	*100%*	*full*
OneEx Operations Partnership	ORLEN Upstream Canada Ltd.	*100%*	*100%*	*full*
Pieridae Production GP Ltd	ORLEN Upstream Canada Ltd.	*50%*	*50%*	*equity method*
671519 NB Ltd	Pieridae Production GP Ltd	*100%*	*100%*	*equity method*
KCK Atlantic Holdings Ltd.	ORLEN Upstream Canada Ltd.	*100%*	*100%*	*full*
*Pieridae Production LP**	KCK Atlantic Holdings Ltd.	*80%*	*80%*	*equity method*
FX Energy, Inc.	ORLEN Upstream Sp. z o.o.	*100%*	*100%*	*full*
Frontier Exploration, Inc.	FX Energy, Inc.	*100%*	*100%*	*full*
FX Energy Netherlands Partnership C.V.	FX Energy, Inc.	*100%*	*100%*	*full*
FX Energy Netherlands B.V.	FX Energy Netherlands Partnership C.V.	*100%*	*100%*	*full*
FX Energy Poland Sp. z o.o.	FX Energy Netherlands Partnership C.V.	*100%*	*100%*	*full*
Corporate Functions				
AB ORLEN Lietuva	PKN ORLEN S.A.	100%	100%	full
UNIPETROL Group				
UNIPETROL, a.s.	PKN ORLEN S.A.	*100%*	*100%*	*full*
UNIPETROL RPA, s.r.o.	UNIPETROL, a.s.	*100%*	*100%*	*full*
Unipetrol výzkumně vzdělávací centrum, a.s.	UNIPETROL, a.s.	*100%*	*100%*	*full*
HC Verva Litvinov, a.s.	UNIPETROL RPA, s.r.o.	70.95%	70.95%	full
ORLEN Usługi Finansowe Sp. z o.o.	PKN ORLEN S.A.	100%	-	full
Sigma BIS S.A.	PKN ORLEN S.A.	66%	-	full
ORLEN Administracja Sp. z o.o.	PKN ORLEN S.A.	100%	100%	full
ORLEN Capital AB	PKN ORLEN S.A.	100%	100%	full
ORLEN Centrum Usług Korporacyjnych Sp. z o.o.	PKN ORLEN S.A.	100%	100%	full
ORLEN Holding Malta Group				
ORLEN Holding Malta Ltd.	PKN ORLEN S.A.	*100%*	*100%*	*full*
Orlen Insurance Ltd.	ORLEN HOLDING MALTA Ltd.	*100%*	*100%*	*full*
ORLEN Ochrona Group				
ORLEN Ochrona Sp. z o.o.	PKN ORLEN S.A.	*100%*	*100%*	*full*
UAB Apsauga	ORLEN OCHRONA Sp. z o.o.	*100%*	*100%*	*full*
ORLEN Projekt S.A.	PKN ORLEN S.A.	100%	100%	full
ORLEN Laboratorium S.A.	PKN ORLEN S.A.	100%	100%	full
Płocki Park Przemysłowo-Technologiczny Group				
Płocki Park Przemysłowo-Technologiczny S.A. (PPPT S.A.)	PKN ORLEN S.A.	*50%*	*50%*	*equity method*
Centrum Edukacji Sp. z o.o.	PPPT S.A.	*69.43%*	*69.43%*	*equity method*

1) On 16 October 2019 the name of Akcinė bendrovė "Ventus Nafta" from the ORLEN Group was changed to Akcinė bendrovė ORLEN Baltics Retail and the change of company name was registered.

**Although 80% share in total voting rights, entity is accounted for using equity method. The investor does not control the entity (in accordance with IFRS 10), it cannot individually direct the significant activities, all decisions regarding financing, equity and production require unanimous consent of all shareholders in accordance with the company agreement.*

Activity of core companies belonging to ORLEN Group

Name of entity	Headquarters	Principal activity
AB ORLEN Lietuva (including its own Capital Group)	Lithuania - Juodeikiai	crude oil processing, production of refining products and wholesale
UNIPETROL a.s. (including its own Capital Group)	Czech Republic - Prague	crude oil processing as well as manufacture and distribution of refinery, petrochemical and chemical products
Anwil S.A	Poland - Włocławek	production of nitrogen fertilizers, plastic and chemicals
ORLEN Południe S.A. (including its own Capital Group)	Poland - Trzebinia	crude oil processing, production and sale of biofuels, oils
ORLEN Oil Sp. z o.o.	Poland - Cracow	production, distribution and sale of grease oils, maintenance liquids
ORLEN Asfalt Sp. z o.o. (including its own Capital Group)	Poland - Płock	manufacture and sale of road bitumens and specific bitumen products
ORLEN Paliwa Sp. z o.o.	Poland - Płock	liquid fuels trade
Inowrocławskie Kopalnie Soli "SOLINO" S.A.	Poland - Inowrocław	storage of crude oil, fuels , extraction of brine and packaging of salt
ORLEN Upstream Sp. z o.o. (including its own Capital Group)	Poland - Warsaw	exploration and recognition of hydrocarbon deposits, extraction of crude oil and natural gas

ORLEN GROUP (in PLN million)

7.2. CHANGES IN SHAREHOLDER STRUCTURE OF ORLEN GROUP

TYPE OF TRANSACTION / ENTITIES	TRANSACTION DATE	NUMBER OF AQUIRED / (SOLD) SHARES	SHARE IN TOTAL VOTING RIGHTS AFTER TRANSACTIONS
PURCHASE OF SHARES			
by PKN ORLEN in:			
ORLEN Usługi Finansowe sp. z o.o.	23 January 2019	1,000	100.00%
SIGMA BIS S.A.	3 October 2019	6,600	66.00%
ORLEN KolTrans S.A.	5 December 2019	325	100.00%
by ORLEN Deutschland GmbH in:			
Waterside XXXVII Vermögensverwaltungsgesellschaft mbH (ORLEN Deutschland Betriebsgesellschaft mbH)	6 November 2019	25,000	100.00%
by ORLEN Serwis S.A. in:			
UAB EMAS	31 May 2019	5,700,000	100.00%
ORLEN Service Česká republika s.r.o.	10 December 2019	300,000*	100.00%
SALE OF SHARES			
by AB ORLEN Lietuva:			
UAB EMAS	31 May 2019	5,700,000	0.00%
INCREASE IN SHARE CAPITAL AND SUBSCRIPTION OF SHARES			
by PKN ORLEN in:			
SIGMA BIS S.A.	15 October 2019	198,000	66.00%
Baltic Power Sp. z o.o.	23 October 2019	1,000	100.00%
by ORLEN Deutschland GmbH in:			
Waterside XXXVII Vermögensverwaltungsgesellschaft mbH (ORLEN Deutschland Betriebsgesellschaft mbH)	16 December 2019	125,000	100.00%
by Unipetrol a.s. in:			
UNIPETROL SLOVENSKO s.r.o.	10 July 2019	454,004**	13.00%
UNIPETROL SLOVENSKO s.r.o.	30 November 2019	1,013,105**	13.05%
by UNIPETROL RPA s.r.o. in:			
UNIPETROL SLOVENSKO s.r.o.	10 July 2019	3,038,361**	87.00%
UNIPETROL SLOVENSKO s.r.o.	30 November 2019	6,740,895**	86.95%
Spolana s.r.o.	19 December 2019	995,000,000*	86.95%
CHANGE OF LEGAL COMPANY'S FORM			
transformation of Platinum Oil Wielkopolskie Centrum Dystrybucji from a limited liability company into a joint-stock company	15 January 2019	-	100.00%
transformation of ORLEN KolTrans Sp. z o.o. from a limited liability company into a joint-stock company	1 March 2019	-	99.94%
CHANGE OF ENTITIES NAMES			
from AB Ventus Nafta to AB ORLEN Baltics Retail	16 October 2019	-	100.00%
from Waterside XXXVII Vermögensverwaltungsgesellschaft mbH to ORLEN Deutschland Betriebsgesellschaft mbH	16 December 2019	-	100.00%
OTHER CHANGES IN THE GROUP'S STRUCTURE			
ORLEN Południe Group			
Incorporation of Euronaft Trzebinia Sp. z o.o. to ORLEN Południe S.A.	2 February 2019	-	100.00%
ORLEN OIL Group			
Incorporation of Platinum Oil Wielkopolskie Centrum Dystrybucji S.A. to ORLEN Oil Sp. z o.o.	2 December 2019	-	100.00%
AB ORLEN Lietuva Group			
Incorporation of AB Mažeikių Nafta Trading House to AB ORLEN Lietuva.	9 December 2019	-	100.00%
Grupa ORLEN Upstream			
Gradual dilution of ORLEN Upstream Canada Ltd.'s share in Pieridae Energy Limited as a result of multiple issues of shares by the company throughout the year	2019	-	2,34%

* the nominal value expressed in CZK, the company's share capital was not divided into shares
** the nominal value expressed in EUR, the company's share capital was not divided into shares

Changes in the Group structure are an element of the strategy, assuming a focus on core activities and allocating the released capital for development of the Group in the most prospective areas.

STRUCTURED ENTITIES

ORLEN Capital AB

The company's business is raising funds through the issuance of bonds and other financial instruments for institutional and private investors. ORLEN Capital AB specializes in granting borrowings or loans to Group companies and conducts any other activities related to the above financial instruments.
On 30 June 2014 and on 7 June 2016 ORLEN Capital AB issued Eurobonds with 7-year redemption of approximately of PLN 5,323 million translated using exchange rate as at 31 December 2019 (representing EUR 1,250 million).The funds obtained by ORLEN Capital through the issue of bonds were transferred to PKN ORLEN under the borrowing agreement. PKN ORLEN is the guarantor of both issued bonds by an irrevocable and unconditional guarantees issued to the bondholders of PLN 8,943 million translated using exchange rate as at 31 December 2019 (representing of EUR 2.1 billion). The guarantees were granted for the time of the Eurobonds issues, until 30 June 2021 and 7 June 2023, respectively.

ORLEN Insurance Ltd.

ORLEN Insurance is an internal insurance company (i.e. captive), which main purpose is insurance and reinsurance the Group's business, matching insurance to the individual needs of its property and the potential loss of margin.

OPERATING AND FINANCIAL RESULT

Profit or loss

Sales revenues of the ORLEN Group for 2019 amounted to PLN 111,203 million. The increase of sales revenues of the ORLEN Group by PLN 1,497million (y/y) reflects mainly increase in volume sales by 1% (y/y) in all operating segments and changes in the sales structure related to the reduction of sales of low-margin heavy refinery fractions. The increase in sales revenues was achieved in conditions of lower gasoline prices by (9)%, diesel oil by (7)%, heavy heating oil by (17)%, ethylene by (9)% and propylene by (8)%.

The operating expenses amounted to PLN (105,462) million and increased by PLN (1,862) million (y/y) mainly as a result of higher taxes and charges by PLN (1,119) million during the analysed period. The increase in this cost is the effect of the introduction of so-called emission fee in Poland since January 2019. The ORLEN Group as a producer and importer of motor fuels is obliged to pay emission fee as on the day of tax liability in excise tax. Additional information is included in note 11.8.

The largest item in the cost structure in operating activity constitute the costs of materials and energy consumption related mainly to the crude oil and other chemicals used in technological processes. The costs of materials and energy consumption decreased by PLN 321 million resulted mainly from the decrease of crude oil quotation by (7) USD/bbl during the analysed period. The effect of lower costs of processed raw materials as a result of lower oil prices was partially limited by 1% (y/y) higher volume of crude oil processing and higher share of low-sulfur crude oil in the processing structure.

The negative result of other operating activities amounted to PLN (471) million and included mainly impact of net settlement and valuation of derivative financial instruments related to operating exposure (non-designated instruments for hedge accounting purposes) in the amount of PLN (226) million and material shortages in external warehouses in the amount of PLN (156) million. The result of other operating activities in 2019 was lower by PLN (1,469) million (y/y) due to lack of compensation received in 2018 related to the steam cracker unit accident in the Unipetrol Group and reversal of impairment allowances of non-current assets in downstream segment in the Unipetrol Group.

Share in profit from investments accounted for using the equity method was higher by PLN 9 million (y/y) and amounted to PLN 136 million.

As a result profit from operations amounted to PLN 5,365 million and was lower by PLN (1,850) million (y/y).

Net finance costs in the described period amounted to PLN (11) million and included net interest expenses in the amount of PLN (241) million and settlement and valuation of financial instruments in the amount of PLN 254 million.

After the deduction of tax charges in the amount of PLN (1,054) million, the net profit of the ORLEN Group for 2019 amounted to PLN 4,298 million and was lower by PLN (1,306) million (y/y).

Statement of financial position

As at 31 December 2019, the total assets of the ORLEN Group amounted to PLN 71,202 million and was higher by PLN 7,061 million in comparison with 31 December 2018.

As at 31 December 2019, the value of non-current assets amounted to PLN 39,277 million and was higher by PLN 5,345 million in comparison with the end of the previous year, mainly due to the recognition of right-of-use asset in the amount of PLN 3,952 million in connection with the implementation from 1 January 2019 new standard - IFRS 16 and increase in property, plant and equipment and intangible assets by PLN 1,250 million.

The change in balance of property, plant and equipment and intangible assets comprised mainly investment expenditures in the amount of PLN 4,382 million, including expenditures for the construction of a paraffin separation node from reforming raw material - MaxEne in PKN ORLEN, development of fertilizer production capacities in Anwil, construction of the Glikol installation in ORLEN Południe, construction of the Polyethylene 3 Installation, construction of the boiler house for the Steam Cracker Unit, composite modernization of the Oil Block and neutralization of acidic waters, revitalization of POX in the Unipetrol Group, expenditure on the renovation carried out in the downstream segment and projects in retail and upstream segment and depreciation and amortisation in the amount of PLN (3,497) million.

The value of current assets increased by PLN 1,716 million, mainly as a result of an increase balance of inventories by PLN 712 million, balance of cash and cash equivalents by PLN 1,967 million with a decrease in trade and other receivables by PLN (810) million and decrease in non-current assets classified as held for sale by PLN (164) million mainly due to the sale in the 1st quarter of 2019 of upstream assets in Canada located in the Pouce Coupe area.

As at 31 December 2019, total equity amounted to PLN 38,607 million and was higher by PLN 2,868 million in comparison with the end of 2018, mainly due to recognition of net profit for the 2019 in the amount of PLN 4,298 million, dividend payments from the previous year's profit in the amount of PLN (1,497) million, the impact of exchange differences on translating foreign operations in the amount of PLN 138 million and the negative impact of the change in balance of hedging reserve in the amount PLN (33) million.

The value of trade and other liabilities increased by PLN 1,435 million compared to the end of 2018 mainly due to increase of trade liabilities in the amount of PLN 614 million, investment liabilities in the amount of PLN 295 million, tax liabilities in the amount of PLN 143 million and other liabilities related to redemption of non-controlling shareholders of Unipetrol in the amount of PLN 190 million.

As at 31 December 2019 the value of provisions amounted to PLN 2,349 million and was higher by PLN 275 million compared to the end of 2018, mainly due to change in balance of net provision for estimated CO_2 emissions and energy certificates in the total amount of PLN 177 million. The change results mainly from the net effect of recognition of provision in the amount of PLN 1,027 million based on weighted average method price of owned rights and certificates and their usage due to redemption of rights for 2018 in the amount of PLN (821) million.

As at 31 December 2019, net financial indebtedness of the ORLEN Group amounted to PLN 2,448 million and was lower by PLN (3,151) million in comparison with the end of 2018. The change in net financial indebtedness included mainly net repayment of loans, borrowings and bonds in the amount of PLN (1,111) million, an increase in cash and cash equivalents balance by PLN (1,967) million and the net impact of positive exchange differences from revaluation of the valuation of debt and interest in the total amount of PLN (73) million.

Statement of cash flows

Proceeds of net cash from operating activities for 2019 amounted to PLN 9,319 million and comprised mainly of profit from operations increased by depreciation and amortisation in the amount of PLN 8,862 million, the positive impact of the decrease in net working capital by PLN 1,182 million and income taxes paid in the amount of PLN (1,498) million and by share in financial result from investments accounted for under equity method in the amount of PLN (136) million, loss on investing activities in the amount of PLN 316 million related mainly to net impairment allowances of property, plant and equipment and intangible assets and other non-current assets, change in provisions in the amount of PLN 1,035 million and other adjustments in the amount of PLN (624) million related mainly to rights received free of charge.

Net cash used in investing activities for 2019 amounted to PLN (3,994) million and comprised mainly of net expenses for the acquisition and sales of property, plant and equipment, intangible assets and right-of-use asset in the amount of PLN (4,205) million, settlement of derivatives not designated as hedge accounting in the amount of PLN 82 million and proceeds from dividends received in the 2nd quarter of 2019 in the amount of PLN 112 million.

Net outflows of cash from financing activities for 2019 amounted to PLN (3,363) million and comprised mainly of net outflows of loans and borrowings in the amount PLN (111) million, redemption of retail bonds in the amount of PLN (1,000) million, dividends paid in the amount of PLN (1,497) million, interest paid in the amount of PLN (286) million, payments of liabilities under lease agreements in the amount of PLN (656) million and net cash related to redemption of non-controlling shareholders of Unipetrol in the amount of PLN 190 million. In accordance with the agreement, bank Ceska Sporitelna a.s. after the Basic Period of settlements with Unipetrol's former shareholders, transferred to PKN ORLEN 90% of unused amount due to former shareholders. The reimbursement of cash is temporary, as PKN ORLEN is obliged to systematically replenish the provisions for subsequent settlements with notifying shareholders, in order to maintain safe level above 5% of outstanding amount due to squeeze-out of Unipetrol's shares.

Following inclusion of the revaluation of cash due to exchange differences, the cash balance in 2019 increased by PLN 1,967 million and as at 31 December 2019 amounted to PLN 6,159 million.

ORLEN GROUP (in PLN million)

SEGMENTS' DATA

8. OPERATING SEGMENTS

DOWNSTREAM

- Production
- Refining and petrochemical sales
- Power Industry

RETAIL

- Fuel station activities

USTREAM

- Exploration and extraction of mineral resources

CORPORATE FUNCTIONS

- Management
- Administration
- Remaining activities, i.e. reconciling items

SELECTED ACCOUNTING PRINCIPLES

Assessments of the operating segments' financial results and decisions on allocation of resources are performed mainly on the basis of EBITDA. EBITDA is one of a measure of the efficiency of the activity, which is not defined in the IFRS. The ORLEN Group defines EBITDA as net profit/(loss) for the reporting period before taking into account the impact of the income tax, effects of financing activities and depreciation and amortization costs.
Revenues from transactions with external customers and transactions with other segments are carried out on an arm's length basis.

9. REVENUES, COSTS, FINANCIAL RESULTS, INCREASES IN NON-CURRENT ASSETS

2019

	NOTE	Downstream Segment	Retail Segment	Upstream Segment	Corporate Functions	Adjustments	Total
External revenues	11.1, 11.2	71 604	38 910	608	81	-	111 203
Inter-segment revenues		19 099	179	-	444	(19 722)	-
Sales revenues		90 703	39 089	608	525	(19 722)	111 203
Operating expenses		(86 419)	(36 645)	(598)	(1 522)	19 722	(105 462)
Other operating income	11.9	861	167	122	96	-	1 246
Other operating expenses	11.10	(1 172)	(173)	(287)	(85)	-	(1 717)
(Loss)/reversal of loss due to impairment of financial instruments	11.12	(10)	(7)	-	(24)	-	(41)
Share in profit from investments accounted for using the equity method	12.3	136	-	-	-	-	136
Profit/(Loss) from operations		**4 099**	**2 431**	**(155)**	**(1 010)**	**-**	**5 365**
Net finance income and costs	11.11						(11)
(Loss)/reversal of loss due to impairment of financial instruments							(2)
Profit before tax							**5 352**
Tax expense							(1 054)
Net profit							**4 298**
Depreciation and amortisation	11.8	**2 380**	**630**	**319**	**168**	**-**	**3 497**
EBITDA		**6 479**	**3 061**	**164**	**(842)**	**-**	**8 862**
Increases in non-current assets, incl.:		**4 036**	**3 365**	**635**	**737**	**-**	**8 773**
impact of IFRS 16 adoption		1 047	1 974	3	292	-	**3 316**

ORLEN GROUP (in PLN million)

2018

	NOTE	Downstream Segment	Retail Segment	Upstream Segment	Corporate Functions	Adjustments	Total
External revenues	11.1, 11.2	71 663	37 339	605	99	-	109 706
Inter-segment revenues		18 074	135	-	431	(18 640)	-
Sales revenues		89 737	37 474	605	530	(18 640)	109 706
Operating expenses		(85 204)	(35 139)	(570)	(1 327)	18 640	(103 600)
Other operating income	11.9	1 593	114	271	172	-	2 150
Other operating expenses	11.10	(456)	(141)	(327)	(228)	-	(1 152)
(Loss)/reversal of loss due to impairment of financial instruments	11.12	(5)	(2)	-	(9)	-	(16)
Share in profit from investments accounted for using the equity method	12.3	127	-	-	-	-	127
Profit/(Loss) from operations		**5 792**	**2 306**	**(21)**	**(862)**	**-**	**7 215**
Net finance income and costs	11.11						(104)
(Loss)/reversal of loss due to impairment of financial instruments							(1)
Profit before tax							**7 110**
Tax expense							(1 506)
Net profit							**5 604**
Depreciation and amortisation	11.8	**1 791**	**461**	**308**	**113**	**-**	**2 673**
EBITDA		**7 583**	**2 767**	**287**	**(749)**	**-**	**9 888**
Increases in non-current assets		**2 451**	**832**	**740**	**257**	**-**	**4 280**

***Increase in non-current assets** includes increase of property, plant and equipment, intangible assets, investment property and right-of-use asset together with the capitalisation of borrowing costs and a decrease in received/due penalties for the improper execution of a contract.*

Impairment allowances of property, plant and equipment, intangible assets, right-of-use assets, other non-current assets and non-current assets classified as held for sale

	NOTE	Recognition 2019	Recognition 2018	Reversal 2019	Reversal 2018
Downstream Segment		(63)	(154)	6	845
Retail Segment		(112)	(86)	128	73
Upstream Segment		(241)	(272)	110	254
Impairment allowances in segments		**(416)**	**(512)**	**244**	**1 172**
Corporate Functions		(8)	(12)	1	56
	11.9, 11.10, 12.4	**(424)**	**(524)**	**245**	**1 228**

10. ASSETS BY OPERATING SEGMENTS AND BY GEOGRAPHICAL AREA

10.1. Assets by operating segments

	31/12/2019	31/12/2018
Downstream Segment	47 199	46 129
Retail Segment	9 945	6 974
Upstream Segment	4 440	4 175
Segment assets	**61 584**	**57 278**
Corporate Functions	9 705	6 914
Adjustments	(87)	(51)
	71 202	**64 141**

Operating segments include all assets except for financial assets, tax assets and cash. Assets used jointly by the operating segments are allocated based on revenues generated by individual operating segments.

10.2. Non-current assets by geographical area

	2019	2018	% share 2019	% share 2018
Poland	23 082	20 202	60.5%	61.3%
Germany	1 842	979	4.8%	3,0%
Czech Republic	8 491	7 663	22.3%	23.3%
Lithuania, Latvia, Estonia	1 307	1 110	3.4%	3.4%
Canada	3 413	2 982	9,0%	9.0%
	38 134	**32 936**	**100,0%**	**100,0%**

Non-current assets by geographical area as at 31 December 2019 and 31 December 2018 include include property, plant and equipment (note 12.1), intangible assets (note 12.2), investment property (note 12.8), assets due to right-of-use (note 14.2.1) and perpetual usufruct of land (note 12.8).

ORLEN GROUP (in PLN million)

EXPLANATORY NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

11. EXPLANATORY NOTES TO THE STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

11.1. Sales revenues

SELECTED ACCOUNTING PRINCIPLES

Sales revenues

Sales revenues of goods and services are recognised by the Group at a point in time (or over time) when a performance obligations are satisfied by transferring a promised good or service (i.e. an asset) to a customer in the amount reflecting the consideration, to which - as the Group expects - it will be entitled in exchange for these goods or services. This principle the Group also applies to consideration, which includes a variable amount. An asset is transferred when the customer obtains control of that asset. The following circumstances indicate the transfer of control in accordance with IFRS 15: the current right of the seller to consideration for an asset, the legal ownership of the asset by the customer, physical possession of the asset, transfer of risks and rewards and acceptance of the asset by the customer. Revenues include received and due payments for delivered finished goods, merchandise, raw materials and services, decreased by the amount of any trade discounts and value added tax (VAT), excise tax and fuel charges. The amount of revenues is determined at the fair value of the payment received or due. Revenues from the sale of finished goods and services are adjusted for profits or losses from settlement of cash flows hedging instruments related to the above mentioned revenues.
Revenues and costs from services, which beginning and end fall within different reporting periods, are recognised by reference to the stage of completion of the service, when the outcome of a contract can be valued reliably, in other cases, revenues are recognised only to the extent of costs incurred to the date, but not higher than the costs that the Group expects to recover. There is no significant financing component in contracts with customer concluded by the Group.

