2018

CONSOLIDATED FINANCIAL STATEMENTS OF ORLEN GROUP FOR THE YEAR ENDED 31 DECEMBER 2018

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

SELECTED DATA FOR 2018

ORLEN GROUP

- EBITDA PLN 9,888 million
- EBITDA before net impairment allowances PLN 9,184 million
- EBIT PLN 7,215 million
- Net profit PLN 5,604 million
- Assets PLN 64,141 million
- CAPEX PLN 4,280 million
- Total equity PLN 35,739 million

- Number of shares 427,709,061
- Total equity attributable to equity owners of the parent PLN 83.53 per share
- Dividend payment for 2017: PLN 1,283 billion / PLN 3 per share
- Net debt PLN 5, 599 million
- Net financial gearing 15.7%

DOWNSTREAM

Production Sales Power Industry

- Sales revenues PLN 89,737 million
- EBITDA PLN 7,583 million
- EBITDA before net impairment allowances PLN 6,892 million
- EBIT PLN 5,792 million
- Assets PLN 46,129million
- CAPEX PLN 2,451 million

RETAIL

- Sales revenues PLN 37,474 million
- EBITDA PLN 2,767 million
- EBITDA before net impairment allowances PLN 2,780 million
- EBIT PLN 2,306 million
- Assets PLN 6,974 million
- CAPEX PLN 832 million

UPSTREAM

- Sales revenues PLN 605 million
- EBITDA PLN 287 million
- EBITDA before net impairment allowances PLN 305 million
- EBIT PLN (21) million
- Assets PLN 4,175 million
- CAPEX PLN 740 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 and other non-current assets.
CAPEX - increase of property, plant and equipment, intangible assets, investment property and perpetual usufruct of land 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, borrowings 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)

1. CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

	NOTE	2018	2017	change (y/y) value	%
Sales revenues	9.2, 10.1.1, 10.1.2	109 706	95 364	14 342	15.0
revenues from sales of finished goods and services		*91 014*	*72 915*	*18 099*	*24.8*
revenues from sales of merchandise and raw materials		*18 692*	*22 449*	*(3 757)*	*(16.7)*
Cost of sales	10.1.8	(97 265)	(81 766)	(15 499)	19.0
cost of finished goods and services sold		*(80 781)*	*(61 266)*	*(19 515)*	*31.9*
cost of merchandise and raw materials sold		*(16 484)*	*(20 500)*	*4 016*	*(19.6)*
Gross profit on sales		**12 441**	**13 598**	**(1 157)**	**(8.5)**
Distribution expenses		(4 745)	(4 327)	(418)	9.7
Administrative expenses		(1 590)	(1 537)	(53)	3.4
Other operating income	10.1.9	2 150	1 243	907	73.0
Other operating expenses	10.1.10	(1 152)	(568)	(584)	102.8
(Loss)/reversal of loss due to impairment of financial instruments	10.1.12	(16)	-	(16)	-
Share in profit from investments accounted for under equity method	10.2.4	127	248	(121)	(48.8)
Profit from operations		**7 215**	**8 657**	**(1 442)**	**(16.7)**
Finance income	10.1.11.1	1 413	1 760	(347)	(19.7)
Finance costs	10.1.11.2	(1 517)	(1 700)	183	(10.8)
Net finance income and costs		**(104)**	**60**	**(164)**	**-**
(Loss)/reversal of loss due to impairment of financial instruments	10.1.12	(1)	-	(1)	-
Profit before tax		**7 110**	**8 717**	**(1 607)**	**(18.4)**
Tax expense	10.1.13	(1 506)	(1 544)	38	(2.5)
current tax		*(1 181)*	*(1 329)*	*148*	*(11.1)*
deferred tax		*(325)*	*(215)*	*(110)*	*51.2*
Net profit		**5 604**	**7 173**	**(1 569)**	**(21.9)**
Other comprehensive income:					
which will not be reclassified subsequently into profit or loss		**(24)**	**(13)**	**(11)**	**84.6**
actuarial gains and losses		*(5)*	*(15)*	*10*	*(66.7)*
gains/(losses) on investments in equity instruments at fair value through other comprehensive income		*(23)*	-	*(23)*	-
deferred tax	10.1.13.2	*4*	*2*	*2*	*100,0*
which will be reclassified into profit or loss		**462**	**136**	**326**	**239.7**
hedging instruments		*12*	*929*	*(917)*	*(98.7)*
hedging costs		*38*	-	*38*	-
exchange differences on translating foreign operations		*415*	*(618)*	*1 033*	-
deferred tax	10.1.13.2	*(3)*	*(175)*	*172*	*(98,3)*
		438	**123**	**315**	**256.1**
Total net comprehensive income		**6 042**	**7 296**	**(1 254)**	**(17.2)**
Net profit attributable to		**5 604**	**7 173**	**(1 569)**	**(21.9)**
equity owners of the parent		*5 556*	*6 655*	*(1 099)*	*(16.5)*
non-controlling interest		*48*	*518*	*(470)*	*(90.7)*
Total net comprehensive income attributable to		**6 042**	**7 296**	**(1 254)**	**(17.2)**
equity owners of the parent		*5 937*	*6 717*	*(780)*	*(11.6)*
non-controlling interest		*105*	*579*	*(474)*	*(81.9)*
Net profit and diluted net profit per share attributable to equity owners of the parent (in PLN per share)		12.99	15.56	(2.57)	(16.5)

ORLEN GROUP (in PLN million)

2. CONSOLIDATED STATEMENT OF FINANCIAL POSITION

	NOTE	31/12/2018	31/12/2017	change (y/y) value	%
ASSETS					
Non-current assets					
Property, plant and equipment	10.2.1	31 390	29 071	2 319	8.0
Intangible assets	10.2.2	1 323	1 272	51	4.0
Investments accounted for under equity method	10.2.4	650	715	(65)	(9.1)
Deferred tax assets	10.1.13.2	70	49	21	42.9
Derivatives	10.2.9	161	303	(142)	(46.9)
Other assets	10.2.9	338	330	8	2.4
		33 932	**31 740**	**2 192**	**6.9**
Current assets					
Inventories	10.2.6.1	14 362	12 440	1 922	15.5
Trade and other receivables	10.2.6.2	10 479	9 518	961	10.1
Current tax assets		114	80	34	42.5
Cash and cash equivalents		4 192	6 244	(2 052)	(32.9)
Non-current assets classified as held for sale	10.2.6.3	202	75	127	169.3
Derivatives	10.2.9	524	434	90	20.7
Other assets	10.2.9	336	133	203	152.6
		30 209	**28 924**	**1 285**	**4.4**
Total assets		**64 141**	**60 664**	**3 477**	**5.7**
EQUITY AND LIABILITIES					
EQUITY					
Share capital	10.2.8.1	1 058	1 058	-	-
Share premium	10.2.8.2	1 227	1 227	-	-
Hedging reserve	10.3.4	361	331	30	9.1
Revaluation reserve		(15)	5	(20)	-
Exchange differences on translating foreign operations		709	334	375	112.3
Retained earnings	10.2.8.3	32 387	29 242	3 145	10.8
Equity attributable to equity owners of the parent		**35 727**	**32 197**	**3 530**	**11.0**
Non-controlling interests	10.2.8.4	**12**	**3 014**	**(3 002)**	**(99.6)**
Total equity		**35 739**	**35 211**	**528**	**1.5**
LIABILITIES					
Non-current liabilities					
Loans and bonds	10.2.7.1	8 598	6 688	1 910	28.6
Provisions	10.2.10	1 055	902	153	17.0
Deferred tax liabilities	10.1.13.2	1 445	1 095	350	32.0
Derivatives	10.2.9	42	75	(33)	(44.0)
Other liabilities	10.2.9	366	311	55	17.7
		11 506	**9 071**	**2 435**	**26.8**
Current liabilities					
Trade and other liabilities	10.2.6.4	13 697	14 469	(772)	(5.3)
Liabilities from contracts with customers	10.2.6.5	231	-	231	-
Loans and bonds	10.2.7.1	1 193	317	876	276.3
Provisions	10.2.10	1 019	673	346	51.4
Current tax liabilities		473	290	183	63.1
Derivatives	10.2.9	193	313	(120)	(38.3)
Other liabilities	10.2.9	90	320	(230)	(71.9)
		16 896	**16 382**	**514**	**3.1**
Total liabilities		**28 402**	**25 453**	**2 949**	**11.6**
Total equity and liabilities		**64 141**	**60 664**	**3 477**	**5.7**

ORLEN GROUP (in PLN million)

3. 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	10.2.8.1, 10.2.8.2	10.3.4			10.2.8.3		10.2.8.4	
01/01/2018 (approved data)	2 285	331	5	334	29 242	32 197	3 014	35 211
Impact of IFRS 9 adoption	-	-	-	-	(9)	(9)	-	(9)
01/01/2018 (converted data)	2 285	331	5	334	29 233	32 188	3 014	35 202
Net profit	-	-	-	-	5 556	5 556	48	5 604
Items 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**
01/01/2017	2 285	(355)	5	946	23 882	26 763	2 522	29 285
Net profit	-	-	-	-	6 655	6 655	518	7 173
Items of other comprehensive income	-	686	-	(612)	(12)	62	61	123
Total net comprehensive income	**-**	**686**	**-**	**(612)**	**6 643**	**6 717**	**579**	**7 296**
Change in structure	-	-	-	-	-	-	2	2
Dividends	-	-	-	-	(1 283)	(1 283)	(89)	(1 372)
31/12/2017	**2 285**	**331**	**5**	**334**	**29 242**	**32 197**	**3 014**	**35 211**

ORLEN GROUP (in PLN million)

4. CONSOLIDATED STATEMENT OF CASH FLOWS

	NOTE	2018	2017	change (y/y) value	%
Cash flows from operating activities					
Profit before tax		**7 110**	**8 717**	**(1 607)**	**(18.4)**
Adjustments for:					
Share in profit from investments accounted for under equity method	10.2.4	(127)	(248)	121	(48.8)
Depreciation and amortisation	10.1.8	2 673	2 421	252	10.4
Foreign exchange (gain)/loss	10.1.11.4	319	(233)	552	-
Interest, net	10.1.11.3	203	204	(1)	(0.5)
Dividends		(4)	(4)	-	-
(Profit)/Loss on investing activities, incl.:		(1 100)	549	(1 649)	-
recognition/(reversal) of impairment allowances of property, plant and equipment and intangible assets	10.1.9, 10.1.10	*(704)*	*169*	*(873)*	-
Change in provisions	10.2.10	736	345	391	113.3
Change in working capital	10.2.6	(3 059)	(1 967)	(1 092)	55.5
inventories		*(1 729)*	*(1 445)*	*(284)*	*19.7*
receivables		*(1 069)*	*(1 579)*	*510*	*(32.3)*
liabilities		*(261)*	*1 057*	*(1 318)*	-
Other adjustments, incl.:		(732)	(131)	(601)	458.8
rights received free of charge		*(494)*	*(310)*	*(184)*	*59.4*
Income tax (paid)	10.1.13.3	(1 039)	(1 603)	564	(35.2)
Net cash from operating activities		**4 980**	**8 050**	**(3 070)**	**(38.1)**
Cash flows from investing activities					
Acquisition of property, plant and equipment, intangible assets and perpetual usufruct of land		(4 454)	(4 039)	(415)	10.3
Acquisition of shares		(25)	(3)	(22)	733.3
Disposal of property, plant and equipment, intangible assets and perpetual usufruct of land		161	105	56	53.3
Dividends received		196	252	(56)	(22.2)
Settlement of derivatives not designated as hedge accounting		339	(234)	573	-
Other		(15)	(6)	(9)	150.0
Net cash (used) in investing activities		**(3 798)**	**(3 925)**	**127**	**(3.2)**
Cash flows from financing activities					
Redemption of non-controlling shares Unipetrol a.s.		(4 222)	-	(4 222)	-
Proceeds from loans and borrowings received		2 232	6	2 226	37 100.0
Bonds issued		600	400	200	50.0
Repayments of loans and borrowings		(97)	(888)	791	(89.1)
Redemption of bonds		(200)	(700)	500	(71.4)
Interest paid	10.1.11.3	(231)	(234)	3	(1.3)
Dividends paid		(1 284)	(1 384)	100	(7.2)
to equity owners of the parent	10.2.8.6	*(1 283)*	*(1 283)*	-	-
to non-controlling interest		*(1)*	*(101)*	*100*	*(99.0)*
Payments of liabilities under finance lease agreements		(32)	(28)	(4)	14.3
Other		(3)	(4)	1	(25.0)
Net cash (used) in financing activities		**(3 237)**	**(2 832)**	**(405)**	**14.3**
Net increase/(decrease) in cash and cash equivalents		**(2 055)**	**1 293**	**(3 348)**	**-**
Effect of exchange rate changes		3	(121)	124	-
Cash and cash equivalents, beginning of the period		6 244	5 072	1 172	23.1
Cash and cash equivalents, end of the period		**4 192**	**6 244**	**(2 052)**	**(32.9)**
including restricted cash		*87*	*3*	*84*	*2.800*

ORLEN GROUP (in PLN million)

5. BASIC INFORMATION

5.1. 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
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 forming 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.

5.2. PRINCIPLES OF PREPARATION OF 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) and entered in force by the end of 2018. The Group adopted all IASs and IFRSs in accordance with their effective date.
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. The foregoing 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 periodic information provided by issuers of securities and conditions for recognition as equivalent information required by the law of a non-member state (Official Journal 2018, item 757) ("Regulation") and covers the annual reporting period from 1 January to 31 December 2018 and the comparative period from 1 January to 31 December 2017. Presented consolidated financial statements present a true and fair view of the ORLEN Group's financial position as at 31 December 2018, results of its operations and cash flows for the year ended 31 December 2018.
The consolidated financial statements have been prepared assuming that the ORLEN Group will continue to operate as a going concern in the foreseeable future. As at the date of approval of the foregoing consolidated financial statements, there is no evidence indicating that ORLEN Group will not be able to continue its operations as a going concern. The duration of the Parent Company and the entities comprising ORLEN Group is unlimited.

5.3. 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 the foregoing consolidated financial statements is Polish Złoty (PLN).
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.

CURRENCY	Average exchange rate for the reporting period		Exchange rate as at the end of the reporting period	
	2018	2017	31/12/2018	31/12/2017
EUR/PLN	4.2614	4.2576	4.3000	4.1709
USD/PLN	3.6113	3.7783	3.7597	3.4813
CZK/PLN	0.1662	0.1617	0.1673	0.1632
CAD/PLN	2.7861	2.9101	2.7620	2.7765

5.4. 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.
The preparation of consolidated financial statements in accordance with IFRSs requires that the Management Board makes expert 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.

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

➢ **IFRS 9 Financial instruments (IFRS 9)**

Selected accounting principles

Measurement of financial assets and liabilities

From 1 January 2018, the Group classifies financial assets into one of the following categories:
- measured at amortized cost,
- measured at fair value through other comprehensive income,
- measured at fair value through profit or loss,
- hedging financial instruments.

The Group classifies debt financial assets to the appropriate category depending on the business model of financial assets management and on the characteristics of contractual cash flows so called "SPPI criterion" for a given financial asset.

As a result of analysis of intercompany contracts and conditions of other financial instruments, no conditions were identified that caused the SPPI test fail.

The Group as assets measured at amortized cost classifies trade receivables, loans granted, other financial receivables as well as cash and cash equivalents.
At the moment of initial recognition, the Group classifies equity instruments, i.e. shares in other entities, to the category of financial instruments measured at fair value through other comprehensive income.

The Group classifies to assets measured at fair value through profit or loss derivatives that are not designated for hedge accounting and hedged items that are measured in accordance with hedge accounting principles.

The Group classifies financial liabilities into one of the following categories:
- measured at amortized cost,
- measured at fair value through profit or loss,
- hedging financial instruments.

The Group as liabilities measured at amortized cost classifies trade liabilities, loans, borrowings and bonds. Liabilities on derivatives not designated for hedge accounting are classified by the Group as measured at fair value through profit or loss.
The Group classifies to the category of hedging financial instruments, financial assets and liabilities which constitute derivative hedging cash flows and fair value.

Measurement of financial assets at amortized cost
The Group applies the effective interest rate method to measure financial assets at amortized cost.

Trade receivables after initial recognition are measured at amortized cost using the effective interest rate method, including impairment allowances, while trade receivables with a maturity of less than 12 months from the date of recognition (i.e. not including the financing component) and not appointed to factoring, are not discounted and are measured at nominal value.

Measurement of financial assets at fair value through other comprehensive income
Gains and losses on a financial asset constituting an equity instrument for which was applied the option of fair value through other comprehensive income is recognised in other comprehensive income, except for revenues from received dividends.

Measurement of financial assets at fair value through profit or loss
Gains or losses on the measurement of a financial asset that is classified as measured at fair value through profit or loss are recognised in profit or loss during the period in which they were recognised. Gains or losses from the valuation of items measured at fair value through profit or loss also include interest and dividend income.

Measurement of hedging financial instruments
Hedging financial instruments are measured in accordance with the principles of hedge accounting.

