

PETROBRAS - PETROLEO BRASILEIRO SA  
Form 6-K  
February 28, 2019

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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FORM 6-K

Report of Foreign Private Issuer  
Pursuant to Rule 13a-16 or 15d-16 of the  
Securities Exchange Act of 1934

For the month of February, 2019

Commission File Number 1-15106

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PETRÓLEO BRASILEIRO S.A. - PETROBRAS  
(Exact name of registrant as specified in its charter)

Brazilian Petroleum Corporation - PETROBRAS  
(Translation of Registrant's name into English)

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Avenida República do Chile, 65  
20031-912 - Rio de Janeiro, RJ  
Federative Republic of Brazil

(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F  Form 40-F

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes  No

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Financial

Statements

December 31, 2018

(A free translation of the original  
in Portuguese)

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(Expressed in millions of reais, unless otherwise indicated)

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## Statement of Financial Position

December 31, 2018 and 2017 (In millions of reais, unless otherwise indicated)

Assets	Consolidated		Parent Company		Liabilities	Consolidated		Parent Company			
	Note	2018	2017	2018		2017	Note	2018	2017	2018	2017
Current assets					Current liabilities						
Cash and cash equivalents	7.1	53,854	74,494	6,334	1,305	Trade payables	16	24,516	19,077	29,140	22,179
Marketable securities	7.2	4,198	6,237	3,974	3,531	Finance debt	17.1	14,207	23,160	105,527	74,724
Trade and other receivables, net	8.1	22,264	16,446	36,731	34,239	Finance lease obligations	18.1	89	84	792	1,261
Inventories	9	34,822	28,081	29,307	23,165	Income taxes payable	21.1	817	990	207	243
Recoverable income taxes	21.1	2,863	1,584	2,018	669	Other taxes payable	21.1	13,778	15,046	13,101	14,485
Other recoverable taxes	21.1	5,020	6,478	3,741	5,514	Dividends payable	24.6	4,296	–	3,894	–
Escrow account - Class action agreement	31.4	7,287	–	6,093	–	Short-term benefits	22	6,426	4,331	5,477	3,662
Others		5,758	4,997	5,738	3,940	Pension and medical benefits	23	3,137	2,791	2,976	2,657
		136,066	138,317	93,936	72,363	Provisions for legal proceedings	31.1	13,493	7,463	11,673	6,397
						Agreement with US Authorities	3.3	3,034	–	3,034	–
						Others		9,467	8,298	6,123	6,105
								93,260	81,240	181,944	131,713
Assets classified as held for sale	10.2	7,540	17,592	2,605	9,520	Liabilities on assets classified as held for sale	10.2	3,808	1,295	3,610	606
		143,606	155,909	96,541	81,883			97,068	82,535	185,554	132,319
Non-current assets						Non-current liabilities					
Long-term receivables						Finance debt	17.1	311,954	337,564	220,352	193,393
Trade and other receivables, net	8.1	21,281	17,120	18,139	15,211	Finance lease obligations	18.1	626	675	2,904	4,108

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Marketable securities	7.2	205	211	202	204	Income taxes payable	21.1	2,139	2,219	2,090	2,169
Judicial deposits	31.2	26,003	18,465	24,476	17,085	Deferred income taxes	21.6	2,536	3,956	1,028	2,762
Deferred income taxes	21.6	10,384	11,373	–	–	Pension and medical benefits	23	85,012	69,421	78,901	64,519
Other tax assets	21.1	13,717	10,171	12,498	8,999	Provisions for legal proceedings	31.1	15,202	15,778	10,584	12,680
Advances to suppliers		2,575	3,413	9,555	502	Provision for decommissioning costs	20	58,637	46,785	58,332	45,677
Others		11,313	10,202	9,836	8,815	Others		3,756	2,973	2,747	2,243
		85,478	70,955	74,706	50,816			479,862	479,371	376,938	327,551
								576,930	561,906	562,492	459,870
						Shareholders' equity					
						Share capital (net of share issuance costs)	24.1	205,432	205,432	205,432	205,432
Investments	11	10,690	12,554	175,827	149,356	Capital reserve and capital transactions		2,458	2,457	2,674	2,673
Property, plant and equipment	12	609,829	584,357	483,375	435,536	Profit reserves		95,364	77,364	95,148	77,148
						Accumulated other comprehensive (deficit)	24.5	(26,029)	(21,268)	(26,029)	(21,268)
Intangible assets	13	10,870	7,740	9,268	6,264	Attributable to the shareholders of					
						Petrobras		277,225	263,985	277,225	263,985
						Non-controlling interests		6,318	5,624	–	–
								283,543	269,609	277,225	263,985
		860,473	831,515	839,717	723,855			860,473	831,515	839,717	723,855

The Notes form an integral part of these Financial Statements.

## Statement of Income

December 31, 2018 and 2017 (in millions of reais, unless otherwise indicated)

	Note	Consolidated		Parent Company	
		2018	2017	2018	2017
Sales revenues	25	349,836	283,695	281,099	227,964
Cost of sales		(225,293)	(192,100)	(180,852)	(156,109)
Gross profit		124,543	91,595	100,247	71,855
Income (expenses)					
Selling expenses		(16,861)	(14,510)	(18,312)	(18,490)
General and administrative expenses		(8,932)	(9,314)	(6,215)	(6,465)
Exploration costs	15	(1,904)	(2,563)	(1,875)	(2,199)
Research and development expenses		(2,349)	(1,831)	(2,343)	(1,828)
Other taxes		(2,790)	(5,921)	(2,106)	(4,657)
Impairment of assets		(7,689)	(3,862)	(3,403)	(3,220)
Other income and expenses	26	(21,061)	(17,970)	(18,128)	(14,731)
		(61,586)	(55,971)	(52,382)	(51,590)
Income before finance income (expenses), results in equity-accounted investments and income taxes		62,957	35,624	47,865	20,265
Net finance income (expense):	28	(21,100)	(31,599)	(18,333)	(21,860)
Finance income		11,647	3,337	5,948	2,917
Finance expense		(20,898)	(23,612)	(14,826)	(17,521)
Foreign exchange gains (losses) and inflation indexation		(11,849)	(11,324)	(9,455)	(7,256)
Results in equity-accounted investments	11	1,919	2,149	7,850	6,714
Net income before income taxes		43,776	6,174	37,382	5,119
Income taxes	21.5	(17,078)	(5,797)	(11,603)	(5,565)
Net income (loss) for the year		26,698	377	25,779	(446)
Attributable to:					
Shareholders of Petrobras		25,779	(446)	25,779	(446)
Non-controlling interests		919	823	—	—
Net income (loss) for the year		26,698	377	25,779	(446)
Basic and diluted earnings per weighted-average of common and preferred share (in R\$)	24.7	1.98	(0.03)	1.98	(0.03)



The Notes form an integral part of these Financial Statements.