PROFESSIONAL JUDGMENT

Based on analyses of contractual clauses in sales contracts, the Group identified the agency model mainly in the area of LPG sales and non-fuel merchandise sales by ORLEN Deutschland to customers network.The loyalty program VITAY liability, arises at the time of sales of goods and services at own and franchise petrol stations for each single sale transaction and in case of purchase by the Group's customers in partner's e-Shops and consists of calculating points entitling to discounts on future purchases. A ratio of 68.5% is adopted to recognise liability taking into account the probability of its on realisation, based on empirical data of points used compared to those issued to the customer in the last 36 months.The Group provides marketing services to suppliers when purchasing merchandise. The Group assessed, that marketing services provided to suppliers are inseparably linked to the purchase of these merchandise, hence revenues from service reduce costs related to their purchase and release for sale.

	NOTE	2019	2018	% share 2019	% share 2018
Revenues from sales of finished goods and services, net		93 009	91 014	83.6%	83.0%
revenues from contracts with customers		*92 690*	*90 792*	*83.3%*	*82.8%*
excluded from scope of IFRS 15		*319*	*222*	*0.3%*	*0.2%*
Revenues from sales of merchandise and raw materials, net		18 194	18 692	16.4%	17.0%
revenues from contracts with customers		*18 161*	*18 692*	*16.4%*	*17.0%*
excluded from scope of IFRS 15		*33*	-	-	-
Sales revenues, incl.:		**111 203**	**109 706**	**100.0%**	**100,0%**
revenues from contracts with customers	*11.4 - 11.7*	*110 851*	*109 484*	*99.7%*	*99.8%*

Revenues excluded from the scope of IFRS 15 refer to operating lease contracts and compensation for energy prices

Performance obligations

As part of the concluded contracts, the Group commits to transfer to customers mainly refining, petrochemical products and goods, energy, crude oil and gas. Under these agreements the Group acts as a principal. Transaction prices in existing contracts with customers are not constrained.
There are no significant contracts in force in the Group, which allow for obligations for returns, refunds and other similar obligations. The Group does not identify revenues for which the payment of consideration is contingent.
The warranties provided under the contracts are warranties that provide a customer with assurance that the related product complies with agreed-upon specification. They are not a distinct service.
In the Downstream segment, there are mainly sales with deferred payment. In the Retail segment, there are both cash sales as well as sales with deferred payment terms performed by using a fuel cards entitling customers to continuous purchase at the network of petrol stations. Settlements with customers take place mostly in two-week periods (so-called Fleet Cards).
Usually payment is due after transferring good or service. In contracts with customers in Downstream and Retail segments, in most cases payment terms not exceeding 30 days are used, while in the Upstream segment payment terms not exceeding 60 days are used.
The variability of consideration in contracts with customers is connected mainly with volume rebates.

Macroeconomic environment

ORLEN Group operates in the conditions of changing macroeconomic environment. The economic situation, the labour market and macroeconomic trends have a significant impact on the level of consumption of fuels and petrochemical products, and consequently on sales volume and sales prices. The Downstream segment margins are mainly affected by the quotation of refinery and petrochemical products and crude oil prices. Crude oil prices are shaped by factors such as changes in demand, the volume of extraction and global inventory of crude oil level and fuels quotation.
The main economic indicator – GDP (Gross Domestic Product), which is determined by consumption, capital expenditures and exports, allows to assess at what stage is the economy. The changes in the GDP index are usually correlated with changes in the unemployment rate and fuel consumption. The general condition of the economy, measured, among others, by the level of GDP, affects present and future consumer behaviour.

Breakdown of revenues from contracts with customers by different criteria

The Group divides revenues from contracts with customers by:

ORLEN ORLEN GROUP (in PLN million)

– type of good or service,
– geographical region,
– contract type,
– date of transfer,
– duration of the contract,
– sales channel.

In the Group's opinion the above breakdown allows at best to acquaint the reader with nature, amount, due dates and uncertainty related to revenues and cash flows resulting from contracts with customers.

11.2. Sales revenues by operating segments in division on assortments

	2019	2018	% share 2019	% share 2018
Downstream Segment				
Revenue from contracts with customers IFRS 15	**71 481**	**71 568**	**64.3%**	**65.2%**
Light distillates	12 098	12 925	10.9%	11.8%
Medium distillates	35 916	34 787	32.3%	31.7%
Heavy fractions	6 369	7 339	5.7%	6.7%
Monomers	3 585	3 260	3.2%	3.0%
Polymers	2 390	2 643	2.1%	2.4%
Aromas	1 080	1 096	1.0%	1.0%
Fertilizers	903	825	0.8%	0.8%
Plastics	1 218	1 409	1.1%	1.3%
PTA	1 893	1 528	1.7%	1.4%
Other*	6 029	5 756	5.5%	5.1%
Excluded from scope of IFRS 15	**123**	**95**	**0.1%**	**0.1%**
	71 604	**71 663**	**64.4%**	**65.3%**
Retail Segment				
Revenue from contracts with customers IFRS 15	**38 703**	**37 232**	**34.8%**	**33.9%**
Light distillates	14 659	14 266	13.2%	13.0%
Medium distillates	20 405	19 879	18.3%	18.1%
Other **	3 639	3 087	3.3%	2.8%
Excluded from scope of IFRS 15	**207**	**107**	**0.2%**	**0.1%**
	38 910	**37 339**	**35,0%**	**34.0%**
Upstream Segment				
Revenue from contracts with customers IFRS 15	**608**	**605**	**0.5%**	**0.6%**
NGL ***	314	337	0.3%	0.2%
Crude oil	126	95	0.1%	0.2%
Natural Gas	163	168	0.1%	0.2%
Other	5	5	-	-
	608	**605**	**0.5%**	**0.6%**
Corporate Functions				
Revenue from contracts with customers IFRS 15	**59**	**79**	**0.1%**	**0.1%**
Excluded from scope of IFRS 15	**22**	**20**	**-**	**-**
	81	**99**	**0,1%**	**0.1%**
	111 203	**109 706**	**100.0%**	**100.0%**

* *Others mainly include: brine, industrial salt, vacuum distillates, acetone, ammonia, butadiene, phenol, technical gases, caprolactam, soda lye and sulphur. In addition, they include revenues from sale of services and materials.*
** *Other includes mainly sale of non-fuel merchandise*
*** *NGL (Natural Gas Liquids)*

In 2019 and 2018 no leading customers were identified in the Group, whith whom turnover individually would exceed 10% of total ORLEN Group's sales revenues.

11.3. Sales revenue geographical division - disclosed by customer's premises countries

	NOTE	2019	2018	% share 2019	% share 2018
Revenue from contracts with customers					
Poland		*51 672*	*49 800*	46.5%	45.4%
Germany		*16 102*	*16 776*	14.5%	15.3%
Czech Republic		*14 802*	*14 460*	13.3%	13.2%
Lithuania, Latvia, Estonia		*11 972*	*10 996*	10.8%	10,0%
Other countries		*16 303*	*17 452*	14.6%	15.9%
		110 851	109 484	99.7%	99.8%
excluded from scope of IFRS 15					
Poland		*141*	*117*	0.1%	0.1%
Germany		*88*	*-*	0.1%	-
Czech Republic		*123*	*105*	0.1%	0.1%
		352	222	0.3%	0.2%
	9, 11.1	**111 203**	**109 706**	**100,0%**	**100,0%**

ORLEN GROUP (in PLN million)

Position Other countries comprises mainly sales to customers from Switzerland, Singapore, Ukraine, Slovakia, the United Kingdom and Hungary.

11.4. Revenue from contracts with customers by type of contract

	NOTE	Downstream Segment		Retail Segment		Upstream Segment		Corporate Functions		Total	
		2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Based on fixed price contracts		67 803	68 010	38 516	37 228	608	605	47	40	106 974	105 883
Based on variable price contracts		3 570	3 528	184	-	-	-	4	-	3 758	3 528
Settled on the basis of time spent and materials		108	30	3	4	-	-	8	39	119	73
	11.1	**71 481**	**71 568**	**38 703**	**37 232**	**608**	**605**	**59**	**79**	**110 851**	**109 484**

The customer has the right to discounts, penalties, which constitute in accordance with IFRS 15 an element of variable consideration. The Group recognises revenue in the amount of consideration, to which – in line with expectations- will be entitled and which will not be reversed in the future. Consequently, it does not recognise revenue, that may change due to granted discounts and penalties imposed.

11.5. Revenue from contracts with customers by date of transfer

	NOTE	Downstream Segment		Retail Segment		Upstream Segment		Corporate Functions		Total	
		2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
At a point in time		49 634	50 965	28 961	19 267	-	-	21	15	78 616	70 247
Over time		21 847	20 603	9 742	17 965	608	605	38	64	32 235	39 237
	11.1	**71 481**	**71 568**	**38 703**	**37 232**	**608**	**605**	**59**	**79**	**110 851**	**109 484**

As part of the Downstream segment, with respect to sales of petrochemical and refinery products, the Group recognises revenue from satisfaction of performance obligation, depending on the terms of delivery (Incoterms) used. In case of some deliveries the Group is obliged to organize transport and/or insurance. When the control of good passes to the customer before the transport is performed, the delivery of goods and transport (and possibly insurance) are separate performance obligation. The delivery of goods is an obligation satisfied at a point in time, while the transport is a continuous obligation (satisfied over time). In case of transport and insurance, the customer simultaneously receives and consumes the benefits from the service.
In the Retail segment, the moment of satisfaction of performance obligation and recognizing revenues is the moment of transfer of good, except for sales of fuels using Fleet Cards.
In case of sales satisfied over time the Group recognises revenues at least on a monthly basis, where settlements between parties to the contract take place periodically and reflect the amount of consideration that the Group is entitled to for transfer of goods and services to the customer. Revenue recognized over time mainly relate to sale of energy and heat within the Downstream segment, sale of fuels using Fleet cards within Retail segment and sale of gas and crude oil within Upstream segment.

11.6. Revenue from contracts with customers by duration of contract

	NOTE	Downstream Segment		Retail Segment		Upstream Segment		Corporate Functions		Total	
		2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Short-term		70 612	70 961	38 701	37 228	608	605	55	40	109 976	108 834
Long-term		869	607	2	4	-	-	4	39	875	650
	11.1	**71 481**	**71 568**	**38 703**	**37 232**	**608**	**605**	**59**	**79**	**110 851**	**109 484**

The duration of most contracts within the Group is short-term. Revenues on services for which start and end dates fall in different reporting periods (long-term contracts) are recognised based on the stage of service completion, if the result on the transaction can be reliably estimated. Long-term contracts that remain unfulfilled in full as at the balance sheet date relate i.a. to construction and assembly contracts, energy sales.
As at 31 December 2019 the Group analysed the value of the transaction price allocated to unsatisfied performance obligations at the end of the year.
Unsatisfied or partially unsatisified performance obligations at the end of the year mainly concerned contracts for the sale of electricity and power media that will end within 2020 or are concluded for an indefinite period with notice period of up to 12 months.
Due to the fact that the described performance obligations are part of the contracts, that can be considered short-term, or the revenues from satisfaction of performance obligation under these contracts are recognised in the amount that the Group has the right to invoice, the Group applied a practical exception, according to which it does not disclose information about the total amount of the transaction price allocated to the performance obligation.

11.7. Revenue from contracts with customers by sales channel

	NOTE	Downstream Segment		Retail Segment		Upstream Segment		Corporate Functions		Total	
		2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Direct sales		-	3	38 700	37 220	-	-	-	-	38 700	37 223
Other sales		71 481	71 565	3	12	608	605	59	79	72 151	72 261
	11.1	**71 481**	**71 568**	**38 703**	**37 232**	**608**	**605**	**59**	**79**	**110 851**	**109 484**

The Group realizes sales directly to end customers in the Retail segment managing the network nearly 2,836 fuel stations: 2,294 own stations and 542 stations operated under franchise agreements.

ORLEN GROUP (in PLN million)

The Group's sales to customers in the Downstream segment are carried out using a network of complementary infrastructure components: fuel terminals, land transhipment bases, pipeline networks, as well as rail transport and tanker trucks.

11.8. Cost by nature

SELECTED ACCOUNTING PRINCIPLES

Costs

Cost of sales includes costs of finished goods, merchandise, services and raw materials sold and adjustments related to inventories written down to net realizable value.
Costs are adjusted for profits or losses from settlement of cash flow hedging instruments related to the above mentioned costs.
Distribution expenses include selling brokerage expenses, trading expenses, advertising and promotion expenses as well as distribution expenses.
Administrative expenses include expenses relating to management and administration of the Group as a whole.

	2019	2018	% share	
			2019	2018
Materials and energy	(75 468)	(75 789)	71.4%	72.7%
Cost of merchandise and raw materials sold	(16 035)	(16 484)	15.2%	15.8%
External services	(4 519)	(4 593)	4.3%	4.4%
Employee benefits, incl.:	(2 942)	(2 628)	2.8%	2.5%
Payroll expenses	*(2 336)*	*(2 041)*	*2.3%*	*2.1%*
Social security expenses	*(463)*	*(450)*	*0.4%*	*0.4%*
Depreciation and amortisation	(3 497)	(2 673)	3.3%	2.6%
Taxes and charges	(2 659)	(1 540)	2.5%	1.5%
Other	(647)	(543)	0.5%	0.5%
	(105 767)	**(104 250)**	**100.0%**	**100.0%**
Change in inventories	164	479		
Cost of products and services for own use	141	171		
Operating expenses	**(105 462)**	**(103 600)**		
Distribution expenses	6 355	4 745		
Administrative expenses	1 806	1 590		
Cost of sales	**(97 301)**	**(97 265)**		

In 2019 the position of taxes and charges includes the value of the emission charge effective from 1 January 2019 in the amount of PLN (1,200) million.

11.9. Other operating income

	NOTE	2019	2018
Profit on sale of non-current non-financial assets		21	17
Reversal of provisions		26	34
Reversal of impairment allowances of property, plant and equipment and intangible assets, right-of-use assets, other non-current assets, classified as held for sale	*9, 12.4*	245	1 228
Penalties and compensations		54	327
Settlement and valuation of derivative financial instruments related to operating exposure		466	204
Ineffective part related to valuation and settlement of operating exposure		120	99
Settlement of hedging costs	*13.4*	165	24
Other, incl.:		149	217
received/due energy certificates		*29*	*147*
		1 246	**2 150**

On 13 August 2015 the steam cracker unit accident in the Unipetrol Group took place. As a result of arrangements with insurers, the final amount of compensation was determined to cover reconstruction costs of installations and lost business profits, therefore in 2018 the Group recognised in the line penalties and compensation the amount PLN 264 million.

11.10. Other operating expenses

	NOTE	2019	2018
Loss on sale of non-current non-financial assets		(55)	(47)
Recognition of provisions		(104)	(54)
Recognition of impairment allowances of property, plant and equipment and intangible assets, right-of-use assets and other non-current assets	*9, 12.4*	(424)	(524)
Penalties, damages and compensations		(24)	(17)
Settlement and valuation of derivative financial instruments related to operating exposure		(692)	(215)
Ineffective part related to valuation and settlement of operating exposure		(92)	(106)
Settlement of hedging costs	*13.4*	(4)	-
Other, incl.:		(318)	(189)
donations		*(58)*	*(71)*
shortages of materials in external warehouses	*14.4.1*	*(156)*	*-*
		(1 717)	**(1 152)**

ORLEN GROUP (in PLN million)

For 2019 and 2018 the net positions of valuation and settlement of derivative financial instruments related to operating exposure (non-designated instruments for hedge accounting purposes) amounted to PLN (226) million and PLN (11) million respectively, and mainly related to commodity swaps hedging time mismatch on crude oil purchases and future sales of products, including fixed prices.
The change in valuation and settlement of derivative financial instruments in 2019 was affected by the prices of crude oil and refinery products as well as exchange rates.

In 2019 and 2018 the net positions of ineffective part relating to operating exposure amounted to PLN 28 million and PLN (7) million, respectively and mainly related to commodity swaps hedging abnormal operating stocks, physical sales of products and foreign currency forwards hedging operating exposure.

11.11. Finance income and costs

11.11.1. Finance income

	2019	2018
Interest calculated using the effective interest rate method	48	39
Dividends	5	4
Settlement and valuation of derivative financial instruments	801	1 287
Other	36	83
	890	**1 413**

11.11.2. Finance costs

	2019	2018
Interest calculated using the effective interest rate method	(187)	(195)
Interest on lease	(100)	(9)
Interest on tax liabilities	(2)	(3)
Net foreign exchange loss	-	(353)
Settlement and valuation of derivative financial instruments	(547)	(850)
Other	(65)	(107)
	(901)	**(1 517)**

In 2019 and 2018 the net positions of valuation and settlement of derivative financial instruments (non-designated instruments for hedge accounting purposes) amounted to PLN 254 million and PLN 437 million, respectively and related mainly to hedging the risk of changes in exchange rates with regard to payments of invoices in foreign currency, the currency hedge for liquidity transactions, and to hedging interest rates and payment of bonds interests.
The main impact on the change in valuation and settlement of derivative financial instruments in 2019 was affected by changes in exchange rates (the difference between the exchange rate as at the transaction date and the exchange rate as at the transaction settlement date or transaction valuation) and interest rates on financial markets.

11.11.3. Interest, net

	NOTE	2019	2018
Finance income and costs of net interest presented in statement of profit or loss and other comprehensive income	*11.11.1 11.11.2*	**(241)**	**(165)**
Adjustments to profit before tax of net interest presented in statement of cash flows		**272**	**203**
interest received concerning investing activities		*(14)*	*-*
interest paid concerning financing activities		*286*	*231*
accrued interest concerning investing and financing activities		*-*	*(28)*
Net interest concerning operating activities not adjusting profit before tax		(31)	(38)

11.11.4. Foreign exchange gain/(loss)

	NOTE	2019	2018
Foreign exchange gain/(loss) surplus presented in statement of profit or loss and other comprehensive income	*11.11.1 11.11.2*	**-**	**(353)**
Adjustments to profit before tax of foreign exchange differences presented in statement of cash flows		**(72)**	**319**
realized foreign exchange differences concerning investing and financing activities		*46*	*44*
unrealized foreign exchange differences concerning investing and financing activities		*(108)*	*304*
foreign exchange differences on cash		*(10)*	*(29)*
Foreign exchange differences concerning operating activities not adjusting profit before tax		(72)	(34)

11.12. (Loss)/reversal of loss due to impairment of financial instruments

	2019	2018
(Loss) due to impairment of receivables	(199)	(76)
Reversal of loss due to impairment of receivables	158	60
(Loss) due to impairment of interest on receivables	(3)	(2)
Reversal of loss due to impairment of interest on receivables	1	1
	(43)	**(17)**

ORLEN ORLEN GROUP (in PLN million)

(Loss)/reversal of loss due to impairment of financial instruments presented in:
- other operating activities relates to impairment of trade and other receivables;
- financing activities relates to impairment of loans and interest.

11.13. Tax expense

SELECTED ACCOUNTING PRINCIPLES

Income tax expenses
Income tax expenses (tax expense) include current tax and deferred tax. Current tax expense is determined in accordance with the relevant tax law based on the taxable profit for a given period and is recognised as a liability, in the amount which has not been paid or as an asset, if the amount of the current and prior periods income tax paid exceeds the amount due.
Deferred tax assets and liabilities are accounted for as non-current and are not discounted. They are offset on the level of particular separate financial statements of the Group companies when there is a legally enforceable right to set off the recognised amounts.

	2019	2018
Tax expense in the statement of profit or loss		
Current tax expense	(1 000)	(1 181)
Deferred tax	(54)	(325)
	(1 054)	**(1 506)**
Deferred tax recognised in other comprehensive income		
Hedging instruments	-	(3)
Actuarial gains and losses	4	1
Gains/(losses) on investments in equity instruments at fair value through other comprehensive income	2	3
	6	**1**
	(1 048)	**(1 505)**

11.13.1. Reconciliation of effective tax rate

	2019	2018
Profit before tax	**5 352**	**7 110**
Tax expense by the valid tax rate in Poland (19%)	(1 017)	(1 351)
Differences between tax rates	69	(35)
Lithuania (15%)	*16*	*6*
Germany (29%, 48%)	*(27)*	*(43)*
Canada (27%)	*80*	*2*
Deferred tax provision on capital gains in ORLEN Capital	(22)	(112)
Investments accounted for under equity method	26	24
Energy rights free of charge	(15)	-
Shortages of materials in external warehouses	(29)	-
Other	(66)	(32)
Tax expense	**(1 054)**	**(1 506)**
Effective tax rate	**20%**	**21%**

As at 31 December 2019 and as at 31 December 2018, the Group had unsettled tax losses in the total amount of PLN 1,251 million and PLN 1,057 million, respectively mainly relating to the ORLEN Upstream Group, for which no deferred tax asset was recognised due to the lack of certainty regarding possible utilization of those losses in the future.

11.13.2. Deferred tax

	31/12/2018	Impact of IFRS 16 adoption	Deferred tax recognised in profit or loss	Deferred tax recognised in other comprehensive income	31/12/2019
Deferred tax assets					
Impairment allowances	123	-	66	-	189
Provisions and accruals	378	-	(50)	4	332
Tax losses	354	-	(29)	-	325
Valuation of derivative financial instruments	26	-	(16)	-	10
Lease liabilities	-	732	53	-	785
Other	109	(39)	203	2	275
	990	**693**	**227**	**6**	**1 916**
Deferred tax liabilities					
Temporary differences related to non-current assets	2 092	693	190	-	2 975
Unrealized foreign exchange differences	70	-	79	-	149
Valuation of derivative financial instruments	97	-	10	-	107
Other	106	-	2	-	108
	2 365	**693**	**281**	**-**	**3 339**
	(1 375)	**-**	**(54)**	**6**	**(1 423)**

ORLEN GROUP (in PLN million)

	31/12/2017	Impact of IFRS 9 adoption	Deferred tax recognised in profit or loss	Deferred tax recognised in other comprehensive income	Exchange differences on translating foreign operations	31/12/2018
Deferred tax assets						
Impairment allowances	269	1	(156)	-	9	123
Provisions and accruals	317	-	58	1	2	378
Tax losses	322	-	31	-	1	354
Valuation of derivative financial instruments	19	-	7	-	-	26
Other	109	-	(3)	3	-	109
	1 036	**1**	**(63)**	**4**	**12**	**990**
Deferred tax liabilities						
Temporary differences related to non-current assets	1 801	-	275	-	16	2 092
Unrealized foreign exchange differences	14	-	56	-	-	70
Valuation of derivative financial instruments	102	-	(8)	3	-	97
Other	165	-	(61)	-	2	106
	2 082	**-**	**262**	**3**	**18**	**2 365**
	(1 046)	**1**	**(325)**	**1**	**(6)**	**(1 375)**

As at 31 December 2019 deferred tax assets and liabilities amounted to PLN 51 million and PLN 1,474 million, respectively.

11.13.3. Income tax (paid)

	NOTE	2019	2018
Tax expense on profit before tax	*11.13.1.*	**(1 054)**	**(1 506)**
Change in deferred tax asset and liabilities		48	329
Change in current tax receivables and liabilities		(497)	149
Deferred tax recognised in other comprehensive income	*11.13.2*	6	1
Deferred tax as a result of adoption of IFRS 9	*11.13.2*	-	1
Foreign exchange differences		(1)	(13)
		(1 498)	**(1 039)**

(in PLN million)

12. EXPLANATORY NOTES TO THE STATEMENT OF FINANCIAL POSITION

12.1. Property, plant and equipment

SELECTED ACCOUNTING PRINCIPLES

Property, plant and equipment

Property, plant and equipment shall be measured initially at acquisition or production cost and shall be presented in the statement of financial position in its net carrying amount, including grants. Property, plant and equipment are presented in the statement of financial position at the net book value which is the amount at which an asset is initially recognised (cost) less accumulated depreciation and any accumulated impairment losses, as well as received grants for assets.

The costs of significant repairs and regular maintenance programs are recognised as property, plant and equipment.

Fixed assets are depreciated with straight-line method and in justified cases units of production method of depreciation (catalysts, assets arising from development and extraction of mineral resources).

Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item is depreciated separately over the period reflecting its useful lives.

The following standard useful lives are used for property, plant and equipment:

Buildings and constructions	*10-40 years*
Machinery and equipment	*4-35 years*
Vehicles and other	*2-20 years*

The method of depreciation, residual value and useful life of an asset are reviewed at least at the end of each year. When it is necessary adjustments of depreciation are carried out in subsequent periods (prospectively).

Grants

Grants are recognised if there is reasonable assurance that the grants will be received and the entity will comply with the conditions attaching to them.

Grants related to assets are recognised as a decrease of a carrying amount of an asset and as a result a decrease of depreciation and amortisation charges over its useful life.