Impairment of financial assets

IFRS 9 introduces a new approach to estimating the impairment of financial assets measured at amortized cost or at fair value through other comprehensive income (with the exception of investments in capital assets and contract assets). The impairment model is based on the expected loss calculation as opposed to the applied model in years before 2018 resulting from IAS 39, which was based on the concept of incurred loss. The most significant item of financial assets in the Group's financial statements, which is subject to the new principles of calculating expected credit losses, are trade receivables.

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. From 1 January 2018 the Group estimates the expected credit loss in the horizon up to maturity of the instrument.
In particular, for the insolvency event, the Group recognises when the contractor has not satisfied the obligation after 90 days from the due receivables date.
For the purpose of estimating the expected credit loss, the Group uses a provision matrix estimated on the basis of historical levels of repayment and recoveries from receivables from contractors.
The Group includes information about the future in the parameters used in the expected loss estimation model, through the management adjustment of the basic insolvency probability parameters. To calculate the expected credit loss, the Group determines the probability parameter of receivables defaults estimated on the basis of the analysis of the number of unpaid invoices in the last five years, and the liabilities default rate estimated on the basis of the value of unpaid invoices in the last five years.
The expected credit loss is calculated when the receivable is recognised in the statement of financial position and is updated on each subsequent day ending the reporting period, depending on the number of days for which the receivable is due.

(Loss)/reversal of loss due to impairment of financial instruments
The (losses)/reversals of losses due to impairment of financial instruments include, in particular, (losses)/reversals of losses due to impairment of trade receivables and (losses)/reversals of losses due to impairment of granted loans.

Hedge accounting

In the area of hedge accounting, the Group applies the requirements of IFRS 9 in the construction of hedging relationships. In particular, it concerns matching of the definitions of commodity risk hedging to the exposure characteristics and applied risk management strategies. The Group aims to limit the underlying risk in hedging relationships (resulting from various commodity indices on the side of the hedging instrument and the hedged item).
The Group applied principles of recognition the hedging cost within FX hedging transactions, where the forward component and the cross-currency margin is recorded in a separate item in other comprehensive income.
Derivatives designated as hedging instruments from which it is expected that their fair value or resulting from them cash flows will offset changes in fair value or cash flows of hedged item are recognised in accordance with the principles of fair value hedge accounting or cash flows hedges.
The Group assesses the effectiveness of hedging both at the moment of establishing the hedging and in subsequent periods, at least at each end of the reporting period. Verification of satisfaction of the conditions for the effectiveness of linking is made on a prospective basis, based on a qualitative analysis. If necessary, the Group uses a quantitative analysis (linear regression method) to confirm an economic relation between the hedging instrument and the hedged item.

In the case of cash flows hedge accounting, the Group recognises:
- in other comprehensive income, the part of profits or losses related to the hedging instrument, which constitute an effective hedge due to the hedged risk,
- within the equity in a separate position (hedging cost) in case of currency risk hedge, change in the fair value due to the forward element (including the cross-currency margin),
- in finance result the inefficient part of profits or losses related to the hedging instrument. In case of hedging cash flows from operating activities the ineffective part is recognises in other operating income/expenses, and in case of hedging cash flows of financing activities in finance income/costs and
- reclassifies profits or losses from equity to the statement of profit or loss to the line, in which the hedged item is presented and
- excludes profits or losses from equity and adjusts the initial value of the hedged item (if the realization of the hedged item results in the recognition of a non-financial asset e.g. an inventory).

In the case of fair value hedge (operating activity), changes in the fair value of the hedging instrument and the hedged item are recognised in the statement of profit or loss in the item other operating income/expenses.

ORLEN GROUP (in PLN million)

The table below presents the impact of the implementation of IFRS 9 on the change in the classification and measurement of the Group's financial assets as at 1 January 2018:

Financial instruments by class	Classification		Carrying amount	
	IAS 39	IFRS 9	IAS 39	IFRS 9
Financial assets measured at fair value through other comprehensive income	Available for sale	Measured at fair value through other comprehensive income	84	84
Trade	Loans and receivables	Measured at amortized cost	8 476	8 467
Derivatives not designated as hedge accounting	Measured at fair value through profit or loss	Measured at fair value through profit or loss	123	123
Cash flow hedging instruments	Hedging financial instruments	Hedging financial instruments	614	614
Cash and cash equivalents	Loans and receivables	Measured at amortized cost	6 244	6 244
Receivables on settled derivatives	Loans and receivables	Measured at amortized cost	126	126

The item of financial assets at fair value through other comprehensive income consists of equity instruments not held for trading, in accordance with IAS 39 classified as available for sale, which were measured by the Group at the purchase price less impairment allowances. The instruments were not acquired for trading in relation to the above, these assets are measured at fair value through other comprehensive income, without the option of subsequent transferring the result from these instruments to the financial result.

➢ IFRS 15 Revenue from Contracts with Customers (IFRS 15)

Selected accounting principles
The Group applies the principles of IFRS 15 in a five-step model in relation to the portfolio of contracts (or performance obligations) with similar characteristics, if the entity reasonably expects that the impact of the following principles on the financial statements will not significantly differ from the application of the following principles to individual contracts (or performance obligations).

Requirements to identify a contract with a customer
A contract with a customer meets its definition when all of the following criteria are met: the parties of the contract have approved the contract and are committed to perform their obligations; the Group can identify each party's rights regarding goods or services to be transferred; the Group can identify the payment terms for the goods or services to be transferred; the contract has commercial substance and it is probable that the Group will collect the consideration to which it will be entitled in exchange for the goods or services that will be transferred to the customer.

Identification of performance obligations
At contract inception the Group assesses the goods or services promised in the contract with a customer and identifies as a performance obligation each promise to transfer to the customer: goods or services (or a bundle of goods or services) that can be separated or groups of separate goods or services which are basically the same and for which the transfer to the customer is of the same nature.

Determination of the transaction price
The Group considers the terms of the contract and its customary business practices to determine the transaction price. The transaction price is the amount of consideration to which the Group expects to be entitled in exchange for transferring promised goods or services to a customer, excluding amounts collected on behalf of third parties (for example: some sales taxes, fuel charges, excise taxes). The consideration promised in the contract with a customer may include fixed amounts, variable amounts or both.

To estimate variable consideration, the Group decided to apply the most probable value method for contracts with one value threshold and the expected value method for contracts with more value thresholds from which a rebate is granted to the customer.

Allocating the transaction price to individual performance obligations
The Group allocates the transaction price to each performance obligation (or distinct good or service) at an amount that reflects the amount of consideration to which the Group expects to be entitled in exchange for transferring the promised goods or services to the customer.

Recognition of revenue when performance obligations are satisfied
The Group recognises revenue when (or as) the Group satisfies performance obligations by transferring a promised good or service (i.e. an asset) to a customer (the customer obtains control of that asset). Revenues are recognised as amounts equal to the transaction price that has been allocated to a given performance obligation.
The Group transfers control of good or service over time and, therefore, satisfies a performance obligation and recognises revenues over time, if one of the following criteria is met:
- the customer simultaneously receives and consumes the benefits from performance as the Group performs,
- the asset is created or enhanced as a result of the performance, and the customer controls the asset as it is created or enhanced,
- as a result of the performance of the service, an alternative component for the Group is not created, and the Group has an enforceable right to payment for performance completed to date.

ORLEN GROUP (in PLN million)

Impact of the implementation of IFRS 9 and IFRS 15 on the Group's consolidated financial statements as at 1 January 2018:

	IFRS / IAS applied	31 December 2017 Carrying amount	Change resulting from change in classification	Change resulting from change in measurement	1 January 2018 Carrying amount	1 January 2018 Impact on retained earnings
Financial assets available for sale	IAS 39	84	(84)	-	-	-
Financial assets measured at fair value through other comprehensive income	IFRS 9	-	84	-	84	-
Trade and other receivables	IAS39/IFRS 9	9 518	-	(10)	9 508	(10)
Other short-term liabilities due to loyalty programs	IAS 18	145	(145)	-	-	-
Other short-term liabilities due to prepaid cards	IAS 18	19	(19)	-	-	-
Other current liabilities due to advances on deliveries	IFRS 15	34	(34)	-	-	-
Liabilities from contracts with customers	IFRS 15	-	198	-	198	-
Deferred tax liabilities		1 095		1	1 096	1

The change in trade and other receivables results from the change in the measurement of impairment allowances estimated in accordance with IFRS 9, considering the requirements of the expected credit losses model.
The impact of the application of IFRS 15 on the items of the consolidated financial statements of the Group in 2018 compared to IAS 11, IAS 18 and related interpretations was immaterial.

IFRSs, announced and adopted by the European Union, not yet effective

➢ IFRS 16 Lease (IFRS 16)

Selected accounting principles
IFRS 16 Leases was published on 13 January 2016 and was adopted by the European Union on 31 October 2017.

In accordance with the requirements of IFRS, from 1 January 2019, the Group will apply the new Standard requirements regarding recognition, measurement and presentation of lease agreements. The application of the new Standard will be made in accordance with the transitional provisions contained in IFRS 16.

The Group will implement IFRS 16 using the modified retrospective approach, therefore, comparative information for the year 2018 will not be converted, and possible total effect of the first application of the new standard will be recognised as an adjustment to the opening balance of retained earnings on the day of first application.

Definition of lease
The Group currently applies the definition of a lease determined in accordance with IFRIC 4. As from 1 January 2019, the Group will be assessed whether the contract is or contains a lease based on the definition of leasing described in IFRS 16.
In accordance with IFRS 16, 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 whether the contract provides the right to control over the use of an underlying asset for a given period, the Group assesses whether the client has the following rights for the entire period of use:
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 an identified asset

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 will apply 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. The Group applies IFRS 16 only to contracts that were previously identified as leases in accordance with IAS 17 and IFRIC 4, instead.

Group as a lessee
In accordance with the current IAS 17 Leases, the Group classifies leasing contracts as a financial or operating lease based on an assessment of whether the entire risk and benefits resulting from ownership of the leased asset were transferred to the Group, as lessee. In accordance with IFRS 16, the Group recognises in the statement of financial position an asset item under the right of use and lease liability for most leases, except when IFRS 16 provides reliefs for recognition.
For leases not terminated on 1 January 2019, currently classified as operating leases, the Group recognises assets under the right of use and lease liabilities as follows
− the leasing liability measures in the current value of the remaining lease payments, discounted on the basis of the marginal interest rate for the given agreement on the date of the first application,
− the value of the right of use of the underlying asset components for individual lease agreements (separately for each contract), determined at a value equal to the lease liability.

Using the modified retrospective implementation method for IFRS 16, the Group used the following practical solutions for lease contracts previously classified as operating leases in accordance with IAS 17 and therefore includes the following types of contracts as costs:
- lease agreements, the period of which ends up to 12 months from the date of the initial application of the Standard;
- lease agreements for which the underlying asset under lease is of low value, ie not higher than USD 5 thousand for example: technical gas cylinders, coffee makers, other small items of equipment.

After the initial recognition, the Group measures the right to use an asset similar to other non-financial non-current assets and the lease liability similar to financial liabilities. As a result, after initial recognition, the Group recognises depreciation of an asset component under the right to use (except when the law meets the definition of investment property) and interest on the lease liability.

The initial valuation of both assets and liabilities is significantly affected by the determination of the leasing period. According to the definition of the leasing period in accordance with IFRS 16, this period includes the non-cancellable period and periods resulting from the option of renewal or termination option, if there is reasonable certainty that the Group will extend the contract or will not use the option of termination.
In addition, the Group made other subjective assessments when making estimates and assumptions that affect the measurement of lease liabilities and use rights to assets in the scope of:
- determination of marginal interest rates used in discounting future cash flows;
- indication of the useful lives of the use rights of the assets, recognised as at 1 January 2019;
- structure of fixed and variable payments in the contract.

ORLEN GROUP (in PLN million)

The marginal interest rates were determined as the sum of:

a) the risk-free interest rate based on the IRS (Interest Rate Swap) in accordance with the maturity of the discount rate and the relevant base rate for the given currency, and
b) the Group's credit risk premium based on the credit margin calculated taking into account the credit risk segmentation of all companies in which lease contracts have been identified

For leases not terminated on 1 January 2019, which have been previously classified as finance leases in accordance with IAS 17, the carrying amount of the right to use component and leasing liabilities as at 1 January 2019 will be determined as the carrying amount of the asset leased and leasing liabilities immediately prior to that date measured in accordance with IAS 17.

The weighted average marginal interest rate of the lessee applied to the lease liabilities recognised in the statement of financial position as at 1 January 2019 amounted to 2.62%.

The impact on the financial statements as at the date of initial application is as follows:
The Group has estimated the impact of IFRS 16 and found that on 1 January 2019 the Group will recognise the right to use assets in the amount of PLN 3,316 million and the lease liability in the amount of PLN 3,352 million, what will cause a difference in value to the position of retained earnings in the amount of 4 PLN and recognizing receivables from subleases in the amount of PLN 32 million.

The main components that have been recognized as assets under the right of use are the perpetual useful rights to land, leased land for petrol stations and passenger service areas, buildings, office spaces, rail tankers and tankers, locomotives and passenger cars.

Group as a lessor
In respect to contracts in which the Group is the lessor, at the moment of implementation of IFRS 16 the Group does not make any adjustments. From 1 January 2019, the Group recognises a.m. contracts in accordance with IFRS 16.

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

- IFRS 14 - Regulatory Deferral Accounts
- 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 and IAS 8 - Accounting policies, changes in accounting estimates and errors : Definition of Material
- Amendments to IAS 19 - Employee Benefits: Plan Amendment, Curtailment or Settlement
- Amendments to various standards due to “Improvements to IFRSs (cycle 2015-2017)” resulting from the annual improvement project of IFRS (IFRS 3, IFRS 11, IAS 12 and IAS 23) primarily with a view to removing inconsistencies and clarifying wording
- Amendments to references to the conceptual framework in IFRS Standards

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 the foregoing financial statements, in accordance with their effective date.

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

Changes introduced to financial data in condensed financial statements for the 4th quarter of 2018 published on 24 January 2019 with an effect on total assets and net profit.

	Data disclosed in the quarterly financial information for the Q4 2018	Adjustment	Data disclosed in the consolidated financial statements for 2018
Assets, incl.:	**64 031**	**110**	**64 141**
Property, plant and equipment	31 325	65	31 390
Inventories	14 317	45	14 362
Liabilities, incl.:	**64 031**	**110**	**64 141**
Retained earnings	32 294	93	32 387
Deferred tax liabilities	1 426	19	1 445
Trade and other liabilities	13 699	(2)	13 697
Net profit, incl.:	**5 511**	**93**	**5 604**
Administrative expenses	(1 592)	2	(1 590)
Cost of sales	(97 310)	45	(97 265)
Other operating income	2 018	132	2 150
Other operating expenses	(1 085)	(67)	(1 152)
Income tax	(1 487)	(19)	(1 506)

The above changes concerned:

- updating as at 31 December 2018 impairment allowances of property, plant and equipment, intangible assets and other non-current assets by the Upstream Group in connection with the received report on mineral resources valuation in Canada, which was prepared by an independent company, in accordance with the standards applicable on the Canadian market in the total net amount of PLN 67 million;
- updating estimates of inventory revaluation to net realizable value by current exercise prices in the total amount of PLN 45 million.

ORLEN GROUP (in PLN million)

7. ORLEN GROUP STRUCTURE

7.1. GROUP STRUCTURE

SELECTED ACCOUNTING PRINCIPLES

Principles 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 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, 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
		31/12/2018	31/12/2017	
Downstream Segment				
ORLEN Lietuva Group				
AB ORLEN Lietuva	PKN ORLEN S.A.	100%	100%	full
UAB Mazeikiu Naftos prekybos namai	AB ORLEN Lietuva	100%	100%	full
OU ORLEN Eesti	UAB Mezeikiu naftos prekybos namai	100%	100%	full
SIA ORLEN Latvija	UAB Mezeikiu naftos prekybos namai	100%	100%	full
UAB Emas	AB ORLEN Lietuva	100%	100%	full
UNIPETROL Group				
PARAMO, a.s.	UNIPETROL, a.s.	100%	100%	full
Paramo Oil, s.r.o.	PARAMO, a.s.	-	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%	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 Sp. z o.o.[1]	ORLEN Oil Sp. z o.o.	90%	67.49%	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 31/12/2018	31/12/2017	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 Sp. z o.o.[2]	PKN ORLEN S.A.	99.91%	99.88%	full
Ship-Service S.A.	PKN ORLEN S.A.	60.86%	60.86%	full
ORLEN Serwis S.A.	PKN ORLEN S.A.	100,00%	100,00%	full
Retail Segment				
AB Ventus-Nafta	PKN ORLEN S.A.	100%	100%	full
ORLEN Deutschland GmbH	PKN ORLEN S.A.	100%	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	*1000%*	*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%*	*62.99%*	*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 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 Finance AB	PKN ORLEN S.A.	-	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%	99.77%	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 15 January 2019, tranforamtion of Platinum Oil Wielkopolskie Centrum Dystrybucji Sp. z o.o. to Platinum Oil Wielkopolskie Centrum Dystrybucji S.A. took place
2) On 1 March 2019, transformation of ORLEN KolTrans Sp. z o.o. into a joint-stock company took place.