## Statement of Comprehensive Income

December 31, 2018 and 2017 (in millions of reais, unless otherwise indicated)

	Consolidated		Parent Company	
	2018	2017	2018	2017
Net income (loss) for the year	26,698	377	25,779	(446)
Items that will not be reclassified to the statement of income:				
Unrealized gains / (losses) on equity instruments measured at fair value through other comprehensive income				
Recognized in equity	(12)	–	(12)	–
Deferred Income tax	4	–	4	–
	(8)	–	(8)	–
Actuarial gains (losses) on post-employment defined benefit plans				
Deferred Income tax	(11,920)	6,199	(11,223)	5,458
	(455)	(887)	(566)	(850)
	(12,375)	5,312	(11,789)	4,608
Share of other comprehensive income (losses) in equity-accounted investments	(1)	(3)	(431)	536
Items that may be reclassified subsequently to the statement of income:				
Unrealized gains(losses) on cash flow hedge - highly probable future exports				
Recognized in equity	(32,471)	(2,073)	(32,063)	(2,208)
Reclassified to the statement of income	12,121	10,067	10,967	8,282
Deferred income tax	6,919	(2,718)	7,173	(2,065)
	(13,431)	5,276	(13,923)	4,009
Unrealized gains(losses) on cash flow hedge - others				
Recognized in equity	–	(17)	–	–
	–	(17)	–	–
Unrealized gains on equity instruments measured at fair value through other comprehensive income				
Recognized in equity	–	49	–	41
Deferred income tax	–	(14)	–	(14)
	–	35	–	27
Cumulative translation adjustments in investees (*)				
Recognized in equity	21,887	1,782	21,481	1,854

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Reclassified to the statement of income	–	116	–	–
	21,887	1,898	21,481	1,854
Share of other comprehensive income in equity-accounted investments				
Recognized in equity	(504)	418	(14)	1,745
Reclassified to the statement of income	–	69	–	–
	(504)	487	(14)	1,745
Total other comprehensive income (loss)	(4,432)	12,988	(4,684)	12,779
Total comprehensive income	22,266	13,365	21,095	12,333
Attributable to:				
Shareholders of Petrobras	21,095	12,333	21,095	12,333
Non-controlling interests	1,171	1,032	–	–
Total comprehensive income	22,266	13,365	21,095	12,333

(\*) It includes a gain of R\$ 1,083 (a gain of R\$ 79 in 2017) of cumulative translation adjustments in associates and joint ventures.

The notes form an integral part of these financial statements.

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## Statement of Cash Flows

December 31, 2018 and 2017 (in millions of reais, unless otherwise indicated)

	Consolidated		Parent Company	
	2018	2017	2018	2017
Cash flows from Operating activities				
Loss	26,698	377	25,779	(446)
Adjustments for:				
Pension and medical benefits (actuarial expense)	7,770	8,705	7,129	7,991
Results in equity-accounted investments	(1,919)	(2,149)	(7,850)	(6,714)
Depreciation, depletion and amortization	43,646	42,478	33,325	32,159
Impairment assets (reversal)	7,689	3,862	3,403	3,220
Inventory write-down to net realizable value	1,595	211	–	–
Allowance (reversals) for impairment of trade and other receivables	324	2,271	288	1,306
Exploratory expenditures write-offs	317	893	317	561
Gains and losses on disposals/write-offs of assets	(1,085)	(4,825)	(1,416)	(4,564)
Foreign exchange, indexation and finance charges	26,219	30,653	23,056	20,943
Deferred income taxes, net	2,787	1,452	398	4,071
Reclassification of cumulative translation adjustment and other comprehensive income	–	185	–	–
Revision and unwinding of discount on the provision for decommissioning costs	1	1,339	(61)	1,272
Gain on remeasurement of investment retained with loss of control	–	(698)	–	(698)
Provision for the class action agreement	–	11,198	–	9,599
Decrease (Increase) in assets				
Trade and other receivables, net	(4,631)	(3,140)	(42,045)	(26,711)
Inventories	(7,206)	(1,130)	(5,931)	(82)
Judicial deposits	(7,418)	(5,383)	(7,394)	(5,351)
Escrow account - Class action agreement	(7,238)	–	(6,093)	–
Other assets	1,604	(723)	1,082	(990)
Increase (Decrease) in liabilities				
Trade payables	3,343	(160)	3,653	(2,695)
Other taxes payable	8,142	9,455	7,092	7,715
Income taxes paid	(9,531)	(2,544)	(8,156)	(1,429)
Pension and medical benefits	(3,864)	(2,944)	(3,651)	(2,793)
Provisions for legal proceedings	5,143	981	3,180	1,088
Short-term benefits	2,036	(2,865)	1,815	(2,497)
Other liabilities	1,424	(1,032)	1,581	(1,653)
Net cash provided by operating activities	95,846	86,467	29,501	33,302

Cash flows from Investing activities				
Capital expenditures	(43,987)	(43,614)	(76,471)	(29,977)
Investments in investees	(161)	(239)	(5,077)	(26,783)
Proceeds from disposal of assets - Divestment	20,218	9,907	9,190	8,303
Divestment (Investment) in marketable securities (*)	2,276	(2,722)	5,006	(2,475)
Dividends received (**)	2,902	1,450	5,934	6,040
Net cash used in investing activities	(18,752)	(35,218)	(61,418)	(44,892)
Cash flows from Financing activities				
Investments by non-controlling interest	430	69	-	-
Financing and loans, net:				
Proceeds from financing	38,023	86,467	144,846	114,008
Repayment of principal	(120,524)	(115,091)	(76,750)	(98,907)
Repayment of interest (**)	(20,959)	(22,295)	(28,782)	(13,379)
Dividends paid to Shareholders of Petrobras	(2,368)	-	(2,368)	-
Dividends paid to non-controlling interests	(678)	(538)	-	-
Proceeds from sale of interest without loss of control	-	4,906	-	4,906
Net cash used in financing activities	(106,076)	(46,482)	36,946	6,628
Effect of exchange rate changes on cash and cash equivalents	8,342	619	-	-
Net increase / (decrease) in cash and cash equivalents	(20,640)	5,386	5,029	(4,962)
Cash and cash equivalents at the beginning of the year	74,494	69,108	1,305	6,267
Cash and cash equivalents at the end of the period	53,854	74,494	6,334	1,305

(\*) In the Parent Company, includes amounts relating to changes in the investment in FIDC-NP (receivables investment fund).