Exploration and extraction of mineral resources

Within the framework of exploration and extraction of mineral resources, the following classification of stage was made:

Stage of exploration and assessment of mineral resources include:

- *acquisition of rights to explore and extract, exploration and recognition of resources,*
- *expenditures for exploratory,*
- *other expenditures which are directly attributable to the phase of exploration and recognition - The Group capitalizes most of the costs incurred as part of this stage.*

The Group shall review annually expenditures incurred in the stage of exploration and recognition of mineral resources in order to confirm the intention of further work. The analyzes are carried out at the level of projects, including works with a defined exploratory and/or prospective purpose, which are conducted in the assigned area. If the work is unsuccessful, resulting in a lack of intention to continue the work, the cost previously recognised as an asset are recognised as cost of a current period.

Expenditures incurred in the exploration and recognition of resources are recognised as assets related to development and extraction of mineral resources within property, plant and equipment at the moment of the conclusion of their technical feasibility and economic viability of mining which are tested for impairment.

Stage of site planning and of extraction of mineral resources

Expenditure incurred for mineral resource sites planning and extraction of resources are capitalized and amortised by unit of production method calculated proportionally to the amount of extraction of hydrocarbons based on unit of installation. The Group calculates the depreciation of all assets related to sites planning and extraction of mineral resources based on so called 2P proved plus probable reserves.

In case of significant change in estimated mineral resources, at the reporting date potential impairment allowances are recognised or reversed.

In case of performance of exploratory drillings on already extracted resource, the Group analyses, if costs incurred enable rising new boreholes. If not, the expenditures are recognised in costs of the current period.

PROFESSIONAL JUDGEMENT

Expenditures for exploration and evaluation of mineral resources

Application of the Group's accounting policy for expenditures for exploration and evaluation of mineral resources requires an assessment, whether future economic benefits resulting from future extraction or sale are probable or if indications allowing to estimate the resources does not yet exist. When estimating the resources, the Group assesses future events and circumstances, including the assessment whether the extraction will be economically feasible.

ESTIMATES

Useful lives of property, plant and equipment

The Group verifies useful lives of property, plant and equipment once at year end. The impact of verification of useful lives in 2019 resulted in a decrease of depreciation costs by PLN 81 million compared to depreciation costs that were recognised based on useful lives applied in 2018.

Exploration and evaluation of mineral resources

The Group estimates resources based on interpretation of available geological data and verifies then on the current basis, based on effects of further drills, trial exploitation, actual extraction and economic factors such as: hydrocarbons' prices, contractual terms or investment plans.

At the end of each reporting period the Group analyses cost of removal of wells and supporting infrastructure.

Remediation of land – water environment

The Group estimates the level of provisions related to non-current assets, which to a significant probability are needed for land – water environment remediation of the territory of petrol stations, fuel depots and areas of production plants. Detailed information in *note 12.9.1*

(in PLN million)

	Land	Buildings and constructions	Machinery and equipment	Vehicles and other	Construction in progress	Exploration and evaluation of mineral resource assets	Assets related to development and extraction of mineral resources	Total
Net carrying amount at 01/01/2019								
Gross carrying amount	1 193	23 634	40 384	2 376	3 476	1 281	6 045	**78 389**
Accumulated depreciation	(11)	(10 505)	(21 601)	(1 420)	-	(31)	(1 695)	**(35 263)**
Impairment allowances	(34)	(1 702)	(8 227)	(95)	(145)	(608)	(736)	**(11 547)**
Grants	-	(48)	(138)	(3)	-	-	-	**(189)**
	1 148	**11 379**	**10 418**	**858**	**3 331**	**642**	**3 614**	**31 390**
increases/(decreases), net								
Investment expenditures	4	49	103	98	3 227	143	473	4 097
Depreciation	(1)	(752)	(1 548)	(231)	-	(7)	(323)	(2 862)
Borrowing costs	-	5	10	2	5	13	-	35
Net impairment allowances, incl.: *	5	50	2	1	15	(199)	72	(54)
Recognition	-	*(54)*	*(30)*	*(1)*	*(36)*	*(206)*	*(36)*	*(363)*
Reversal	-	*89*	*13*	*2*	-	-	*110*	*214*
Reclassifications	(14)	603	1 617	246	(2 675)	(56)	26	(253)
Grants	-	3	(14)	1	(1)	-	-	(11)
Foreign exchange differences, incl.:	(3)	(1)	7	2	7	3	163	178
foreign exchange differences of impairment allowances	*1*	*(7)*	*(73)*	-	*(1)*	-	*(35)*	*(115)*
Other	2	(17)	(59)	(10)	(50)	(5)	(18)	(157)
	1 141	**11 319**	**10 536**	**967**	**3 859**	**534**	**4 007**	**32 363**
Net carrying amount at 31/12/2019								
Gross carrying amount	1 182	24 208	41 732	2 599	3 991	1 379	6 757	**81 848**
Accumulated depreciation	(13)	(11 185)	(22 746)	(1 536)	-	(38)	(2 051)	**(37 569)**
Impairment allowances	(28)	(1 659)	(8 298)	(94)	(131)	(807)	(699)	**(11 716)**
Grants	-	(45)	(152)	(2)	(1)	-	-	**(200)**
	1 141	**11 319**	**10 536**	**967**	**3 859**	**534**	**4 007**	**32 363**
Net carrying amount at 01/01/2018								
Gross carrying amount	1 166	21 838	37 489	2 152	4 267	1 049	5 666	**73 627**
Accumulated depreciation	(11)	(9 521)	(19 741)	(1 315)	-	(24)	(1 392)	**(32 004)**
Impairment allowances	(38)	(2 239)	(8 559)	(107)	(110)	(538)	(792)	**(12 383)**
Grants	-	(51)	(113)	(4)	(1)	-	-	**(169)**
	1 117	**10 027**	**9 076**	**726**	**4 156**	**487**	**3 482**	**29 071**
increases/(decreases), net								
Investment expenditures	-	142	79	58	3 156	237	503	4 175
Depreciation	(1)	(687)	(1 369)	(206)	-	(9)	(312)	(2 584)
Borrowing costs	-	22	26	(2)	(23)	-	-	23
Net impairment allowances, incl.: *	5	605	885	17	(31)	(69)	53	1 465
Recognition	*(1)*	*(102)*	*(68)*	*(5)*	*(69)*	*(114)*	*(158)*	*(517)*
Reversal	*6*	*505*	*410*	*7*	*14*	*44*	*210*	*1 196*
Reclassifications	12	1 236	1 685	287	(3 973)	-	(99)	(852)
Grants	-	3	(25)	1	1	-	-	(20)
Foreign exchange differences, incl.:	19	56	107	13	55	(3)	(12)	235
foreign exchange differences of impairment allowances	*(1)*	*(68)*	*(553)*	*(5)*	*(4)*	*(1)*	*3*	*(629)*
Other	(4)	(25)	(46)	(36)	(10)	(1)	(1)	(123)
Net carrying amount at 31/12/2018	**1 148**	**11 379**	**10 418**	**858**	**3 331**	**642**	**3 614**	**31 390**

* In 2019 and in 2018 the increases/(decreases) net of impairment allowances include recognition, reversal, usage and reclassifications.
Description of the reasons for changes in major impairment allowances is presented in the *note 12.4.*

In 2019 and 2018 investments expenditures were reduced by PLN 30 million and PLN 219 million received/due to penalties for delayed execution of the investment contracts.

In 2019 and 2018 the capitalization rate used to calculate capitalized borrowing costs amounted to 0.92% and 0.76%, respectively.
The gross carrying amount of all fully depreciated property, plant and equipment still in use as at 31 December 2019 and as at 31 December 2018 amounted to PLN 4,418 million and PLN 4,844 million, respectively.

12.2. Intangible assets

SELECTED ACCOUNTING PRINCIPLES

Intangible assets
An intangible asset shall be measured initially at acquisition or production cost and shall be presented in the statement of financial position in its net carrying amount, including grants.
Intangible assets with the finite useful life are amortised using straight-line method. Amortization shall begin when the asset is available for use i.e. when it is in the location and condition necessary for it to be capable of operating in the manner intended by management.
Standard useful lives of intangible assets are from 2 to 10 for software and from 2 to 15 years for concessions, licenses, patents and similar.
The amortization method and useful life of intangible asset item are verified at least at the end of each year.

Goodwill
Goodwill acquired in a business combination from the acquisition date, shall be allocated to each of the acquirer's cash-generating units (CGU), that is expected to benefit from the synergies of the combination.
After combination the acquirer shall measure goodwill in the amount recognised at the acquisition date less any accumulated impairment allowances.
A cash-generating unit to which goodwill has been allocated shall be tested for impairment annually, and whenever there is an indication that the unit may be impaired.

(in PLN million)

Rights

The main item of rights is CO_2 emission rights, not amortised, tested for impairment.
Granted emission allowances are presented as intangible assets in correspondence with deferred income at fair value as at the date of registration. Purchased allowances are presented at purchase price.
For the estimated CO_2 emission during the reporting period, a provision is created in costs of operating activity (taxes and charges).
Grants are recognised on a systematic basis in each reporting period to ensure proportionality with the relevant costs of the created reserve.
The Group recognises cost flows of CO_2 emission allowances at weighted average method.
Rights also include energy certificates, for which FIFO cost method (First In First Out) is used.

ESTIMATES

Useful lives of intangible assets

The Group verifies useful lives of intangible assets once at year end with effect from the beginning of next year. The impact of verification of useful lives in 2019 resulted in decrease of depreciation costs by PLN 13 million compared to depreciation costs that were recognised based on useful lives applied in 2018.

Change in internally generated intangible assets

As at 31 December 2019 and as at 31 December 2018 internally generated intangible assets amounted to PLN 112 million and PLN 101 million, respectively.

Change in other intangible assets

	Patents and licenses	Goodwill	Rights	Other	Total
Net carrying amount at 01/01/2019					
Gross carrying amount	1 717	374	749	105	**2 945**
Accumulated amortisation	(1 229)	(18)	-	(43)	**(1 290)**
Impairment allowances	(67)	(306)	(57)	-	**(430)**
Grants	(3)	-	-	-	**(3)**
	418	**50**	**692**	**62**	**1 222**
increases/(decreases), net					
Investment expenditures	135	-	-	68	203
Amortisation	(96)	-	-	(11)	(107)
Borrowing costs	-	-	-	3	3
Impairment allowances*	8	-	-	-	8
Grants	1	-	-	-	1
Foreign exchange differences	(1)	(1)	(1)	(2)	(5)
Other **	40	-	121	2	163
	505	**49**	**812**	**122**	**1 488**
Net carrying amount at 31/12/2019					
Gross carrying amount	1 899	373	869	172	**3 313**
Accumulated amortisation	(1 333)	(18)	-	(50)	**(1 401)**
Impairment allowances	(59)	(306)	(57)	-	**(422)**
Grants	(2)	-	-	-	**(2)**
	505	**49**	**812**	**122**	**1 488**
Net carrying amount at 01/01/2018					
Gross carrying amount	1 602	374	746	113	**2 835**
Accumulated amortisation	(1 112)	(19)	-	(38)	**(1 169)**
Impairment allowances	(104)	(306)	(58)	(5)	**(473)**
Grants	(3)	-	-	-	**(3)**
	383	**49**	**688**	**70**	**1 190**
increases/(decreases), net					
Investment expenditures	10	-	-	39	49
Amortisation	(83)	-	-	(2)	(85)
Borrowing costs	-	-	-	1	1
Net impairment allowances, incl.: *	39	-	1	5	45
Reversal	*29*	-	-	*2*	*31*
Foreign exchange differences	7	1	1	(1)	8
foreign exchange differences of impairment allowances	*(2)*	-	-	-	*(2)*
Other **	62	-	2	(50)	14
Net carrying amount at 31/12/2018	**418**	**50**	**692**	**62**	**1 222**

* *In 2019 and in 2018 increases/(decreases) net of impairment allowances include recognition, reversal, usage and reclassifications. Description of the reasons for changes in major impairment allowances is presented in the note 12.4.*

** *Other net increases/(decreases) of rights consist mainly rights granted free of charge for 2019 and 2018 and settlement of rights for 2018 and 2017 and relocation of colour energy allowances to non-current assets classified as held for sale.*

The gross carrying amount of all fully amortised intangible assets still in use as at 31 December 2019 and as at 31 December 2018 amounted to PLN 594 million and PLN 582 million, respectively.

ORLEN GROUP (in PLN million)

12.2.1. Rights

Changes in owned CO_2 emission rights for 2019

	Quantity (in ths. tonnes)	Value
01/01/2019	20 992	668
Received free of charge	7 606	684
Emission settlement for 2018	(14 354)	(772)
Purchase/(Sale),Others	2 147	207
Foreign exchange differences	-	(1)
Other	41	1
	16 432	**787**
Emission in 2019	15 823	939

The market value of owned EUA rights exceeds their total carrying amount, therefore the Group does not identify impairment indicators.
As at 31 December 2019 the market value of one EUA amounted to PLN 104.25 (representing EUR 24.48 at exchange rate as at 31 December 2019) (source*:* www.theice.com).

Change in owned rights to colorful energy for 2019

	Quantity (in ths. tonnes)	Value
01/01/2019	474	24
Received free of charge	741	59
Emission settlement for 2018	(797)	(51)
Purchase/(Sale),Others	(72)	(7)
	346	**25**
Emission in 2019	225	22

As at 31 December 2019 book value of 3 million of EUA rights and 160 thousands MWh colour energies was blocked within hedging deposits in the Warsaw Commodity Clearing House (WCCH) and amounted to PLN 148 million.
Additionally, as at 31 December 2019 and as at 31 December 2018 the Group recognised CO_2 emission rights in the amount PLN 18 million and PLN 25 million, respectively and rights to colour energy in the amount PLN 30 million and PLN 61 million, respectively in trade and other receivables (note 12.5.2).

12.3. Investments in jointly controlled entities

PROFESSIONAL JUDGEMENT

Based on its own judgment, taking into account its rights, obligations, considering the structure, legal form and the terms of the agreement agreed by the parties, the Group assessed that BOP, PPPT and Pieridae Production constitute a joint contractual arrangement whereby PKN ORLEN exercises joint control over them. The agreements give all shareholders a joint control over the companies, decisions related to significant operations require the unanimous approval of all shareholders, and the legal form of separate entities does not give shareholders the right to their assets and obligations to repay liabilities. In relation to above, the Group classified BOP, PPPT and Pieridae Production as joint ventures that are accounted for under equity method in the consolidated financial statements.

	Place of business	Principal activity	Valuation method
joint ventures			
Basell ORLEN Polyolefins Sp. z o.o. (BOP)	Płock/Poland	production, distribution and sales of poliolefins	equity method
Płocki Park Przemysłowo-Technologiczny (PPPT)	Płock/Poland	construction and renting real estate	equity method
Pieridae Production GP Ltd (ORLEN Upstream Group)	Calgary/Canada	exploration and extraction of minerals, storage, transport and logistics	equity method
joint operations			
Butadien Kralupy a.s. (Unipetrol Group)	Kralupy nad Vltavou/Czech Republic	manufacturing of butadien	share in assets and liabilities

The ORLEN Group in accordance with IFRS 11 classified Butadien Kralupy a.s. in as joint operations. Based on Statute of Butadien Kralupy a.s, the Group has the right to proportionate share of the income and bears a proportionate share in the costs of joint operations. As a result, the Group recognises its share (51%) in assets, liabilities, revenues and costs.
ORLEN Upstream Group has participated in the following joint operations:

- consortium (Blue Gas – Polish Shale Gas program) founded by ORLEN Upstream (OU), Polskie Górnictwo Naftowe i Gazownictwo (PGNIG), LOTOS Petrobaltic and University of Science and Technology (Akademia Górniczo-Hutnicza), Institue of Oil and Gas (Instytut Nafty i Gazu), Gdansk University of Technology, Warsaw University of Technology. Works under the Blue Gas program - Polish Shale Gas were completed, projects settled in both material and financial terms.The program aimed to manufacture and commercialize the technology and gain knowledge for the extraction of shale gas in Poland. The cooperation was summarized in all 6 of 10 notified projects. The total contribution of ORLEN Upstream in the implementation of the above projects amounted to PLN 24 million. Applications were collected that provides grounds for applying for patent rights for developed solutions, which have been submitted to the relevant authorities for an opinion;

ORLEN GROUP (in PLN million)

– exploration – extraction projects carried out together with PGNiG (the search areas „Sieraków” – 49% share of ORLEN Upstream, “Bieszczady” – 49% share of ORLEN Upstream and the search areas “Płotki” – 49% share of ORLEN Upstream after incorporation of FX Energy Poland). The agreements provide the conduct of joint operations and activities in the field of exploration, prospection and extraction of crude oil and natural gas.

ORLEN Upstream Group has the right to proportionate share of the income and bears a proportionate share in the costs of joint operations.

Investments accounted for under equity method

	31/12/2019	31/12/2018
Joint ventures, incl.:	672	644
Basell ORLEN Polyolefins Group Sp. z o.o.	*640*	*612*
Associates	6	6
	678	**650**

Share in profit from investments accounted for under equity method

	2019	2018
Joint ventures	136	127
Basell ORLEN Polyolefins Group Sp. z o.o.	*136*	*127*
	136	**127**

Condensed financial information of Basell ORLEN Polyolefines Group

	31/12/2019	31/12/2018
Non-current assets	789	835
Current assets	1 259	1 234
cash	*366*	*345*
other current assets	*893*	*889*
Total assets	**2 048**	**2 069**
Total equity	**1 324**	**1 269**
Non-current liabilities	61	49
Current liabilities, incl.:	663	751
trade and other liabilities	*646*	*729*
Total liabilities	**724**	**800**
Total equity and liabilities	**2 048**	**2 069**
Net debt	**(366)**	**(345)**
Net assets	1 324	1 269
Group’s share in joint ventures (50%)	662	635
Consolidation adjustments	(22)	(23)
Joint ventures investments accounted for under equity method	**640**	**612**

	2019	2018
Sales revenues	3 741	3 425
Cost of sales, incl.:	(3 271)	(2 981)
depreciation and amortisation	*(90)*	*(78)*
Gross profit on sales	**470**	**444**
Distribution expenses	(104)	(92)
Administrative expenses	(23)	(22)
Other operating income and expenses, net	(5)	2
Profit from operations	**338**	**332**
Net finance income and costs	(4)	12
Profit before tax	**334**	**344**
Tax expense	(64)	(66)
Net profit	**270**	**278**
Total net comprehensive income	**270**	**278**
Net cash from operating activities	**292**	**503**
Net cash (used) in investing activities	**(50)**	**(102)**
Net cash (used) in financing activities	**(221)**	**(385)**
Dividends received from joint ventures	**107**	**192**
Net profit	270	278
Group’s share in joint ventures (50%)	135	139
Consolidation adjustments	1	(12)
Group’s share in result of joint ventures accounted for under equity method	**136**	**127**

ORLEN GROUP (in PLN million)

In 2019 and 2018, there were no significant restrictions in associates and joint ventures resulting from loans agreements, regulatory requirements and other contractual agreements that would restrict access to assets and settlement of liabilities of the Group.

12.4. Impairment of property, plant and equipment, intangible assets and right-of-use assets

SELECTED ACCOUNTING PRINCIPLES

Impairment of property, plant and equipment, intangible assets and right-of-use assets
At the end of the reporting period, the Group assesses whether there are indicators that an asset or cash-generating unit (CGU) may be impaired or any indicators that the previously recognised impairment should be reversed.
Assets that do not generate the independent cash flows are grouped on the lowest level on which cash flows, independent from cash flows from other assets, are generated (CGU). If such case occurs, the recoverable amount is determined on the CGU level, to which the asset belongs.
Recognition and reversal of impairment allowances of property, plant and equipment, intangible assets and right-of-use assets is recognised in other operating activity.

ESTIMATES AND JUDGMENTS

Impairment of property, plant and equipment, intangible assets and right-of-use assets
The Management Board assesses whether there is any indicator for impairment of an assets or cash generating unit. As part of the analysis of indications, both external factors - including primarily the macroeconomic environment as well as internal environment are analyzed - including strategic decisions, financial projections and operational plans. If there is any indicator for impairment, the estimation of recoverable amount of an asset is made.

As at 31 December 2019, an impairment indicators were identified in the ORLEN Group in accordance with IAS 36 “Impairment allowances of assets” related to the approval on 19 December 2019 of The Financial Plan of PKN ORLEN S.A. and the ORLEN Group for the year 2020 by the Management Board and the Supervisory Board of PKN ORLEN and the update of discount rates for the valuation of non-current assets as at 31 December 2019.
The Financial Plan of PKN ORLEN S.A. and the ORLEN Group for 2020 has been prepared taking into account current macroeconomic assumptions, operational plans and investment plans.
The macroeconomic assumptions of The Financial Plan of PKN ORLEN S.A. and the ORLEN Group for 2020 were based on the analyses and recommendations of renowned global advisors, including IHS Markit, Nexant, JBC Energy, PVM, EIA, Platts, Continuum Economics, Wood Mackenzie Chemicals, observations of main competitors and expert knowledge of the ORLEN Group.

Production assets of the Upstream segment located both in Poland and Canada have been assessed by independent companies using current knowledge and geological techniques, engineering and computer software.

Decisions on impairment of expenditures incurred for individual exploration and recognition projects are made in case of a negative assessment of the perspectives of the area.
Due to the lack of a reliable estimate of the price, at which place a potential transaction to sale the assets of the Group would have taken place, as the recoverable value of its individual assets its value in use was taken, according to IAS 36.20. The Upstream segment assets test was performed by reference to the fair value reduced by the costs of recultivation.
The fair value is based on the expected discounted cash flows generated by a single CGU (Cash Generating Unit) until the end of extraction. The valuation is based largerly on non-market input data (valuation level 3, as defined in IFRS13 - Fair value measurement) – mainly these are forecasts of future oil and gas prices, and evaluation of the production potential of the reserves.

The impairment tests were performed on the basis of assets of the ORLEN Group as at 31 December 2019 and net cash flows projected in the approved Financial Plan for year 2020 and within Strategy the Mid-term Plan for years 2021-2022 or in the mentioned above Reserve Reports, discounted to their present value using the discount rates which reflect the current market value of money and the specific risks to the valued assets.

The discount rate structure used in the impairment tests of assets by cash-generating unit of ORLEN Group as at 31 December 2019

	Poland				Czech Republic			Lithuania		Canada	Germany
	Refining	Petrochemical	Retail	Upstream	Refining	Petrochemical	Retail	Refining	Retail	Upstream	Retail
Cost of equity	9.71%	9.52%	9.1%	10.56%	9.16%	8.98%	8.55%	11.13%	10.44%	9.45%	6.19%
Cost of debt after tax	2.38%	2.38%	2.38%	2.38%	1.98%	1.98%	1.98%	3.16%	3.16%	1.93%	0.43%
Capital structure	0.54	0.43	1.03	1.11	0.54	0.43	1.03	0.54	1.03	0.56	1.03
Nominal discount rate	**7.15%**	**7.39%**	**5.68%**	**6.26%**	**6.66%**	**6.88%**	**5.21%**	**8.35%**	**6.74%**	**6.74%**	**3.26%**
Long-term rate of inflation	2.48%	2.48%	2.48%	2.48%	2.16%	2.16%	2.16%	2.06%	2.06%	2.08%	1.50%

The discount rate structure used in the impairment tests of assets by cash-generating unit of ORLEN Group as at 31 December 2018

	Poland				Czech Republic			Lithuania		Canada	Germany
	Refining	Petrochemical	Retail	Upstream	Refining	Petrochemical	Retail	Refining	Retail	Upstream	Retail
Cost of equity	11.94%	10.56%	10.28%	12.49%	10.98%	9.61%	9.33%	14.08%	12.09%	10.56%	6.99%
Cost of debt after tax	3.00%	3.00%	3.00%	3.00%	2.27%	2.27%	2.27%	4.17%	4.17%	2.06%	0.78%
Capital structure	0.55	0.38	1.14	1.11	0.55	0.38	1.14	0.55	1.14	0.55	1.14
Nominal discount rate	**8.77%**	**8.46%**	**6.40%**	**7.51%**	**7.89%**	**7.57%**	**5.56%**	**10.56%**	**7.86%**	**7.54%**	**3.68%**
Long-term rate of inflation	2.50%	2.50%	2.50%	2.50%	2.10%	2.10%	2.10%	2.10%	2.10%	2,00%	1.80%

Discount rates were calculated as the weighted average cost of engaged equity and debt. Sources of macroeconomic indicators necessary to determine the discount rate were published by prof. Aswath Damodaran (source: http://pages.stern.nyu.edu) and government bonds quotation available as at 31 December 2019.
The Group identified significant drops in discount rates relative to the verification of the value of the ORLEN Group assets that took place on 31 December 2018 and when also the update of the ORLEN Group’s Strategy for 2019-2022 adopted by the Management Board and Supervisory Board on December 20, 2018 was the indicator.