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.	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.	Poland - Plock	manufacture and sale of road bitumens and specific bitumen products
ORLEN Paliwa Sp. z o.o.	Poland - Plock	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 KolTrans Sp. z o.o.	2 February 2018	17	99.91%
ORLEN Projekt S.A.	9 August 2018	35	100.00%
Unipetrol a.s.	23 Febryary 2018	56,280,592	94.03%
Unipetrol a.s.	1 October 2018	10,827,673	100.00%
SALE OF SHARES			
by PKN ORLEN in:			
Polish Sky Finance AB (before ORLEN Finance AB)	18 June 2018	5,000	0.00%
INCREASE IN SHARE CAPITAL AND SUBSCRIPTION OF SHARES			
by PKN ORLEN in:			
ORLEN Upstream Sp. z o.o.	8 August 2018	4,000	100.00%
Baltic Power Sp. z o.o.	26 November 2018	913	100,00%
CHANGE OF COMPANY'S LEGAL FORM			
from joint-stock to limited liability, i.e. from SPOLANA a.s. to SPOLANA s.r.o. (Unipetrol Group)	1 December 2018	-	100.00%
CHANGE OF ENTITIES NAMES			
from ORLEN Finance AB to Polish Sky Finance AB	17 April 2018	-	100.00%

Changes in the Group structure are an element of the strategy, assuming a focus on core activities and allocating the resulting available 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 financial instruments.
On 30 June 2014 and on 7 June 2016 ORLEN Capital AB issued Eurobonds with 7-year redemption of approximately of PLN 5,375 million translated using exchange rate as at 31 December 2018 (representing EUR 1,250 million).The funds obtained by ORLEN Capital through the issue were transferred to PKN ORLEN under the borrowing agreement. PKN ORLEN is the guarantor of the both issued bonds by an irrevocable and unconditional guarantees issued to the bondholders of PLN 9,030 million translated using exchange rate as at 31 December 2018 (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.

8. OPERATING AND FINANCIAL RESULT

Profit or loss

The increase of sales revenues of ORLEN Group by PLN 14,342 million (y/y) to PLN 109,706 million reflects 32% (y/y) increase in crude oil prices and also as a result of the quotation of main products: fuel (by 21%), diesel oil (by 29%), light heating oil (by 30%), heavy heating oil (by 32%), ethylene (by 8%) and propylene (by 18%) and higher sales volumes by 1% (y/y) to 42.9 million tons.

The operating expenses increased by PLN (15,970) million (y/y) to PLN (103,600) million. The largest item in this cost structure constitutes the costs of materials and energy consumption related mainly to the crude oil used in technological processes. The increase in the costs of materials and energy consumption by 32% (y/y) resulted mainly from higher by 17 USD/bbl (y/y) crude oil quotations on global market and higher by 152 thousand tons crude oil processing to 33.4 million tons.

The positive result of other operating activities amounted to PLN 998 million and was higher by PLN 323 million (y/y). It included mainly net effect of reversal of impairment allowances on assets in the amount of PLN 704 million, which mainly concerned the downstream segment of Unipetrol Group, the Upstream segment of Upstream Group and received net penalties and compensations in the amount of PLN 310 million including compensations due to damage related to the steam cracker unit accident from August 2015 in Unipetrol Group in the amount of PLN 264 million.

Share in profit from investments accounted for under equity method decreased by PLN (121) million (y/y) to the PLN 127 million.

As a result profit from operations amounted to PLN 7,215 million and was lower by PLN (1,442) million (y/y).

Net finance costs in the described period amounted to PLN (104) million and included mainly net foreign exchange loss in the amount of PLN (353) million, net interest expenses in the amount of PLN (168) million and net positive impact of settlement and valuation of derivatives not designated as hedge accounting in the amount of PLN 437 million.

After consideration of tax charges in the amount of PLN (1,506) million, the net profit of ORLEN Group amounted to PLN 5,604 million and was lower by PLN (1,569) million (y/y)

Statement of financial position

As at 31 December 2018, total assets of the ORLEN Group amounted to PLN 64,141 million and was higher by PLN 3,477 million in comparison with 31 December 2017.

As at 31 December 2018, the value of non-current assets amounted to PLN 33,932 million and was higher by PLN 2,192 million in comparison with the end of the previous year, mainly due to increasing the value of property, plant and equipment and intangible assets by PLN 2,370 million, decreasing valuation of derivatives by PLN (142) million and decrease of investments accounted for under equity method by PLN (65) million.

The change in the balance of property, plant and equipment and intangible assets comprised mainly investment expenditures in the amount of PLN 4,280 million, including for the Construction of the Polyethylene 3 Installation in Unipetrol Group, Installation of propane-propylene fraction separation (PPF Spliter) in Lithuania, Metathesis Installation in Płock and projects in upstream segment, depreciation and amortisation in the amount of PLN (2,673) million and impact of reversal of impairment allowances on non-current assets regarding mainly Unipetrol Group and Upstream Group in the amount of PLN 704 million and decrease due to the reclassification of upstream assets to non-current assets as held for sale in the amount of PLN (108) million. On 3 January 2019, the transaction of sale of part of the upstream assets in Canada located in the Pouce Coupe area was finalized.

The value of current assets increased by PLN 1,285 million, mainly as result of an increase in trade and other receivables by PLN 961 million, increase in balance of inventories by PLN 1,922 million and valuations of derivatives by PLN 90 million, receivables due to settlement of derivatives in the amount of PLN 180 million by decrease of cash and cash equivalents by PLN (2,052) million. The increase in value of inventories is mainly the effect of an increase in quantity and average price of crude oil and an increase in the average fuel and diesel prices. The increase in trade receivables results mainly from higher goods prices and higher volume of sales.

As at 31 December 2018, equity amounted to PLN 35,739 million and was higher by PLN 528 million in comparison with the end of 2017, mainly due to decrease by PLN (4,222) million in the balance of equity attributable to non-controlling interests due to redemption by PKN ORLEN shares in Unipetrol a.s., dividend payments from the previous year's profit in the amount of PLN (1,283) million, impact of exchange differences on translating foreign operations in the amount of PLN 375 million and recognition of net profit for 2018 in the amount of PLN 5,604 million.

As at 31 December 2018 the value of provisions amounted to PLN 2,074 million and were higher by PLN 499 million compared to the end of 2017, mainly due to provision balance change of estimated CO_2 emissions and energy certificates in the total amount of PLN 408 million. The change results mainly from the net effect of recognition of provision in the amount of PLN 800 million based on current market quotations or prices resulting from the status of owned rights on intangible assets and their usage of the provision due to redemption of rights from 2017 in the amount of PLN (395) million.

As at 31 December 2018, net financial indebtedness of ORLEN Group amounted to PLN 5,599 million and was higher by PLN 4,838 million in comparison with the end of 2017. Change of indebtedness included net proceeds of loans, borrowings and bonds in the amount of PLN 2,535 million, decrease of cash and cash equivalents balance by PLN 2 052 million and the net impact of negative exchange differences from revaluation of indebtedness valuation and interests in total amount of PLN 251 million.

Statement of cash flows

The proceeds of net cash from operating activities for year 2018 amounted to PLN 4,980 million and comprised mainly profit from operations increased by depreciation and amortisation in the amount of PLN 9,888 million, the negative impact of increase in a net working capital by PLN (3,059) million decreased by share in financial result from investments accounted for under equity method in the amount of PLN (127) million, paid income tax in the amount of PLN (1,039) million and reversal of net impairment allowances of property, plant and equipment and intangible assets and other non-current assets in the amount of PLN (704) million.

Net cash used in investing activities for year 2018 amounted to PLN (3,798) million and comprised mainly net expenses for the acquisition and disposal of property, plant and equipment, intangible assets and perpetual usufruct of land in the amount of PLN (4,293) million and proceeds from dividends received in the amount of PLN 196 million and settlement of derivatives not designated as hedge accounting in the amount of PLN 339 million.

Net outflows of cash used in financing activities for year 2018 amounted to PLN (3,237) million and comprised mainly the redemption of shares of Unipetrol a.s. in the amount PLN (4,222) million, the net proceeds of loans and borrowings in the amount of PLN 2,135 redemption of retail bonds in the amount of PLN (200) million, issue of retail bonds in the amount of PLN 600 million, paid dividends in the amount of PLN (1,284) million and interest paid in the amount of PLN (231) million.

After consideration the revaluation of cash due to exchange differences, the cash balance in 2018 decreased by PLN (2,052) million and as at 31 December 2018 amounted to PLN 4,192 million.

ORLEN GROUP (in PLN million)

9. SEGMENTS' DATA

9.1. Operating segments
9.2. Revenues, costs, financial results, investment expenditures

9.1. OPERATING SEGMENTS

DOWNSTREAM

- Production
- Refining and petrochemical sales
- Power Industry

USTREAM

- Exploration and extraction of mineral resources

RETAIL

- Fuel station activities

CORPORATE FUNCTIONS

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

SELECTED ACCOUNTING PRINCIPLES

Assessments of the 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 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 costs.
Revenues from transactions with external customers and transactions with other segments are carried out on an arm's length basis.

9.2. REVENUES, COSTS, FINANCIAL RESULTS, INVESTMENTS EXPENDITURES

2018

	NOTE	Downstream Segment	Retail Segment	Upstream Segment	Corporate Functions	Adjustments	Total
External revenues	10.1.1., 10.1.2.	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	10.1.9	1 593	114	271	172	-	2 150
Other operating expenses	10.1.10	(456)	(141)	(327)	(228)	-	(1 152)
(Loss)/reversal of loss due to impairment of financial instruments	10.1.12	(5)	(2)	-	(9)	-	(16)
Share in profit from investments accounted for under equity method	10.2.4	127	-	-	-	-	127
Profit/(Loss) from operations		**5 792**	**2 306**	**(21)**	**(862)**	**-**	**7 215**
Net finance income and costs	10.1.11						(104)
(Loss)/reversal of loss due to impairment of financial instruments	10.1.12						(1)
Profit before tax							**7 110**
Tax expense							(1 506)
Net profit							**5 604**
Depreciation and amortisation	10.1.8	**1 791**	**461**	**308**	**113**	**-**	**2 673**
EBITDA		**7 583**	**2 767**	**287**	**(749)**	**-**	**9 888**
CAPEX		**2 451**	**832**	**740**	**257**	**-**	**4 280**

ORLEN GROUP (in PLN million)

2017

	NOTE	Downstream Segment	Retail Segment	Upstream Segment	Corporate Functions	Adjustments	Total
External revenues	*10.1.1., 10.1.2.*	61 425	33 350	515	74	-	95 364
Inter-segment revenues		13 816	280	-	342	(14 438)	-
Sales revenues		75 241	33 630	515	416	(14 438)	95 364
Operating expenses		(68 410)	(31 986)	(540)	(1 132)	14 438	(87 630)
Other operating income	*10.1.9*	1 048	105	4	86	-	1 243
Other operating expenses	*10.1.10*	(194)	(133)	(145)	(96)	-	(568)
Share in profit from investments accounted for under equity method	*10.2.4*	247	-	1	-	-	248
Profit/(Loss) from operations		**7 932**	**1 616**	**(165)**	**(726)**	**-**	**8 657**
Net finance income and costs	*10.1.11*						60
Profit before tax							**8 717**
Tax expense							(1 544)
Net profit							**7 173**
Depreciation and amortisation	*10.1.8*	**1 568**	**422**	**318**	**113**	**-**	**2 421**
EBITDA		**9 500**	**2 038**	**153**	**(613)**	**-**	**11 078**
CAPEX		**2 925**	**678**	**778**	**221**	**-**	**4 602**

CAPEX (Capital expeditures) - increase of property, plant and equipment, intangible assets, investment property and perpetual usufruct of land together with the capitalisation of borrowing costs and a decrease on received/due penalties for improper execution of the contract

ORLEN GROUP (in PLN million)

10. EXPLANATORY NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

10.1.1. Sales revenues

SELECTED ACCOUNTING PRINCIPLES

Sales revenues

Sales revenues of goods and services are recognised at a point in time (or over time) a performance obligations by transferring a promised good or service (i.e. an asset) to a customer are satisfied. 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. Revenues are measured at the fair value of the payment received or due.
Revenues from the sale of finished goods, merchandise, raw materials 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 valuated 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.

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 in calculating points entitling to discounts on future purchases. A ratio of 68.5% is adopted to recognise liability taking into account the possibility 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	2018	2017
Revenues from sales of finished goods and services, net		91 014	72 915
revenue from contracts with customers		*90 792*	-
excluded from scope of IFRS 15		*222*	-
Revenues from sales of merchandise and raw materials, net		18 692	22 449
revenue from contracts with customers		18 692	-
Sales revenues, incl.:		**109 706**	**95 364**
revenue from contracts with customers	*10.1.4 - 10.1.7*	*109 484*	-

Contracts excluded from the scope of IFRS 15 refer to lease agreements

Performance obligations
As part of the concluded contracts, the Group commits to transfer refining, petrochemical products and goods, energy, crude oil and gas to customers mainly. Under these agreements the Group acts as a principal. Transaction prices in existing contracts with customers are not restricted.
There are no significant contracts in force in the Group, which allow for obligations to accept returns, pay reimbursements and other similar obligations. There is no significant financing component in contracts with customers. The Group does not identify revenues for which the payment of consideration is contingent.
The guarantees provided under the contracts ensure are guarantees that assure the customer that the good meet complies with the established specification. They do not rely on the performance of distinct service.
In the Downstream segment, there are mainly sales with deferred payment. In the Retail segment, there are both cash sales with a deferred payment date performed by using a fuel cards entitling customers to continuous purchase in the network of petrol stations. Settlements with customers take place in two-week periods (so-called Fleet Cards).
Usually payment is due after transferring good or service. In contracts with Downstream and Retail segments' customers, payment dates not exceeding 30 days are used in most cases, while in the Upstream segment not exceeding 60 days .
The variability of consideration in contracts with customers is connected mainly with volume rebates.

Macroeconomic environment
ORLEN Group operates in the conditions of a 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 margin is mainly affected by the dynamic of crude oil prices. Crude oil prices are shaped by factors such as changes in demand, extraction and inventories of crude oil and fuels.
The main economic indicator - GDP, determined by consumption, capital expenditures and exports, allows to assessing at what stage the economy is located. 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 other things 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:
- 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 to best acquaint the reader with nature, amount, receiving dates and uncertainty related to revenues and cash flows resulting from contracts with customers.

ORLEN GROUP (in PLN million)

10.1.2. Sales revenues by operating segments in division on assortments

	2018
Downstream Segment	
Revenue from contracts with customers IFRS 15	**71 568**
Light distillates	12 925
Medium distillates	34 787
Heavy fractions	7 339
Monomers	3 260
Polymers	2 643
Aromas	1 096
Fertilizers	825
Plastics	1 409
PTA	1 528
Other*	5 756
Excluded from scope of IFRS 15	**95**
	71 663
Retail Segment	
Revenue from contracts with customers IFRS 15	**37 232**
Light distillates	14 266
Medium distillates	19 879
Other **	3 087
Excluded from scope of IFRS 15	**107**
	37 339
Upstream Segment	
Revenue from contracts with customers IFRS 15	**605**
NGL ***	337
Crude oil	95
Natural Gas	168
Other	5
	605
Corporate Functions	
Revenue from contracts with customers IFRS 15	**79**
Excluded from scope of IFRS 15	**20**
	99
	109 706

	2017
Downstream Segment	
Light distillates	12 071
Medium distillates	28 325
Heavy fractions	5 691
Monomers	2 994
Polymers	2 557
Aromas	1 100
Fertilizers	805
Plastics	1 466
PTA	1 399
Other*	5 017
	61 425
Retail Segment	
Light distillates	13 086
Medium distillates	16 471
Other **	3 793
	33 350
Upstream Segment	
NGL ***	249
Crude oil	62
Natural Gas	196
Other	8
	515
Corporate Functions	**74**
	95 364

* *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.*
** *The line Other in retail segment includes mainly sale of non-fuel merchandise*
*** *NGL (Natural Gas Liquids)*

In 2018 and 2017 no leading customers were identified in the Group, for which turnover individually would exceed 10% of total ORLEN Group sales revenues

ORLEN GROUP (in PLN million)

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

	NOTE	2018	2017	% share 2018	% share 2017
Revenue from contracts with customers					
Poland		49 800	41 831	45.4%	43.9%
Germany		16 776	16 964	15.3%	17.8%
Czech Republic		14 461	13 085	13.2%	13.7%
Lithuania, Latvia, Estonia		10 995	7 797	10.0%	8.2%
Other countries		17 452	15 687	15.9%	16.4%
		109 484	95 364	99.8%	100.0%
excluded from scope of IFRS 15					
Poland		117	-	0.1%	-
Czech Republic		104	-	0.1%	-
Lithuania, Latvia, Estonia		1	-	-	-
		222		0.2%	
	9.2, 10.1.1	**109 706**	**95 364**	**100.0%**	**100.0%**

The line Other countries comprises mainly sales to customers from Switzerland, Singapore, Ukraine, Slovakia, Hungary, United Kingdom, the Nederlands and Irleand.