(\*\*) The Company classifies dividends/interests received and interests paid as investing activities and operating activities, respectively.

The Notes form an integral part of these Financial Statements.

## Statement of Changes in Shareholders' Equity

December 31, 2018 and 2017 (in millions of reais, unless otherwise indicated)

	Share capital (net of share issuance costs)	Capital reserve, Transactions and Treasury shares	Accumulated other comprehensive income				Profit reserves			Profit retention	Retained earnings
			Cumulative translation adjustment	Actuarial gains (losses) on defined pension plans	Cash flow hedge - highly probable future exports	Other comprehensive income (loss) and deemed cost	Legal	Statutory	Tax incentives		
Balance at January 1, 2017	205,432	1,251	22,576	(28,758)	(25,118)	(2,737)	16,524	4,503	1,393	55,164	–
Realization of deemed cost	–	–	–	–	–	(10)	–	–	–	–	10
Capital transactions	–	1,422	–	–	–	–	–	–	–	–	–
Net income (loss)	–	–	–	–	–	–	–	–	–	–	(446)
Other comprehensive income	–	–	1,854	5,147	5,276	502	–	–	–	–	–
Appropriations:											
Transfer to reserves	–	–	–	–	–	–	–	–	–	(436)	436
Dividends	–	–	–	–	–	–	–	–	–	–	–
Balance at December 31, 2017	205,432	2,673	24,430	(23,611)	(19,842)	(2,245)	16,524	4,503	1,393	54,728	–
	205,432	2,673				(21,268)				77,148	–
Balance at December 31, 2017	–	–	–	–	–	(67)	–	–	–	–	(734)
Balance at January 1, 2018	205,432	2,673	24,430	(23,611)	(19,842)	(2,312)	16,524	4,503	1,393	54,728	(734)
Realization of deemed cost	–	–	–	–	–	(10)	–	–	–	–	10

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Treasury shares—	(7)	—	—	—	—	—	—	—	—	—	—
Capital transactions	8	—	—	—	—	—	—	—	—	—	—
Net income (loss)	—	—	—	—	—	—	—	—	—	—	25,7
Other comprehensive income	—	—	21,481	(12,221)	(13,431)	(513)	—	—	—	—	—
Appropriations:											
Transfer to reserves	—	—	—	—	—	—	1,289	1,027	772	14,912	(18,
Dividends	—	—	—	—	—	—	—	—	—	—	(7,0
Balance at December 31, 2018	205,432	2,674	45,911	(35,832)	(33,273)	(2,835)	17,813	5,530	2,165	69,640	—
	205,432	2,674				(26,029)				95,148	—

The Notes form an integral part of these financial statements.

## Statement of Added Value

December 31, 2018 and 2017 (in millions of reais, unless otherwise indicated)

	Consolidated		Parent Company	
	2018	2017	2018	2017
<b>Income</b>				
Sales of products, services provided and other revenues	453,553	378,852	384,670	320,584
Gains and losses on impairment of trade receivables	(324)	(2,271)	(288)	(1,306)
Revenues related to construction of assets for own use	34,924	34,753	30,593	31,235
	488,153	411,334	414,975	350,513
<b>Inputs acquired from third parties</b>				
Materials consumed and products for resale	(81,448)	(64,102)	(53,772)	(43,470)
Materials, power, third-party services and other operating expenses	(57,742)	(68,389)	(52,465)	(65,289)
Tax credits on inputs acquired from third parties	(29,595)	(22,193)	(27,389)	(20,474)
Impairment of property, plant and equipment, intangible and other assets	(7,689)	(3,862)	(3,403)	(3,220)
Inventory write-down to net realizable value (market value)	(1,595)	(211)	–	–
	(178,069)	(158,757)	(137,029)	(132,453)
<b>Gross added value</b>	310,084	252,577	277,946	218,060
<b>Depreciation, depletion and amortization</b>	(43,646)	(42,478)	(33,325)	(32,159)
<b>Net added value produced by the Company</b>	266,438	210,099	244,621	185,901
<b>Transferred added value</b>				
Share of profit of equity-accounted investments	1,919	2,149	7,850	6,714
Finance income	11,647	3,337	5,948	2,917
Rents, royalties and others	1,093	429	1,627	893
	14,659	5,915	15,425	10,524
<b>Total added value to be distributed</b>	281,097	216,014	260,046	196,425
<b>Distribution of added value</b>				
<b>Personnel and officers</b>				
<b>Direct compensation</b>				
Salaries	16,661	16,673	12,904	12,726
Profit sharing	2,763	487	2,421	393
	19,424	17,160	15,325	13,119
<b>Benefits</b>				
Short-term benefits	2,166	332	1,822	(51)
Pension plan	4,936	5,117	4,462	4,880



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Medical plan	4,544	5,013	3,998	4,428
	11,646	10,462	10,282	9,257
FGTS	1,219	1,244	1,059	1,077
	32,289	28,866	26,666	23,453
Taxes				
Federal (*)	100,566	72,411	94,171	66,407
State	50,230	45,608	29,786	27,160
Municipal	732	576	293	202
Abroad (*)	2,994	(1,282)	–	–
	154,522	117,313	124,250	93,769
Financial institutions and suppliers				
Interest, and exchange and indexation charges	39,331	41,249	29,630	29,384
Rental and affreightment expenses	28,257	28,209	53,721	50,265
	67,588	69,458	83,351	79,649
Shareholders				
Dividends	153	–	153	–
Interest on capital	6,902	–	6,902	–
Non-controlling interests	919	823	–	–
Profit retention (absorbed losses)	18,724	(446)	18,724	(446)
	26,698	377	25,779	(446)
Added value distributed	281,097	216,014	260,046	196,425

(\*) Includes government holdings.

The Notes form an integral part of these Financial Statements.

Petróleo Brasileiro S.A. – Petrobras

Notes to the financial statements

(Expressed in millions of reais, unless otherwise indicated)

### 1. The Company and its operations

Petróleo Brasileiro S.A. (Petrobras), hereinafter referred to as “Petrobras” or “Company,” is a partially state-owned enterprise, controlled by the Brazilian Federal Government, of indefinite duration, governed by the terms and conditions under the Brazilian Corporate Law (Law 6,404 of December 15, 1976), Law 13,303 of June 30, 2016 and its Bylaws.