The Group observed that the reduction of the expected rates of return on investment is a consequence of structural changes taking place in the global economy and the fact that we are entering a group of developed markets. The sustainable business strategies characteristic for this group require extending the horizon of return on investment, which is consistent with the reduction of discount rates. The nominal risk free rate is reduced. This is the result of among others the maturing of economies, the developing process of better use of existing assets, the so-called sharing economy, as well as the growing share of the services in the entire GDP basket.

Net impairment allowances of property, plant and equipment, intangible assets and right-of-use assets

	NOTE	2019	2018
ORLEN Upstream		(131)	(18)
Unipetrol Group		(39)	741
Other		(9)	(19)
	9	**(179)**	**704**

As at the 31 December 2019, the ORLEN Upstream Group assessed the prospects of concessions located in Poland based of the Reserve Report prepared by a reputable European adviseor.
The actual report revealed a decrease in the level of exploration reserves of crude oil and gas compared to the last resource verification by 15%.
The updated assumptions included in the Reserve Report and changes in discount rates constituted the indicator for the ORLEN Upstream Group to test the impairment of production assets in Poland. As a result, in 2019, the ORLEN Upstream Group recognized an impairment in the amount of PLN (147) million (in the Płotki project for upstream assets in the amount of PLN (7) million and exploration assets in the amount of PLN (135) million, in the Edge project for exploration assets in the amount of PLN (5) million) and a reversal of the impairment in the amount of PLN 27 million regarding upstream assets in the Płotki project.

In addition, the Group ORLEN Upstream received a report prepared as at 31 December 2019 allowing the estimation of the fair value of assets for the development and extraction of mineral resources in Canada, which was prepared by an independent company.
The actual reports revealed a slight decrease in the level of production potential relative to the last resource verification by 6%.
As a result of tests based on the current Reserve Report and using the actual discount rate, the ORLEN Upstream Group recognized PLN (94) million (including cash-generating units: mainly Southern Alberta, Kaybob, Peace River Oil, Central Alberta Gas), and reversals of impairments of PLN 83 million (including cash generating unit Ferrier). The value of non-current assets of the segment in Canada has been updated in 2019 by a net value of PLN (11) million.
The total impact of recognised impairments and reversal of impairments on non-current assets of the ORLEN Upstream Group in 2019 amounted to PLN (131) million.

Fair value of the Upstream segment's assets in the Upstream Group

ORLEN Upstream Canada	6 525
FX Energy Poland	360
ORLEN Upstream Poland	217
	7 102

Other allowances of property, plant and equipment, intangible assets and right of use and intangible assets concerned mainly PKN ORLEN in Retail and Downstream segment amounted to PLN (8) million and Downstream segment in the Unipetrol Group amounted to PLN (39) million.

Sensitivity analysis of the upstream segment of the Upstream Group assets value in use within an impairment test performed as at 31 December 2019

in PLN million

DISCOUNT RATE	EBITDA		
change	-5%	0%	5%
- 1 p.p.	*increase in allowance* (14)	*decrease in allowance* 21	*decrease in allowance* 51
0.0 p.p.	*increase in allowance* (56)	-	*decrease in allowance* 37
+ 1 p.p.	*increase in allowance* (164)	*increase in allowance* (48)	*decrease in allowance* 5

In 2018, the Unipetrol Group reversed impairments on assets in the net amount of PLN 741 million resulting from the identification of a significant excess of the value in use of the downstream segment over its assets. As a result, the Unipetrol Group recorded the net reversal of impairment on the assets of the Refining segment in the amount of PLN 656 million, Petrochemical in the amount of PLN 85 million (including PLN 50 million which was alocated to other segments, mainly to Corporate Functions). As part of the tests, discount rates of 7.89% were applied for refining assets of the Unipetrol Group and 7.57% for the petrochemical assets of the Unipetrol Group, which in line with the general market trend were lower than the rates recognised as at 31 December 2017 by -0.97p.p. and -0.88p.p.

The value in use of the assets of the downstream segment in the Unipetrol Group as at 31 December 2018

Refining	4 179
Petrochemical	5 535
	9 714

In 2018, the ORLEN Upstream Group assessed the prospects of concessions located in Poland and identified the premises for carrying out a test for impairment of the value of production assets in Poland based on the Reserve Report prepared by an independent company. As a result, it recognised an impairment of PLN (207) million (including PLN 100 million relating to upstream assets in the Płotki project, of PLN 82 million due to the prospects for prospecting exploration licenses - mainly the Karbon project and PLN 25 million other exploration assets - materials) and reversals of impariment in the amount of PLN 45 million (mainly assets from exploration under the Płotki project). The value of non-current assets of the segment in Poland was updated with a net value of PLN (162) million.

In addition, the Group received a report prepared as at 31 December 2018 allowing the estimation of the fair value of assets for the development and extraction of mineral resources in Canada, which was prepared by an independent company. The ORLEN Upstream Group recognised impairments and reversals of imairments based on a reserve report, reversal of impairments in connection with the sale of upstream assets in Canada and impairments of assets from exploration. The total value of recognised impairments amounted to PLN (65) million (including cash-generating units: mainly Kaybob of PLN 53 million, Peace River Oil of PLN 3 million, Central Alberta Gas of PLN 2 million, other PLN 7 million exploration assets), and reversals of impairments PLN 209 million (including cash generating units: mainly Ferrier of PLN 145 million, Peace River Gas PLN 56 million and Southern Alberta PLN 8 million). The value of non-current assets of the segment in Canada has been updated with a net value of PLN 144 million.

The total effect of recognised allowances of impairments and reversals of impairment losses on the non-current assets of the ORLEN Upstream Group in 2018 is PLN (18) million.

Fair value of the Upstream segment's assets in the Upstream Group

ORLEN Upstream Canada	5 841
FX Energy Poland	539
ORLEN Upstream Poland	314
	6 694

The remaining impairments concerned the revaluation of assets mainly in the area of the retail segment by fuel stations.
The Group did not identify any impairment of other assets of the ORLEN Group.

As a result, in 2018, the Group recognised the total net reversal effect on impairment losses on assets in the amount of PLN 704 million.

Sensitivity analysis of the downstream segment of the Unipetrol Group assets value in use within an impairment test performed as at 31 December 2018

in PLN million — EBITDA

DISCOUNT RATE	change	-5%	0%	5%
	- 1 p.p.	*lack of impact* -	*lack of impact* -	*lack of impact* -
	0.0 p.p.	*decrease of reversal* (398)	-	*lack of impact* -
	+ 1 p.p.	*decrease of reversal* (812)	*decrease of reversal* (405)	*lack of impact* -

Sensitivity analysis of the Upstream Group assets value in use within an impairment test performed as at 31 December 2018

in PLN million — EBITDA

DISCOUNT RATE	change	-5%	0%	5%
	- 1 p.p.	*increase in allowance* (59)	*decrease in allowance* 81	*decrease in allowance* 214
	0.0 p.p.	*increase in allowance* (135)	-	*decrease in allowance* 136
	+ 1 p.p.	*increase in allowance* (204)	*increase in allowance* (74)	*decrease in allowance* 56

ORLEN ORLEN GROUP (in PLN million)

12.5. Net working capital

Net working capital
The Group defines net working capital as: inventories and trade and other receivables decreased by trade and other liabilities

	NOTE	Inventories	Trade and other receivables	Trade and other liabilities	Net working capital
31/12/2018		**14 362**	**10 479**	**13 697**	**11 144**
31/12/2019		**15 074**	**9 669**	**15 132**	**9 611**
Change in working capital in the statement of financial position		**(712)**	**810**	**1 435**	**1 533**
Adjustments		**3**	**132**	**(486)**	**(351)**
Change in rights and advances for non-financial non-current assets	*12.5.2*	*-*	*121*	*-*	*121*
Change in investment liabilities	*12.5.3*	*-*	*-*	*(295)*	*(295)*
VAT on investment liabilities		*-*	*-*	*(27)*	*(27)*
Foreign exchange differences		*-*	*18*	*(23)*	*(5)*
Other		*3*	*(7)*	*(141)*	*(145)*
Change in working capital in the statement of cash flows		**(709)**	**942**	**949**	**1 182**
incl.impairment		*(173)*	*(43)*	*-*	*(216)*

12.5.1. Inventories

SELECTED ACCOUNTING PRINCIPLES

Inventories
Inventories, including mandatory reserves comprise products, semi-finished products and work in progress, merchandise and materials.
Finished goods, semi-finished products and work in progress are measured initially at production cost. Production costs include costs of materials and costs of conversion for the production period of finished goods, semi-finished products as well as work in progress and systematic allocation of fixed and variable production overheads estimated for its normal level.
Finished goods, semi-finished products and work in progress shall be measured at the end of the reporting period at the lower of cost or net realizable value.
Cost flows of finished goods, semi-finished products and work in progress are determined based on the weighted average cost of production.
Merchandise and materials are measured initially at acquisition cost, while as at the end of the reporting period merchandise and raw materials are measured at the lower of cost or net realizable value. Cost flows of merchandise and raw materials are determined based on the weighted average acquisition cost.
The initial value of inventories is adjusted for their profits or losses from settlement of cash flow hedging instruments.
Impairment tests for specific items of inventories are carried out at the end of each month. Write-down to net realizable value concerns inventories that are damaged or obsolete and the selling price have fallen. Raw materials held for use in the production are not written down below acquisition or production cost if the products in which they will be incorporated are expected to be sold at or above cost.
However, when a decline in the price of materials indicates that the cost of the products exceeds net realizable value, the materials are written down to net realizable value.
Recognition and reversal of impairment allowances of inventories is recognised in cost of sales.

ESTIMATES

Net realizable values from sale of inventories
The Group determines the inventory impairment allowances based on estimation of the net realizable values considering the most recent sales prices at the moment of estimations.

	31/12/2019	31/12/2018
Raw materials	8 673	8 330
Semi - finished goods and work in progress	1 245	1 403
Finished goods	4 474	4 012
Merchandise	682	617
Inventories, net	**15 074**	**14 362**
Impairment allowances of inventories to net realisable value	235	301
Inventories, gross	**15 309**	**14 663**

The main item of inventories, which turnover period is longer than 12 months after the end of the reporting period are mandatory reserves. As at 31 December 2019 and as at 31 December 2018 the value of mandatory reserves presented in consolidated financial statements amounted to PLN 6,133 million and PLN 5,607 million, respectively.

Change in impairment allowances of inventories to net realizable value

	2019	2018
At the beginning of the period	301	134
Recognition	284	215
Reversal	(111)	(26)
Usage	(240)	(29)
Foreign exchange differences	1	7
	235	**301**

(in PLN million)

In 2019 and 2018 the recognition and reversal of net impairment allowances of inventories to net realizable value related mainly to the downstream segment and amounted to PLN (173) million and PLN (189) million, respectively.

12.5.2. Trade and other receivables

SELECTED ACCOUNTING PRINCIPLES

Receivables

Receivables, excluding trade receivables, are recognised initially at a fair value and subsequently, at amortised cost using the effective interest rate including expected credit loss. On initial recognition, the Group measures trade receivables that do not have a significant financing component at their transaction price.

The Group applies simplified methods of valuation of receivables measured at amortized cost if it does not distort information included in the statement of financial position, in particular when the period until the repayment date is not long.

Receivables accounted at amortised cost, where the Group applies simplifications, are accounted at the initial recognition in the amount due, and later, including at the end of the reporting period, in the amount of the payment due less impairment allowances.

ESTIMATES

Impairment of trade and other receivables

As default the Group considers the event when the customer does not meet obligations after 90 days from maturity of receivables.

For the purpose of estimating the expected credit loss, the Group uses the provision matrix, which was estimated based on historical levels of repayment and recoveries from receivables from customers. The Group includes information on the future in parameters used in the expected loss estimation model, through the management adjustment of the basic default probability rates.

The Group does not monitor changes in the credit risk during life of instrument. From 1 January 2018 the Group estimates the expected credit loss until maturity of instrument. The expected credit loss is calculated when the receivables are recognised in the statement of financial position and is updated on each subsequent day ending the reporting period

	NOTE	31/12/2019	31/12/2018
Trade receivables from contracts with customers		8 424	9 299
Other		132	128
Financial assets		**8 556**	**9 427**
Excise tax and fuel charge		123	131
Other taxation, duties, social security and other benefits		246	190
Advances for non-current non-financial assets		315	156
Rights		48	86
Advances for deliveries		54	99
Prepayments		327	390
Non-financial assets		**1 113**	**1 052**
Receivables, net		**9 669**	**10 479**
Expected credit loss	*12.5.2.1*	458	430
Receivables, gross		**10 127**	**10 909**

Division of financial assets denominated in foreign currencies is presented in note 13.5.2. Division of receivables from related parties is presented in note 14.6.2.

The Group expects that the trade and other receivables by contractors will be realized no later than twelve months after the end of the reporting period.

12.5.2.1. Change in expected credit loss of trade and other receivables

	NOTE	2019	2018
At the beginning of the period		430	458
Recognition	*11.12*	202	78
Reversal	*11.12*	(159)	(71)
financial		*(159)*	*(61)*
non-financial		*-*	*(10)*
Usage		(11)	(39)
Foreign exchange differences		(4)	4
		458	**430**

12.5.2.2. Ageing analysis of trade receivables and expected credit loss as at 31 December 2019

	Trade receivables, gross value	Expected credit loss (in horizon of whole life)	Weighted average rate of expected credit loss	Trade receivables, net value
current	6 456	17	0.0026	6 439
from 1 to 30 days	1 882	1	0.0005	1 881
from 31 to 60 days	13	2	0.1538	11
from 61 to 90 days	4	2	0.5000	2
more than 90 days past due	489	398	0.8139	91
	8 844	**420**		**8 424**

Detailed information about credit risk is presented in note 13.5.4.

ORLEN GROUP (in PLN million)

12.5.3. Trade and other liabilities

SELECTED ACCOUNTING PRINCIPLES

Liabilities
Liabilities, including trade liabilities, are initially measured at fair value and subsequently, at amortised cost using the effective interest rate method.
The Group applies simplified methods of valuation of liabilities measured at amortized cost if it does not distort information included in the statement of financial position, in particular when the period until settlement of the liability is not long.

	31/12/2019	31/12/2018
Trade liabilities	7 889	7 275
Investment liabilities	1 362	1 067
Finance lease*	-	36
Other	615	321
Financial liabilities	**9 866**	**8 699**
Payroll liabilities	403	331
Excise tax and fuel charge	2 910	2 858
Value added tax	1 501	1 516
Other taxation, duties, social security and other benefits	303	197
Holiday pay accruals	93	76
Other	56	20
Non-financial liabilities	**5 266**	**4 998**
	15 132	**13 697**

In 2019, the line finance lease was reclassified in accordance with IFRS 16 to the lease liabilities

Division of financial liabilities denominated in foreign currencies is presented in note 13.5.2. Division of liabilities from related parties is presented in note 14.6.2
As at 31 December 2019 and as at 31 December 2018 in the Group there were no material overdue liabilities.
The Group expects that the payment of trade liabilities to contractors will take place no later than twelve months after the end of the reporting period.

12.5.4. Change in liabilities from contracts with customers

	2019	2018
At the beginning of the period	231	198
Revenues recognised in a given reporting period, included in the balance of liabilities from contracts at the beginning of the period	(120)	(132)
Revenue adjustments	79	75
Advances received, prepayments	58	106
Others	(2)	(16)
	246	**231**

The Group fulfils its liabilities from contracts with customers with respect to advance payments received, prepayments up to one year. Revenues adjustments are related to deferred part of revenue related to the loyalty program VITAY, according to which the customer is entitled to future benefits (so-called VITAY points). Points are valid for 3 years from the date they were obtained. During this period, the Group expects to satisfy a performance obligation by exchanging collected points for transfered goods / services to customers and recognise revenues.

12.6. Net debt and equity management

SELECTED ACCOUNTING PRINCIPLES

Cash, loans and bonds
Cash comprises cash on hand and in bank accounts as well as cash in transit. Cash equivalents are short-term, highly liquid investments (of initial maturity up to three months), that are readily convertible to known amounts of cash and which are subject to an insignificant risk of change in value. Valuation and outflows of cash and cash equivalents in foreign currencies are based on FIFO (First In First Out) method.
The Group classifies its loans and bonds to financial liabilities measured at amortized cost.
The Group uses simplified methods of the valuation of loans measured at amortized cost if it does not distort the information contained in the statement of financial position, in particular when the period until the repayment date is not long.
Loans for which the Group applies simplifications, are accounted at initial recognition and at the later date, including at the end of the reporting period, at the amount of payment due.

ORLEN ORLEN GROUP (in PLN million)

Changes in liabilities from financing activities

	Loans	Bonds	Cash and cash equivalents	Net debt	Lease	Change in liabilities from financing activities
	(A)	(B)	(C)	(A + B - C)	(D)	(A + B + D)
01/01/2019 (approved data)	2 263	7 528	4 192	**5 599**	229	**10 020**
Impact of IFRS 16 adoption	-	-	-	**-**	*3 352*	**3 352**
01/01/2019 (converted data)	2 263	7 528	4 192	**5 599**	3 581	**13 372**
Cash changes						
net proceeds/(outflows)	*(111)*	*(1 000)*	*1 962*	***(3 073)***	*(656)*	***(1 767)***
interest paid	*(33)*	*(185)*	*-*	***(218)***	*(68)*	***(286)***
Non-cash changes						
foreign exchange differences	*(42)*	*(53)*	*5*	***(100)***	*2*	***(93)***
valuation of debt	*59*	*181*	*-*	***240***	*34*	***274***
new finance lease agreements, increase in leasing remuneration	*-*	*-*	*-*	***-***	*993*	***993***
*other **	*-*	*-*	*-*	***-***	*112*	***112***
31/12/2019	**2 136**	**6 471**	**6 159**	**2 448**	**3 998**	**12 605**
Net financial gearing						6.3%
Net debt / EBITDA before net impairment allowances						0.27

** other non-cash changes include mainly liquidation and accrued lease payments, most of which have been paid and recognised in cash changes in net outflows*

	Loans	Bonds	Cash and cash equivalents	Net debt	Lease	Change in liabilities from financing activities
	(A)	(B)	(C)	(A + B - C)	(D)	(A + B + D)
01/01/2018	48	6 957	6 244	**761**	198	**7 203**
Cash changes						
net proceeds/(outflows)	*2 135*	*400*	*(2 055)*	***4 590***	*(32)*	***2 503***
interest paid	*(27)*	*(195)*	*-*	***(222)***	*(9)*	***(231)***
Non-cash changes						
foreign exchange differences	*(4)*	*164*	*3*	***157***	*-*	***160***
valuation of debt	*111*	*202*	*-*	***313***	*8*	***321***
new finance lease agreements	*-*	*-*	*-*	***-***	*64*	***64***
31/12/2018	**2 263**	**7 528**	**4 192**	**5 599**	**229**	**10 020**
Net financial gearing						15.7%
Net debt / EBITDA before net impairment allowances						0.61

The Group defined net debt as: non-current and current loans, borrowings and bonds lower by cash and cash equivalents.
The Group to assess the level of debt used ratios: net financial gearing (net debt / equity (calculated as at the end of the period) x 100%) and net debt / EBITDA before net impairment allowances due to property, plant and equipment, intangible assets, right-of-use assets, other non-current assets and non-current assets classified as held for sale.

12.6.1. Loans and bonds

	Non-current		Current		Total	
	31/12/2019	31/12/2018	31/12/2019	31/12/2018	31/12/2019	31/12/2018
Loans	1 884	2 151	252	112	2 136	2 263
Bonds	6 301	6 447	170	1 081	6 471	7 528
	8 185	**8 598**	**422**	**1 193**	**8 607**	**9 791**

As at 31 December 2019 indebtedness due to loans relates to a loan reimbursed by PKN ORLEN from a consortium of banks under the Agreement for a multi-currency revolving loan of 25 April 2014 in the amount of PLN 2,130 million translated using the exchange rate as at 31 December 2019 (which corresponds to EUR 500 million).
The ORLEN Group bases its financing on fixed and floating interest rates. Depending on the currency of financing these are relevant interbank rates increased by margin. The margin reflects risk of the Group and in case of some long-term contracts depends on net debt/EBITDA ratio.

12.6.1.1. Loans

- by currency (translated into PLN)/ by interest rate

	31/12/2019	31/12/2018
PLN - WIBOR	2	-
EUR - EURIBOR	2 132	2 152
USD - LIBOR USD	-	5
CAD - LIBOR CAD	2	106
	2 136	**2 263**

As at 31 December 2019 unused credit lines (note 13.5.4) increased by trade and other receivables (note 12.5.2) and cash and cash equivalents exceeded trade and other liabilities (note 12.5.3) by PLN 7,438 million.
The Group hedges partially cash flows related to interest payments regarding external financing in EUR and USD, by using interest rate swaps (IRS).

ORLEN GROUP (in PLN million)

In the period covered by this consolidated financial statements as well as after the reporting date there were no cases of violations of loans or interests repayment.
In case of operating loans agreements, the ORLEN Group entities have obligation to maintain selected financial ratios within specified ranges. In 2019 these ratios assessed by the creditor banks were at a safe level. The value of covenant as at 31 December 2019 included in the loan agreement of PKN ORLEN (the ratio "consolidated net debt / EBITDA before net impairment allowances due to property, plant and equipment, intangible assets, right-of-use assets, other non-current assets and non-current assets classified as held for sale" calculated based on the definition of individual components from loan agreements) amounted to 0.27 and met the obligations contained in loan agreements.

12.6.1.2. Bonds

- by currency (translated into PLN)

	31/12/2019	31/12/2018
PLN	1 102	2 116
EUR	5 369	5 412
	6 471	**7 528**

- by interest rate

	Fixed rate bonds		Floating rate bonds		Total	
	31/12/2019	31/12/2018	31/12/2019	31/12/2018	31/12/2019	31/12/2018
Nominal value	5 549	5 549	1 000	2 000	6 549	7 549
Carrying amount	5 469	5 513	1 002	2 015	6 471	7 528

	Nominal value		Subscription date	Maturity date	Base rate	Margin	Rating
	PLN	EUR					
Bond issue program 2017-2018							
A Series	200	-	19.09.2017	19.09.2021	6M WIBOR	1.00%	A(pol)
B Series	200	-	08.12.2017	08.12.2022	6M WIBOR	1.00%	A(pol)
C Series	200	-	10.05.2018	05.06.2022	6M WIBOR	1.20%	A(pol)
D Series	200	-	06.06.2018	19.06.2022	6M WIBOR	1.20%	A(pol)
E Series	200	-	27.06.2018	13.07.2022	6M WIBOR	1.20%	A(pol)
Bond issue program 2013-2014							
F Series	100	-	09.04.2014	09.04.2020	Fixed interest rate 5%		A(pol)
Retail bonds	**1 100**	**-**					
Eurobonds	2 131 *	500	30.06.2014	30.06.2021	Fixed interest rate 2.5%		BBB-, Baa2
Eurobonds	3 318 **	750	07.06.2016	07.06.2023	Fixed interest rate 2.5%		BBB-, Baa2
Eurobonds	**5 449**	**1 250**					
	6 549	**1 250**					

* *translated into PLN using the exchange rate as at 31 December 2014*
** *translated into PLN using the exchange rate as at 31 December 2016*

The difference between the nominal value and carrying amount of bonds results from measurement of bonds at amortized cost using the effective interest method.
In the 1st quarter of 2019, PKN ORLEN redeemed long-term bonds with a nominal value of PLN 1 billion issued in 2012 under the Bond Issue Program Agreement of 27 November 2006.
Under the first public bond issue program, F Series remains open with a nominal value of PLN 100 million and under the second public bond issue program, A-E Series with a total nominal value of PLN 1 billion.

12.6.2. Cash and cash equivalents

	31/12/2019	31/12/2018
Cash	6 037	3 886
Other cash	122	306
	6 159	**4 192**
incl. restricted cash	1 086	87

In 2019, restricted cash increased by PLN 999 million and amounted to PLN 1,086 million, mainly due to collateral established in 4th quarter for the tender offer announced by PKN ORLEN to subscribe for the sale of all shares of ENERGA S.A.in the amount of PLN 1 billion.

12.6.3. Equity management policy

Equity management conducted across the Group is performed to protect the Group's financial security in the process of continuing operations while maximizing the profitability to shareholders, in particular by:
- providing access to liquidity for the Group entities and development of effective liquidity distribution structures within the Group;
- diversification of sources of external financing and maintaining their long-term maturity, taking into account banking and non-banking sources.

The above actions are performed based on the constant monitoring of:
- net financial gearing of the Group - as at 31 December 2019 and as at 31 December 2018 amounted to 6.3% and 15.7% respectively;
- net debt to EBITDA ratio before net impairment allowances;

ORLEN GROUP (in PLN million)

– PKN ORLEN rating.

Dividend paid per ordinary shares – depends on the financial position of the Group, including maintaining financial ratios at the safe level. Dividend for the previous years paid in 2019 and in 2018 amounted to PLN 3,5 an PLN 3 per share.