10.1.4. Revenue from contracts with customers by type of contract

	NOTE	Downstream Segment	Retail Segment	Upstream Segment	Corporate Functions	Total
Based on fixed price contracts		68 010	37 228	605	40	105 883
Based on variable price contracts		3 528	-	-	-	3 528
Based on time and materials consumption		30	4	-	39	73
	10.1.1	**71 568**	**37 232**	**605**	**79**	**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.

10.1.5. Revenue from contracts with customers by date of transfer

	NOTE	Downstream Segment	Retail Segment	Upstream Segment	Corporate Functions	Total
At a point in time		50 965	19 267	-	15	70 247
Over time		20 603	17 965	605	64	39 237
	10.1.1	**71 568**	**37 232**	**605**	**79**	**109 484**

The transfer of control as the moment of revenue recognition under IFRS 15 is a broader concept than the transfer of risks and rewards, hence the moment of revenue recognition may change. As part of the Downstream segment, in the scope of 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 receives simultaneously and consumes the benefits from the service.
In the Retail segment, the moment of satisfied a performance obligation is the moment of transfer of good, excluding sales of fuels using Fleet Cards.
In the case of sales transferred 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 to receive consideration that the Group has right for transfer of goods and services to the customer. Within the Downstream segment revenues mainly relate to sale of energy and heat and sale of fuels using Fleet cards within Retail segment and sale of gas and crude oil within the Upstream segment.

10.1.6. Revenue from contracts with customers by duration of contract

	NOTE	Downstream Segment	Retail Segment	Upstream Segment	Corporate Functions	Total
Short-term		70 961	37 228	605	40	108 834
Long-term		607	4	-	39	650
	10.1.1	**71 568**	**37 232**	**605**	**79**	**109 484**

The duration of contracts is short-term in the Group. 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.

10.1.7. Revenue from contracts with customers by sales channel

	NOTE	Downstream Segment	Retail Segment	Upstream Segment	Corporate Functions	Total
Direct sales		3	37 220	-	-	37 223
Other sales		71 565	12	605	79	72 261
	10.1.1	**71 568**	**37 232**	**605**	**79**	**109 484**

ORLEN GROUP (in PLN million)

The Group realizes sales directly to end customers in the Retail segment managing the network close to 2,803 fuel stations: its 2,255 own stations and 548 stations operated under franchise agreements.
The Group 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.

10.1.8. 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.

	2018	2017	% share 2018	% share 2017
Materials and energy	(75 789)	(57 277)	72.7%	64.7%
Cost of merchandise and raw materials sold	(16 484)	(20 500)	15.8%	23.2%
External services	(4 593)	(4 218)	4.4%	4.8%
Employee benefits, incl.:	(2 628)	(2 391)	2.5%	2.7%
payroll expenses	*(2 041)*	*(1 857)*	*2.1%*	*2.2%*
social security expenses	*(450)*	*(407)*	*0.4%*	*0.5%*
Depreciation and amortisation	(2 673)	(2 421)	2.6%	2.7%
Taxes and charges	(1 540)	(1 204)	1.5%	1.4%
Other	(543)	(524)	0.5%	0.5%
	(104 250)	**(88 535)**	**100.0%**	**100.0%**
Change in inventories	479	688		
Cost of products and services for own use	171	217		
Operating expenses	**(103 600)**	**(87 630)**		
Distribution expenses	4 745	4 327		
Administrative expenses	1 590	1 537		
Cost of sales	**(97 265)**	**(81 766)**		

10.1.9. Other operating income

	2018	2017
Profit on sale of non-current non-financial assets	17	40
Reversal of provisions	34	55
Reversal of receivables impairment allowances	-	42
Reversal of impairment allowances of property, plant and equipment and intangible assets and other non-current assets	1 228	77
Penalties and compensations	327	842
Settlement and valuation of derivative financial instruments related to operating exposure	204	-
Ineffective part related to valuation and settlement of operating exposure	99	-
Settlement of hedging costs	24	-
Other, incl.:	217	187
received/due energy certificates	*147*	*132*
	2 150	**1 243**

The line Reversal of impairment allowances of property, plant and equipment and intangible assets and other non-current assets in 2018 concerned mainly the reversal of impairment allowances on non-current assets in the downstream segment in Unipetrol Group in the amount of PLN 906 million and in the Upstream segment in Upstream Group in the amount of PLN 254 million.

On 13 August 2015 the steam cracker unit accident in 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 of PLN 264 million. The inflow of cash from this title occurred in the 3rd quarter of 2018.

In 2017 the line penalties and compensations includes amounts of claims settlement in Unipetrol Group due to the accident on installation FCC of May 2016 in the amount of PLN 211 million and due to the steam cracker unit accident of August 2015 in the amount of PLN 442 million and includes penalties for improper execution of the contract of the CCGT Włocławek installation of PLN 97 million.
The total value of compensation due to the steam cracker unit accident in Unipetrol Group recognised under in other operating income in 2016 - 2018 amounted to PLN 1,986 million.

ORLEN GROUP (in PLN million)

10.1.10. Other operating expenses

	2018	2017
Loss on sale of non-current non-financial assets	(47)	(49)
Recognition of provisions	(54)	(46)
Recognition of receivables impairment allowances	-	(35)
Recognition of impairment allowances of property, plant and equipment and intangible assets and other non-current assets	(524)	(246)
Penalties, damages and compensations	(17)	(26)
Settlement and valuation of derivative financial instruments related to operating exposure	(215)	-
Ineffective part related to valuation and settlement of operating exposure	(106)	-
Other, incl.:	(189)	(166)
donations	*(71)*	*(38)*
updated of property rights provision	*(25)*	*(5)*
	(1 152)	**(568)**

In 2018 the line recognition of impairment allowances of property, plant and equipment and intangible assets and other non-current assets concerned mainly recognition of impairment allowances on non-current assets in the downstream segment in Unipetrol Group in the amount of PLN (165) million and in the Upstream segment in the amount of PLN (272) million.
Beginning from 1 January 2018 the Group presents settlement and valuation of derivatives not designated as hedge accounting and the ineffective part of hedged derivatives related to hedging exposures to risk related to operating activities in other operating income and expenses. In previous period, the Group presented the above transactions within finance income and costs. Comparative data were not converted due to their immaterial impact. As a result of changes in the presentation, the Group recognises both changes in the value of the hedged item and the effects of hedging transactions within the result from operations.

In 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 (11) million, mainly related to commodity swaps which hedge the risk of price changes in oversize inventories, future products sales, including those by fixed price.

In 2018 the net positions of ineffective part concern operating exposure amounted to PLN (7) million and concern mainly commodity swaps hedged risks mentioned above and risk connected with sea crude oil purchases.

10.1.11. Finance income and costs

10.1.11.1. Finance income

	2018	2017
Interest calculated using the effective interest rate method	39	50
Net foreign exchange gain	-	645
Dividends	4	4
Settlement and valuation of derivative financial instruments	1 287	1 025
Reversal of receivables impairment allowances	-	2
Other	83	34
	1 413	**1 760**

10.1.11.2. Finance costs

	2018	2017
Interest calculated using the effective interest rate method	(195)	(197)
Interest on lease	(9)	(8)
Interest on tax liabilities	(3)	(119)
Net foreign exchange loss	(353)	-
Settlement and valuation of derivative financial instruments	(850)	(1 330)
Recognition of receivables impairment allowances	-	(1)
Other	(107)	(45)
	(1 517)	**(1 700)**

In 2018 the net positions of valuation and settlement of derivative financial instruments (non-designated instruments for hedge accounting purposes instruments within risk related to financing activities exposure) amounted to PLN 437 million and concerned mainly hedging the risk of changes in exchange rates in accordance to deposits and payments in foreign currency and hedging of interest rates and payment of bonds interests.
The line other in finance income and finance costs mainly includes transaction differences in currency purchases

10.1.11.3. Interest, net

	NOTE	2018	2017
Finance income and costs of net interest presented in statement of profit or loss and other comprehensive income	*10.1.11.1* *10.1.11.2*	**(165)**	**(155)**
Adjustments to profit before tax of net interest presented in statement of cash flows		**203**	**204**
interest paid concerning financing activities		*231*	*234*
accrued interest concerning investing and financing activities		*(28)*	*(30)*
Net interest concerning operating activities not adjusting profit before tax		(38)	(49)

ORLEN GROUP (in PLN million)

10.1.11.4. Foreign exchange gain/(loss)

	NOTE	2018	2017
Foreign exchange gain/(loss) surplus presented in statement of profit or loss and other comprehensive income	*10.1.11.1 10.1.11.2*	**(353)**	**645**
Adjustments to profit before tax of foreign exchange differences presented in statement of cash flows		**319**	**(233)**
realized foreign exchange differences concerning investing and financing activities		*44*	*90*
unrealized foreign exchange differences concerning investing and financing activities		*304*	*(363)*
foreign exchange differences on cash		*(29)*	*40*
Foreign exchange differences concerning operating activities not adjusting profit before tax		(34)	412

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

	2018
(Loss) due to impairment of receivables	(76)
Reversal of loss due to impairment of receivables	60
(Loss) due to impairment of interest on receivables	(2)
Reversal of loss due to impairment of interest on receivables	1
	(17)

10.1.13. 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 receivable, if the amount of the current and prior periods income tax paid exceeds the amount due the excess is recognised.
Deferred tax assets and liabilities are accounted as non-current and are not discounted. They are offset on the level of particular financial statements of the Group companies when there is a legally enforceable right to set off the recognised amounts.

	2018	2017
Tax expense in the statement of profit or loss		
Current tax expense	(1 181)	(1 329)
Deferred tax	(325)	(215)
	(1 506)	**(1 544)**
Deferred tax recognised in other comprehensive income		
Hedging instruments	(3)	(175)
Actuarial gains and losses	4	2
	1	**(173)**
	(1 505)	**(1 717)**

10.1.13.1. Reconciliation of effective tax rate

	2018	2017
Profit before tax	**7 110**	**8 717**
Tax expense by the valid tax rate in Poland (19%)	(1 351)	(1 656)
Differences between tax rates	(35)	25
Lithuania (15%)	*6*	*41*
Germany (29%, 48%)	*(43)*	*(18)*
Canada (27%)	*2*	*2*
Deferred tax provision on capital gains in ORLEN Capital	(112)	-
Tax losses	16	31
Impairment allowances of property, plant and equipment and intangible assets	(23)	7
Investments accounted for under equity method	24	47
Other	(25)	2
Tax expense	**(1 506)**	**(1 544)**
Effective tax rate	**21%**	**18%**

As at 31 December 2018 and as at 31 December 2017, the Group had unsettled tax losses in the total amount of PLN 1 057 million and PLN 314 million, respectively mainly relating to the Upstream Group, for which no deferred tax asset was recognised due to the lack of certainty regarding possible settlement of those losses in the future.

ORLEN GROUP (in PLN million)

10.1.13.2. Deferred tax

	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	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)**

	31/12/2016	Deferred tax recognised in profit or loss	Deferred tax recognised in other comprehensive income	Exchange differences on translating foreign operations	31/12/2017
Deferred tax assets					
Impairment allowances	495	(60)	-	(1)	434
Provisions and accruals	222	96	-	(1)	317
Tax losses	493	(153)	-	(18)	322
Valuation of derivative financial instruments	78	18	(77)	-	19
Other	(30)	136	2	1	109
	1 258	**37**	**(75)**	**(19)**	**1 201**
Deferred tax liabilities					
Temporary differences related to non-current assets	1 772	197	-	(3)	1 966
Unrealized foreign exchange	-	14	-	-	14
Valuation of derivative financial instruments	-	4	98	-	102
Other	128	37	-	-	165
	1 900	**252**	**98**	**(3)**	**2 247**
	(642)	**(215)**	**(173)**	**(16)**	**(1 046)**

As at 31 December 2018 deferred tax assets and liabilities amounted to PLN 70 million and PLN 1,445 million, respectively.

10.1.13.3. Income tax (paid)

	NOTE	2018	2017
Tax expense on profit before tax	*10.1.13.1*	**(1 506)**	**(1 544)**
Change in deferred tax asset and liabilities		329	404
Change in current tax receivables and liabilities		149	(328)
Deferred tax recognised in other comprehensive income	*10.1.13.2*	1	(173)
Deferred tax as a result of adoption of IFRS 9	*10.1.13.2*	1	-
Liability for withholding tax		-	57
Foreign exchange differences		(13)	(19)
		(1 039)	**(1 603)**

10.2. EXPLANATORY NOTES TO THE STATEMENT OF FINANCIAL POSITION

10.2.1. 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 stated 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 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 JUDGEMENTS

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 possible 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 2018 resulted in a decrease of depreciation costs by PLN 82 million compared to depreciation costs that were recognised based on useful lives applied in 2017.

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 10.2.10.1*

ORLEN GROUP (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 01/01/2018								
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)
	1 148	**11 379**	**10 418**	**858**	**3 331**	**642**	**3 614**	**31 390**
Net carrying amount at 31/12/2018								
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**
Net carrying amount at 01/01/2017								
Gross carrying amount	1 164	20 837	37 950	2 110	4 707	986	5 307	**73 061**
Accumulated depreciation	(12)	(8 805)	(19 582)	(1 283)	-	(27)	(1 036)	**(30 745)**
Impairment allowances	(37)	(2 531)	(10 338)	(145)	(146)	(495)	(778)	**(14 470)**
Grants	-	(52)	(117)	(5)	(1)	-	-	**(175)**
	1 115	**9 449**	**7 913**	**677**	**4 560**	**464**	**3 493**	**27 671**
increases/(decreases), net								
Investment expenditures	-	106	66	55	3 460	107	653	4 447
Depreciation	(1)	(649)	(1 188)	(180)	-	(12)	(321)	(2 351)
Borrowing costs	-	29	83	1	(66)	2	-	49
Acquisition of subsidiary	-	10	1	3	-	-	-	14
Net impairment allowances, incl.: *	-	160	441	25	25	(43)	(96)	512
Recognition	-	*(73)*	*(16)*	*(6)*	*(6)*	*(44)*	*(96)*	*(241)*
Reversal	-	*63*	*7*	*1*	*6*	-	-	*77*
Reclassifications	20	968	2 048	211	(3 765)	(22)	48	(492)
Grants	-	1	4	1	-	-	-	6
Sale of subsidiary	-	-	-	-	-	-	-	-
Foreign exchange differences, incl.:	(18)	(29)	(99)	(25)	(31)	(4)	(293)	(499)
foreign exchange differences of impairment allowances	*(1)*	*132*	*1 338*	*13*	*11*	-	*82*	*1 575*
Other	1	(18)	(193)	(42)	(27)	(5)	(2)	(286)
Net carrying amount at 31/12/2017	**1 117**	**10 027**	**9 076**	**726**	**4 156**	**487**	**3 482**	**29 071**

* In 2018 and in 2017 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 10.2.5.*

In the 4th quarter of 2018 investments expenditures were reduced by PLN 219 million received/due to penalties for delayed execution of the investment contracts.

In 2018 and 2017 the capitalization rate used to calculate borrowing costs amounted to 0.76% and 1.05%, respectively.
The gross carrying amount of all fully depreciated property, plant and equipment still in use as at 31 December 2018 and as at 31 December 2017 amounted to PLN 4,844 million and PLN 5,044 million, respectively.

10.2.2. 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.

ORLEN GROUP (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 (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.
Outgoing of allowances is recognised using FIFO method (First In, First Out).
Rights also include energy certificates.

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 2018 resulted in an decrease of depreciation costs by PLN 9 million compared to depreciation costs that were recognised based on useful lives applied in 2017.

Change in internally generated intangible assets

As at 31 December 2018 and as at 31 December 2017 internally generated intangible assets amounted to PLN 101 million and PLN 82 million, respectively.

Change in other intangible assets

	Patents, trade marks and licenses	Goodwill	Rights	Other	Total
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, incl.:	7	1	1	(1)	8
foreign exchange differences of impairment allowances	*(2)*	-	-	-	*(2)*
Other **	62	-	2	(50)	14
	418	**50**	**692**	**62**	**1 222**
Net carrying amount at 31/12/2018					
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**
Net carrying amount at 01/01/2017					
Gross carrying amount	1 521	384	886	101	**2 892**
Accumulated amortisation	(1 055)	(19)	-	(59)	**(1 133)**
Impairment allowances	(107)	(315)	(59)	(6)	**(487)**
Grants	(3)	-	-	-	**(3)**
	356	**50**	**827**	**36**	**1 269**
increases/(decreases), net					
Investment expenditures	9	1	-	72	82
Amortisation	(73)	-	-	3	(70)
Borrowing costs	-	-	-	1	1
Net impairment allowances, incl.: *	(1)	-	1	2	2
Recognition	*(1)*	-	-	-	*(1)*
Foreign exchange differences, incl.:	(3)	(2)	-	-	(5)
foreign exchange differences of impairment allowances	*4*	*9*	-	*(1)*	*12*
Other **	95	-	(140)	(44)	(89)
Net carrying amount at 31/12/2017	**383**	**49**	**688**	**70**	**1 190**

* In 2018 and in 2017 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 10.2.5.
** Other net increases/(decreases) of property rights consist mainly granted free of charge for 2018 and 2017 and settlement of rights for 2017 and 2016 and relocation of colour energy allowances to non-current assets held for sale.