Petrobras’ shares are listed on the Brazilian stock exchange (B3) in the Level 2 Corporate Governance special listing segment and, therefore, the Company, its shareholders, its managers and fiscal council members are subject to provisions under its regulation (Level 2 Regulation - Regulamento de Listagem do Nível 2 de Governança Corporativa da Brasil Bolsa Balcão – B3). The provisions of the Level 2 Regulation, the terms of which follow high level corporate governance standards, shall prevail over statutory provisions in the event of damage to the rights of investors of public offers provided for in the Company's Bylaws, except when otherwise determined by other regulation.

The Company is dedicated to prospecting, drilling, refining, processing, trading and transporting crude oil from producing onshore and offshore oil fields and from shale or other rocks, as well as oil products, natural gas and other liquid hydrocarbons. In addition, Petrobras carries out energy related activities, such as research, development, production, transport, distribution and trading of all forms of energy, as well as other related or similar activities.

Petrobras may perform any of the activities related to its corporate purpose, directly, through its wholly-owned subsidiaries, controlled companies, alone or through joint venture with third parties, in Brazil or abroad.

The economic activities linked to its business purpose shall be undertaken by the Company as free competition with other companies according to market conditions, in compliance with the other principles and guidelines of Laws no. 9,478/97 and 10,438/02 (oil & gas and electricity sector regulations, respectively). However, Petrobras may have its activities, provided they are in compliance with its corporate purpose, guided by the Brazilian Federal Government to contribute to the public interest that justified its creation, aiming to meet the objectives of the national energy policy when:

I – established by law or regulation, as well as under provisions of agreements with a public entity that is competent to establish such obligation, abiding by the broad publicity of such instruments; and

II – the cost and revenues thereof have been broken down and disseminated in a transparent manner.

In this case, the Company’s Finance Committee and Minority Shareholders Committee, exercising their advisory role to the Board of Directors, shall assess and measure the difference between such market conditions and the operating result or economic return of the transaction, based on technical and economic criteria for investment valuation and specific operating costs and results under the Company's operations, In this case, for every financial year, the Federal Government shall compensate the Company.

1.1. Highlights of the period

The production of oil and gas in 2018 was 2.63 million barrels of oil equivalent per day (boed), 2.53 million boed produced in Brazil and 0.1 million boed abroad, reflecting the divestments in the fields of Lapa, Sururu , Berbigão, Oeste de Atapu and Roncador, the formation of the joint venture of Petrobras América Inc. with Murphy Exploration & Production Co., the end of the Early Production Systems of Tartaruga Verde and Itapu fields, as well as the natural decline of their production, offset by the start-up of four new production systems (Note 12 - Property, Plant and Equipment), as well as the continuous development of the pre-salt production and gas utilization of Petrobras in Brazil, as a consequence of the Gas Optimization Program. In 2018, the Company remained a net exporter of oil and oil products, with a balance of 257 thousand bpd.

The new discoveries and absorption of the production have a direct impact on proved reserves that reached 9,606 billion barrels of oil equivalent - SEC criteria - with reserve replenishment index of 125% of the volume produced (see Additional information on oil exploration and production activities and natural gas - unaudited).

The Company maintained its pricing policy in line with international prices, including between June and December 2018, when an economic subsidy program was established for the commercialization of diesel oil in the Brazilian territory, with compensation being estimated between the price practiced by the Company and established values by the National Petroleum Agency - ANP (see note 19.7.1).

We adopted the hedging for part of the oil export, wuth the intention to protect from the fluctuation of Brent and exchange rates. In addition, the Company adopted the strategy of contracting commodity derivative and foreign exchange derivative financial instruments, in order to allow for the spacing of gasoline price adjustments, guaranteeing the same financial effect of daily adjustments (note 34.1 - Risk management prices of oil and oil products). The same practice will be adopted in 2019 for diesel prices.

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Renegotiations of the Debt Confession Contracts (Contratos de Confissão de Dívida - CCD) of the electricity sector (Isolated Energy System) signed in 2018 and the conclusion of the privatization process of three distributors of Eletrobrás generated an improvement in the credit risk of these receivables, with a gain in the finance income (see note 8.4).

Operational cash generation is reflecting the higher margins of export sales of oil and oil products in the domestic market, accompanying the appreciation of international prices and devaluation of the real against the US dollar, partially offset by payments related to the Class Action agreement and lower sales volumes in the domestic market and oil exports.

The resources provided by a growing operational cash generation, new funding and receipts from the disposal of assets and participations (see note 10) were allocated to the repayment of debt service, prepayment of debt (note 17), as well as investments in the business segments and in the acquisition of exploration blocks (note 13).

As a result of the collaboration and leniency agreements entered into by other companies in the scope of Lava Jato operation, the Company was reimbursed in the amount of R\$ 1,801 in 2018. Additionally, it ceased the uncertainties and costs related to the investigations by the US authorities with an agreement with the Securities and Exchange Commission - SEC and Department of Justice - DoJ (see note 3).

Petrobras adhered to amnesties and state settlement programs for cash payment of debts with an average deduction benefit of 68% (note 21.3). In addition, the Company accounted for a provision following the progress made in negotiating an agreement with the ANP, with the unification of some of the Parque das Baleias fields, starting in the last quarter of 2016, and also provisioned amounts for which the expectation of loss became probable, mainly of civil nature (note 31).

Impairment losses and reversals were recognized, mainly in the fourth quarter, due to higher cost of abandonment of areas (note 20), review of portfolio management and updating of medium and long-term economic assumptions in the scope of the new Business and Management Plan 2019-2023 (note 14).

Petrobras has entered into Production Individualization Agreements (AIPs) with the Brazilian Petroleum and Natural Gas Administration Company - Pre-Sal Petróleo (PPSA) and with other partners in E&P consortiums, which provide for cost equalization and production volumes referring to the fields of Sapinhoá, Lula, Tartaruga Verde, Berbigão and Sururu (note 12.3).

The Board of Directors is submitting the proposal for total compensation to shareholders for the 2018 fiscal year, in the amount of R\$ 7,055 (note 24), for the approval of the Shareholders General Meeting.

As detailed in note 22, among other initiatives, we implemented a new Employee Career and Compensation Plan (Plano de Carreiras e Remuneração – PCR), in 2018.