12.7. Equity

SELECTED ACCOUNTING PRINCIPLES

Share capital
Equity paid by shareholders and presented at nominal value in accordance with the Parent Company's articles of association and the entry in the National Court Register.
Share capital as at 31 December 1996, in accordance with IAS 29, § 24 and 25, was revalued based on monthly price indices of consumer goods and services.

Share premium
Equity created by the surplus of the issuance value in excess of the nominal value of shares decreased by issuance costs. Capital from issue of shares above their nominal value as at 31 December 1996, in accordance with IAS 29, § 24 and 25, was revalued based on monthly price indices of consumer goods and services.

Hedging reserve
Equity including valuation and settlement of hedging instruments that meet the criteria of cash flow hedge accounting.

Exchange differences on translating foreign operations
Result mainly from translation of the financial statements of the foreign companies into PLN under consolidation procedures.

Retained earnings
include:
- *reserve capital created and used in accordance with the Commercial Companies Code,*
- *actuarial gains and losses from post-employment benefits,*
- *the current reporting period profit/loss,*
- *other capitals created and used according to the rules prescribed by law.*

12.7.1. Share capital

	31/12/2019	31/12/2018
Share capital	535	535
Share capital revaluation adjustment	523	523
	1 058	**1 058**

In accordance with the National Court Register, the share capital of Polski Koncern Naftowy ORLEN S.A. as at 31 December 2019 and as at 31 December 2018 was divided into 427,709,061 ordinary shares with nominal value of PLN 1.25 each.

Number of shares issued				
A Series	B Series	C Series	D Series	Total
336 000 000	6 971 496	77 205 641	7 531 924	**427 709 061**

In Poland, each new issue of shares is labelled as a new series of shares. All of the above series have the same rights.

Shareholders' structure

	Number of shares / voting rights	Nominal value of shares (in PLN)	Share in share capital
State Treasury	117 710 196	147 137 745	27.52%
Nationale-Nederlanden OFE*	30 000 000	37 500 000	7.01%
Aviva OFE*	26 000 000	32 500 000	6,08%
Other	253 998 865	317 498 581	59.39%
	427 709 061	**534 636 326**	**100.00%**

* *according to the information from the Extraordinary General Shareholders' Meeting of PKN ORLEN of 5 March 2020*

12.7.2. Share premium

	31/12/2019	31/12/2018
Nominal share premium	1 058	1 058
Share premium revaluation adjustment	169	169
	1 227	**1 227**

12.7.3. Retained earnings

	31/12/2019	31/12/2018
Reserve capital	30 052	25 993
Other capital	875	884
Actuarial gains and losses	(54)	(37)
Net profit for the period attributable to equity owners of the parent	4 300	5 556
Impact of IFRS 16 and 9	(4)	(9)
	35 169	**32 387**

ORLEN GROUP (in PLN million)

12.7.4. Equity attributable to non-controlling interest

	31/12/2019	31/12/2018
Unipetrol Group	1	1
Ship Service S.A.	8	10
Other	2	1
	11	**12**

	31/12/2019	31/12/2018
At the beginning of the period	12	3 014
Share in profit net, incl.:	(2)	48
Unipetrol Group	*-*	*49*
other	*(2)*	*(1)*
Share in items of other comprehensive income	-	57
hedging reserve, net	*-*	*17*
exchange differences on translating foreign operations	*-*	*40*
Change in the structure of non-controlling interest	1	(3 107)
	11	**12**

In 2019 and 2018, there were no significant restrictions in subsidiaries with significant share of non-controlling interest resulting from loans agreements, regulatory requirements and other contractual agreements that would restrict access to assets and settlement of liabilities of the Group.

12.7.5. Proposal for distribution of the Parent Company's profit for 2019

The Management Board of PKN ORLEN, after considering the liquidity situation and achievement of strategic financial objectives, recommends to distribute the net profit of PKN ORLEN for the year 2019 in the amount of PLN 4,813,592,019.09 PLN as follows: PLN 1,283,127,183.00 will be allocated as a dividend payment (PLN 3 per 1 share) and the remaining amount of PLN 3,530,464,836.09 as reserve capital. The Management Board of PKN ORLEN proposes 14 July of 2020 as the dividend date and 28 July of 2020 as the dividend payment date. This recommendation of the Management Board will be presented to the General Shareholders' Meeting of PKN ORLEN, which will make a conclusive decision in this matter.

12.7.6. Distribution of the Parent Company's profit for 2018

The Ordinary General Meeting of Shareholders of PKN ORLEN S.A. on 14 June 2019 distributed the net profit of PKN ORLEN for 2018 in the amount of PLN 5,434,149,842.17 as follows: the amount of PLN 1,496,981,713.50 was allocated as a dividend payment (PLN 3.5 per 1 share) and the remaining amount of net profit of PLN 3,937,168,128.67 as reserve capital.

12.8. Derivatives and other assets and liabilities

Derivatives and other assets

	Non-current		Current		Total	
	31/12/2019	31/12/2018	31/12/2019	31/12/2018	31/12/2019	31/12/2018
Cash flow hedging instruments	291	143	174	483	465	626
currency forwards	*291*	*143*	*169*	*209*	*460*	*352*
commodity swaps	*-*	*-*	*5*	*274*	*5*	*274*
Derivatives not designated as hedge accounting	19	16	65	39	84	55
currency forwards	*-*	*-*	*27*	*5*	*27*	*5*
commodity swaps	*-*	*-*	*38*	*34*	*38*	*34*
currency interest rate swaps	*19*	*11*	*-*	*-*	*19*	*11*
interest rate swaps	*-*	*5*	*-*	*-*	*-*	*5*
Fair value hedging instruments	-	2	4	2	4	4
commodity swaps	*-*	*2*	*4*	*2*	*4*	*4*
Derivatives	**310**	**161**	**243**	**524**	**553**	**685**
Other financial assets	72	95	468	336	540	431
receivables on settled derivatives	*-*	*-*	*110*	*306*	*110*	*306*
financial assets measured at fair value through other comprehensive income	*66*	*86*	*-*	*-*	*66*	*86*
hedged item adjustment	*-*	*4*	*4*	*21*	*4*	*25*
security deposits	*-*	*-*	*354*	*-*	*354*	*-*
other	*6*	*5*	*-*	*9*	*6*	*14*
Other non-financial assets	238	243	-	-	238	243
investment property	*219*	*108*	*-*	*-*	*219*	*108*
perpetual usufruct of land	*-*	*115*	*-*	*-*	*-*	*115*
other	*19*	*20*	*-*	*-*	*19*	*20*
Other assets	**310**	**338**	**468**	**336**	**778**	**674**

As at 31 December 2019 Investment property includes mainly social and office buildings, as well as land. Depending on the characteristics of the property, its fair value was estimated based on the comparative method of appraisal reports prepared by independent experts using observable market information (hierarchy level 2 – value PLN 149 million) or by the income method based on planned future cash flows (hierarchy level 3 - value of PLN 70 million). Comparative method was applied assuming, that the value of assessed property was equal to the market price of a similar property.
As at 31 December 2019, the position investment property includes right-of-use asset in the amount of PLN 42 million.

ORLEN GROUP (in PLN million)

As at 31 December 2019, the Group has security deposits that do not meet the definition of cash equivalents concerning mainly hedging of settlement of transactions on the Intercontinental Exchange Inc. (ICE) and the Commodity Clearing House Inc. (IRGIT).

Derivatives and other liabilities

	Non-current		Current		Total	
	31/12/2019	31/12/2018	31/12/2019	31/12/2018	31/12/2019	31/12/2018
Cash flow hedging instruments	1	-	82	105	83	105
currency forwards	*1*	-	-	-	*1*	-
commodity swaps	-	-	*82*	*105*	*82*	*105*
Derivatives not designated as hedge accounting	1	38	180	66	181	104
currency forwards	*1*	-	*42*	*18*	*43*	*18*
commodity swaps	-	-	*119*	*21*	*119*	*21*
interest rate swaps	-	*38*	*19*	-	*19*	*38*
currency interest rate swaps	-	-	-	*27*	-	*27*
Fair value hedging instruments	-	4	4	22	4	26
commodity swaps	-	*4*	*4*	*22*	*4*	*26*
Derivatives	**2**	**42**	**266**	**193**	**268**	**235**
Other financial liabilities	152	357	223	79	375	436
liabilities on settled derivatives	-	-	*209*	*67*	*209*	*67*
investment liabilities	*94*	*102*	-	-	*94*	*102*
*finance lease**	-	*193*	-	-	-	*193*
hedged item adjustment	-	*3*	*4*	*1*	*4*	*4*
refund liabilities	-	-	*10*	*11*	*10*	*11*
*other***	*58*	*59*	-	-	*58*	*59*
Other non-financial liabilities	9	9	13	11	22	20
deferred income	*9*	*9*	*13*	*11*	*22*	*20*
Other liabilities	**161**	**366**	**236**	**90**	**397**	**456**

* *In 2019, the line finance lease was reclassified in accordance with IFRS 16 to the lease liabilities*
** *In 2019 and 2018, the line other in other financial liabilities relates mainly liabilities due to donations in the amount of PLN 18 million and PLN 21 million and a guarantees in the amount of PLN 39 million and PLN 29 million, respectively.*

12.8.1. Financial assets measured at fair value through other comprehensive income

Investments in equity instruments measured at fair value through other comprehensive income	Fair value of asset	Dividends recognised during the reporting period, relating to investments held at the end of the reporting period	Indication of the reason for applying particular variant of presentation
Naftoport Sp. z o.o.	40	5	Instruments not acquired for trading, without impact of reclassification of profit/loss on financial result
Bank Ochrony Środowiska S.A.	18	-	
Pieridae Energy Limited	7	-	
Wodkan S.A.	1	-	
	66	**5**	

12.9. Provisions

SELECTED ACCOUNTING PRINCIPLES

Environmental provision
The Group creates provisions for future liabilities due to reclamation of contaminated land or water or elimination of harmful substances if there is such a legal or constructive obligation. Environmental provision for reclamation is periodically reviewed on the basis of the degree of contamination. Changes of provision increase or decrease the value of asset causing the obligation of reclamation in the current period. In case decrease of provision is higher than carrying amount of the asset, the amount of that excess is recognised in profit or loss.

Jubilee bonuses and post-employment benefits
Under the remuneration plans employees of the Group are entitled to jubilee bonuses, paid to employees after an elapse of a defined number of years in service as well as retirement and pension benefits, paid once at retirement or pension. The amount of above benefits and jubilee bonuses depends on the number of years in service and an employee's remuneration.
The jubilee bonuses are other long-term employee benefits, whereas retirement and pension benefits are classified as post-employment defined benefit plans.
Provisions are determined by an independent actuary and revalued if there are any indications impacting their value, taking into account the staff turnover and planned change in wages.
Actuarial gains and losses from post-employment benefits are recognised in components of other comprehensive income and from other employment benefits are recognised in profit or loss.

CO_2 emissions, energy certificates
The Group recognises the estimated CO_2 emissions costs during the reporting period in operating activity costs (taxes and charges). Provision is recognised based on the value of allowances taking into account the weighted average method. In case of a shortage of allowances, the provision is created based on the purchase price of allowance concluded in forward contracts or market quotations of allowances at the reporting date.
Energy certificates are property rights to energy and energy efficiency certificates. The Group recognises provisions for the estimated volume of energy rights and energy efficiency certificates for depreciation in the reporting period, which is recognised as a reduction of revenues from sales of energy or as operating costs in case of purchase of electricity for own needs.
The obligation to submit energy certificates for depreciation or to pay a substitute fee or obtain a statement together with an energy efficiency audit is regulated on the basis of separate regulations.

Other provisions
Other provisions include mainly provisions for on-going legal proceedings and are recognised after consideration of available information, including the opinions of independent experts.

ORLEN GROUP (in PLN million)

The Group recognises provisions if at the end of the reporting period the Group has an obligation arising from past events that can be reliably estimated and it is probable that fulfilment of this obligation will cause an outflow of resources embodying economic benefits.

ESTIMATES

Recognition of provisions requires estimates of the probable outflow of resources embodying economic benefits and making the best estimate of the expenditure required to settle the present obligation at the end of the reporting period. Provisions are recognised when the probability of outflow of resources embodying economic benefits is higher than 50%.

Provisions

	Non-current		Current		Total	
	31/12/2019	31/12/2018	31/12/2019	31/12/2018	31/12/2019	31/12/2018
Environmental	817	782	42	64	859	846
Jubilee bonuses and post-employment benefits	256	233	49	56	305	289
CO_2 emissions, energy certificates	-	-	961	784	961	784
Other	40	40	184	115	224	155
	1 113	**1 055**	**1 236**	**1 019**	**2 349**	**2 074**

Changes in provisions

	Environmental provision	Jubilee bonuses and post-employment benefits provision	CO_2 emissions, energy certificates	Other	Total
01/01/2019	846	289	784	155	2 074
Recognition	52	44	1 027	97	1 220
Reversal	(4)	-	(30)	(22)	(56)
Usage	(43)	(29)	(821)	(6)	(899)
Foreign exchange differences	8	1	1	-	10
	859	**305**	**961**	**224**	**2 349**
01/01/2018	693	277	376	229	1 575
Recognition	198	32	800	15	1 045
Reversal	(4)	-	(4)	(30)	(38)
Usage	(46)	(20)	(395)	(53)	(514)
Foreign exchange differences	5	-	7	(6)	6
	846	**289**	**784**	**155**	**2 074**

	2019	2018
Change in provisions presented in the statement of financial position	**275**	**499**
Usage of prior year provision for CO_2 emissions, energy certificates from previous year	821	395
Capitalization of environmental provision	(32)	(137)
Actuarial gains and losses	(21)	(5)
Foreign exchange differences	(8)	(16)
Change in provisions in the statement of cash flows	**1 035**	**736**

12.9.1. Environmental provision

The Group has legal obligation to clean contaminated land – water environment in the area of production plants, fuel stations, fuel terminals and warehouses.

The Group estimated the provision for environmental risk related to the removal of pollution based on analyses provided by independent expert or own analysis taking into account the expected costs of remediation. Depending on the type of facility generating the pollution, the provision is estimated by taking into account the frequency of remediation, the scale of environmental pollution and the achieved ecological effects. The decommissioning of most facilities will take place in the more distant future and the precise requirements that will have to be met when the removal event occurs are uncertain. The level of uncertainty is burdened with potential change in regulations concerning, among others environmental and social expectations. At the same time, technological progress is an important factor that will determine future decommissioning costs.

At the stage of development and extraction of hydrocarbon deposits, the Group recognises provisions for the cost of removal of drillings and supporting infrastructure.

The line environmental provision mainly concerns entities operating in Poland, the Czech Republic and Canada. In the Czech Republic, obligations arising from pollution of soil-cum-water environment arising before the date of privatization of individual entities lies with the Czech state. In case of pollutants, arising after this date, this is the obligation of the Group companies.

In 2019 the assumptions adopted to calculate the value of the environmental provision have not changed compared to the previous year.

The calculations were discounted based on the risk-free rate set on the level of bond yields (10,20 or 30-years depending on the expected maturity of the provision). The discount rate was adjusted by the inflation effect, which has not changed in comparison with the previous year.

As at 31 December 2019 and as at 31 December 2018 the average discount rate amounted to 2.26% and 2.85% (Poland), 1.68% and 2.15% (Canada) and 1.9% and 1.9% (the Czech Republic), respectively.

ORLEN GROUP (in PLN million)

12.9.2. Provision for jubilee bonuses and post-employment benefits

Change in employee benefits obligations

	NOTE	Jubilee bonuses provision 31/12/2019	Jubilee bonuses provision 31/12/2018	Post-employment benefits 31/12/2019	Post-employment benefits 31/12/2018	Total 31/12/2019	Total 31/12/2018
At the beginning of the period		144	145	145	132	289	277
Current service costs		6	14	8	6	14	20
Interest expenses		4	4	4	4	8	8
Actuarial gains and losses arising from changes in assumptions:		16	9	21	5	37	14
demographic		*3*	*-*	*1*	*1*	*4*	*1*
financial		*8*	*7*	*20*	*4*	*28*	*11*
other		*5*	*2*	*-*	*-*	*5*	*2*
Past employment costs		(12)	(13)	(2)	3	(14)	(10)
Payments under programme		(21)	(14)	(8)	(7)	(29)	(21)
Other		-	(1)	-	2	-	1
	12.9	**137**	**144**	**168**	**145**	**305**	**289**

The carrying amount of employee benefits liabilities is equal to their present value as at 31 December 2019 and 31 December 2018.

Employee benefits liabilities divided into active and retired employees

	Active employees 31/12/2019	Active employees 31/12/2018	Retired employees 31/12/2019	Retired employees 31/12/2018	Total 31/12/2019	Total 31/12/2018
Poland	202	196	64	56	266	252
Czech Republic	22	19	-	-	22	19
Lithuania, Latvia, Estonia	17	18	-	-	17	18
	241	**233**	**64**	**56**	**305**	**289**

	Jubilee bonuses provision 31/12/2019	Jubilee bonuses provision 31/12/2018	Post-employment benefits 31/12/2019	Post-employment benefits 31/12/2018	Total 31/12/2019	Total 31/12/2018
Employee benefits liabilities divided into geographical structure						
Poland	131	139	135	114	266	253
Czech Republic	6	5	17	14	23	19
Lithuania, Latvia, Estonia	-	-	16	17	16	17
	137	**144**	**168**	**145**	**305**	**289**
Maturity of employee benefits analysis						
up to 1 year	21	32	28	24	49	56
above 1 to 5 years	52	50	28	26	80	76
above 5 years	64	62	112	95	176	157
	137	**144**	**168**	**145**	**305**	**289**

The weighted average duration of liabilities for post-employment benefits in 2019 and in 2018 amounted to: Poland 9 and 8 years, the Czech Republic 9 and 9 and Lithuania, Latvia, Estonia 9 and 14 years, respectively.

In 2019 the amount of provision for employee benefits changed as the result of update of assumptions, mainly in relation to discount rate, projected inflation and expected remuneration increase ratio. Should the 2018 assumptions be used, the provision for the employee benefits would be lower by PLN (30) million.

Sensitivity analysis to changes in actuarial assumptions

As at 31 December 2019, the Group used the following actuarial assumptions that had an impact on the level of actuarial provisions for the Polish entities: discount rate 2.0%, expected inflation 2.8% in 2020, 2.6% in 2021 and 2.5% in subsequent years, the remuneration increase rate: 4% in 2020 and 3% in 2021 and 2.5% in subsequent years. In the Group's foreign entities the main impact had value of discount rate: from 0.3% to 1.4%.

The Group analysed the impact of the financial and demographic assumptions and calculated that the changes of ratios: remuneration ratio by +/- 0.5 p.p., the discount rate by +/- 0.5 p.p. and the rate of turnover by +/- 0.5 p.p. in Poland, Czech, Lithuania, Latvia and Estonia are no higher than PLN 7 million. Therefore, the Group does not present any detailed information.

The Group carries out the employee benefit payments from current resources. As part of employee benefits, the Group also has additional defined contribution programs, where the obligation is met by paying contributions to separate funds (Employee Pension Plan and Employee Capital Plan). Costs related to this are presented in the position Employee benefits.

12.9.3. Provision for CO2 emissions, energy certificates

Provision for CO_2 emissions and energy certificates comprises mainly recognition of the provisions for the cost of CO_2 emissions estimated in the reporting period. As at 31 December 2019 and as at 31 December 2018 the value of the provision amounted to PLN 939 million and PLN 728 million, respectively.

12.9.4. Other provisions

As at 31 December 2019 and as at 31 December 2018 other provisions mainly comprise provisions for the risk of unfavourable decisions of pending administrative or court and tax proceedings in the amount of PLN 182 million and PLN 114 million, respectively.

13. EXPLANATORY NOTES TO THE FINANCIAL INSTRUMENTS AND FINANCIAL RISK

SELECTED ACCOUNTING PRINCIPLES

Financial instruments

Measurement of financial assets and liabilities

At initial recognition, the Group measures financial assets and liabilities not qualified as at fair value through profit or loss (i.e. held for trading) at their fair value plus transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability. The Group does not classify instruments as measured at fair value through profit or loss upon initial recognition, i.e. does not apply the fair value options.

At the end of the reporting period, the Group measures item of financial assets and liabilities at amortised cost using effective interest rate method, except for derivatives, which are measured at fair value.

The Group uses simplified methods of valuation of financial assets and liabilities measured at amortized cost if it does not distort information included in the statement of financial position, in particular when the period until the repayment of debt or settlement of the liability is not long.

Financial assets measured at amortized cost, where the Group applies simplifications, are accounted at initial recognition in the amount due, and later, including at the end of the reporting period, in the amount of the payment due less impairment allowances.

Financial liabilities for which the Group applies simplifications are measured at initial recognition and at a later date, including at the end of the reporting period, in the amount of payment due less expected credit loss impairment allowances.

With regard to equity instruments, in particular quoted/unquoted shares held for trading, the Group classifies the instruments as measured at fair value through other comprehensive income.

Gains and losses resulting from changes in fair value of derivatives, for which hedge accounting is not applicable, are recognised in the current year profit or loss.

Impairment of financial assets

The Group recognizes a write-off due to expected credit losses on financial assets measured at amortized cost or measured at fair value through other comprehensive income (with the exception of investments in capital assets and contract assets).

The Group uses the following models for determining impairment allowances:

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

The general model is used by the Group for financial assets measured at amortized cost - other than trade receivables and for debt instruments measured at fair value through other comprehensive income.

In the general model, the Group monitors the changes in the level of credit risk associated with a given financial asset and classifies financial assets to one of the three stages of impairment allowances based on the observation of the change in the credit risk level in relation to the initial recognition of the instrument.

Depending on the classification to particular stages, the impairment allowance is estimated in the 12-month horizon (stage 1) or in the life horizon of the instrument (stage 2 and stage 3).

On each day ending the reporting period, the Group considers the indications resulting in the classification of financial assets to particular stages of determining impairment allowances. Indications may include changes in the debtor's rating, serious financial problems of the debtor, a significant unfavourable change in its economic, legal or market environment.

For the purposes of estimating the expected credit loss, the Group uses default probability levels based on market credit quotes of derivatives for entities with a given rating and from a given sector.

The Group includes information on the future in the parameters of the expected loss estimation model by calculating the probability parameters of insolvency based on current market quotes.

The simplified model is used by the Group for trade receivables.

In the simplified model, the Group does not monitor changes in the credit risk level during the life and estimates the expected credit loss in the horizon up to maturity of the instrument.

Hedge accounting

Derivatives designated as hedging instruments whose fair value or cash flows are expected to offset changes in fair value or in the cash flows of a hedged item are accounted for in accordance with fair value or the cash flow hedge accounting.

The Group has two types of hedging relation: cash flow and fair value hedge.

The Group assess effectiveness of cash flow hedge at the inception of the hedge and later, at minimum, at reporting date. In case of cash flow hedge accounting, the Group recognises in other comprehensive income part of profits and losses connected with the effective part of the hedge, whereas profits or losses connected with the ineffective part - under profit or loss.

In addition (in case of currency risk hedge - spot rate risk element), as part of equity in a separate item, the Group recognises a change in the fair value due to the hedge costs.

To assess the effectiveness of hedge the Group uses statistical methods, including in particular the direct compensation method. The verification of fulfilment of conditions in the scope of binding effectiveness is made on a prospective basis, based on a qualitative analysis. If it is necessary, the Group uses quantitative analysis (linear regression method) to confirm the existence of an economic link between the hedging instrument and the hedged item.

In case of applying fair value hedge accounting, the Group recognises profits or losses resulting from the revaluation of fair value of derivative financial instrument in financial result, and adjusts carrying amount of hedged item by profit or loss related to the hedged item, resulting from the risk being hedged and recognises it in the profit or loss (in the same item in which hedging derivatives are recognised).

If a hedge of a forecast transaction subsequently results in the recognition of a financial asset or a financial liability, the associated gains or losses that were recognised in other comprehensive income are reclassified to profit or loss of the reporting period in the same period or periods during which the asset acquired, or liability assumed, affects profit or loss.

However, if the Group expects that all or a portion of a loss recognised in other comprehensive income will not be recovered in one or more future periods, it reclassifies the amount that is not expected to be recovered to profit or loss.

If a hedge of a forecast transaction subsequently results in the recognition of a non-financial asset or a non-financial liability, or a forecast transaction for a non-financial asset or non-financial liability becomes a firm commitment for which fair value hedge accounting is applied, the Group removes the associated gains and losses that were recognised in the other comprehensive income and includes them in the initial cost or other carrying amount of the asset or liability when the item appears in the statement of financial position.

If a hedge of a forecast transaction results in the recognition of revenue from sales of products, merchandise, materials or services, the Group removes the associated gains or losses that were recognised in the other comprehensive income and adjusts above revenues.