The gross carrying amount of all fully amortised intangible assets still in use as at 31 December 2018 and as at 31 December 2017 amounted to PLN 582 million and PLN 540 million, respectively.

ORLEN GROUP (in PLN million)

10.2.2.1. Rights

Changes in owned CO_2 emission rights for 2018

	Quantity (in thous. tonnes)	Value
01/01/2018	29 477	677
Received free of charge	7 841	363
Emission settlement for 2017	(14 342)	(374)
Purchase/(Sale), net	(504)	-
Impairment allowances	-	1
Foreign exchange differences	-	1
	22 472	**668**
CO_2 emission in 2018	14 918	728

The market value of owned EUA rights exceeds their total carrying amount, therefore the Group does not identify impairment indicators.
As at 31 December 2018 the market value of one EUA amounted to PLN 105.95 (representing EUR 24.64 at exchange rate as at 31 December 2018) (source: www.theice.com).

The rights to colour energy (energy certificates) recognised in the line rights as at 31 December 2018 and as at 31 December 2017 amounted to PLN 24 million and PLN 11 million, respectively. In 2018 , the Group granted free of charge rights to energy certificates in the amount of PLN 150 million and recognised PLN 147 million in other operating income and PLN 3 million as a correction of capital expenditures.

Additionally, as at 31 December 2018 and as at 31 December 2017 the Group recognised CO_2 emission rights in the amount PLN 25 million and PLN 10 million, respectively and rights to colour energy in the amount PLN 61 million and PLN 60 million, respectively in the line trade and other receivables (note 10.2.6.2).

10.2.3. Assets by operating segments and by geographical area

10.2.3.1. Assets by operating segments

	31/12/2018	31/12/2017
Downstream Segment	46 129	42 159
Retail Segment	6 974	6 511
Upstream Segment	4 175	3 839
Segment assets	**57 278**	**52 509**
Corporate Functions	6 914	8 206
Adjustments	(51)	(51)
	64 141	**60 664**

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.

10.2.3.2. Non-current assets by geographical area

	2018	2017	% share	
			2018	2017
Poland	20 202	20 055	61.3%	65.6%
Germany	979	922	3.0%	3.0%
Czech Republic	7 663	5 966	23.3%	19.5%
Lithuania, Latvia, Estonia	1 110	831	3.3%	2.7%
Canada	2 982	2 788	9.1%	9.2%
	32 936	**30 562**	**100.0%**	**100.0%**

Non-current assets by geographical area include property, plant and equipment (note 10.2.1), intangible assets (note 10.2.2), investment property and perpetual usufruct of land (note 10.2.9).

10.2.4. 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.

ORLEN GROUP (in PLN million)

	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 Article association 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 aims 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;
- exploration – extraction projects carried out together with PGNiG (the search areas „Sieraków" – 49% share of ORLEN Upstream, "Bieszczady" – 49% share of ORLEN Upstream and through subsidiary FX Energy Poland the search areas "Płotki" – 49% share 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

	31/12/2018	31/12/2017
Joint ventures, incl.:	644	709
Basell ORLEN Polyolefins Sp. z o.o.	*612*	*677*
Associates	6	6
	650	**715**

Share in profit from investments accounted for under equity method

	2018	2017
Joint ventures, incl.:	127	248
Basell ORLEN Polyolefins Sp. z o.o.	*127*	*248*
	127	**248**

Condensed financial information of Basell ORLEN Polyolefines Sp. z o.o.

	31/12/2018	31/12/2017
Non-current assets	835	845
Current assets	1 234	1 242
cash	*345*	*329*
other current assets	*889*	*913*
Total assets	**2 069**	**2 087**
Total equity	**1 269**	**1 375**
Non-current liabilities	49	50
Current liabilities, incl.:	751	662
trade and other liabilities	*729*	*646*
Total liabilities	**800**	**712**
Total equity and liabilities	**2 069**	**2 087**
Net debt	**(345)**	**(329)**
Net assets	1 269	1 375
Group's share in joint ventures (50%)	635	688
Consolidation adjustments	(23)	(11)
Joint ventures investments accounted for under equity method	**612**	**677**

ORLEN GROUP (in PLN million)

	2018	2017
Sales revenues	3 425	3 526
Cost of sales, incl.:	(2 981)	(2 809)
depreciation and amortisation	*(78)*	*(86)*
Gross profit on sales	**444**	**717**
Distribution expenses	(92)	(94)
Administrative expenses	(22)	(23)
Other operating income and expenses, net	2	-
Profit from operations	**332**	**600**
Net finance income and costs	12	(12)
Profit before tax	**344**	**588**
Tax expense	(66)	(113)
Net profit	**278**	**475**
Total net comprehensive income	**278**	**475**
Net cash from operating activities	**503**	**427**
Net cash (used) in investing activities	**(102)**	**(41)**
Net cash (used) in financing activities	**(385)**	**(497)**
Dividends received from joint ventures	**192**	**248**
Net profit	278	475
Group's share in joint ventures (50%)	139	238
Consolidation adjustments	(12)	10
Group's share in result of joint ventures accounted for under equity method	**127**	**248**

In 2018 and 2017, 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.

10.2.5. Impairment of property, plant and equipment and intangible assets

SELECTED ACCOUNTING PRINCIPLES

Impairment of property, plant and equipment and intangible 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 and intangible assets is recognised in other operating activity.

ESTIMATES AND JUDGMENTS

Impairment of property, plant and equipment and intangible 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 2018, an impairment indicators were identified in the ORLEN Group in accordance with IAS 36 "Impairment allowances of assets" related to the approval on 20 December 2018 The Strategy of the ORLEN Group for the years 2019-2022 ("Strategy") by the Management Board and the Supervisory Board of PKN ORLEN.
The detailed information on key pillars and directions of development has been presented in document available on the PKN ORLEN website:
https://www.orlen.pl/EN/InvestorRelations/Presentations/Pages/default.aspx
The assumptions of the ORLEN Group Strategy are focused on ensuring raw material security, strengthening market position and customer relationships, using the integrated value chain to pursuit of operational excellence and maintaining readiness for market and regulatory challenges. An important element of the strategy is also the attitude to support innovation and development infrastructure, focus on safety and care for the environment and the surroundings.
The macroeconomic assumptions were based on 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.

The Mid-Term Plan approved in the framework of the ORLEN Group Strategy in the perspective of 2019-2020 assumes an increase in crude oil prices by USD 18 / bbl as compared to the average from 2017 - 2018 from the previous Strategy. The assumed increase in the price of crude oil is a consequence of the growing demand with limited possibilities of supply growth.
The Mid-Term Plan in the perspective of 2019-2020 assumes the increase of the model downstream margin, among others due to the tightened limits of sulphur content in bunker fuel, (so-called IMO effect - regulations of the International Maritime Organization). Compared to the average for 2017-2018 from the previous Strategy, this increase is 2.2 USD / bbl and is next to the discount rate a positive factor affecting the valuation of production assets. In the long term perspective, the Group expects adjustment of the market and return of the margins to historical levels.
The Mid-Term Plan in 2019-2020 assumes a model average petrochemical margin of 808 EUR / t. In comparison to the previous strategy, in which for 2017-2018, petrochemical margins were assumed at the level of 793 EUR / t, the currently forecasted level is by 15 EUR / t higher.
These create favorable macroeconomic conditions for investment processes and allows full use of production assets.

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.
For the assessment of production assets in ORLEN Upstream Canada, the Reserve Report was prepared (valuation of the concession assessing the production potential of the assets). For exploration rights for extraction were valued (valuation based on their production potential and the expected level of raw material prices, the so-called Assessment of Non-Reserve Lands). They are the basis for the assessment of fair value.

ORLEN GROUP (in PLN million)

The actual reports revealed a significant increase in the level of production potential relative to the last resource verification by 40%.

The assessment of the prospects of exploited deposits and discoveries of oil and gas in Poland was made on the basis of the Reserve Report prepared by a reputable European adviser. The actual report revealed a significant increase in the level of exploration reserves compared to the last resource verification by 13%.

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 would have taken place potential transaction to sale the assets of the Group as the recoverable value of its individual assets is its value in use, according to IAS 36.20. The Upstream segment assets test was performed by reference to the fair value reduced by the costs of reclamation.
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 for 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 2018 and net cash flows projected in the approved within the Strategy the Mid-term Plan or in the mentioned above 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.
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 2018.

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%

The Group identifies significant drops in discount rates relative to the verification of the value of the ORLEN Group assets that took place on December 31, 2016 and when the update of the ORLEN Group Strategy for 2017-2021 adopted by the Management Board and Supervisory Board of the ORLEN Group Strategy on December 15, 2016 was the indicator.

The discount rate structure used in the impairment tests of assets by cash-generating unit of ORLEN Group as at 31 December 2016

	Poland				Czech Republic			Lithuania		Canada	Germany
	Refining	Petrochemical	Retail	Upstream	Refining	Petrochemical	Retail	Refining	Retail	Upstream	Retail
Cost of equity	15.40%	14.70%	17.65%	15.13%	11.88%	11.21%	14.07%	15.26%	17.83%	8.91%	11.10%
Cost of debt after tax	2.37%	2.37%	2.37%	2.37%	1.56%	1.56%	1.56%	4.27%	4.27%	1.70%	0.88%
Capital structure	0.60	0.29	1.12	1.24	0.60	0.29	1.12	0.60	1.12	0.47	1.12
Nominal discount rate	**10.50%**	**11.93%**	**9.57%**	**8.06%**	**8.00%**	**9.04%**	**7.45%**	**11.13%**	**10.65%**	**6.60%**	**5.69%**
Long-term rate of inflation	1.38%	1.38%	1.38%	1.38%	1.98%	1.98%	1.98%	1.84%	1.84%	1.78%	1.50%

We observe 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. The GDP indicator is in the same direction, which is the result of, among others structural changes in demography, 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 and intangible assets

	2018	2017
ORLEN Upstream	(18)	(140)
Unipetrol Group	741	(12)
ORLEN Asfalt	-	(8)
Other	(13)	(5)
	710	**(165)**

As a result, in 2018, the Group recognized the total net reversal effect on impairment losses on assets in the amount of PLN 710 million.

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 50 mln PLN 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 are lower than the rates recognized as at 31 December 2017 by -0.97p .p. and -0.88p.p.

The positive impact on the valuation of the value in use of assets allowing for the reversal of historically established impairments in Unipetrol Group included, among others: reduction of discount rates, improvement of model refining and petrochemical margins, in relation to the previous strategy, planned commencement in 2019 of the new installation for the production of PE3 polyethylene in Litwinow increasing the production of higher-margin polyethylene.

The value in use of the assets of the downstream segment in the Unipetrol Group:

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 of the value of production assets in Poland based on the Reserve Report prepared by an independent company. As a result, it recognized an impairment of PLN (207) million (including PLN 100 million relating to upstream assets in the Płotki project, 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 recognized 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 recognized impairments amounted to PLN (65) million (including cash-generating units: mainly Kaybob PLN 53 million, Peace River Oil PLN 3 million, Central Alberta Gas PLN 2 million, other PLN 7 million exploration assets), and reversals of impairments 209 PLN million (including cash generating units: mainly Ferrier 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 recognized 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.

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

Net impairment allowances of property, plant and equipment and intangible assets in 2017

As at 31 December 2017, the Group identified in accordance with IAS 36 “Impairment allowances of assets” impairment indicators of exploration assets in FX Energy Poland in Upstream Group and impairment indicators of Orlen Asfalt assets due to the closure of the modified bitumen production plant in Trzebinia.
As at 31 December 2017 as a result of an independent valuation of the exploration assets, an impairment allowances of exploration assets of FX Energy Poland of PLN (97) million was recognized. The value in use of exploration assets was estimated at the discount rate of 8.69% and amounted to PLN 501 million.

Sensitivity analysis of the FX Energy Poland exploration assets value in use within an impairment test performed as at 31 December 2017

in PLN million — HYDROCARBONS PRICES

DISCOUNT RATE	change	-5%	0%	5%
	- 0.5 p.p.	*increase in allowance* (25)	*decrease in allowance* 10	*decrease in allowance* 35
	0.0 p.p.	*increase in allowance* (42)	-	*decrease in allowance* 24
	+ 0.5 p.p.	*increase in allowance* (59)	*decrease in allowance* (18)	*decrease in allowance* 14

Additionally, in the 3rd quarter of 2017, as a result of the decision to partially narrow the exploration area of ORLEN Upstream Group in Poland, an impairment of exploration and recognition of mineral resources assets of FX Energy Poland of PLN (43) million was recognised.

The total influence of impairment allowances on exploration assets in FX Energy Poland on the financial result in 2017 on the Upstream segment amounted to PLN (140) million.

Other impairment allowances recognised in 2017 concerned mainly the impairment of assets in the Unipetrol Group in the amount of PLN (12) million for impairment of the Retail segment and ORLEN Asfalt in the amount of PLN (8) million in the Downstream segment.

ORLEN GROUP (in PLN million)

10.2.6. Net working capital

Net working capital
The Group defined 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
31/12/2017		**12 440**	**9 518**	**14 469**	**7 489**
31/12/2018		**14 362**	**10 479**	**13 697**	**11 144**
Change in working capital in the statement of financial position		**(1 922)**	**(961)**	**(772)**	**(3 655)**
Adjustments		**193**	**(108)**	**511**	**596**
Change in rights and advances for non-financial non-current assets	*10.2.6.2*	*-*	*(6)*	*-*	*(6)*
Change in investment liabilities	*10.2.6.4*	*-*	*-*	*368*	*368*
VAT on investment liabilities		*-*	*-*	*42*	*42*
Withholding tax		*-*	*(55)*	*55*	*-*
Foreign exchange differences		*193*	*(35)*	*16*	*174*
Other		*-*	*(12)*	*30*	*18*
Change in working capital in the statement of cash flows		**(1 729)**	**(1 069)**	**(261)**	**(3 059)**

10.2.6.1. 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.
Outgoings 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. Outgoings 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 inventory impairment allowances required estimation of the net realizable values based on the most recent sales prices at the moment of estimations.

	31/12/2018	31/12/2017
Raw materials	8 330	6 911
Semi - finished goods and work in progress	1 403	1 289
Finished goods	4 012	3 566
Merchandise	617	674
Inventories, net	**14 362**	**12 440**
Impairment allowances of inventories to net realisable value	301	134
Inventories, gross	**14 663**	**12 574**

The main item of inventories, which is realized by more than 12 months after the end of the reporting period are mandatory reserves. As at 31 December 2018 and as at 31 December 2017 the value of mandatory reserves presented in consolidated financial statements amounted to PLN 5,607 million and PLN 4,262 million, respectively.

Change in impairment allowances of inventories to net realizable value

	2018	2017
At the beginning of the period	134	158
Recognition	215	119
Reversal	(26)	(54)
Usage	(29)	(77)
Foreign exchange differences	7	(12)
	301	**134**

In 2018 and 2017 the recognition and reversal of net impairment allowances of inventories to net realizable value related mainly to the downstream segment and amounted to PLN (189) million and PLN (65) million, respectively.

ORLEN GROUP (in PLN million)

10.2.6.2. Trade and other receivables

SELECTED ACCOUNTING PRINCIPLES

Receivables

Receivables, including trade receivables, are recognised initially at a fair value and subsequently, at amortised cost using the effective interest rate including expected credit loss. 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.

ESTIMATES

Impairment of trade and other receivables

As default the Group recognises that the customers do 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.

	NOTE	31/12/2018	31/12/2017
Trade receivables, incl.:		9 299	8 476
from contracts with customers		*9 270*	-
Other		128	161
Financial assets		**9 427**	**8 637**
Excise tax and fuel charge		131	120
Other taxation, duties, social security and other benefits		190	216
Advances for non-current non-financial assets		156	178
Rights		86	70
Advances for deliveries		99	70
Prepayments		390	227
Non-financial assets		**1 052**	**881**
Receivables, net		**10 479**	**9 518**
Expected credit loss	*10.2.6.2.1*	430	-
Receivables impairment allowance	*10.2.6.2.1*	-	448
Receivables, gross		**10 909**	**9 966**

Division of financial assets denominated in foreign currencies is presented in note 10.3.5.2. Division of receivables from related parties is presented in note 10.4.6.2.
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.