In addition, the Company issues its consolidated financial statements in US dollars , which are converted based on CPC 02 - "Effects of changes in exchange rates and translation of financial statements", equivalent to international accounting standards IAS 21 - "Effects of Changes in Exchange ". The table below presents the key information in millions of dollars:

	Consolidated	
	2018	2017
Sales revenues	95,584	88,827
Gross profit	34,067	28,680
Income before finance income (expense), results in equity-accounted investments and income taxes	17,432	11,219
Net income /(loss) attributable to shareholders of Petrobras	7,173	(91)
Cash and cash equivalentes	13,899	22,519
Property, plant and equipment	157,383	176,650
Finance debt – short and long terms	84,175	109,046
Equity	73,175	81,502

## 2. Basis of preparation and presentation of financial statements

The consolidated and individual (Parent Company) financial statements have been prepared and are presented in accordance with the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB), and with the pronouncements issued by the Brazilian Accounting Pronouncements Committee (Comitê de Pronunciamentos Contábeis - CPC) and released by the Brazilian Securities and Exchange Commission (Comissão de Valores Mobiliários – CVM).

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All relevant information related to financial statements, and only them, are presented and corresponds to the information used by the Company's Management.

The consolidated and individual financial statements have been prepared under the historical cost convention, except when otherwise indicated. The summary of significant accounting policies used in the preparation of these financial statements is set out in note 4.

The preparation of the financial statements requires the use of estimates and assumptions which may affect the application of accounting policies and reported amounts of assets, liabilities revenues and expenses. Although our management periodically reviews these assumptions and judgments, the actual results could differ from these estimates. For further information on accounting estimates, see note 5.

The annual consolidated and individual financial statements were approved and authorized for issue by the Company's Board of Directors in a meeting held on February 27, 2019.

#### 2.1. Statement of added value

The Brazilian corporate law requires the release of the Statement of added value as an integral part of the financial statements. This statement is presented as supplementary information under IFRS and was prepared in accordance with CPC 09 – Statement of Added Value, released by the CVM.

The purpose of the statement of added value is to present information relating to the wealth created by the Company and how it has been distributed.

#### 2.2. Functional currency

The functional currency of Petrobras and all of its Brazilian subsidiaries is the Brazilian Real, which is the currency of its primary economic environment of operation. The functional currency of most of the entities that operate in the international economic environment is the U.S. dollar.

The income statements and statement of cash flows of non-Brazilian Real functional currency subsidiaries, joint ventures and associates in stable economies are translated into Brazilian Real using the monthly average exchange rates prevailing during the year. Assets and liabilities are translated into Brazilian Real at the closing rate at the date of the financial statements and the equity items are translated using the exchange rates prevailing at the dates of the transactions.

All exchange differences arising from the translation of the financial statements of non-Brazilian Real subsidiaries, joint ventures and associates are recognized as cumulative translation adjustments (CTA) within accumulated other comprehensive income in the shareholders' equity and transferred to profit or loss in the periods at the disposal of the investments.

2.3. Changes in accounting polices

IFRS 9, IFRS 15 and IFRIC 22 have been effective since January 1, 2018. Accordingly, the Company changed, in 2018, accounting policies related to financial instruments, revenue recognition and transactions that include the receipt or payment of advance consideration in a foreign currency.

2.3.1. IFRS 9 - Financial Instruments (CPC 48 - Instrumentos Financeiros)

IFRS 9 establishes, among others things, new requirements for classification and measurement of financial assets, measurement and recognition of impairment of financial assets, changes in the terms of financial assets and liabilities, hedge accounting and disclosure.

As permitted by IFRS 9, the company did not restate prior periods with respect to classification and measurement (including impairment and modification of financial assets and liabilities) changes. Differences in the carrying amounts of financial assets and financial liabilities resulting from the adoption of IFRS 9 were recognized at January 1, 2018 in retained earnings within equity. Information on the consolidated impacts is presented below:

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Item of Consolidated Statement of Financial Position	Balance at 12.31.2017	Adjustment by initial application of IFRS 9	Note	Balance at 01.01.2018
<b>Current assets</b>				
Trade and other receivables, net	16,446	(341)	2.3.1 b	16,105
<b>Non-current assets</b>				
Trade and other receivables, net	17,120	(64)	2.3.1 b	17,056
Deferred income taxes	11,373	405		11,778
Others	10,202	(75)	2.3.1 b	10,127
<b>Current liabilities</b>				
Finance debt	23,160	3	2.3.1 a	23,163
Others	8,298	(23)	2.3.1 a	8,275
<b>Non-current liabilities</b>				
Finance debt	337,564	797	2.3.1 a	338,361
<b>Equity</b>				
Accumulated other comprehensive deficit	(21,268)	(67)	2.3.1 c	(21,335)
Retained earnings	-	(734)		(734)
Non-controlling interests	5,624	(51)		5,573

## a) Modification of contractual cash flows

When the contractual cash flows of a financial liability measured at amortized cost are renegotiated or modified and this change is not substantial, its gross carrying amount will reflect the discounted present value of its cash flows under the new terms using the original effective interest rate. The difference between the book value immediately prior to such modification and the new gross carrying amount is recognized as gain or loss in the statement of income.

## b) Impairment of financial assets



IFRS 9 replaced the incurred loss model stated in IAS 39 by the expected credit loss model for the recognition of impairment on financial assets measured at amortized cost, including lease receivables, and on financial assets measured at fair value through other comprehensive income.

c) Classification and measurement of financial assets

This new standard established 3 categories in which financial assets are generally classified: Amortized cost, Fair value through other comprehensive income and Fair value through profit or loss. The classification of a financial asset is based on the business model in which assets are managed and on their contractual cash flow characteristics.

The following table presents comparative information of marketable securities between the former classification and measurement in accordance with IAS 39 and the current requirements following the effectiveness of IFRS 9:

Classification according to CPC 38 // IAS 39 at December 31, 2017	Carrying amount according to CPC 38			Classification according to CPC 48 / IFRS 9	Carrying amount according to CPC 48 / IFRS 9		
					at January 1, 2018		
	In Brazil	Abroad	Total		In Brazil	Abroad	Total
Trading securities	3,531	-	3,531	Fair value through profit or loss	4,222	--	4,222
Available-for-sale securities	505	2,015	2,520	Fair value through other comprehensive income	42	2,015	2,057
Held-to-maturity securities	397	-	397	Amortised cost	169	-	169
	4,433	2,015	6,448		4,433	2,015	6,448

Information about accounting policies, key estimates and judgments related to financial instruments is presented in notes 4 and 5.