In case of applying fair value hedge accounting, cumulated adjustment of hedged item valuation for hedged risk is transferred to the financial result at the moment when the realization of hedged item affects the result.

Derivatives are recognised as assets when their valuation is positive and as liabilities in case of negative valuation.

ORLEN GROUP (in PLN million)

Fair value measurement

The Group maximizes the use of relevant observable inputs and minimizes the use of unobservable inputs to estimate the fair value, i.e. the price at which an orderly transaction to transfer the liability or equity instrument would take place between market participants as at the measurement date under current market conditions.

The Group measures derivatives at fair value using valuation models for financial instruments based on generally available exchange rates, interest rates, forward and volatility curves for currencies and commodities quoted on active markets.

The fair value of derivatives is based on discounted future flows related to contracted transactions as the difference between term price and transaction price.

Forward exchange rates are not modelled as a separate risk factor, but derive from the spot rate and the respective forward interest rate for foreign currency in relation to PLN.

PROFESSIONAL JUDGEMENTS

Financial instruments

The Management Board assesses the classification of financial instruments, nature and extent of risk related to financial instruments and application of the cash flow hedge accounting. The financial instruments are classified into different categories depending on the purpose of the purchase and nature of acquired assets.

13.1. Financial instruments by category and class

	Financial instruments by category	NOTE	31/12/2019	31/12/2018
ASSETS				
Measured at fair value through other comprehensive income	Measured at fair value through other comprehensive income	12.8	66	86
Cash flow hedging instruments	Hedging financial instruments	12.8	465	626
Derivatives not designated as hedge accounting	Measured at fair value through profit or loss	12.8	84	55
Fair value hedging instruments	Measured at fair value through profit or loss	12.8	4	4
Lease	*Excluded from the classification and measurement of IFRS 9*		25	-
	Measured at amortized cost – assets		15 189	13 964
Trade receivables	*Measured at amortized cost – assets*	*12.5.2*	*8 424*	*9 299*
Cash and cash equivalents	*Measured at amortized cost – assets*		*6 159*	*4 192*
Receivables on settled derivatives	*Measured at amortized cost – assets*	*12.8*	*110*	*306*
Security deposits	*Measured at amortized cost – assets*	*12.8*	*354*	*-*
Hedged item adjustment	*Measured at amortized cost – assets*	*12.8*	*4*	*25*
Other	*Measured at amortized cost – assets*	*12.5.2, 12.8*	*138*	*142*
			15 833	**14 735**
LIABILITIES				
Cash flow hedging instruments	Hedging financial instruments	12.8	83	105
Derivatives not designated as hedge accounting	Measured at fair value through profit or loss	12.8	181	104
Fair value hedging instruments	Measured at fair value through profit or loss	12.8	4	26
Lease	*Excluded from the classification and measurement of IFRS 9*	12.5.3, 12.8, 14.2.1	3 998	229
	Measured at amortised cost		18 848	18 697
Trade liabilities	*Measured at amortised cost*	*12.5.3*	*7 889*	*7 275*
Refund liabilities	*Measured at amortised cost*	*12.8*	*10*	*11*
Loans	*Measured at amortised cost*	*12.6.1*	*2 136*	*2 263*
Bonds	*Measured at amortised cost*	*12.6.1*	*6 471*	*7 528*
Investment liabilities	*Measured at amortised cost*	*12.5.3, 12.8*	*1 456*	*1 169*
Liabilities on settled derivatives	*Measured at amortised cost*	*12.8*	*209*	*67*
Hedged item adjustment	*Measured at amortised cost*	*12.8*	*4*	*4*
Other	*Measured at amortised cost*	*12.5.3, 12.8*	*673*	*380*
			23 114	**19 161**

ORLEN GROUP (in PLN million)

13.2. Income, expenses, profit and loss and other comprehensive income

	Financial instruments by category	NOTE	2019	2018
Interest income			48	39
from financial assets measured at amortisated cost	*Measured at amortized cost – assets*	*11.11.1*	*48*	*39*
Interest costs			(287)	(204)
from financial liabilities measured at amortisated cost	*Measured at amortized cost – assets*	*11.11.2*	*(187)*	*(195)*
from lease	*Excluded from the classification and measurement of IFRS 9*		*(100)*	*(9)*
(Loss)/reversal of loss due to impairment of financial instruments	Measured at amortised cost	*11.12*	(43)	*(17)*
Financial instruments gains/(losses)			222	94
	Measured at amortized cost – assets	*11.11.1*	*(8)*	*470*
	Measured at amortized cost - liabilities	*11.11.2*	*8*	*(823)*
	Measured at fair value through profit or loss	*11.9, 11.10 11.11.1, 11.11.2*	*28*	*426*
	Cash flow hedging financial instruments (ineffective part)	*11.11.1, 11.11.2*	*28*	*(7)*
	Hedging financial instruments (settlement of hedging costs)	*11.9, 11.10*	*161*	*24*
	Measured at fair value through other comprehensive income	*11.11.1*	*5*	*4*
Other finance income/costs	*Measured at amortized cost – assets*	*11.11.1, 11.11.2*	*(25)*	*(16)*
			(85)	**(104)**
other, excluded from the scope of IFRS 7			**(6)**	**(11)**
Provisions discounting			(4)	(8)
Interest on tax liabilities		*11.11.2*	(2)	(3)

The above table presents items of profit or loss in which the result on the valuation and settlement of financial instruments is recognised.

In 2019 and 2018 gains/(losses) on investments in equity instruments at fair value through other comprehensive income amounted to PLN (20) million and PLN (23) million, respectively.

13.3. Fair value measurement

31/12/2019

	NOTE	Carrying amount	Fair value	Fair value hierarchy		
				Level 1	Level 2	Level 3
Financial assets						
Financial assets measured at fair value through other comprehensive income	*12.8.1*	66	66	26	-	40
Derivatives	*12.8*	553	553	-	553	-
		619	**619**	**26**	**553**	**40**
Financial liabilities						
Loans	*12.6.1.1*	2 136	2 135	-	2 135	**-**
Bonds	*12.6.1.2*	6 471	6 745	6 745	-	**-**
Derivatives	*12.8*	268	268	-	268	**-**
		8 875	**9 148**	**6 745**	**2 403**	**-**

31/12/2018

	NOTE	Carrying amount	Fair value	Fair value hierarchy		
				Level 1	Level 2	Level 3
Financial assets						
Financial assets measured at fair value through other comprehensive income		86	86	46	-	40
Derivatives	*12.8*	685	685	-	685	-
		771	**771**	**46**	**685**	**40**
Financial liabilities						
Loans	*12.6.1.1*	2 263	2 263	-	2 263	-
Bonds	*12.6.1.2*	7 528	7 788	7 788	-	-
Lease	*12.5.3, 12.8*	229	236	-	236	-
Derivatives	*12.8*	235	235	-	235	-
		10 255	**10 522**	**7 788**	**2 734**	**-**

For other classes of financial assets and liabilities fair value represents their carrying amount.

13.3.1. Methods applied in determining fair value (fair value hierarchy)

Financial liabilities due to loans, bonds, liabilities and receivables for borrowings are measured at fair value using discounted cash flows method. Discount rates are calculated based on market interest rates according to quotations of 1- month, 3-months and 6-months interest rates increased by proper margins for individual financial instruments. In the item financial assets measured at fair value through other comprehensive income, quoted/unquoted shares not held for trading are included. For shares unquoted on active market for which there are no observable inputs, fair value determined on the basis of expected discounted cash flows was applied.
During the reporting period and the comparative period there were no reclassifications of financial instruments in the Group between Level 1 and 2 of fair value hierarchy.

13.4. Hedge accounting

The ORLEN Group applies cash flow and fair value hedge accounting.
Cash flow hedge accounting concerns:
- forward sales and purchase of foreign currency operating activity hedging,
- hedging the change in margins on refinery and petrochemical products sold,
- hedging the periodic increase in operating inventories,
- hedging the timing mismatches due to sales of refinery products.

Fair value hedge accounting concerns:
- hedging the sales of bitumen and aviation fuel at a fixed price.

Currently, the sources of ineffectiveness in case of hedge accounting for currency risk is the difference between the maturity date for hedging instrument, falling on the last business days of the M-1 month and maturity of the hedged item, where the revenues from sale of petrochemical products are realized in the first consecutive days of the given M month .
However, in case of commodity risk, sources of ineffectiveness result from the risk components designated for the hedged item, which are a part of the probable planned future purchase of oil and hedging instruments based solely on commodity indices of refinery products sold.
There is partially natural hedging for USD/PLN exchange rate, as revenues from sales of products depending on USD exchange rate are offset by the cost of buying crude oil in the same currency. Due to the fact that PKN ORLEN has a long position in EUR and the relatively low interest rates for EUR (as compared to PLN rates), it was considered reasonable to strive for a situation in which the Group has debt obligations in foreign currency (currency conversion debt from PLN to debt in EUR through the execution of currency interest rate swaps transactions).

(in PLN million)

Information on hedging instruments – maturity structure

2019

Risk type / type of instrument	Unit of measure	up to 1 year	above 1 to 3 years	above 3 to 5 years	above 5 years
Cash flow hedge	-				
Foreign exchange risk					
Currency forwards -long position hedge (buy)					
Nominal value	EUR	460 000 000	910 000 000	395 000 000	-
Average exchange rate EUR/CZK		26.68	27.15	27.30	-
Nominal value	EUR	47 000 000	10 000 000	28 081 676	1 532 625
Average exchange rate EUR/PLN		4.40	4.61	4.73	4.76
Nominal value	USD	15 979 876	2 026 170	-	-
Average exchange rate USD/PLN		3,61	3,93	-	-
Currency forwards - short position hedge (sell)					
Nominal value	EUR	409 000 000	816 000 000	384 000 000	-
Average exchange rate EUR/PLN		4.52	4.60	4.69	-
Commodity risk					
Commodity swaps - future revenues hedge (sell)					
Petrol					
Volume	MT	41 000	-	-	-
Average price		603.67	-	-	-
Diesel					
Volume	MT	101 901	-	-	-
Average price		565.13	-	-	-
Crude oil					
Volume	BBL	2 065 000	-	-	-
Average price		57.05	-	-	-
Aviation fuel					
Volume	MT	4 000	-	-	-
Average price		616.39			-
Commodity swaps - inventories (buy)					
Petrol					
Volume	MT	8 000	-	-	-
Average price		599,00	-	-	-
Commodity swaps - future manufacturing costs hedge (buy)					
Diesel					
Volume	MT	24 000	-	-	-
Average price		569.52	-	-	-
Fair value hedge					
Commodity risk					
Commodity swaps - future revenues hedge (buy)					
Heating oil					
Volume	MT	43 793	-	-	-
Average price		260.85	-	-	-
Crude oil					
Volume	BBL	141 750	36 130	-	-
Average price		57.02	56.08	-	-
Commodity swaps - future revenues hedge (sell)					
Heating oil					
Volume	MT	4 379	-	-	-
Average price		580.92	-	-	-

(in PLN million)

2018

Risk type / type of instrument	Unit of measure	up to 1 year	above 1 to 3 years	above 3 to 5 years
Cash flow hedge	-			
Foreign exchange risk				
Currency forwards -long position hedge (buy)				
Nominal value	EUR	600 000 000	830 000 000	455 000 000
Average exchange rate EUR/CZK		26.57	26.83	27.28
Nominal value	USD	21 237 178	12 992 248	-
Average exchange rate USD/PLN		3.57	3.56	-
Currency forwards - short position hedge (sell)				
Nominal value	USD	1 205 565	-	-
Average exchange rate USD/CZK		22.68	-	-
Nominal value	EUR	495 000 000	600 000 000	-
Average exchange rate EUR/PLN		4.64	4.57	-
Commodity risk				
Commodity swaps - future revenues hedge (sell)				
Petrol				
Volume	MT	15 000	-	-
Average price		725.76	-	-
Diesel				
Volume	MT	27 100	-	-
Average price		661.70	-	-
Crude oil				
Volume	BBL	8 148 400	-	-
Average price		61.40	-	-
Commodity swaps - inventories (buy)				
Crude oil				
Volume		3 813 200	-	-
Average price		59.98	-	-
Commodity swaps - future manufacturing costs hedge (buy)				
Crude oil				
Volume	BBL	996 000	-	-
Average price		54.89	-	-
Fair value hedge				
Commodity risk				
Commodity swaps - future revenues hedge (buy)				
Heating oil				
Volume	MT	47 812	43 793	-
Average price		300.47	260.85	-
Diesel				
Volume	MT	411	-	-
Average price		625.54	-	-
Crude oil				
Volume	BBL	181 250	72 040	-
Average price		59.76	57,09	-
Jet				
Volume	MT	46 000	-	-
Average price		656.31	-	-
Commodity swaps - future revenues hedge (sell)				
Diesel				
Volume	MT	4 371	4 379	-
Average price		571.57	580.91	-

Planned realization date of hedged cash flow and fair value which will be recognised in the profit or loss

	31/12/2019	31/12/2018
Currency operating exposure	2020-2025	2019-2022
Commodity risk exposure	2020-2021	2018-2020

(in PLN million)

Hedge accounting effects on financial situation and results

2019

Link type / risk type / type of instrument	Buy (B) / Sell (S)	Hedging strategies within the cash flow hedge	Unit of measure	Nominal value / volume 31/12/2019	Assets 31/12/2019	Liabilities 31/12/2019	Changes in fair value (as basis for determining an ineffective part in a given period)
Cash flow hedge							
Foreign exchange risk							
FX_EUR.PLN	S	sales of goods denominated in foreign currencies/indexed to foreign currencies	EUR	1 695 614 301	277	-	74
FX_EUR.CZK	S		EUR	1 765 000 000	180	1	35
FX_USD.PLN	B	deliveries for purchases denominated in foreign currency or indexed to exchange rate of foreign currency	USD	18 006 046	3	-	(2)
					460	**1**	**107**
Commodity risk							
Crude oil	S	time mismatch on crude oil purchases	BBL	2 065 000	-	64	(308)
Crude oil	B		BBL	-	-	-	103
Petrol	S	oversize inventories hedge	MT	41 000	1	1	(12)
Petrol	B	oversize inventories hedge	MT	8 000	-	-	-
Diesel	B	oversize inventories hedge	MT	24 000	4	-	4
Diesel	S	crack margin hedge, oversize inventories hedge	MT	101 901	-	16	(32)
Aviation fuel	S	oversize inventories hedge	MT	4 000	-	1	(1)
					5	**82**	**(246)**
					465	**83**	**(139)**
Fair value hedge							
Commodity risk							
Crude oil	B	bitumen sale at fixed price	BBL	177 880	3	-	7
Heating oil	S	bitumen sale at fixed price	MT	4 379	-	-	(2)
Heating oil	B	bitumen sale at fixed price	MT	43 793	1	4	4
Jet	B	JET fuel sale at fixed price	MT	-	-	-	13
					4	**4**	**22**
					469	**87**	**(117)**

Carrying amount was recognised in statement of financial position in Derivatives and other assets and liabilities

2018

Link type / risk type / type of instrument	Buy (B) / Sell (S)	Hedging strategies within the cash flow hedge	Unit of measure	Nominal value / volume 31/12/2018	Assets 31/12/2018	Liabilities 31/12/2018	Changes in fair value (as basis for determining an ineffective part in a given period)
Cash flow hedge							
Foreign exchange risk							
FX_EUR.PLN	S	sales of goods denominated in foreign currencies/indexed to foreign currencies	EUR	1 095 000 000	203	-	(112)
FX_EUR.CZK	S		EUR	1 885 000 000	144	-	(70)
FX_USD.PLN	B		USD	34 229 425	5	-	13
FX_USD/CZK	B		USD	1 205 565	-	-	-
					352	**-**	**(169)**
Commodity risk							
Crude oil	S	time mismatch on crude oil purchases	BBL	8 148 400	243	-	299
Crude oil	B		BBL	4 809 200	3	105	(141)
Petrol	S	oversize inventories hedge	MT	15 000	12	-	17
Petrol	B	oversize inventories hedge	MT	-	-	-	(5)
Diesel	B	oversize inventories hedge	MT	-	-	-	(3)
Diesel	S	crack margin hedge, oversize inventories hedge	MT	27 100	16	-	50
					274	**105**	**217**
					626	**105**	**48**
Fair value hedge							
Commodity risk							
Crude oil	B	bitumen sale at fixed price	BBL	253 290	-	4	(4)
Heating oil	B	bitumen sale at fixed price	MT	91 605	2	8	(6)
Diesel	S	bitumen sale at fixed price	MT	9 161	2	-	2
Jet	B	JET fuel sale at fixed price	MT	46 000	-	14	(14)
					4	**26**	**(22)**
					630	**131**	**26**

Carrying amount was recognised in statement of financial position in Derivatives and other assets and liabilities

(in PLN million)

Cash flow hedge

2019

Risk type / position type	Changes in fair value of the hedged item (as basis for determining an ineffective part in a given period)	Hedging reserve (gross value) for relationships remains in hedge accounting
Cash flow hedge		
Foreign exchange risk (EUR)		
Future sales revenues	(87)	55
Foreign exchange risk (USD)		
Future manufacturing costs	2	4
Foreign exchange risk (CZK)		
Future sales revenues	-	239
	(85)	**298**
Commodity risk		
Inventories	(93)	-
Future sales revenues	212	(40)
Future manufacturing costs	(5)	-
	114	**(40)**
	29	**258**

2018

Risk type / position type	Changes in fair value of the hedged item (as basis for determining an ineffective part in a given period)	Hedging reserve (gross value) for relationships remains in hedge accounting
Foreign exchange risk (EUR)		
Future sales revenues	172	316
Foreign exchange risk (USD)		
Future manufacturing costs	(4)	5
	168	**321**
Commodity risk		
Inventories	102	(98)
Future sales revenues	(265)	257
	(163)	**159**
	5	**480**

Fair value hedge

2019

Risk type / position type	Accumulated balance sheet adjustment due to fair value		Item in statement of financial position in which carrying amount was recognised	Change in value of hedged item adjustment in a given period	Changes in fair value (as basis for determining an ineffective part in a given period)	Difference between profit or loss due to hedge on hedging instrument and hedged item
	Assets	Liabilities				
Commodity risk						
Future sales revenues	4	4	Derivatives and other assets and liabilities	(21)	22	1

2018

Risk type / position type	Accumulated balance sheet adjustment due to fair value		Item in statement of financial position in which carrying amount was recognised	Change in value of hedged item adjustment in a given period	Changes in fair value (as basis for determining an ineffective part in a given period)	Difference between profit or loss due to hedge on hedging instrument and hedged item
	Assets	Liabilities				
Commodity risk						
Future sales revenues	25	4	Derivatives and other assets and liabilities	21	(22)	(1)

(in PLN million)

Impact of cash flow hedge accounting on the statement of profit or loss and other comprehensive income

2019

Risk type / position type	Profits or losses from hedge for the reporting period recognised in other comprehensive income	Ineffectiveness of hedge recognized in profit or loss in the period	Item in the statement, where ineffectiveness of hedge was recognised	Amount reclassified from other comprehensive income to profit or loss as adjustment due to reclassification, because: Implementation of hedged item in the period (continued relationships)	Item in profit or loss, that includes reclassification adjustment
Foreign exchange risk (EUR/PLN)					
currency forwards	(4)	-		84	Sales revenues
currency forwards	-	-		-	Manufacturing costs (operational)
currency forwards	115	-		167	Other operating income/expenses
Foreign exchange risk (USD/PLN)					
currency forwards	(1)	-		-	Manufacturing costs (operational)
currency forwards	(1)	-		-	Other operating income/expenses
	109	**-**		**251**	
Commodity risk					
commodity swaps	102	2	Other operating income and costs	130	Inventories
commodity swaps	-	-		36	Manufacturing costs (operational)
commodity swaps	(260)	(10)	Other operating income and costs	(77)	Sales revenues
	(158)	**(8)**		**89**	
	(49)	**(8)**		**340**	

In other comprehensive income related to gross hedging reserve in the amount of PLN (33) million, the Group recognises profir or loss in the amount of PLN (49) million recognised in the 12 month period of 2019 and settled derivatives awaiting hedged item in the amount of PLN 16 million, including PLN 32 million from 2019 and PLN (16) million settled from the previous year.

2018

Risk type / position type	Profits or losses from hedge for the reporting period recognised in other comprehensive income	Ineffectiveness of hedge recognized in profit or loss in the period	Item in the statement, where ineffectiveness of hedge was recognised	Amount reclassified from other comprehensive income to profit or loss as adjustment due to reclassification, because: Implementation of hedged item in the period (continued relationships)	Item in profit or loss, that includes reclassification adjustment
Foreign exchange risk (EUR/PLN)					
currency forwards	(281)	-		(179)	Sales revenues
currency forwards	98	-		(15)	Other operating income/expenses
Foreign exchange risk (USD/PLN)					
currency forwards	12	-		1	Manufacturing costs (operational)
	(171)	**-**		**(193)**	
Commodity risk					
commodity swaps	108	2	Other operating income and costs	(67)	Inventories
commodity swaps	(20)	(8)	Other operating income and costs	(22)	Manufacturing costs (operational)
commodity swaps	133	4	Other operating income and costs	269	Sales revenues
	221	**(2)**		**180**	
	50	**(2)**		**(13)**	

ORLEN GROUP (in PLN million)

Reconciliation of equity from hedge accounting

2019

	Hedging reserve by			
	Effective part of change in fair value	Effective part due to settlement of instruments	Cost of hedging related to occurrence of transaction	Total
Foreign exchange risk				
01/01/2019	**298**	**6**	**32**	**336**
Cash flow hedge	**-**	**10**	**115**	**125**
Impact of valuation of hedging transactions (effective part)	84	-	260	344
Reclassification to profit or loss in connection with realization of hedged item, incl:	(84)	(6)	(161)	(251)
reclassification of instruments from the previous year - no hedged item	-	(6)	(10)	(16)
Instruments for settlement	-	16	16	32
31/12/2019	**298**	**16**	**147**	**461**
Commodity risk				
01/01/2019	**118**	**-**	**-**	**118**
Cash flow hedge	**(158)**	**-**	**-**	**(158)**
Impact of valuation of hedging transactions (effective part)	(33)	-	n/a	(33)
Reclassification to profit or loss in connection with realization of hedged item	(89)	-	n/a	(89)
Settlement of ineffective part	(36)	-	n/d	(36)
31/12/2019	**(40)**	**-**	**-**	**(40)**
Hedging reserve, gross 01/01/2019	**416**	**6**	**32**	**454**
Deferred tax from hedging instruments settlement and valuation	(86)	(1)	(6)	(93)
Hedging reserve, net 01/01/2019	**330**	**5**	**26**	**361**
Hedging reserve, gross 31/12/2019	**258**	**16**	**147**	**421**
Deferred tax from hedging instruments settlement and valuation	(62)	(3)	(28)	(93)
Hedging reserve, net 31/12/2019	**196**	**13**	**119**	**328**

2018

	Hedging reserve by			
	Effective part of change in fair value	Effective part due to settlement of instruments	Cost of hedging related to occurrence of transaction	Total
Foreign exchange risk				
01/01/2018	**519**	**-**	**-**	**519**
Cash flow hedge	**(198)**	**6**	**32**	**(160)**
Impact of valuation of hedging transactions (effective part)	(5)	-	34	29
Reclassification to profit or loss in connection with realization of hedged item	(193)	-	-	(193)
Instruments for settlement	-	6	(2)	4
31/12/2018	**321**	**6**	**32**	**359**
Commodity risk				
01/01/2018	**(51)**	**-**		**(51)**
Cash flow hedge	**210**	**-**		**210**
Impact of valuation of hedging transactions (effective part)	50	-	n/a	50
Reclassification to profit or loss in connection with realization of hedged item	180	-	n/a	180
Settlement of ineffective part	(20)	-	-	(20)
31/12/2018	**159**	**-**	**-**	**159**
Hedging reserve, gross 01/01/2018	**468**	**-**	**-**	**468**
Deferred tax from hedging instruments settlement and valuation	(90)	-	-	(90)
Settlement of ineffective part	(47)	-	-	(47)
Hedging reserve, net 01/01/2018	**331**	**-**	**-**	**331**
Hedging reserve, gross 31/12/2018	**480**	**6**	**32**	**518**
Deferred tax from hedging instruments settlement and valuation	(86)	(1)	(6)	(93)
Settlement of ineffective part	(64)	-	-	(64)
Hedging reserve, net 31/12/2018	**330**	**5**	**26**	**361**

13.5. Risk identification

Risk management is mainly focused on the unpredictability of markets and aims to reduce the impact of volatility on the Group's financial results.