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

	NOTE	2018
01/01/2018 (approved data)		448
Impact of IFRS 9 adoption		10
01/01/2018 (converted data)		458
Recognition	*10.1.12*	78
Reversal	*10.1.12*	(71)
financial		(61)
non-financial		(10)
Usage		(39)
Foreign exchange differences		4
		430

Change in impairment allowances of trade and other receivables

	NOTE	2017
01/01/2017		479
Recognition	*10.1.10, 10.1.11.2*	36
Reversal	*10.1.9, 10.1.11.1*	(44)
Usage		(20)
Foreign exchange differences		(3)
		448

ORLEN GROUP (in PLN million)

10.2.6.2.2. Ageing analysis of trade receivables and expected credit loss as at 31 December 2018

	Trade receivables, gross value	Expected credit loss (in horizon of whole life)	Weighted average rate of expected credit loss	Trade receivables, net value
current	8 838	16	0.0018	8 822
from 1 to 30 days	407	2	0.0049	405
from 31 to 60 days	31	8	0.2581	23
from 61 to 90 days	6	1	0.1667	5
more than 90 days past due	418	374	0.8947	44
	9 700	**401**		**9 299**

Detailed information about credit risk is presented in note 10.3.5.4.

10.2.6.3. Non-current assets classified as held for sale

	31/12/2018	31/12/2017
Pouce Coupe area *	108	-
Energy rights	90	72
Items of non-current assets	4	3
	202	**75**

* The transaction was finalized on 3 January 2019. The assets were valued in accordance with IFRS 5 at fair value (according to the sales price), therefore in 2018 an impairment allowances in the amount of PLN (6) million, was created.

10.2.6.4. 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.

	31/12/2018	31/12/2017
Trade liabilities	7 275	7 901
Investment liabilities	1 067	1 435
Finance lease	36	32
Other	321	287
Financial liabilities	**8 699**	**9 655**
Payroll liabilities	331	284
Excise tax and fuel charge	2 858	2 830
Value added tax	1 516	1 377
Other taxation, duties, social security and other benefits	197	190
Holiday pay accruals	76	76
Other	20	57
Non-financial liabilities	**4 998**	**4 814**
	13 697	**14 469**

Division of financial liabilities denominated in foreign currencies is presented in note 10.3.5.2. Division of liabilities from related parties is presented in note 10.4.6.2
As at 31 December 2018 and as at 31 December 2017 in the Group 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.

10.2.6.5. Change in liabilities from contracts with customers

	2018
01/01/2018 (approved data)	-
Impact of IFRS 15 adoption	198
01/01/2018 (converted data)	198
Revenues recognised in a given reporting period, included in the balance of liabilities from contracts at the beginning of the period	(132)
Revenue adjustments	75
Advances received, prepayments	106
Others	(16)
31/12/2018	**231**

The Group fulfils its liabilities from contracts with customers with respect to advance payments received, prepayments up to one year. Revenues adjustments 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.

ORLEN GROUP (in PLN million)

10.2.7. Net debt and equity management

SELECTED ACCOUNTING PRINCIPLES

Net debt
The Group defined net debt as: non-current and current loans, borrowings and bonds lower by cash and cash equivalents.

Cash comprises cash on hand and in bank accounts. 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 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.

Changes in liabilities from financing activities

	Loans	Bonds	Cash and cash equivalents	Net debt	Financial 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						
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

	Loans	Bonds	Cash and cash equivalents	Net debt	Financial lease	Change in liabilities from financing activities
	(A)	(B)	(C)	(A + B - C)	(D)	(A + B + D)
01/01/2017	940	7 495	5 072	**3 363**	170	**8 605**
Cash changes						
net proceeds/(outflows)	*(882)*	*(300)*	*1 293*	***(2 475)***	*(28)*	***(1 210)***
interest paid	*(33)*	*(193)*	*-*	***(226)***	*(8)*	***(234)***
Non-cash changes						
exchange differences	*(9)*	*(318)*	*(121)*	***(206)***	*-*	***(327)***
valuation of debt	*(38)*	*273*	*-*	***235***	*9*	***244***
settlement of loans hedging instruments	*63*	*-*	*-*	***63***	*-*	***63***
acquisition of subsidiary	*7*	*-*	*-*	***7***	*1*	***8***
new finance lease agreements	*-*	*-*	*-*	***-***	*54*	***54***
31/12/2017	**48**	**6 957**	**6 244**	**761**	**198**	**7 203**
Net financial gearing						2.2%
Net debt / EBITDA before net impairment allowances						0.07

10.2.7.1. Loans and bonds

	Non-current		Current		Total	
	31/12/2018	31/12/2017	31/12/2018	31/12/2017	31/12/2018	31/12/2017
Loans	2 151	-	112	48	2 263	48
Bonds	6 447	6 688	1 081	269	7 528	6 957
	8 598	**6 688**	**1 193**	**317**	**9 791**	**7 005**

As at 31 December 2018, 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 2,151 million translated using the exchange rate as at 31 December 2018 (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.

10.2.7.1.1. Loans

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

	31/12/2018	31/12/2017
PLN - WIBOR	-	6
EUR - EURIBOR	2 152	-
USD - LIBOR USD	5	-
CAD - LIBOR CAD	106	42
	2 263	**48**

ORLEN GROUP (in PLN million)

As at 31 December 2018 unused credit lines (note 10.3.5.4) increased by trade and other receivables (note 10.2.6.2) and cash and cash equivalents exceeded trade and other liabilities (note 10.2.6.4) by PLN 8,155 million.
The Group hedges partially cash flows related to interest payments regarding external financing in EUR and USD, by using interest rate swaps (IRS).
In the period covered by the foregoing 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 2018 these ratios assessed by the creditor banks were at a safe level. The value of covenant as at 31 December 2018 included in the loan agreements of PKN ORLEN (net debt / EBITDA before net impairment allowances) amounted to 0.61 and fulfill the obligations contained in loan agreements.

10.2.7.1.2. Bonds

- by currency (translated into PLN)

	31/12/2018	31/12/2017
PLN	2 116	1 716
EUR	5 412	5 241
	7 528	**6 957**

- by interest rate

	Fixed rate bonds		Floating rate bonds		Total	
	31/12/2018	31/12/2017	31/12/2018	31/12/2017	31/12/2018	31/12/2017
Nominal value	5 549	5 549	2 000	1 600	7 549	7 149
Carrying amount	5 513	5 342	2 015	1 615	7 528	6 957

	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**	**-**					
Corporate bonds	**1 000**	**-**	27.02.2012	27.02.2019	6M WIBOR	1.60%	-
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**					
	7 549	**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 according to amortized cost using the effective interest method.

In the 2nd quarter of 2018 PKN ORLEN redeemed retail bonds E series in the total amount of PLN 200 million issued under public bond issue program conducted in 2013-2014.
Under the second public bond issue program PKN ORLEN in the 2nd quarter of 2018 issued retail bonds series C and D in the total amount of PLN 400 million and in the 3th quarter of 2018 issued retail bonds series E in the total amount of PLN 200 million.

10.2.7.2. 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 2018 and as at 31 December 2017 amounted to 15.7% and 2.2% respectively;
- net debt to EBITDA ratio before net impairment allowances;
- 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 2018 and in 2017 amounted to PLN 3 per share for both dates.

10.2.8. Equity

SELECTED ACCOUNTING PRINCIPLES

Share capital
Equity paid by shareholders and stated at nominal value in accordance with the Parent Company's articles of association and the entry in the Commercial 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.

ORLEN GROUP (in PLN million)

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.*

10.2.8.1. Share capital

	31/12/2018	31/12/2017
Share capital	535	535
Share capital revaluation adjustment	523	523
	1 058	**1 058**

In accordance with the Polish Commercial Register, the share capital of Polski Koncern Naftowy ORLEN S.A. as at 31 December 2018 and as at 31 December 2017 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*	28 240 000	35 300 000	6.60%
Other	251 758 865	314 698 581	58.87%
	427 709 061	**534 636 326**	**100.00%**

**According to the information from the Ordinary General Shareholders' Meeting convened for 26 June 2018, continuing the Meeting on 17 July 2018*

10.2.8.2. Share premium

	31/12/2018	31/12/2017
Nominal share premium	1 058	1 058
Share premium revaluation adjustment	169	169
	1 227	**1 227**

10.2.8.3. Retained earnings

	31/12/2018	31/12/2017
Reserve capital	25 993	21 735
Other capital	884	884
Actuarial gains and losses	(37)	(32)
Net profit for the period attributable to equity owners of the parent	5 556	6 655
Impact of IFRS 9 adoption	(9)	-
	32 387	**29 242**

10.2.8.4. Equity attributable to non-controlling interest

	31/12/2018	31/12/2017
Unipetrol Group	1	3 000
Other	11	14
	12	**3 014**

ORLEN GROUP (in PLN million)

	31/12/2018	31/12/2017
At the beginning of the period	3 014	2 522
Share in profit net, incl.:	48	518
Unipetrol Group	*49*	*518*
Share in items of other comprehensive income	57	61
hedging reserve, net	*17*	*68*
exchange differences on translating foreign operations	*40*	*(7)*
Change in the structure of non-controlling interest	(3 107)	2
Paid and declared dividends	-	(89)
	12	**3 014**

Condensed financial information relating to UNIPETROL GROUP

	31/12/2018	31/12/2017
Non-current assets	7 787	6 104
Current assets	6 898	6 259
cash	*253*	*401*
other current assets	*6 645*	*5 858*
Total assets	**14 685**	**12 363**
Total equity	**9 810**	**8 121**
Non-current liabilities	605	393
Current liabilities, incl.:	4 270	3 849
trade and other liabilities	*3 786*	*3 383*
loans and borrowings	*4*	*3*
Total liabilities	**4 875**	**4 242**
Total equity and liabilities	**14 685**	**12 363**
Net debt	**(249)**	**(398)**

	2018	2017
Sales revenues	21 745	19 811
Cost of sales, incl.:	(20 527)	(17 832)
depreciation and amortisation	*(540)*	*(459)*
Gross profit on sales	**1 218**	**1 979**
Distribution expenses	(416)	(432)
Administrative expenses	(285)	(261)
Net other operating income and expenses, incl.:	1 021	663
reversal / recognition of impairment allowances of property, plant and equipment and intangible assets	*741*	*(12)*
penalties, damages and compensations	*272*	*659*
(Loss)/reversal of loss due to impairment of financial instruments	1	-
Profit from operations	**1 539**	**1 949**
Net finance income and costs	176	(229)
Profit before tax	**1 715**	**1 720**
Tax expense	(308)	(317)
Net profit	**1 407**	**1 403**
Items of other comprehensive income	284	160
Total net comprehensive income	**1 691**	**1 563**

In 2018 and 2017, there were no significant restrictions in entities with significant non-controlling interest resulting from credit agreements, regulatory requirements and other contractual arrangements that would restricted access to assets and settlement of liabilities of the Group.

10.2.8.5. Proposal for distribution of the Parent Company's profit for 2018

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 2018 in the amount of PLN 5 434 149 842.17 as follows: PLN 1,496,981,713.50 PLN will be allocated as a dividend payment (PLN 3.5 per 1 share) and the remaining amount of PLN 3,937,168,128.67 as reserve capital. The Management Board of PKN ORLEN proposes 22 July 2019 as the dividend date and 5 August 2019 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.

10.2.8.6. Distribution of the Parent Company's profit for 2017

The Ordinary General Meeting of Shareholders of PKN ORLEN S.A. on 26 June 2018 distributed the net profit of PKN ORLEN for the year 2017 in the amount of PLN 6,101,792,575.09 as follows: the amount of PLN 1,283,127,183 was allocated as a dividend payment (PLN 3 per 1 share) and the remaining amount of net profit of PLN 4,818,665,392.09 as reserve capital.

ORLEN GROUP (in PLN million)

10.2.9. Derivatives and other assets and liabilities

Derivatives and other assets

	Non-current		Current		Total	
	31/12/2018	31/12/2017	31/12/2018	31/12/2017	31/12/2018	31/12/2017
Cash flow hedging instruments	143	303	483	311	626	614
currency forwards	*143*	*303*	*209*	*225*	*352*	*528*
commodity swaps	*-*	*-*	*274*	*86*	*274*	*86*
Derivatives not designated as hedge accounting	16	-	39	123	55	123
currency forwards	*-*	*-*	*5*	*89*	*5*	*89*
commodity swaps	*-*	*-*	*34*	*33*	*34*	*33*
currency interest rate swaps	*11*	*-*	*-*	*1*	*11*	*1*
interest rate swaps	*5*	*-*	*-*	*-*	*5*	*-*
Fair value hedging instruments	2	-	2	-	4	-
commodity swaps	*2*	*-*	*2*	*-*	*4*	*-*
Derivatives	**161**	**303**	**524**	**434**	**685**	**737**
Other financial assets	95	93	336	133	431	226
receivables on settled derivatives	*-*	*-*	*306*	*126*	*306*	*126*
financial assets measured at fair value through other comprehensive income	*86*	*-*	*-*	*-*	*86*	*-*
financial assets available for sale	*-*	*84*	*-*	*-*	*-*	*84*
hedged item adjustment	*4*	*-*	*21*	*-*	*25*	*-*
other	*5*	*9*	*9*	*7*	*14*	*16*
Other non-financial assets	243	237	-	-	243	237
investment property	*108*	*104*	*-*	*-*	*108*	*104*
perpetual usufruct of land	*115*	*115*	*-*	*-*	*115*	*115*
other	*20*	*18*	*-*	*-*	*20*	*18*
Other assets	**338**	**330**	**336**	**133**	**674**	**463**

Derivatives and other liabilities

	Non-current		Current		Total	
	31/12/2018	31/12/2017	31/12/2018	31/12/2017	31/12/2018	31/12/2017
Cash flow hedging instruments	-	-	105	141	105	141
currency forwards	*-*	*-*	*-*	*7*	*-*	*7*
commodity swaps	*-*	*-*	*105*	*134*	*105*	*134*
Derivatives not designated as hedge accounting	38	75	66	172	104	247
currency forwards	*-*	*-*	*18*	*100*	*18*	*100*
commodity swaps	*-*	*-*	*21*	*72*	*21*	*72*
interest rate swaps	*38*	*56*	*-*	*-*	*38*	*56*
currency interest rate swaps	*-*	*19*	*27*	*-*	*27*	*19*
Fair value hedging instruments	4	-	22	-	26	-
commodity swaps	*4*	*-*	*22*	*-*	*26*	*-*
Derivatives	**42**	**75**	**193**	**313**	**235**	**388**
Other financial liabilities	357	302	79	125	436	427
liabilities on settled derivatives	*-*	*-*	*67*	*125*	*67*	*125*
investment liabilities	*102*	*108*	*-*	*-*	*102*	*108*
finance lease	*193*	*166*	*-*	*-*	*193*	*166*
hedged item adjustment	*3*	*-*	*1*	*-*	*4*	*-*
refund liabilities	*-*	*-*	*11*	*-*	*11*	*-*
*other**	*59*	*28*	*-*	*-*	*59*	*28*
Other non-financial liabilities	9	9	11	195	20	204
deferred income, incl.:	*9*	*9*	*11*	*195*	*20*	*204*
VITAY loyalty program, prepaid cards	*-*	*-*	*-*	*164*	*-*	*164*
Other liabilities	**366**	**311**	**90**	**320**	**456**	**631**

** In 2018, the line other in other financial liabilities relates mainly liabilities due to donations in the amount of PLN 21 million and a guarantees in the amount of PLN 29 million.*

10.2.9.1. 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	4	Instruments not acquired for trading, without impact of reclassification of profit/loss on financial result
Bank Ochrony Środowiska S.A.	18	-	
Pieridae Energy Limited	27	-	
Wodkan S.A.	1	-	
	86	**4**	

ORLEN GROUP (in PLN million)

10.2.10. Provisions

SELECTED ACCOUNTING PRINCIPLES

Provisions
The amount recognised as a provision is the best estimate of the expenditure required to settle the present obligation at the end of the reporting period.

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 in the current period the value of asset causing the obligation of reclamation. In case of 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 principle of FIFO (First In First Out). 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 going on legal proceedings and are recognised after consideration of available information, including the opinions of independent experts.
The Group recognises provisions if at the end of the reporting period the Group is 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 defining 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	
	31/12/2018	31/12/2017	31/12/2018	31/12/2017	31/12/2018	31/12/2017
Environmental	782	626	64	67	846	693
Jubilee bonuses and post-employment benefits	233	238	56	39	289	277
CO_2 emissions, energy certificates	-	-	784	376	784	376
Other	40	38	115	191	155	229
	1 055	**902**	**1 019**	**673**	**2 074**	**1 575**

Changes in provisions

	Environmental provision	Jubilee bonuses and post-employment benefits provision	CO_2 emissions, energy certificates	Other	Total
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**
01/01/2017	608	245	365	276	1 494
Recognition	134	49	378	19	580
Reversal	(9)	-	(15)	(48)	(72)
Usage	(36)	(16)	(343)	(18)	(413)
Foreign exchange differences	(4)	(1)	(9)	-	(14)
	693	**277**	**376**	**229**	**1 575**

ORLEN GROUP (in PLN million)

	2018	2017
Change in provisions presented in the statement of financial position	**499**	**81**
Usage of prior year provision for CO_2 emissions, energy certificates from previous year	395	336
Capitalization of environmental provision	(137)	(99)
Actuarial gains and losses	(5)	(15)
Foreign exchange differences	(16)	42
Change in provisions in the statement of cash flows	**736**	**345**

10.2.10.1. 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, 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 Poland provision was discounted based mainly on the risk-free rate set on the level of yields on 10-year treasury bonds and adjusted by the 5-year inflation rate. As at 31 December 2018 and as at 31 December 2017 the rate amounted to 0.35% and 0.86%, respectively.
The companies of the Upstream segment in Canada to update the environmental provision applied the nominal discount rate as at 31 December 2018 and 31 December 2017 at 2.15% and 2.20%, respectively.