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## 2.3.2. Revenue from Contracts with Customers

For the purposes of the transition requirements, the Company applied CPC 47 (IFRS 15) retrospectively with the cumulative effect of its application recognized at its effective date within retained earnings. However, the changes arising from the adoption of IFRS 15 only affected the way certain revenues from contracts with customers are disclosed within the statement of income and did not affect net income. Accordingly, there were no impacts within retained earnings (equity).

The following table presents the impacts of adoption of this standard in 2018:

	Amount at 12.31.2018	Initial application of IFRS 15 / CPC 47			Amount without effects of initial application of IFRS 15 / CPC 47 at 12.31.2018
		Agent	Breakage	Others	
Sales revenues	349,836	9,385	(993)	(77)	358,151
Cost of sales	(225,293)	(9,385)	55	–	(234,623)
Gross profit	124,543	–	(938)	(77)	123,528
Income and expenses	(61,586)	–	938	77	(60,571)
Income before finance income, results in equity-accounted investments and income taxes	62,957	–	–	–	62,957

## The Company acting as an agent

In accordance with accounting policies at December 31, 2017, the Company was regarded as the principal in the sale of biodiesel. Therefore, the revenues from these sales, cost of the products sold and sales expenses were presented separately in the statement of income. However, under the new standard's requirements, the Company acts as an agent because it does not obtain control of goods or services provided by another party before it is transferred to the customer. From January 1, 2018, revenues from these sales have been presented in the statement of income net of their cost of sales and sales expenses.

## Non-exercised right income (breakage)

In accordance with accounting policies at December 31, 2017, the Company regarded the income from rights not exercised by customers in certain take or pay and ship or pay contracts as penalties revenue and presented it as other income and expenses in the statement of income. However, according to the new standard's requirements, the Company has accounted for and presented its income from rights not exercised by customers as sales revenues in the statement of income, as from January 1, 2018.

Information about accounting policies related to revenue from contract with customers is presented in note 4.

### 2.3.3. Foreign Currency Transactions and Advance Consideration

Based on the transition provisions of ICPC 21(IFRIC 22), the Company has applied the new requirements prospectively from January 1, 2018. IFRIC 22 clarifies that the date of the transaction for the purpose of determining the exchange rate to use on initial recognition of the related asset, expense or income (or part of it) is the date on which an entity initially recognizes the non-monetary asset or non-monetary liability arising from the payment or receipt of advance consideration.

### 3. The "Lava Jato (Car Wash) investigation" and its effects on the Company

In 2009, the Brazilian Federal Police (Polícia Federal) began an investigation known as "Lava Jato" (Car Wash) aimed at criminal organizations engaged in money laundering in several Brazilian states. Beginning in 2014, the Brazilian Federal Prosecutor's Office focused part of its investigation on irregularities involving Petrobras's contractors and suppliers and uncovered a broad payment scheme that involved a wide range of participants, including former Petrobras personnel. Based on the information available to Petrobras, the payment scheme involved a group of companies that, between 2004 and April 2012, colluded to obtain contracts with Petrobras, overcharge the Company under those contracts and use the overpayment received under the contracts to fund improper payments to political parties, elected officials or other public officials, individual contractors and suppliers, former Petrobras personnel and other individuals involved in the scheme. Petrobras refers to this scheme as the "payment scheme" and to the companies involved in the scheme as the "cartel members". The Company did not make any improper payment.

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In addition to the payment scheme, the investigations identified specific instances of other contractors and suppliers that overcharged Petrobras and allegedly used the overpayment received from their contracts with the Company to fund improper payments, unrelated to the payment scheme, to certain former Petrobras personnel. Those contractors and suppliers are not cartel members and acted individually. Petrobras refers to these specific cases as the “unrelated payments.”

The amounts paid by Petrobras related to contracts with contractors and suppliers involved in the payment scheme were included in historical costs of its property, plant and equipment. However, the Company believes that, under International Accounting Standard IAS 16 – Property, Plant and Equipment, the portion of the payments made to these companies and used by them to make improper payments, which represents additional charges incurred as a result of the payments scheme, should not have been capitalized. Thus, in the third quarter of 2014, the Company wrote off R\$ 6,194 (R\$ 4,788 in the Parent Company) of capitalized costs representing amounts that Petrobras overpaid for the acquisition of property, plant and equipment in prior years.

### 3.1. Approach adopted by the Company to adjust its property, plant and equipment for overpayments

As it was impracticable to identify the periods and amounts of overpayments incurred, the Company developed a methodology to estimate the adjustment incurred in property, plant and equipment in the third quarter of 2014 using the five steps described below:

- (1) Identify contractual counterparties: the Company listed all the companies identified as cartel members, and using that information the Company identified all of the contractors and suppliers that were either so identified or were part of consortia that included entities so identified.
- (2) Identify the period: the Company concluded from testimony that the payment scheme was operating from 2004 through April 2012.
- (3) Identify contracts: the Company identified all contracts entered into with the counterparties identified in step 1 during the period identified in step 2, which included supplemental contracts when the original contract was entered into between 2004 and April 2012. It identified all of the property, plant and equipment related to those contracts.
- (4) Identify payments: the Company calculated the total contract values under the contracts mentioned in step 3.
- (5) Apply a fixed percentage to the amount determined in Step 4: the Company estimated the aggregate overpayment by applying a percentage indicated in depositions (3%) to the total amounts for identified contracts.

For overpayments attributable to non-cartel members, unrelated to the payment scheme, the Company included in the write-off for incorrectly capitalized overpayments the specific amounts of improper payments or percentages of contract values, as described in the testimony, which were used by those suppliers and contractors to fund improper payments.

The Company has continuously monitored the Lava Jato investigation. In preparing the financial statements for the year ended December 31, 2018, the Company has not identified any additional information that would impact the adopted calculation methodology and consequently require additional write-offs.

3.2. The Company's response to the facts uncovered in the investigation

The Company has been closely monitoring the investigations and cooperating fully with the Brazilian Federal Police (Polícia Federal), the Brazilian Public Prosecutor's Office (Ministério Público Federal), the Federal Auditor's Office (Tribunal de Contas da União – TCU) and the General Federal Inspector's Office (Controladoria Geral da União) in the investigation of all crimes and irregularities. We have responded to numerous requests for documents and information from these authorities.

We have been formally recognized as a victim of the crimes identified under the Lava Jato investigation by the Brazilian Federal Prosecutor's Office, the lower court hearing the case and also by the Brazilian Supreme Court. As a result, we have entered into 54 criminal proceedings as an assistant to the prosecutor. In addition, we have entered into five criminal proceedings as an interested party. We have also renewed our commitment to continue cooperating with authorities to clarify the issues and report them regularly to our investors and to the public in general.