	Type of risk	Exposure	Measurement of exposure	Management/Hedging
MARKET RISK	**Commodity**	- risk of changes in refining and petrochemical margins on sale of products and Brent differential fluctuations; - risk of changes in crude oil and products prices related to the time mismatch; - risk of changes in CO_2 emission rights prices; - risk of changes in crude oil and refinery product prices related to the obligation to maintain mandatory reserves of crude oil and fuels; - risk arising from firm liabilities and receivables, including the provision of pricing formulas based on a fixed price over time to selected customers	Based on planned cash flows.	Market risk management policy and hedging strategies, which define principles of measurement of individual exposure, parameters and the time horizon of risk hedging and hedging instruments. Market risk management is performed using derivatives, which are used only to reduce the risk of changes in fair value and the risk of changes in cash flows. By setting the market valuation of instruments, the Group uses its own recording systems and valuation of derivatives as well as relies on information obtained from market-leading banks and brokerage companies or information services. Transactions are concluded only with reliable partners, allowed to participate in transactions as a result of the application of appropriate procedures and signing of appropriate documentation.
	Exchange rates changes	- economic currency exposure resulting from inflows decrease by expenses indexed to or denominated in other than the functional currency; - currency exposure resulting from investment or probable liabilities and receivables in foreign currencies; - balance sheet exposure resulting from assets and liabilities denominated in foreign currency	Based on planned cash flows. Based on analysis of balance sheet positions.	
	Interest rates changes	Exposure resulting from owned assets and liabilities for which interest gains or losses are dependent on floating interest rates.	Based on total gross debt to positions for which interest costs are dependent on floating interest rate.	
Liquidity		Risk of unforeseen shortage of cash or lack of access to financing sources, both in the horizon of short and long-term, leading to temporary or permanent loss of ability to pay financial liabilities or the need to obtain funds on unfavourable terms.	Based on planned cash flows in short and long-term horizon.	Liquidity risk management policy, which defines rules of reporting and consolidation of liquidity of PKN ORLEN and ORLEN Group entities. Group carries out a policy of its financing sources diversification and uses range of tools for effective liquidity management.
Losing cash and deposits		Risk of bankruptcy of domestic or foreign banks, in which accounts are kept or in which cash is invested.	Regular review of credit rating of banks and setting limits on concentration of funds.	Management based on principles of surplus cash management, which determine possibility of granting quotas for individual banks made on the basis of, among others, ratings and reporting data. Cooperation mainly with crediting banks.
Credit		Risk of unsettled receivables for delivered products and services by customers with whom trade transactions are concluded with deferred payment.	Analysis of creditability and solvency of customers.	Management based on procedures and policies adopted for management of trade credit and debt recovery including the determination of limits and hedging.

Hedging strategies within hedge accounting as at 31.12.2019	Component	Type of relationship
Bitumen sales at fixed price	Brent risk component, which is a part of an unconditional and binding commercial commitment from concluded sale transaction at a fixed price	fair value hedge
Aviation fuel sales at fixed price	Jet fuel risk component, which is a part of an unconditional and binding commercial commitment from concluded sale transaction at a fixed price	fair value hedge
Bitumen sales at fixed price	Fuel Oil risk component, which is a part of an unconditional and binding commercial commitment from concluded sale transaction at a fixed price	fair value hedge
Time mismatch on crude oil purchases, which is hedged to the planned period of crude oil processing and sales of products of oversize inventories	Brent risk component, which is a part of diesel oil sales; an item identified based on sales invoices issued in the month of execution/delivery of hedging transaction in the order in which they were issued	cash flow hedge
Oversize inventories	Brent DTd risk component, which is part of future crude oil purchase; an item identified based on crude oil deliveries from the month of execution/delivery of hedging transaction in the order in which they were received	cash flow hedge
Oversize inventories and crack margin	EBOB/ULSD risk component, which is a part of diesel oil sales; an item identified based on sales invoices issued in the month of execution/delivery of hedging transaction in the order in which they were issued	
Sales of goods denominated in foreign currencies/indexed to foreign currencies	Invoices for sales denominated in foreign currency or indexed to exchange rate of foreign currency issued on the day of Forward transaction and subsequent days in the order in which they were issued; nominal value in foreign currency up to the nominal value of hedging instrument in foreign currency	cash flow hedge
	Deliveries for sales denominated in foreign currency or indexed to exchange rate of foreign currency received on the day of Forward transaction and subsequent days in the order in which they were delivered; nominal value in foreign currency up to the nominal value of hedging instrument in foreign currency	

The ORLEN Group applies a consistent financial risk hedging policy based on market risk management policy and strategies supported and supervised by the Financial Risk Committee, the Management Board and the Supervisory Board of PKN ORLEN.

Standard hedge against currency economic exposure is done in a rolling and recurring basis, covering a period of the next 12 months. Opportunistic hedge against currency economic exposure in EUR (due to its stability and predictability) for periods of over 48 months is allowed.

ORLEN GROUP (in PLN million)

A dedicated hedging strategy determines the optimal heeding levels for the standard period and acceptable deviations.
Exposure to balance sheet currency risk is hedged up to 100% of the amount exposed to this currency risk.
In case of commodity risk, the hedged level for particular exposures is in line with the recommendations for individual companies approved by the Financial Risk Committee.
Exposure to commodity price risk related to time mismatches on non-normative operating inventories is hedged for 100% of the volume of inventories exposed to the risk concerned.
Exposure to commodity price risk related to probable liabilities or receivables in PKN ORLEN is 100% hedged on the volume exposed to this risk (offering customers the price formulas based on a fixed price over time).
Exposure to commodity price risk related to time mismatch on crude oil purchases is hedged on the volume corresponding to 90% of sold products made from the purchased crude oil, exposed to this risk.
Exposure due to the refining margin is hedged opportunistically. In line with the strategies adopted in this respect, the refining margin is hedged in the horizon of up to 12 months in advance on the volume of planned production not exceeding 30% in PKN ORLEN, and 50% in Unipetrol and in ORLEN Lietuva.
All transactions hedging the commodity and currency exposure in Unipetrol and ORLEN Lietuva are performed on the PKN ORLEN balance sheet and then transferred to the companies on the basis of intercompany transactions.

13.5.1. Commodity risk

The impact of commodity risk hedging instruments on the Group's financial statements

Type of hedged raw material/product	Unit of measure	31/12/2019	31/12/2018
Crude oil	bbl	26 370 730	13 775 890
Diesel	t	130 280	36 261
Heating oil	t	43 793	91 605
Gas	gj	6 420 000	-
Other	t	53 000	52 000

The net carrying amount of commodity risk hedging instruments as at 31 December 2019 and as at 31 December 2018 amounted to PLN (158) million and PLN 160 million, respectively.

Sensitivity analysis for changes in prices of products and raw materials

Analysis of the influence of changes in the carrying amount of financial instruments on result before tax and hedging reserve to a hypothetical change in prices of products and raw materials:

	Assumed variations		Influence on result before tax		Influence on hedging reserve		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
			Increase of prices		Increase of prices		Total influence	
Crude oil USD/bbl; CAD/bbl	32%	29%	(415)	(46)	(96)	(266)	(511)	(312)
Diesel USD/t	26%	24%	-	-	(47)	(12)	(47)	(12)
Gasoline USD/t	31%	24%	-	-	(23)	(7)	(23)	(7)
Heating oil USD/t	-	28%	-	-	24	-	24	-
Gas CAD/Gj	27%	23%	11	-	-	-	11	-
JET fuel USD/t	25%	-	-	-	(2)	-	(2)	-
			(404)	**(46)**	**(144)**	**(285)**	**(548)**	**(331)**

At the same percentage price decrease, the sensitive analysis states variations of the same value as in the above table but with the opposite sign.
Applied for the sensitivity analysis of commodity risk hedging instruments variations of crude oil, gas and products prices were calculated based on their historical volatility in 2019 and 2018. The influence of changes in prices was presented on annual basis.
In case of derivatives, the influence of crude oil, gas and products prices variations on fair value were examined at constant level of currency rates.

(in PLN million)

13.5.2. The risk of exchange rates changes

Currency structure of financial instruments

Financial instruments by class	EUR		USD		CZK		CAD		Other currencies after translation to PLN		Total after translation to PLN	
	31/12/2019	31/12/2018	31/12/2019	31/12/2018	31/12/2019	31/12/2018	31/12/2019	31/12/2018	31/12/2019	31/12/2018	31/12/2019	31/12/2018
Financial assets												
Financial assets measured at fair value through other comprehensive income	-	-	-	-	-	-	2	10	-	-	7	27
Trade receivables	634	581	156	211	6 719	8 260	30	17	31	51	4 536	4 772
Lease	-	-	-	-	143	-	-	-	-	-	25	-
Derivatives	118	83	13	87	-	-	-	-	-	-	553	685
Cash and cash equivalents	728	555	209	202	5 216	1 360	1	1	14	17	4 787	3 393
Security deposits	-	-	79	-	-	-	2	-	-	-	304	-
Receivables on settled derivatives	-	-	29	81	-	-	-	-	-	-	110	306
Hedged item adjustment	-	-	1	7	-	-	-	-	-	-	4	25
Other	10	8	79	3	124	26	2	-	2	1	373	48
	1 490	**1 227**	**566**	**591**	**12 202**	**9 646**	**37**	**28**	**47**	**69**	**10 699**	**9 256**
Financial liabilities												
Loans	501	500	-	1	-	-	1	38	-	-	2 134	2 263
Bonds	1 261	1 259	-	-	-	-	-	-	-	-	5 369	5 412
Lease	341	-	-	-	2 371	-	-	-	-	-	1 852	-
Trade liabilities	368	315	1 072	994	3 708	3 442	20	24	5	10	6 326	5 742
Investment liabilities	81	70	14	8	1 422	1 224	50	31	-	-	783	620
Derivatives	6	16	48	44	305	-	4	-	-	-	268	235
Liabilities on settled derivatives	-	-	55	18	-	-	-	-	-	-	209	67
Hedged item adjustment	-	-	1	1	-	-	-	-	-	-	4	4
Other	3	1	73	54	1 494	263	2	-	-	-	551	253
	2 561	**2 161**	**1 263**	**1 120**	**9 300**	**4 929**	**77**	**93**	**5**	**10**	**17 496**	**14 596**

Sensitivity analysis for changes in the exchange rates

	EUR / PLN		USD / PLN		CZK / PLN		CAD / PLN		Total	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
	variation of exchange rates +15%									
Influence on result before tax (A)	(1 526)	(1 665)	60	57	11	4	4	1	(1 451)	(1 603)
Influence on hedging reserve (B)	(1 036)	(686)	1	42	-	-	-	-	(1 035)	(644)
Influence on foreign exchange differences on subsidiaries from consolidation (C)	(11)	165	(129)	4	69	114	(20)	(28)	(91)	255
Total influence (A+B+C)	**(2 573)**	**(2 186)**	**(68)**	**103**	**80**	**118**	**(16)**	**(27)**	**(2 577)**	**(1 992)**
Sensitivity of net investment in foreign operations including hedging reserve (D)	112	119	363	322	1 480	1 458	318	295	2 273	2 194
Total influence on profit or loss and other comprehensive income (A+B+D)	**(2 450)**	**(2 232)**	**424**	**421**	**1 491**	**1 462**	**322**	**296**	**(213)**	**(53)**

At variation of currency rates by (-)15% the sensitivity analysis states variations of the same value as in the above table but with the opposite sign.
Variations of currency rates described above were calculated based on average volatility of particular currency rates in 2019 and 2018.
The influence of currency rate variations on fair value of derivatives was examined at constant level of interest rates.

13.5.3. The risk of interest rates changes

Structure of financial instruments subject to risk of interest rates changes as at 31 December 2019

Financial instruments by class	NOTE	WIBOR	EURIBOR	LIBOR USD	PRIBOR	LIBOR CAD	Total
Financial assets							
Derivatives	*12.8*	19*	504*	49	-	-	553**
		19	**504**	**49**	**-**	**-**	**553**
Financial liabilities							
Loans	*12.6.1.1*	2	2 132	-	-	2	2 136
Bonds	*12.6.1.2*	1 002	-	-	-	-	1 002
Derivatives	*12.8*	-	24*	181	51	12	268**
		1 004	**2 156**	**181**	**51**	**14**	**3 406****

** In financial assets– net derivatives include cross interest rate swaps (CIRS) valuated at the amount of PLN 19 million was recognised, which are sensitive to both WIBOR and EURIBOR interest rates changes.*
***Total assets on derivatives include CIRS valuation of PLN 19 million.*

(in PLN million)

Structure of financial instruments subject to risk of interest rates changes as at 31 December 2018

Financial instruments by class	NOTE	WIBOR	EURIBOR	LIBOR USD	LIBOR CAD	Total
Financial assets						
Derivatives	12.8	11*	357*	328	-	685**
		11	**357**	**328**	**-**	**685**
Financial liabilities						
Loans	12.6.1.1	-	2 152	5	106	2 263
Bonds	12.6.1.2	2 015	-	-	-	2 015
Derivatives	12.8	27*	70*	165	-	235**
		2 042	**2 222**	**170**	**106**	**4 513****

** In financial assets and liabilities – net derivatives include cross interest rate swaps (CIRS) valuated at the amount of PLN 16 million which are sensitive to both WIBOR and EURIBOR interest rates changes.*
***Total assets and liabilities on derivatives include CIRS valuation of PLN 11 million and PLN 27 million, respectively.*

The ORLEN Group is exposed to risk of cash flows changes in interest rates arising from owned assets and liabilities, for which interest gains or losses are depend on floating interest rates.
The ORLEN Group hedges the consolidated exposure to volatility of cash flows due to changes in interest rates. For this purpose, interest rate swap and currency swap are used.
Measurement of risk is based on total gross debt to positions for which interest costs are depend on floating interest rates.

Sensitivity analysis for the interest rates changes

Interest rate	Assumed variations		Influence on result before tax		Influence on hedging reserve		Total	
	31/12/2019	31/12/2018	2019	2018	2019	2018	2019	2018
WIBOR	+0.5p.p.	+0.5p.p.	(5)	(10)	-	-	(5)	(10)
LIBOR USD	+0.5p.p.	+0.5p.p.	1	4	-	-	1	4
EURIBOR	+0.5p.p.	+0.5p.p.	(8)	(1)	(1)	-	(9)	(1)
			(12)	**(7)**	**(1)**	**-**	**(13)**	**(7)**

At variation of interest rates by (-) 0,5% the sensitive analysis presents variations of the same value as in the above table but with the opposite sign.
The above interest rates variations were calculated based on observations of average interest rates fluctuations in 2019 and 2018.
The influence of interest rates changes was presented on annual basis.
For derivatives in sensitivity analysis for the risk of interest rates changes interest rate curve displacement due to potential reference rate change was used, provided that other risk factors remain constant.

Sensitivity analysis to commodity risk, exchange rates changes and to the risk of interest rates changes was carried out based on the same methodology.

13.5.4. Liquidity and credit risk

Liquidity risk

Maturity analysis for financial liabilities as at 31 December 2019

	NOTE	up to 1 year	above 1 to 3 years	above 3 to 5 years	above 5 years	Total	Carrying amount
Loans	12.6.1.1	252	1 884	-	-	2 136	2 136
Bonds	12.6.1.2	201	1 047	5 299	-	6 547	6 471
floating-rate bonds - undiscounted value		*29*	*1 047*	-	-	*1 076*	*1 002*
fixed rate bonds - undiscounted value		*172*	-	*5 299*	-	*5 471*	*5 469*
Trade liabilities	12.5.3	7 889	-	-	-	7 889	7 889
Investment liabilities	12.5.3, 12.8	1 362	18	14	62	1 456	1 456
Derivatives - undiscounted value	12.8	263	4	2	-	269	268
gross exchange amounts, incl.:		*54*	-	*2*	-	*56*	*56*
currency forwards	12.8	*42*	-	*2*	-	*44*	*44*
commodity swaps	12.8	*12*	-	-	-	*12*	*12*
net exchange amounts, incl.:		*209*	*4*	-	-	*213*	*212*
interest rate swaps	12.8	*19*	-	-	-	*19*	*19*
commodity swaps	12.8	*190*	*4*	-	-	*194*	*193*
Liabilities on settled derivatives	12.8	209	-	-	-	209	209
Hedged item adjustment	12.8	4	-	-	-	4	4
Other	12.5.3, 12.8	611	22	7	43	683	683
		10 791	**2 975**	**5 322**	**105**	**19 193**	**19 116**

The maturity analysis of financial liabilities related to lease was presented in note 14.2.1.

ORLEN GROUP (in PLN million)

Maturity analysis for financial liabilities as at 31 December 2018

	NOTE	up to 1 year	above 1 to 3 years	above 3 to 5 years	above 5 years	Total	Carrying amount
Loans	12.6.1.1	112	2 151	-	-	2 263	2 263
Bonds	12.6.1.2	1 051	361	2 983	3 246	7 641	7 528
floating-rate bonds - undiscounted value		*1 046*	*258*	*818*	*-*	*2 122*	*2 015*
fixed rate bonds - undiscounted value		*5*	*103*	*2 165*	*3 246*	*5 519*	*5 513*
Trade liabilities	12.5.3	7 275	-	-	-	7 275	7 275
Investment liabilities	12.5.3, 12.8	1 067	19	14	69	1 169	1 169
Derivatives - undiscounted value	12.8	180	50	-	-	230	235
gross exchange amounts, incl.:		*39*	*-*	*-*	*-*	*39*	*45*
currency forwards	12.8	*15*	*-*	*-*	*-*	*15*	*18*
currency interest rate swaps	12.8	*24*	*-*	*-*	*-*	*24*	*27*
commodity swaps	12.8	*-*	*-*	*-*	*-*	*-*	*-*
net exchange amounts, incl.:		*141*	*50*	*-*	*-*	*191*	*190*
currency forwards	12.8	*-*	*-*	*-*	*-*	*-*	*-*
interest rate swaps	12.8	*-*	*38*	*-*	*-*	*38*	*38*
commodity swaps	12.8	*141*	*12*	*-*	*-*	*153*	*152*
Liabilities on settled derivatives	12.8	67	-	-	-	67	67
Hedged item adjustment		1	*3*	-	-	4	4
Other	12.5.3, 12.8	368	*63*	31	158	620	620
		10 121	**2 647**	**3 028**	**3 473**	**19 269**	**19 161**

A financial liquidity risk is the loss of ability to settle current liabilities on time.
The ORLEN Group is exposed to liquidity risk resulting from the relation between current assets and current liabilities. As at 31 December 2019 and 31 December 2018, the current liquidity indicator amounted to 1.8 for both dates.

The objective of the liquidity risk management process is to ensure the Group's financial security and financial stability, and the basic tool limiting the above risk is the ongoing review of matching maturities of assets and maturity of liabilities. Moreover, the ORLEN Group carries out a policy of its financing sources diversification and uses range of tools for effective liquidity management.
The ORLEN Group uses systems of cash concentration ("cash-pool systems") to effectively manage current financial liquidity and to optimize financial costs within the ORLEN Group. At the end of 2019, the following cash-pool systems existed operated by PKN ORLEN:

- cash-pool systems dedicated to Polish companies of the ORLEN Group. As at 31 December 2019 systems included a total of 24 ORLEN Group entities,
- international cash-pool system dedicated to foreign companies of the ORLEN Group. As at 31 December 2019 the system comprised 8 ORLEN Group foreign companies.

PKN ORLEN may issue bonds within the settled limits as well as purchase bonds issued by the ORLEN Group entities when managing liquidity. Additional information about bonds in note 12.6.1.2.
In 2019, the ORLEN Group invested cash in bank deposits. Decisions regarding bank deposits are based on maximization of the rate of return and assessment of the financial condition of banks requiring a short-term rating by the bank for investment-grade deposits.

As at 31 December 2019 and as at 31 December 2018 the maximum possible indebtedness due to loans amounted to PLN 9,160 million and PLN 10,025 million, respectively. As at 31 December 2019 and as at 31 December 2018 PLN 6,742 million and PLN 7,181 million, respectively, remained unused.

The value of guarantees regarding liabilities to third parties granted during ongoing operations as at 31 December 2019 and as at 31 December 2018 amounted to PLN 2,586 million and PLN 579 million, respectively. The amount of PLN 2 billion is a bank guarantee for liabilities under the call issued by PKN ORLEN to subscribe for the sale of all shares of ENERGA S.A. Other guarantees concerned mainly: civil-law guarantees of contract performance and public-law guarantees resulting from generally applicable regulations secured regularity of business licensed in the liquid fuels sector and resulting from this activity tax and customs receivables, etc.
In addition, guarantees and sureties granted in the Group on behalf of related parties as at 31 December 2019 and as at 31 December 2018 amounted to PLN 9,946 million and PLN 10,570 million, respectively. They were mainly related to secure of ORLEN Capital future liabilities due to these transactions of Eurobonds issuance and timely payment of liabilities by related parties.
Based on analysis and forecasts as at the end of the reporting period, the Group recognised the probability of payment of above amounts as low.

Credit risk

The Group assess that the risk of unsettled receivables by customer in the field of undue receivables and due receivables not covered by allowance is negligible, due to effective management of trade credit and debt recovery. The Group, among others, sets limits for particular customers and establishes hedges, has the possibility to compensate of mutual debts. The Group uses non-recourse factoring, as well as reverse factoring solution.
Limits are set based on financial analysis of customers (on basis of provided financial statements and history of cooperation) or the current report from the business information agency.
Separate group are customers for whom an insurance limit is issued e.g.: fleet, micro fleet, export contractors.
Some contractors make a deposit on account. In case of the absence of credit limit, contractors are obliged to make a prepayment.
The measure of credit risk is the maximum credit risk for each class of financial instruments, which is equal to their carrying amount (note 12.5.2, 12.8).

As at 31 December 2019 and as at 31 December 2018 the Group received bank and insurance guarantees of PLN 3,301 million and PLN 2,793 million, respectively. The Group additionally receives from its customers collateral in the form of sureties, voluntary submission to execution (Article 777 of the Code of Civil Procedure), deposits, registered pledges, mortgages, bills of exchange, guarantees and letters of credit.

ORLEN GROUP (in PLN million)

14. OTHER EXPLANATORY NOTES

14.1. Concessions held

The Group's operations require concessions, due to their importance to the public interest.

31/12/2019	Remaining concessions periods (in years)
Electrical energy: manufacturing, distribution, trade	6-11
Heating energy: manufacturing, transmission, distribution, trade	6-11
Natural gas: distribution, trade in Poland and abroad	6-11
Liquid fuels: manufacturing, transmission, storage, transhipment, trade in Poland and abroad	2-11
Non-reservoir storage of crude oil and liquid fuels	10
Rock salt: exploitation	13
Exploration and recognition of crude oil and natural gas deposits	1-5
Marine Wind Farms: preparation, implementation, operation	22
Personal and property security services	indefinitely

As at 31 December 2019 and as at 31 December 2018 the Group had no liabilities related to concession services in scope of IFRIC 12 – Service concession arrangements.

14.2. Leases

SELECTED ACCOUNTING PRINCIPLES

Lease
Detailed accounting principles are described in Note 5 Impact of IFRS changes on consolidated financial statements

PROFESSIONAL JUDGMENT
In the field of contracts in which the Group is a lessee, when the assessment or the contract contains a lease is not clear, the Group makes a professional judgment whether the definition of lease in accordance with IFRS 16 is fulfilled.
In the field of contracts in which the Group is a lessor, the Group makes a judgment classified lease contracts as finance lease or operating lease based on the analysis of the economic content of the transaction.

14.2.1. Group as a lessee

Change in assets due to right-of-use

	Land	Buildings and constructions	Machinery and equipment	Vehicles and other	Total
Net carrying amount at 01/01/2019 - Impact of IFRS 16 adoption					
Gross carrying amount	1 544	984	95	697	3 320
Impairment allowances	-	-	(2)	(2)	(4)
	1 544	**984**	**93**	**695**	**3 316**
increases/(decreases), net					
New lease agreements, increase in leasing remuneration	160	514	7	312	993
Depreciation	(54)	(135)	(15)	(321)	(525)
Impairment allowances	(24)	(5)	-	-	(29)
Recognition	*(52)*	*(4)*	-	*(1)*	*(57)*
Reversal	*24*	*4*	-	-	*28*
Reclassifications *	97	150	19	49	315
Other	(33)	(33)	(5)	(47)	(118)
	1 690	**1 475**	**99**	**688**	**3 952**
Net carrying amount at 31/12/2019					
Gross carrying amount	1 795	1 685	125	1 012	4 617
Accumulated depreciation	(81)	(205)	(24)	(322)	(632)
Impairment allowances	(24)	(5)	(2)	(2)	(33)
	1 690	**1 475**	**99**	**688**	**3 952**

* *The line reclassification includes gross values, depreciation of property, plant and equipment and perpetual usufruct of land which were recognised as at 31 December 2018 as finance lease under IAS 17*

The total value of expenses from lease agreements presented in financing activities in the statement of cash flows in 2019 amounted to PLN 724 million.