10.2.10.2. Provision for jubilee bonuses and post-employment benefits

Change in employee benefits obligations

	NOTE	Jubilee bonuses provision		Post-employment benefits		Total	
		31/12/2018	31/12/2017	31/12/2018	31/12/2017	31/12/2018	31/12/2017
At the beginning of the period		145	137	132	108	277	245
Current service costs		14	7	6	5	20	12
Interest expenses		4	4	4	4	8	8
Actuarial gains and losses arising from changes in assumptions:		9	14	5	15	14	29
demographic		*-*	*7*	*1*	*4*	*1*	*11*
financial		*7*	*6*	*4*	*5*	*11*	*11*
other		*2*	*1*	*-*	*6*	*2*	*7*
Past employment costs		(13)	-	3	(1)	(10)	(1)
Payments under program		(14)	(17)	(7)	(3)	(21)	(20)
Other		(1)	-	2	4	1	4
	10.2.10	**144**	**145**	**145**	**132**	**289**	**277**

The carrying amount of employee benefits liabilities is equal to their present value as at 31 December 2018 and 31 December 2017.

Employee benefits liabilities divided into active and retired employees

	Active employees		Retired employees		Total	
	31/12/2018	31/12/2017	31/12/2018	31/12/2017	31/12/2018	31/12/2017
Poland	196	205	56	38	252	243
Czech Republic	19	17	-	-	19	17
Lithuania, Latvia, Estonia	18	17	-	-	18	17
	233	**239**	**56**	**38**	**289**	**277**

	Jubilee bonuses provision		Post-employment benefits		Total	
	31/12/2018	31/12/2017	31/12/2018	31/12/2017	31/12/2018	31/12/2017
Employee benefits liabilities divided into geographical structure						
Poland	139	140	114	104	253	244
Czech Republic	5	5	14	12	19	17
Lithuania, Latvia, Estonia	-	-	17	16	17	16
	144	**145**	**145**	**132**	**289**	**277**
Maturity of employee benefits analysis						
up to 1 year	32	19	24	20	56	39
above 1 to 5 years	50	54	26	19	76	73
above 5 years	62	72	95	93	157	165
	144	**145**	**145**	**132**	**289**	**277**

The weighted average duration of liabilities for post-employment benefits in 2018 and in 2017 amounted to: Poland 8 and 8 years, the Czech Republic 9 and 8 and Lithuania, Latvia, Estonia 14 and 12 years, respectively.

In 2018 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 2017 assumptions be used, the provision for the employee benefits would be lower by PLN (15) million.

Sensitivity analysis to changes in actuarial assumptions
As at 31 December 2018, the Group used the following actuarial assumptions that had an impact on the level of actuarial provisions for the Polish entities: discount rate 3.1%, expected inflation 3.2% in 2019 and 2.9% in 2020 and 2.5% in subsequent years, the remuneration increase rate: 5% in 2019 and 3% in subsequent years. In the Group's foreign entities the main impact had value of discount rate: from 1.2% to 2%.
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 4 million. Therefore, the Group does not present any detailed information.
The Group carries out the employee benefit payments from current resources. As at 31 December 2018 there were no funding plans and the Group paid no contributions to fund liabilities.

10.2.10.3. Provision for CO_2 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 2018 and as at 31 December 2017 the value of the provision amounted to PLN 728 million and PLN 364 million, respectively.

10.2.10.4. Other provisions

As at 31 December 2018 and as at 31 December 2017 other provisions mainly comprise provisions for the risk of unfavourable decisions of pending administrative or court proceedings in the amount of PLN 95 million and PLN 164 million, respectively.

10.3. 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 accounted 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 accounted 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.
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.

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, regression analysis and 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.

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.

ORLEN GROUP (in PLN million)

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.

10.3.1. Financial instruments by category and class

Financial instruments by class	Financial instruments by category – IFRS 9	Financial instruments by category – IAS 39	NOTE	31/12/2018	31/12/2017
ASSETS					
Measured at fair value through other comprehensive income	Measured at fair value through other comprehensive income	Available for sale	10.2.9.1	86	84
Derivatives not designated as hedge accounting	Measured at fair value through profit or loss	Measured at fair value through profit or loss	10.2.9	55	123
Cash flow hedging instruments	Hedging financial instruments	Hedging financial instruments	10.2.9	626	614
Fair value hedging instruments	Measured at fair value through profit or loss	-	10.2.9	4	-
	Measured at amortized cost	Loans and receivables		13 964	15 023
Trade receivables	*Measured at amortized cost*	*Loans and receivables*	10.2.6.2	*9 299*	*8 476*
Cash and cash equivalents	*Measured at amortized cost*	*Loans and receivables*		*4 192*	*6 244*
Receivables on settled derivatives	*Measured at amortized cost*	*Loans and receivables*	10.2.9	*306*	*126*
Hedged item adjustment	*Measured at amortized cost*	-	10.2.9	*25*	-
Other	*Measured at amortized cost*	*Loans and receivables*	10.2.6.2, 10.2.9	*142*	*177*
				14 735	**15 844**
LIABILITIES					
Derivatives not designated as hedge accounting	Measured at fair value through profit or loss	Measured at fair value through profit or loss	10.2.9	104	247
Cash flow hedging instruments	Hedging financial instruments	Hedging financial instruments	10.2.9	105	141
Fair value hedging instruments	Measured at fair value through profit or loss	-	10.2.9	26	-
Finance lease	Excluded from the scope of IFRS 9	Excluded from the scope of IAS 39	10.2.6.4, 10.2.9	229	198
	Measured at amortised cost	Measured at amortised cost		18 697	16 889
Loans	*Measured at amortised cost*	*Measured at amortised cost*	10.2.7.1.1	*2 263*	*48*
Bonds	*Measured at amortised cost*	*Measured at amortised cost*	10.2.7.1.2	*7 528*	*6 957*
Trade liabilities	*Measured at amortised cost*	*Measured at amortised cost*	10.2.6.4	*7 275*	*7 901*
Refund liabilities	*Measured at amortised cost*	*Measured at amortised cost*	10.2.9	*11*	-
Investment liabilities	*Measured at amortised cost*	*Measured at amortised cost*	10.2.6.4, 10.2.9	*1 169*	*1 543*
Liabilities on settled derivatives	*Measured at amortised cost*	*Measured at amortised cost*	10.2.9	*67*	*125*
Hedged item adjustment	*Measured at amortised cost*	-	10.2.9	*4*	-
Other	*Measured at amortised cost*	*Measured at amortised cost*	10.2.6.4, 10.2.9	*380*	*315*
				19 161	**17 475**

ORLEN GROUP (in PLN million)

10.3.2. Income, expenses, profit and loss

	Financial instruments by category				
	IFRS 9	IAS 39	NOTE	2018	2017
Interest income				39	50
from assets measured at amortised cost	*Measured at amortized cost*	*Loans and receivables*	10.1.11.1	*39*	*50*
Interest costs				(204)	(205)
from liabilities measured at amortisated cost	*Measured at amortized cost*	*Loans and receivables*	10.1.11.2	*(195)*	*(197)*
from lease	*Excluded from the scope of IFRS 9*	*Excluded from the scope of IAS 39*		*(9)*	*(8)*
(Loss)/reversal of loss due to impairment of financial instruments	Measured at amortised cost	-	10.1.12	(17)	-
Recognition/reversal of receivables impairment allowances	Measured at amortized cost	*Loans and receivables*		-	8
other operating income/expenses	*Measured at amortized cost*	*Loans and receivables*	10.1.9,10.1.10	-	*7*
finance income/costs	*Measured at amortized cost*	*Loans and receivables*	10.1.11.1,10.1.11.2	-	*1*
Financial instruments gains/(losses)				94	344
	Measured at amortized cost	*Loans and receivables*		*470*	*(1 081)*
	Measured at amortized cost	*Measured at amortized cost*		*(823)*	*1 726*
	Measured at fair value through profit or loss	*Measured at fair value through profit or loss*		*426*	*(305)*
	Cash flow hedging financial instruments (ineffective part)	*Cash flow hedging financial instruments (ineffective part)*		*(7)*	-
	Hedging financial instruments (settlement of hedging costs)	-		*24*	-
	Measured at fair value through other comprehensive income	*Available for sale*		*4*	*4*
Other finance income/costs	*Measured at amortized cost*	*Measured at amortized cost*		*(16)*	*(1)*
				(104)	**196**
other, excluded from the scope of IFRS 7				**(11)**	**(129)**
Provisions discounting				(8)	(10)
Interest on tax liabilities				**(3)**	**(119)**

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

10.3.3. Fair value measurement

31/12/2018

	NOTE	Carrying amount	Fair value	Fair value hierarchy Level 1	Level 2
Financial assets					
Financial assets measured at fair value through other comprehensive income	10.2.9.1	86	86	46	40
Derivatives	10.2.9	685	685	-	685
		771	**771**	**46**	**725**
Financial liabilities					
Loans	10.2.7.1.1	2 263	2 263	-	2 263
Bonds	10.2.7.1.2	7 528	7 788	7 788	-
Finance lease	10.2.6.4,10.2.9	229	236	-	236
Derivatives	10.2.9	235	235	-	235
		10 255	**10 522**	**7 788**	**2 734**

31/12/2017

	NOTE	Carrying amount	Fair value	Fair value hierarchy Level 1	Level 2
Financial assets					
Quoted shares		43	43	43	-
Derivatives	10.2.9	737	737	-	737
		780	**780**	**43**	**737**
Financial liabilities					
Loans	10.2.7.1.1	48	48	-	48
Bonds	10.2.7.1.2	6 957	7 361	7 361	-
Finance lease	10.2.6.4,10.2.9	198	207	-	207
Derivatives	10.2.9	388	388	-	388
		7 591	**8 004**	**7 361**	**643**

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

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

Financial liabilities due to loans, bonds, finance lease and 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. In 2017, in accordance with IAS 39, these assets were classified as available for sale and measured at purchase price less impairment allowances.
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.

10.3.4. 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 purchase of crude oil and 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 or purchased crude oil.
The sources of ineffectiveness for both the hedging of currency risk and commodity risk were the creation of new hedging relationships from 1 January 2018. Part of instruments, therefore, at the time of establishing the relations already had a valuation, which generates sources of ineffectiveness.
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 CCS transactions).

ORLEN GROUP (in PLN million)

Information on hedging instruments – maturity structure

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 flows and fair value which will be recognised in the profit or loss

	31/12/2018	31/12/2017
Currency operating exposure	2019-2022	2018-2020
Commodity risk exposure	2019-2020	2018-2019

ORLEN GROUP (in PLN million)

Hedge accounting effects on financial situation and results

Link type / risk type / type of instrument	Buy (B) / Sell (S)	Hedging strategies within the cash flow hedge	Unit of measure	Nominal value / volume	Assets	Liabilities	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

Cash flow hedge

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

Risk type / position type	Accumulated balance sheet adjustment due to fair value		Item in statement of financial position in which carrying amount was recognised	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	(22)	(1)

ORLEN GROUP (in PLN million)

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

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)**	

Reconciliation of equity from hedge accounting

	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**

10.3.5. 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.
MARKET RISK	**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.	
MARKET RISK	**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 related to the creditability of customers with whom trade transactions are concluded.	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	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 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
	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	
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.
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 time mismatch on purchases of crude oil is hedged on a volume equivalent to 90% of the volume of oil purchased exposed to the risk concerned.
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.

10.3.5.1. Commodity risk

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

Type of hedged raw material/product	Unit of measure	31/12/2018	31/12/2017
Crude oil	bbl	13 775 890	13 273 000
Heating oil	t	91 605	625 616
Gas	gj	-	1 825 000
Other	t	88 261	505 361

The net carrying amount of commodity risk hedging instruments as at 31 December 2018 and as at 31 December 2017 amounted to PLN 147 million and PLN (48) 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	
	2018	2017	2018	2017	2018	2017	2018	2017
			Increase of prices		Increase of prices		Total influence	
Crude oil USD/bbl; CAD/bbl	29%	25%	(46)	(56)	(266)	(194)	(312)	(250)
Diesel USD/t	24%	22%	-	(29)	(12)	(42)	(12)	(71)
Gasoline USD/t	24%	25%	-	-	(7)	(2)	(7)	(2)
Heating oil USD/t	28%	25%	-	-	-	(133)	-	(133)
Gas CAD/Gj	23%	23%	-	4	-	-	-	4
JET fuel USD/t	-	21%	-	-	-	(3)	-	(3)
			(46)	**(81)**	**(285)**	**(374)**	**(331)**	**(455)**

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 observed volatility. 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.

10.3.5.2. The risk of exchange rates changes

Currency structure of financial instruments

	EUR		USD		CZK		CAD		Other currencies after translation to PLN		Total after translation to PLN	
Financial instruments by class	31/12/2018	31/12/2017	31/12/2018	31/12/2017	31/12/2018	31/12/2017	31/12/2018	31/12/2017	31/12/2018	31/12/2017	31/12/2018	31/12/2017
Financial assets												
Financial assets measured at fair value through other comprehensive income	-	-	-	-	-	-	10	-	-	-	27	-
Trade receivables	581	562	211	193	8 260	7 757	17	9	51	24	4 772	4 332
Derivatives	83	131	87	49	-	1	-	7	-	-	685	737
Cash and cash equivalents	555	799	202	376	1 360	4 279	1	-	17	24	3 393	5 364
Receivables on settled derivatives	-	-	81	36	-	-	-	-	-	-	306	126
Hedged item adjustment	-	-	7	-	-	-	-	-	-	-	25	-
Other	8	7	3	1	26	120	-	28	1	-	48	129
	1 227	**1 499**	**591**	**655**	**9 646**	**12 157**	**28**	**44**	**69**	**48**	**9 256**	**10 688**
Financial liabilities												
Loans	500	-	1	-	-	-	38	15	-	-	2 263	42
Bonds	1 259	1 256	-	-	-	-	-	-	-	-	5 412	5 241
Trade liabilities	315	306	994	1 242	3 442	3 479	24	19	10	8	5 742	6 228
Investment liabilities	70	114	8	11	1 224	1 310	31	29	-	-	620	808
Derivatives	16	23	44	80	-	-	-	6	-	-	235	388
Liabilities on settled derivatives	-	-	18	36	-	-	-	-	-	-	67	125
Hedged item adjustment	-	-	1	-	-	-	-	-	-	-	4	-
Other	1	-	54	55	263	216	-	-	-	-	253	228
	2 161	**1 699**	**1 120**	**1 424**	**4 929**	**5 005**	**93**	**69**	**10**	**8**	**14 596**	**13 060**

ORLEN GROUP (in PLN million)

Sensitivity analysis for changes in the exchange rates

	EUR / PLN		USD / PLN		CZK / PLN		CAD / PLN		Total	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
	variation of exchange rates +15%									
Influence on result before tax (A)	(1 665)	(751)	57	(297)	4	51	1	7	(1 603)	(990)
Influence on hedging reserve (B)	(686)	(675)	42	4	-	-	-	-	(644)	(671)
Influence on foreign exchange differences on subsidiaries from consolidation (C)	165	122	4	13	114	123	(28)	(18)	255	240
Total influence (A+B+C)	**(2 186)**	**(1 304)**	**103**	**(280)**	**118**	**174**	**(27)**	**(11)**	**(1 992)**	**(1 421)**
Sensitivity of net investment in foreign operations including hedging reserve (D)	119	105	322	278	1 458	1 218	295	280	2 194	1 881
Total influence on profit or loss and other comprehensive income (A+B+D)	**(2 232)**	**(1 321)**	**421**	**(15)**	**1 462**	**1 269**	**296**	**287**	**(53)**	**220**

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 2018 and 2017.
The influence of currency rate variations on fair value of derivatives was examined at constant level of interest rates.