We do not tolerate corrupt practices and illegal acts perpetuated by any of our employees. Accordingly, since 2015, the Company continued to implement several measures as a response to the facts uncovered in the "Lava Jato" investigation.

In addition, the Company has been taking the necessary procedural steps to seek compensation for damages suffered from the improper payments scheme, including those related to its reputation.

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Accordingly, the Company joined 17 public civil suits addressing acts of administrative misconduct filed by the Brazilian Public Prosecutor's Office and the Brazilian Federal Government, including demands for compensation for reputation damages.

To the extent that any of the proceedings resulting from the Lava Jato investigation involve leniency agreements with cartel members or plea agreements with individuals pursuant to which they agree to return funds, the Company may be entitled to receive a portion of such funds. Nevertheless, the Company is unable to reliably estimate further recoverable amounts at this moment. Any recoverable amount will be recognized as income when received or when their economic benefits become virtually certain.

In addition to R\$ 1,476 recovered from Lava Jato investigation through December 31, 2017, new leniency and plea agreements in 2018 entitled the Company to receive funds with respect to compensation for damages in the amount of R\$ 1,801. This amount was accounted for as other income and expenses. Thus, the total amount recovered from Lava Jato investigation through December 31, 2018 was R\$ 3,277.

On November 28, 2018, Petrobras' Board of Directors approved the termination of the Special Committee, created in December 2014 to serve as an independent reporting line to the Board with respect to investigations carried out by the firms Trench, Rossi e Watanabe Advogados and Gibson, Dunn & Crutcher LLP. The Board also approved the termination the activities carried out by such independent firms. Since then, relevant departments of the Company have undertaken these duties.

### 3.3. Investigations involving the Company

#### 3.3.1. U.S. Securities and Exchange Commission and Department of Justice inquiries

Petrobras is not a target of the Lava Jato investigation and is formally recognized as a victim of the improper payments scheme by the Brazilian Authorities.

On November 21, 2014, Petrobras received a subpoena from the U.S. Securities and Exchange Commission (SEC) requesting certain documents and information about the Company with respect to, among other things, the Lava Jato investigation and any allegations regarding a violation of the U.S. Foreign Corrupt Practices Act. The U.S. Department of Justice (DoJ) conducted a similar inquiry and the Company cooperated with both investigations working with independent Brazilian and U.S. law firms that were hired to conduct an independent internal investigation.

On September 27, 2018, the Company settled the open matters with the DoJ and the SEC investigation which encompassed the company's internal controls, books and records, and financial statements from 2003 to 2012.

These agreements fully resolve the inquiries carried out by these authorities. Following this agreement, the Company paid US\$ 85 million to the DOJ and will pay the same amount to the SEC in 2019. Additionally, the agreements also credit a remittance of US\$ 683 million to the Brazilian authorities which Petrobras deposited on January 30, 2019 into

a special fund for investments in Brazil, in accordance with the Commitment Assumption Agreement executed with the Brazilian Federal Prosecutor's Office (Ministério Público Federal-MPF). The Company fully recognized the effects of these settlements as other income and expenses in the third quarter of 2018 (R\$ 3,536).

This resolution meets the best interest of the Company and its shareholders, and eliminates uncertainties, risks, burdens and costs of potential litigations in the United States.

### 3.3.2. Order of civil inquiry - Brazilian Public Prosecutor's Office

On December 15, 2015, the State of São Paulo Public Prosecutor's Office issued the Order of Civil Inquiry 01/2015, establishing a civil proceeding to investigate the existence of potential damages caused by Petrobras to investors in the Brazilian stock market. The Brazilian Attorney General's Office (Procuradoria Geral da República) assessed this civil proceeding and determined that the São Paulo Public Prosecutor's Office has no authority over this matter, which must be presided over by the Brazilian Public Prosecutor's Office. The Company has provided all relevant information required by the authorities.

### 3.4. Legal proceedings involving the Company

Note 31 provides information about class actions and other material legal proceedings.

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#### 4. Summary of significant accounting policies

##### 4.1. Basis of consolidation

The consolidated financial statements include the financial information of Petrobras and the entities it controls (subsidiaries), joint operations and consolidated structured entities.

Control is achieved when Petrobras: i) has power over the investee; ii) is exposed, or has rights, to variable returns from involvement with the investee; and iii) has the ability to use its power to affect its returns.

Subsidiaries are consolidated from the date on which control is obtained until the date that such control no longer exists, by using accounting policies consistent with those adopted by Petrobras. Note 11 sets out the consolidated entities and other direct investees.

Investments structured through a separate vehicle are conceived so that the voting rights, or similar rights, are not the dominant factor to determine who controls the entity. At December 31, 2018, Petrobras controls and consolidates the following structured entities: Charter Development LLC - CDC (U.S.A., E&P); Companhia de Desenvolvimento e Modernização de Plantas Industriais - CDMPI (Brazil, RT&M) and, Fundo de Investimento em Direitos Creditórios Não-padronizados do Sistema Petrobras (Brazil, Corporate).

The consolidation procedures involve combining assets, liabilities, income and expenses, according to their function and eliminating all intragroup balances and transactions, including unrealized profits arising from intragroup transactions.

##### 4.2. Reportable segments

The information related to the Company's operating segments is prepared based on available financial information directly attributable to each segment, or items that can be allocated to each segment on a reasonable basis. This information is presented by business activity, as used by the Company's Board of Executive Officers (Chief Operating Decision Maker – CODM) on the decision-making process of resource allocation and performance evaluation.

The measurement of segment results includes transactions carried out with third parties, including associates and joint ventures, as well as transactions between operating segments. Transfers between operating segments are recognized at internal transfer prices derived from methodologies that take into account market parameters and are eliminated only to provide reconciliations to the consolidated financial statements.

The Company's operating segments comprises the following business areas:

Exploration and Production (E&P): this segment covers the activities of exploration, development and production of crude oil, NGL (natural gas liquid) and natural gas in Brazil and abroad, for the primary purpose of supplying its domestic refineries. The E&P segment also operates through partnerships with other companies and includes holding interest in foreign entities operating in this segment.



As an integrated energy company with a focus on oil and gas, intersegment sales revenue refers mainly to oil transfers to the Refining, Transportation and Marketing segment, aiming to supply the Company's refineries and meet the domestic demand for oil products. These transactions are measured by internal transfer prices based on international oil prices and their respective exchange rate impacts, taking into account the specific characteristics of the transferred oil stream.