Maturity analysis of lease liabilities

	31/12/2019
up to 1 year	618
from 1 to 2 years	1 135
from 2 to 3 years	279
from 3 to 4 years	222
from 4 to 5 years	193
above 5 years	3 416
	5 863
Discount	(1 865)
	3 998

(in PLN million)

Amounts from lease contracts recognised in the statement of profit or loss and other comprehensive income

		2019
Costs due to:		**(251)**
interest on lease	Finance costs	(100)
short-term lease	Cost by nature: External Services	(112)
lease of low-value assets that are not short-term lease	Cost by nature: External Services	(6)
variable lease payments not recognised in valuation of lease liabilities	Cost by nature: External Services	(33)

14.2.2. Group as a lessor

Financial lease

The Group as at the initial date, classifies leases as finance or operating lease.
In order to make the above classification the Group assesses whether the entire risk and benefits resulting from ownership of the underlying asset were transferred to a lessee. If the entire risk and benefits were transferred to a lessee, the lease is classified as a financial lease, in the opposite situation - as operating lease.

Maturity analysis for financial lease payments

	31/12/2019
up to 1 year	12
from 1 to 3 years	12
from 3 to 5 years	1
	25

The Group as a lessor in finance lease, recognised as at 1 January 2019, in accordance with IFRS 16 subleasing agreements in the Unipetrol Group for which the value of lease payments due as at 31 December 2019 amounted to PLN 25 million.

Operating lease

Maturity analysis for operating lease payments

	31/12/2019
up to 1 year	89
from 1 to 2 years	41
from 2 to 3 years	39
from 3 to 4 years	37
from 4 to 5 years	33
above 5 years	336
	575

As at 31 December 2019, the net carrying amount of the Company's non-current assets leased to other entities under operating lease agreements amounted to PLN 150 million and related mainly to own land (PLN 46 million) as well as buildings and construction (PLN 94 million).
Lease payments under operating leases are recognised on a straight-line basis over the lease period as revenues from the sale of products and services.
Revenues from operating lease for 2019 amounted to PLN 257 million.

14.3. Investment expenditures incurred and future commitments resulting from signed investment contracts

The total amount of investment expenditures together with borrowing costs incurred in 2019 and in 2018 amounted to PLN 8,773 million and PLN 4,280 million, respectively, including PLN 198 million and PLN 204 million of investments relating to environmental protection. The total amount of investment expenditures together with borrowing costs incurred in 2019 takes into account the impact of IFRS 16 implementation in the amount of PLN 3,316 million.

As at 31 December 2019 and as at 31 December 2018 the value of future commitments resulting from contracts signed until this date amounted to PLN 5,100 million and PLN 1,281 million, respectively.

14.4. Contingent assets and liabilities

SELECTED ACCOUNTING PRINCIPLES

Contingent assets and liabilities
The Group discloses at the end of reporting period information on contingent assets if the inflow of resources embodying economic benefits is probable. If it is practicable the Group estimates the financial impact of contingent assets valuing them according to the principles of valuation provisions.
At the end of reporting period the Group discloses information on contingent liabilities if:
- *it has a possible obligation, which arose as a result of past events, the existence of which will be confirmed only when one or more uncertain future events occur that are not fully controlled by the Group, or*
- *it has a current obligation, which arose as a result of past events, but an outflow of funds have economic benefits in it, is not probable or the Group is not able to valuate liabilities reliably enough.*

The Group does not disclose the contingent liability when the probability of outflow of funds included economic benefits is remote.

ESTIMATES

Contingent assets
The Group makes estimations with respect to financial effects of disclosed contingent assets based on the value of previously recognized related costs that the Group expects to recover (e.g. under insurance contracts signed) or the value of subjects to proceedings in which the ORLEN Group entities act as plaintiff.

Contingent liabilities
The Group estimates possible future liabilities constituting contingent liabilities based on the value of claims under ongoing proceedings in which the ORLEN Group entities act as the defendant.

14.4.1. Contingent assets

On 5 March 2020 PERN S.A. informed PKN ORLEN that due to the stock count of crude oil delivered by the tank farm in Adamów, carried out by PERN S.A. as a pipeline system operator, the Company's operating stock of crude oil REBCO-type (Russian Export Blend Crude Oil) is lower by 89,653 net metric tons due to differences in the methodology for calculating the quantity of this stock. Consequently, according to PERN S.A. as at 31 December 2019, the Company's operating stock of REBCO-type crude oil amounted to 535,812 net metric tons.
PKN ORLEN does not agree with PERN S.A. position, because in the opinion of PKN ORLEN it remains without merit, unproven and inconsistent with the binding agreements between PKN ORLEN and PERN S.A., and the current methodology used for calculating the quantity of REBCO-type crude oil sent by PERN S.A. to PKN ORLEN is correct and has never been questioned before. PKN ORLEN is currently analysing the possibilities of taking appropriate legal steps related to the information provided by PERN S.A. and reserves the right to take all actions aimed at protecting the legitimate interests of PKN ORLEN, including pursuing claims related to infromation shared by PERN S.A. on the quantity of PKN ORLEN's operating stock of REBCO-type crude oil. Regardless of this, being the most cautious, PKN ORLEN adjusted the stock by the amount of PLN (156) million in correspondence with other operating expenses. In the opinion of PKN ORLEN, the amount of the allowance on stock is also a contingent asset of PKN ORLEN.

14.4.2. Contingent liabilities

Information concerning significant proceedings in front of court, body appropriate for arbitration proceedings or in front of administration bodies in which the companies of the ORLEN Group act as the defendant:

I.P.-95 s.r.o. compensation claim against Unipetrol RPA s.r.o.
On 23 May 2012, Unipetrol RPA s.r.o. received from the District Court in Ostrava a claim brought by I.P.-95 s.r.o. for compensation related to the filing by Unipetrol RPA s.r.o. a motion for bankruptcy of I.P.-95 s.r.o. in November 2009. The total amount of the claim is approximately PLN 300 million, translated using the exchange rate as at 31 December 2019 (representing CZK 1,789 million). Unipetrol RPA s.r.o. is one of eight defendants which were jointly and severally claimed. At the request of the I.P.-95 s.r.o proceeding was pending concerning the accession to the claim as plaintiff NESTARMO TRADING LIMITED. The court refused the Company permission to enter to the case. In February 2018, the court dismissed in entirety claim ruling in favour of Unipetrol RPA s.r.o. On 3 April 2018, I.P.-95 s.r.o. appealed against the decision of the court of first instance. On 22 May 2018, the District Court in Ostrava obliged I.P. - 95 s.r.o. to pay the appeal fee. On 11 December 2018, the court of second instance dismissed the appeal of I.P.-95 s.r.o. from the judgment of the District Court in Ostrava. The judgment is binding. On 20 March 2019 I.P. - 95 s.r.o. filed a cassation appeal against the judgment of the court of second instance. According to Unipetrol RPA s.r.o. the claim is without merit.

Claim of Warter Fuels S.A. (before: OBR S.A.) against PKN ORLEN for compensation
On 5 September 2014, OBR S.A. (currently: Warter Fuels S.A.) filled an action against PKN ORLEN with the District Court in Łódź for a claim for payment in respect of an alleged breach by PKN ORLEN of patent rights. The amount of the claim in the lawsuit was estimated by Warter Fuels S.A. in the amount of approximately PLN 84 million. The claim covers the adjudged sum of money from PKN ORLEN for Warter Fuels S.A. in the amount corresponding to the value of the license fee for the use of the solution under the above patent and adjudge the obligation to repay the benefits derived from the use of this solution. On 16 October 2014 PKN ORLEN responded to the lawsuit. By the procedural document from 11 December 2014 the value of the dispute was referred to by the plaintiff in the amount of approximately PLN 247 million. So far, several hearings have been held (last on 28 September 2018), during which witnesses submitted by the parties were heard by the court . On 19 December 2018, a hearing took place, during which the Court heard the parties' position in the scope of the grounds for any repeal of the freezing order. By a decision of 2 January 2019 the Regional Court set aside the order granting security for claims. Warter Fuels S.A. submitted a complaint against this decision on 5 February 2019. PKN ORLEN submitted a response to the complaint. The matter of complaint consideration is at the stage of secondary proceedings, i.e. before the Court of Appeal in Łódź. The freezing order has been legally repealed.
The PKN ORLEN attorney submitted a request to suspend the proceedings due to parallel proceedings for determining the right to the disputed patent, the outcome of which will have significance for the resolution in the case of breach. The request has not been considered yet. The court is currently looking for an expert or institute to issue an opinion. In the opinion of PKN ORLEN the above claims are without merit.

Polocktransneft Druzhba claim against AB ORLEN Lietuva
On 21 September 2017, AB ORLEN Lietuva received from the court a claim brought by the Belarusian company Polocktransneft Druzhba (operator of the Belarus section of the Druzhba pipeline) for payment of compensation for crude oil (so-called 'technological oil') which from 1992 was located in Lithuanian section of the Druzhba pipeline and used by ORLEN Lietuva after operation of this section was stopped in 2006. Polocktransneft Druzhba believes that this oil was its property. The value of the claim is approximately PLN 319 million, translated using the exchange rate as at 31 December 2019 (representing USD 84 million). The claim also includes a request for procedural interest and litigation cost. ORLEN Lietuva responded to the claim. On 15 March 2018 a hearing took place. On 29 March 2018, the court dismissed the plaintiff's claim. Polocktransneft Druzhba appealed against the judgment dismissing the claim. ORLEN Lietuva responded to the appeal. The hearing took place on 6 May 2019. The witness, the former chief representative of the Druzhba Polocktransneft in Lithuania, was heard. On 4 September 2019, another hearing was held, at which the Court decided several procedural issues, including admitted evidence from expert opinions appointed by the parties, refused to attach to the case documents from other criminal cases requested by Polocktransneft Druzhba. The court appealed the plaintiff and the defendant to submit documents and information to the case file by 22 October 2019. On 6 November 2019, on 22 January 2020 and on 7 February 2020 subsequent hearings were held at which documentary evidence was submitted and witness was questioned. On 9 March 2020 the Court of Appeal dismissed the plaintiff's appeal. Polocktransneft Druzbha has the right to lodge a

cassation appeal within 3 months from the date of delivery of the judgment of the Court of Appeal. In the opinion of ORLEN Lietuva, the above claim is without merit.
According to ORLEN Lietuva, the above claim is without merit.

UAB Baltpool claim against ORLEN Lietuva
In May 2019, UAB Baltpool (an entity administering the funds and responsible for collecting fees for so-called Public Service Obligation in Lithuania) filed a claim against ORLEN Lietuva for payment of system fees (so–called PSO fees) related to electricity consumption for the period from February 2013 to March 2019 (excluding May 2017). The claim relates to unpaid by ORLEN Lietuva system fees on the amount of electricity generated and consumed by ORLEN Lietuva for own needs. ORLEN Lietuva believes, that such system fees (self-producer fees) are not due. The value of the dispute together with interest was included in the books of ORLEN Lietuva and amounted to PLN 64.8 million, translated using the exchange rate as at 31 December 2019 (representing EUR 15.2 million).
The case is connected with 7 administrative cases brought by ORLEN Lietuva (since 2013), in which ORLEN Lietuva challenges the legality of charging PSO on electricity generated and consumed for own needs. All these administrative cases are suspended in connection with proceedings pending before the Court of Justice of the EU. The outcome of the case brought by UAB Baltpool depends on a large extent on the outcome of these administrative proceedings and proceedings before the Court of Justice of the EU. The Court of Justice of the EU decided, that the Lithuanian PSO program constitutes the nature of state aid. In the opinion of the ORLEN Lietuva the claims are without merit.

POLWAX S.A. - ORLEN Projekt S.A. dispute
On 19 April 2019 ORLEN Projekt filed a claim against POLWAX with the District Court in Rzeszów for payment of the amount of PLN 6.7 million together with due statutory interest for delay in commercial transactions in respect of remuneration for performed and received by POLWAX construction works in connection with the Agreement concluded on 7 April 2017 for "Construction and start-up of the paraffin wax solvent deoiling installation together with auxiliary installations for POLWAX .S.A.".
On 23 May 2019 the Court issued a warrant for payment to ORLEN Projekt in a writ of payment proceedings covering the entire amount claimed, thanks to which ORLEN Projekt obtained subsequently a bailiff's security for this amount on the POLWAX bank account. The motion submitted by POLWAX for overturning the warrant of payment was dismissed by the decision of the Court of First Instance. Currently, the lawsiut is in the process of considering POLWAX's complaint against the indicated decision of the Court of First Instance by the Court of Appeal. The planned deadline for considering the POLWAX's complaint is mid-March 2020. After consideration, the lawsuit's files will be transferred back to the District Court in order to carry on evidence proceeding.
On 31 May 2019 ORLEN Projekt filed another claim against POLWAX with the District Court in Rzeszów for payment of further PLN 6.5 million together with due statutory interest for delay in commercial transactions in respect of further part of remuneration for performed and received by POLWAX construction works.This claim was then extended twice - the extension of the claim as of 20 September 2019 by the amount of PLN 13.9 million for groundless reimbursement of a performance guarantee and covering the costs of its execution, and the extension of the claim as of 6 November 2019 by the amount of PLN 25 million for other claims related to withdrawal from the Agreement by ORLEN Projekt due to POLWAX's fault, up to the total amount of PLN 45 million. The case is pending.
On 25 February 2020 ORLEN Projekt received from POLWAX a request for payment of PLN 132 million, consisting of the following: PLN 84 million for damages incurred by POLWAX as a real loss and PLN 48 million for lost benefits resulting from improper performance and failure to perform the Agreement by ORLEN Projekt.
According to the information held by ORLEN Projekt, on 2 March 2020, the District Court in Rzeszów received a lawsuit of POLWAX against ORLEN Projekt for payment of PLN 132 million together with interest due for delay.
The case is currently at the stage of examining the formal requirements of the lawsuit filed by POLWAX and the Court has not issued any judgements within it so far, in particular it has not yet ordered the delivery of a copy of the lawsuit to ORLEN Projekt. In the opinion of ORLEN Projekt, POLWAX claims covered by the request for payment and a lawsuit are without merit and immediately after the delivery of a copy of a lawsuit, ORLEN Projekt will take measures provided for by law to show their groundlessness.
According to the information held by ORLEN Projekt, before filing the lawsuit, POLWAX filed a request to the District Court in Rzeszów for securing the claims it intended to pursue from ORLEN Projekt, however, the Court entirely dismissed the request by the order as of 6 February 2020.
On 10 March 2020 POLWAX published current report no. 7/2020 informing about filing a lawsuit with the court for payment of PLN 10 million due to: (i) removal and utilization of waste of contaminated soil from the Investment area, and (ii) non-contractual land storage outside the investment area on plot no. 3762/70. In the opinion of ORLEN Projekt, the above claims of POLWAX are without merit and immediately after delivery of a copy of the lawsuit, ORLEN Projekt will take measures provided for by law to show their groundlessness.

Except of described above proceedings, the Group has not identified any other significant contingent liabilities.

14.5. Excise tax guarantees

Excise tax guarantees and excise tax on goods and merchandise under the excise tax suspension procedure as at 31 December 2019 and as at 31 December 2018 amounted to PLN 2,826 million and PLN 2,626 million, respectively.

14.6. Related party transactions

In 2019 and 2018 and as at 31 December 2019 and as at 31 December 2018 the based on submitted declarations, there were no transactions of related parties of the ORLEN Group with the Members of the Management Board and the Supervisory Board of the Parent Company.

In 2019 on the basis of submitted declarations there were no transactions of close relatives with the other key executive personnel of the Parent Company and key executive personnel of the ORLEN Group companies with related parties.

In 2018 on the basis of submitted declarations, there were transactions of close relatives with the other key executive personnel of the Parent Company and key executive personnel of the ORLEN Group companies with related parties in the amount of PLN 0.3 million; main amounts related to purchase of legal services and tax consultancy.

ORLEN GROUP (in PLN million)

14.6.1. Remuneration paid and due or potentially due to the members of the Management Board, the Supervisory Board of the Parent Company and other members of key executive personnel of the Parent Company and the ORLEN Group companies

	2019	2018
Parent Company		
Short-term employee benefits	42.8	40.3
Management Board	*13.0*	*9.5*
Supervisory Board	*1.1*	*1.2*
Other key executive personnel	*28.7*	*29.6*
Post-employment benefits	0.1	-
Other key executive personnel	*0.1*	-
Termination benefits	2.1	11.1
Management Board	*0.2*	*1.2*
Other key executive personnel	*1.9*	*9.9*
Subsidiaries		
Short-term employee benefits	145.7	130.8
Post-employment benefits	0.3	0.4
Other long term employee benefits	0.6	0.2
Termination benefits	8.5	7.6
	200.1	**190.4**

The above table presents remuneration paid and due or potentially due to the key management personnel of the Parent Company and subsidiaries in the reporting period.

Moreover, as at 31 December 2019 and 31 December 2018 PKN ORLEN has provisions for post-employment benefits in the amount of PLN 0.3 million and PLN 0.2 million, respectively and other long term employee benefits in the amount of PLN 0.5 million for both dates.

Bonus systems for key executive personnel of the ORLEN Group
The bonus regulations applicable to the Management Board of PKN ORLEN, directors directly reporting to the Management Board of PKN ORLEN and other key positions of the ORLEN Group have certain common features. The persons subject to the above mentioned systems are remunerated for the accomplishment of specific goals set at the beginning of the bonus period, by the Supervisory Board for the Management Board Members and by the Management Board for the key executive personnel. The Bonus Systems are consistent with the Concern's Values, so as to promote the cooperation between individual employees in view to achieve the best possible results for the ORLEN Group. The targets set are qualitative as well as quantitative and are settled after the end of the year for which they were set.

Remuneration regarding non-competition clause and dissolution of the contract as a result of dismissal from the position held
Pursuant to the contracts, the Management Board Members of PKN ORLEN and the Management Board Members of the ORLEN Group companies are obliged to refrain from competitive activities for a period of 6 months, after the date of termination of the contract. During this period, they receive a remuneration (compensation) of 50% or 100% of the six-month basic salary, payable in 6 equal monthly instalments. Non-competition clauses in contracts after termination of the function of the Management Board Member shall enter into force only after 3 or 6 months as the Management Board Member.
In addition, contracts provide for the payment of severance pay in the event of termination or cancelation of the contract by the Company, for reasons other than a breach of basic, essential obligations under the contract, provided fulfilling the function of the Management Board Member for a period of at least 12 months. In this case, the severance pay is three times monthly basic salary.

Directors directly reporting to the PKN ORLEN Management Board are normally required to refrain from competitive activities for a period of 6 months. During this time, they receive a remuneration of 50% of the six-month basic salary, payable in 6 equal monthly instalments. The severance pay for terminating the contract by the Employer is normally six times monthly basic salary.

14.6.2. ORLEN Group companies' transactions and balances of settlements with related parties

	Sales		Purchases	
	2019	2018	2019	2018
Jointly-controlled entities	**3 119**	**2 956**	**(136)**	**(143)**
joint ventures	*2 982*	*2 794*	*(54)*	*(45)*
joint operations	*137*	*162*	*(82)*	*(98)*
	3 119	**2 956**	**(136)**	**(143)**

	Trade and other receivables		Trade and other liabilities	
	31/12/2019	31/12/2018	31/12/2019	31/12/2018
Jointly-controlled entities	**540**	**614**	**16**	**16**
joint ventures	*529*	*593*	*10*	*5*
joint operations	*11*	*21*	*6*	*11*
	540	**614**	**16**	**16**

The above transactions with related parties include mainly sales and purchases of refinery and petrochemicals products and of services.
In 2019 and in 2018 there were no related party transactions in the Group concluded on other than an arm's length basis.

Additionally, in 2019, based on submitted declarations, there were transactions between entities, in which key positions were held by close relatives with the other key management personnel of the Parent Company and entities of the ORLEN Group.
In 2019 and as at 31 December 2019, the Group identified the following transactions:

ORLEN GROUP (in PLN million)

- sale and purchase amounted to PLN 0.9 million and PLN (2.3) million, respectively;
- balance of liabilities amounted to PLN 0.4 million.

The above transactions concerned mainly the purchases and sales of fuels and diesel oil.

14.6.3. Transactions with entities related to the State Treasury

As at 31 December 2019 and 31 December 2018 the State Treasury owned 27.52% of the ORLEN Group Parent Company's shares - PKN ORLEN and has ability to exert a significant influence on it.

The Group identified related party transactions with the State Treasury on the basis of "Regulation of the Council of Ministers of 27 March 2019 on the list of companies in which the rights of the State Treasury shares carry other than the President Council of Ministers members of the Council of Ministers', Government Plenipotentiaries or state legal entities including single-member companies of the State Treasury" with subsequent updates).

In 2019 and in 2018 and as at 31 December 2019 and as at 31 December 2018, the Group identified the following transactions:

	2019	2018
Sales	2 083	1 943
Purchases	(4 406)	(5 126)

	31/12/2019	31/12/2018
Trade and other receivables	339	230
Trade and other liabilities	683	189

Above transactions were concluded on an arm's length basis, were related to the ORLEN Group current operating activities and concerned mainly fuel sales, purchase and sales of natural gas, energy, transport and storage services.
Additionally, there were also financial transactions (loans, guarantees, bank fees, commission) with Bank PKO BP, Bank Pekao S.A. and Bank Gospodarstwa Krajowego (bank fees, commission).

14.7. Remuneration arising from the agreement with the entity authorized to conduct audit of the financial statements

	2019	2018
Parent Company	**1.8**	**1.6**
Audit of financial statements	1.4	0.9
Other assurance services	0.4	0.7
reviews of financial statements	*0.4*	*0.5*
other services	*-*	*0.2*
Subsidiaries of the Capital Group	**4.2**	**3.8**
Audit of financial statements	3.9	3.5
Other assurance services	0.3	0.3
reviews of financial statements	*0.2*	*0.2*
other services	*0.1*	*0.1*
	6.0	**5.4**

In the period covered by this consolidated financial statements the entity authorized to conduct audit of the Company's financial statements was Deloitte Audyt spółka z ograniczoną odpowiedzialnością spółka komandytowa. Deloitte Audyt spółka z ograniczoną odpowiedzialnością spółka komandytowa beginning from the 1st quarter of 2017 conduct the interim reviews and audit of separate financial statements of PKN ORLEN and consolidated financial statements of the Group. Deloitte Audyt spółka z ograniczoną odpowiedzialnością spółka komandytowa was selected to conduct reviews of interim financial statements and audit separate financial statements of PKN ORLEN and consolidated financial statements of the Group for the years 2019-2021 by resolution of the Supervisory Board No. 2071/18 of 20 December 2018 as amended by resolution No. 2103 / 19 of 25 January 2019.

EVENTS AFTER THE END OF THE REPORTING PERIOD

As at the date of approval of these consolidated financial statements, the Group is in the process of analysing the potential effects of Coronavirus COVID-19. The Group has implemented appropriate internal procedures to ensure continuity of operating activities. Currently, the Group observes a decrease in global demand for crude oil, including a decrease in demand for jet fuel, diesel oil and gasoline. The Group also expects a slowdown in the global economy and monitors the situation on the financial markets on an ongoing basis, including the quotations on the WSE. The Group is in the process of estimating the qualitative and quantitative impact of a pandemic on the financial position and future financial results of the Group and plans to complete this analysis before publishing the interim data for the first quarter of 2020.

After the end of the reporting period, no other events occurred than disclosed in this consolidated financial statements, which would require recognition or disclosure.

This consolidated financial statements were approved by the Management Board of the Parent Company on 18 March 2020.

Signature Not Verified
Dokument podpisany przez Daniel Obajtek; PKN Orlen S.A.
Data: 2020.03.18 14:04:45 CET

……………………………………….

Daniel Obajtek
President of the Board

Signature Not Verified
Dokument podpisany przez ARMEN KONRAD ARTWICH; POLSKI KONCERN NAFTOWY ORLEN S.A.
Data: 2020.03.18 14:15:03 CET

……………………………………….

Armen Artwich
Member of the Board

Signature Not Verified
Dokument podpisany przez Adam Wojciech Burak
Data: 2020.03.18 15:54:20 CET

……………………………………….

Adam Burak
Member of the Board

Signature Not Verified
Dokument podpisany przez Patrycja Klarecka
Data: 2020.03.18 16:26:07 CET

……………………………………….

Patrycja Klarecka
Member of the Board

Signature Not Verified
Dokument podpisany przez ZBIGNIEW MARIUSZ LESZCZYŃSKI; POLSKI KONCERN NAFTOWY ORLEN S.A.
Data: 2020.03.18 16:15:08 CET

……………………………………….

Zbigniew Leszczyński
Member of the Board

Signature Not Verified
Dokument podpisany przez MICHAŁ MAREK RÓG; POLSKI KONCERN NAFTOWY ORLEN S.A.
Data: 2020.03.18 15:00:14 CET

……………………………………….

Michał Róg
Member of the Board

Signature Not Verified
Dokument podpisany przez Jan Włodzimierz Szewczak
Data: 2020.03.18 13:45:16 CET

……………………………………….

Jan Szewczak
Member of the Board

Signature Not Verified
Dokument podpisany przez Józef Węgrecki
Data: 2020.03.18 14:39:10 CET

……………………………………….

Józef Węgrecki
Member of the Board