10.3.5.3. The risk of interest rates changes

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	*10.2.9*	11*	357	328	-	685**
		11	**357**	**328**	**-**	**685**
Financial liabilities						
Loans	*10.2.7.1.1*	-	2 152	5	106	2 263
Bonds	*10.2.7.1.2*	2 015	-	-	-	2 015
Derivatives	*10.2.9*	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 was recognised, 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.*

Structure of financial instruments subject to risk of interest rates changes as at 31 December 2017

Financial instruments by class	NOTE	WIBOR	EURIBOR	LIBOR USD	LIBOR CAD	Total
Financial assets						
Derivatives	*10.2.9*	2*	547*	171	19	737**
		2	**547**	**171**	**19**	**737**
Financial liabilities						
Loans	*10.2.7.1.1*	6	-	-	42	48
Bonds	*10.2.7.1.2*	1 615	-	-	-	1 615
Derivatives	*10.2.9*	19*	96*	276	16	388**
		1 640	**96**	**276**	**58**	**2 051****

** In financial assets and liabilities – net derivatives include cross interest rate swaps (CIRS) valuated at the amount of PLN 17 million was recognised, which are sensitive to both WIBOR and EURIBOR interest rates changes.*
***Total assets and liabilities on derivatives include CIRS valuation of PLN 2 million and PLN 19 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	
	31/12/2018	31/12/2017	2018	2017	2018	2017	2018	2017
WIBOR	+0.5p.p.	+0.5p.p.	(10)	(3)	-	-	(10)	(3)
LIBOR USD	+0.5p.p.	+0.5p.p.	4	6	-	-	4	6
EURIBOR	+0.5p.p.	+0.5p.p.	(1)	16	-	(1)	(1)	15
			(7)	**19**	**-**	**(1)**	**(7)**	**18**

At variation of interest rates by (-) 0,5% the sensitive analysis states variations of the same value as in the above table but with the opposite sign.

ORLEN GROUP (in PLN million)

The above interest rates variations were calculated based on observations of average interest rates fluctuations in 2018 and 2017.
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.

10.3.5.4. Liquidity and credit risk

Liquidity risk

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 - undiscounted value	10.2.7.1.1	112	2 151	-	-	2 263	2 263
Bonds	10.2.7.1.2	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	10.2.6.4	7 275	-	-	-	7 275	7 275
Investment liabilities	10.2.6.4, 10.2.9	1 067	19	14	69	1 169	1 169
Derivatives - undiscounted value	10.2.9	180	50	-	-	230	235
gross exchange amounts, incl.:		*39*	*-*	*-*	*-*	*39*	*45*
currency forwards	10.2.9	*15*	*-*	*-*	*-*	*15*	*18*
currency interest rate swaps	10.2.9	*24*	*-*	*-*	*-*	*24*	*27*
net exchange amounts, incl.:		*141*	*50*	*-*	*-*	*191*	*190*
interest rate swaps	10.2.9	*-*	*38*	*-*	*-*	*38*	*38*
commodity swaps	10.2.9	*141*	*12*	*-*	*-*	*153*	*152*
Liabilities on settled derivatives	10.2.9	67	-	-	-	67	67
Hedged item adjustment	10.2.9	1	3	-	-	4	4
Other	10.2.6.4, 10.2.9	368	63	31	158	620	620
		10 121	**2 647**	**3 028**	**3 473**	**19 269**	**19 161**

Maturity analysis for financial liabilities as at 31 December 2017

	NOTE	up to 1 year	above 1 to 3 years	above 3 to 5 years	above 5 years	Total	Carrying amount
Loans - undiscounted value	10.2.7.1.1	48	-	-	-	48	48
Bonds	10.2.7.1.2	253	1 148	417	5 240	7 058	6 957
floating-rate bonds - undiscounted value		*248*	*1 040*	*417*	*-*	*1 705*	*1 615*
fixed rate bonds - undiscounted value		*5*	*108*	*-*	*5 240*	*5 353*	*5 342*
Trade liabilities	10.2.6.4	7 901	-	-	-	7 901	7 901
Investment liabilities	10.2.6.4, 10.2.9	1 435	18	14	76	1 543	1 543
Derivatives - undiscounted value	10.2.9	312	48	-	-	360	388
gross exchange amounts, incl.:		*166*	*(8)*	*-*	*-*	*158*	*187*
currency forwards	10.2.9	*98*	*-*	*-*	*-*	*98*	*100*
currency interest rate swaps	10.2.9	*-*	*(8)*	*-*	*-*	*(8)*	*19*
commodity swaps	10.2.10	*68*	*-*	*-*	*-*	*68*	*68*
net exchange amounts, incl.:		*146*	*56*	*-*	*-*	*202*	*201*
currency forwards	10.2.9	*7*	*-*	*-*	*-*	*7*	*7*
interest rate swaps	10.2.9	*23*	*33*	*-*	*-*	*56*	*56*
commodity swaps	10.2.9	*116*	*23*	*-*	*-*	*139*	*138*
Liabilities on settled derivatives	10.2.9	125	-	-	-	125	125
Other	10.2.6.4, 10.2.9	320	44	25	124	513	513
		10 394	**1 258**	**456**	**5 440**	**17 548**	**17 475**

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 short-term liabilities. As at 31 December 2018 and 31 December 2017, 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 2018, 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 2018 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 2018 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 10.2.7.1.2.
In 2018, 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 2018 and as at 31 December 2017 the maximum possible indebtedness due to loans amounted to PLN 10,025 million and PLN 9,929 million, respectively. As at 31 December 2018 and as at 31 December 2017 PLN 7,181 million and PLN 9,178 million, respectively, remained unused.

ORLEN GROUP (in PLN million)

The value of guarantees regarding liabilities to third parties granted during ongoing operations as at 31 December 2018 and as at 31 December 2017 amounted to PLN 579 million and PLN 350 million, respectively. These 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 2018 and as at 31 December 2017 amounted to PLN 10,570 million and PLN 10,216 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.
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 10.2.6.2, 10.2.9).

As at 31 December 2018 and as at 31 December 2017 the Group received bank and insurance guarantees of PLN 2,793 million and PLN 2,804 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 and bills of exchange.

10.4. OTHER EXPLANATORY NOTES

10.4.1. Concessions held

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

31/12/2018	Remaining concessions periods (in years)
Electrical energy: manufacturing, distribution, trade	1-12
Heating energy: manufacturing, transmission, distribution, trade	7-12
Natural gas: distribution, trade in Poland and abroad	2-12
Liquid fuels: manufacturing, transmission, storage, transhipment, trade in Poland and abroad	3-12
Non-reservoir storage of crude oil and liquid fuels	11
Rock salt: exploitation	14
Exploration and recognition of crude oil and natural gas deposits	1-4
Marine Wind Farms: preparation, implementation, operation	23
Personal and property security services	indefinitely

As at 31 December 2018 and as at 31 December 2017 the Group had no liabilities related to concession services in scope of IFRIC 12 – Service concession arrangements.

10.4.2. Leases

SELECTED ACCOUNTING PRINCIPLES

Lease
A lease is an agreement whereby a lessor conveys to the lessee in return for a payment or series of payments the right to use an asset for an agreed period of time. Assets used under the finance lease, that is under agreement which transfers substantially all the risks and rewards incidental to ownership of an asset to the lessee, are recognised as assets of the lessee. Assets used under the operating lease, that is under the agreement that does not transfer substantially all the risks and rewards incidental to ownership of an asset to the lessee, are recognised as assets of the lessor. Determining whether the transfer of risks and rewards exists depends on the assessment of essence of the economic substance of the transaction.

PROFESSIONAL JUDGMENT
The Management Board assesses qualifying lease agreements as a finance lease or operating lease based on the analysis of essence of the economic substance of the transaction.

10.4.2.1. Group as a lessee

Operating lease

As at 31 December 2018 value of future minimum lease payments due to operating lease agreements amounted to PLN 5,675 million.
As at 31 December 2017 value of future minimum lease payments due to non-cancellable lease agreements previously disclosed in financial statements for the year 2017 amounted to PLN 773 million and was based on legal interpretation of the definition of non-cancellable lease. As a result of reassessment of the definition of non-cancellability, especially taking into account economic aspects, additional agreements are now included in the operating lease agreements and include mainly perpetual useful of land, leased land for petrol stations and motorway service areas, office spaces, railway tank cars and auto cisterns. If these agreements were included in the value of future minimum lease payments due to non-cancellable operating lease as at 31 December 2017, they would amount to approximately PLN 5,449 million.
For perpetual useful of land the Group adopted that non-cancellable period is the entire period for which the right was granted.

	Value of future minimum lease payments	
	31/12/2018	31/12/2017
up to 1 year	492	346
above 1 to 5 years	1 270	1 049
above 5 years	3 913	4 054
	5 675	**5 449**

ORLEN GROUP (in PLN million)

Finance lease

As at 31 December 2018 and as at 31 December 2017 the Group was a lessee under finance lease agreements, which relates mainly to the buildings and constructions, machinery and equipment and vehicles.
In concluded lease agreements, the general conditions of finance lease are effective, they do not contain any clauses concerning contingent rent payables, give the possibility to purchase the leased equipment and eventually can be prolonged.

	NOTE	Present value of future minimum lease payments		Value of future minimum lease payments	
		31/12/2018	31/12/2017	31/12/2018	31/12/2017
up to 1 year		36	32	44	39
above 1 to 5 years		81	68	103	89
above 5 years		112	98	139	126
	10.2.6.4, 10.2.9	**229**	**198**	**286**	**254**

Property plant and equipment used on the basis of finance lease agreements

	31/12/2018	31/12/2017
Property, plant and equipment	**221**	**190**
Buildings and constructions	146	124
Machinery and equipment	23	31
Vehicles and other	52	35

10.4.2.2. Group as a lessor

Operating lease

Operating leases relate to the investment property owned by the Group, under lease contracts in most for indefinite period. All operating lease contracts contain market review clauses in the event that the lessee exercises its option to be prolonged.

Non-cancellable undiscounted operating lease receivables

	31/12/2018	31/12/2017
up to 1 year	4	4
from 1 to 5 years	16	15
above 5 years	60	57
	80	**76**

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

The total amount of investment expenditures together with borrowing costs incurred in 2018 and in 2017 amounted to PLN 4,280 million and PLN 4,602 million, respectively, including PLN 204 million and PLN 79 million of investments relating to environmental protection.

As at 31 December 2018 and as at 31 December 2017 the value of future commitments resulting from contracts signed until this date amounted to PLN 1,281 million and PLN 1,538 million, respectively.

10.4.4. 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 practically probable. If it is practicable the Group estimates the financial impact of contingent assets valuing them according to the principles of valuation provisions.
The Group discloses at the end of reporting period information on contingent liabilities if the outflow of resources embodying economic benefits is probable, unless the possibility of outflow of resources embodying economic benefits is remote.

ESTIMATES

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.

10.4.4.1. Contingent assets

As at 31 December 2018 there were no contingent assets and as at 31 December 2017 they were related to compensation for the steam cracker unit accident in Unipetrol Group. Detailed description in the Consolidated Financial Statements for 2017.

10.4.4.2. 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 299 million, translated using the exchange rate as at 31 December 2018 (representing CZK 1,789 million). Unipetrol RPA s.r.o. is one of eight defendants which the claim was brought against. At the request of the I.P.-95 s.r.o proceeding is 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

ORLEN GROUP (in PLN million)

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. Currently I.P. - 95 s.r.o. has the option to file 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 83 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 took place (last on 28 September 2018), during which witnesses submitted by the parties were heard by the court. 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 was not considered yet. 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 315 million, translated using the exchange rate as at 31 December 2018 (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. Polokotransneft Druzhba appealed against the judgment dismissing the claim. ORLEN Lietuva responded to the appeal. The appellate hearing date was not set. According to ORLEN Lietuva, the above claim is without merit.

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

10.4.5. Excise tax guarantees

Excise tax guarantees and excise tax on goods and merchandise under the excise tax suspension procedure as at 31 December 2018 and as at 31 December 2017 amounted to PLN 2,626 million and PLN 2,577 million, respectively.

10.4.6. Related party transactions

In 2018 and 2017 and as at 31 December 2018 and as at 31 December 2017 on the basis of submitted declarations, there were no transactions of related parties with members of the Management Board and the Supervisory Board of the Parent Company.

In the 2018 and 2017, 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 and PLN 0.5 million, respectively included the main amounts regarded purchase of legal services and marketing services.

10.4.6.1. 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

	2018	2017
Parent Company		
Short-term employee benefits	40.3	42.3
Board of Directors	*9.5*	*12.9*
Supervisory Board	*1.2*	*0.8*
Other key executive personnel	*29.6*	*28.6*
Termination benefits (severance pay and other remuneration)	11.1	2.5
Board of Directors	*1.2*	*1.4*
Other key executive personnel	*9.9*	*1.1*
Subsidiaries		
Short-term employee benefits	130.8	123.4
Post-employment benefits	0.4	0.3
Other long term employee benefits	0.2	0.2
Termination benefits (severance pay and other remuneration)	7.6	5.0
	190.4	**173.7**

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 2018 and 31 December 2017 PKN ORLEN has provisions for post-employment benefits in the amount of PLN 0.2 million and PLN 0.3 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
In the second half of 2018 based on the resolution of the Ordinary General Meeting of PKN ORLEN of 17 July 2018 changes were introduced to the contracts of the Management Board Members of PKN ORLEN regarding non-competition.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

ORLEN GROUP (in PLN million)

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.

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

	Sales		Purchases	
	2018	2017	2018	2017
Jointly-controlled entities	**2 956**	**2 718**	**(143)**	**(142)**
joint ventures	*2 794*	*2 577*	*(45)*	*(42)*
joint operations	*162*	*141*	*(98)*	*(100)*
Associates	**-**	**40**	**-**	**(4)**
	2 956	**2 758**	**(143)**	**(146)**

	Trade and other receivables		Trade and other liabilities	
	31/12/2018	31/12/2017	31/12/2018	31/12/2017
Jointly-controlled entities	**614**	**484**	**16**	**16**
joint ventures	*593*	*463*	*5*	*8*
joint operations	*21*	*21*	*11*	*8*
	614	**484**	**16**	**16**

The above transactions with related parties include mainly sales and purchases of refinery and petrochemicals products and of services.
In 2018 and in 2017 there were no related party transactions in the Group concluded on other than an arm's length basis.

10.4.6.3. Transactions with entities related to the State Treasury

As at 31 December 2018 and 31 December 2017 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 transactions with related parties with the State Treasury mainly on the basis of "The Council of Ministers Regulation of 3 January 2017 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" (Official Journal 2017, item 10, as amended Official Journal 2017, item 205 and item 1164).

In 2018 and in 2017 and as at 31 December 2018 and as at 31 December 2017, the Group identified the following transactions:

	2018	2017
Sales	1 943	1 548
Purchases	(5 126)	(3 589)

	31/12/2018	31/12/2017
Trade and other receivables	230	298
Trade and other liabilities	189	559

Above transactions were concluded on an arm's length basis and 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 (bank fees, commission) with Bank PKO BP, Bank Pekao S.A. and Bank Gospodarstwa Krajowego.

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

	2018	2017
Parent Company	**1.6**	**1.7**
Audit of financial statements	0.9	1.0
Other assurance services	0.7	0.7
reviews of financial statements	*0.5*	*0.5*
other services	*0.2*	*0.2*
Subsidiaries of the Capital Group	**3.8**	**3.9**
Audit of financial statements	3.5	3.6
Other assurance services	0.3	0.3
reviews of financial statements	*0.2*	*0.2*
other services	*0.1*	*0.1*
	5.4	**5.6**

In the period covered by the foregoing consolidated financial statements the entity authorized to conduct audit of the Company's financial statements was Deloitte Audyt spółka z ograniczoną odpowiedzialnością spółka komandytowa. Pursuant to the agreement concluded on 21 March 2017 for 2017 and 2018, 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. On 20 December 2018 the Supervisory Board of PKN ORLEN selected Deloitte Audyt spółka z ograniczoną odpowiedzialnością spółka komandytowa 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.

11. EVENTS AFTER THE END OF THE REPORTING PERIOD

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

The foregoing consolidated financial statements were approved by the Management Board of the Parent Company on 20 March 2019.

Signature Not Verified
Dokument podpisany przez Daniel Obajtek; PKN Orlen S.A.
Data: 2019.03.20 21:04:44 CET

………………………
Daniel Obajtek
President of the Board

Signature Not Verified
Dokument podpisany przez ARMEN KONRAD ARTWICH; POLSKI KONCERN NAFTOWY ORLEN S.A.
Data: 2019.03.20 21:11:24 CET

Armen Artwich
Member of the Board

Signature Not Verified
Dokument podpisany przez Patrycja Klarecka
Data: 2019.03.20 21:47:14 CET

…………………………
Patrycja Klarecka
Member of the Board

Signature Not Verified
Dokument podpisany przez ZBIGNIEW MARIUSZ LESZCZYŃSKI; POLSKI KONCERN NAFTOWY ORLEN S.A.
Data: 2019.03.20 20:44:11 CET

Zbigniew Leszczyński
Member of the Board

Signature Not Verified
Dokument podpisany przez Wiesław Protasewicz; PKN Orlen S.A.
Data: 2019.03.20 18:30:49 CET

……………………………
Wiesław Protasewicz
Member of the Board

Signature Not Verified
Dokument podpisany przez MICHAŁ MAREK RÓG; POLSKI KONCERN NAFTOWY ORLEN S.A.
Data: 2019.03.20 19:00:29 CET

……………………………
Michał Róg
Member of the Board

Signature Not Verified
Dokument podpisany przez Józef Węgrecki
Data: 2019.03.20 21:30:40 CET

………………………
Józef Węgrecki
Member of the Board