In addition, the E&P segment revenues include transfers of natural gas to the natural gas processing plants within Gas and Power segment. These transactions are measured at internal transfer prices based on the international prices of this commodity.

Revenue from sales to third parties mainly reflects the oil and natural gas operations carried out by subsidiaries abroad, as well as services rendered under exploration and production operations.

Refining, Transportation and Marketing (RT&M): this segment covers the refining, logistics, transport and trading of crude oil and oil products activities in Brazil and abroad, as well as exports of ethanol. This segment also includes the petrochemical operations, such as extraction and processing of shale and holding interests in petrochemical companies in Brazil.

This segment carries out the acquisition of crude oil from the E&P segment, imports oil for refinery slate, and acquires oil products in international markets taking advantage of the existing price differentials between the cost of processing domestic oil and that of importing oil products.

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Intersegment revenues primarily reflect the sale of derivatives for the distribution segment at market prices and the operations for the Gas and Power and E&P segments at internal transfer price.

Revenues from sales to third parties primarily reflect the trading of oil products in Brazil and the export and trade of oil and oil products by foreign subsidiaries.

Gas and Power: this segment covers the activities of logistic and trading of natural gas and electricity, transportation and trading of LNG (liquefied natural gas), generation and electricity by means of thermoelectric power plants, as well as holding interests in transporters and distributors of natural gas in Brazil and abroad. It also includes fertilizer operations.

Intersegment revenues primarily reflect the transfers of natural gas processed, liquefied petroleum gas (LPG) and NGL to RT&M. These transactions are measured at internal transfer prices.

Revenues from sales to third parties primarily reflect natural gas processed to distributors, as well as the generation and trading of electricity.

Biofuels: this segment covers the activities of production of biodiesel and its co-products, as well as the ethanol-related activities through interest in entities producing and trading ethanol, sugar and surplus electric power generated from sugarcane bagasse.

Distribution: this segment covers the activities of Petrobras Distribuidora S.A, which sells oil products, including gasoline and diesel, ethanol and vehicle natural gas in Brazil. This segment also includes distribution of oil products operations abroad (South America).

Revenues from sales to third parties primarily reflect sales of oil products in Brazil.

The corporate segment comprises the items that cannot be attributed to the other segments, notably those related to corporate financial management, corporate overhead and other expenses, including actuarial expenses related to the pension and medical benefits for retired employees and their dependents.

#### 4.3. Financial instruments

A financial instrument is a contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

##### 4.3.1. Financial asset

###### a) Initial recognition and measurement

A financial asset is initially recognized when the entity becomes party to the contractual provisions of the instrument. Except for the trade receivables that do not contain a significant financing component, financial assets are initially measured at their fair value and, if not classified as measured at fair value through profit or loss, transaction costs that are directly attributable to the acquisition or issue of the financial asset add or reduce the amount of initial recognition.

b) Classification and subsequent measurement

Based on the business model in which assets are managed and on their contractual cash flow characteristics, financial assets are generally classified as follows:

• **Amortized cost:** when the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding, and the business model's objective is to hold financial assets in order to collect contractual cash flows;

• **Fair value through other comprehensive income:** i) when the contractual terms of a debt instrument give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding and the business model's objective is to collect contractual cash flows and sell financial assets; and ii) equity instruments not held for trading purposes for which the Company has made an irrevocable election in their initial recognition to present changes in fair value in other comprehensive income rather than within profit or loss; and

• **Fair value through profit or loss:** if the financial asset does not meet the criteria for the two aforementioned categories. Derivative financial instruments are generally classified in this category.

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#### c) Impairment of financial assets

An allowance for expected credit losses is recognized on a financial asset that is measured at amortized cost, including lease receivables, and on financial assets measured at fair value through other comprehensive income.

The Company measures expected credit losses for short-term trade receivables using a provision matrix based on historical observed default rates adjusted by current and forward-looking information when applicable and available without undue cost or effort.

The Company measures the allowance for expected credit losses of other financial assets based on their 12-month expected credit losses unless their credit risk has increased significantly since their initial recognition, in which case the allowance for expected credit losses is based on their lifetime expected credit losses.

#### Significant increase in credit risk since initial recognition

When determining whether there has been a significant increase in credit risk, the Company compares the risk of default on initial recognition and at the reporting date by using certain indicators, such as the actual or expected change in the financial instrument's external credit rating and information on payment delays.

Regardless of the assessment of significant increase in credit risk, a delinquency period of 30 days past due triggers the definition of significant increase in credit risk on a financial asset, unless otherwise demonstrated by reasonable and supportable information.

The Company assumes that the credit risk on a financial instrument has not increased significantly since initial recognition if the financial instrument is considered to have low credit risk at the reporting date. Low credit risk is determined based on external credit ratings or internal methodologies.

#### Definition of default

The Company assumes that a default occurs whenever the counterparty does not comply with the legal obligation to pay its debts when due or, depending on the financial instrument, when it is at least 90 days past due.

#### Measurement of expected credit losses

The measurement of credit loss comprises the difference between all contractual cash flows that are due to the Company and all the cash flows that the Company expects to receive, discounted at the original effective interest rate weighted by the probability of default.

#### 4.3.2. Financial liabilities

a) Initial recognition and measurement

A financial liability is recognized when the entity becomes party to the contractual provisions of the instrument and initially measured at fair value. If it is not classified as fair value through profit or loss, transaction costs that are directly attributable to the acquisition or issue of the financial liability add or reduce the amount of its initial measurement.

b) Classification and subsequent measurement

Financial liabilities are classified as subsequently measured at amortized cost, except for certain financial liabilities, including those classified as fair value through profit or loss.

Loans and finance debt are measured at amortized cost using the effective interest method.

When the contractual cash flows of a financial liability measured at amortized cost are renegotiated or modified and this change is not substantial, its gross carrying amount will reflect the discounted present value of its cash flows under the new terms using the original effective interest rate. The difference between the book value immediately prior to such modification and the new gross carrying amount is recognized as gain or loss in statement of income.

Derivative financial instruments are subsequently measured at fair value through profit or loss, except when designated as hedging instruments.

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#### 4.3.3. Cash flow hedge accounting

At inception of the hedge relationship, the Company documents its objective and strategy, including identification of the hedging instrument, the hedged item, the nature of the hedged risk and evaluation of hedge effectiveness requirements. The hedge relationship meets all of the hedge effectiveness requirements when:

- An economic relationship exists between the hedged item and the hedging instrument;
  - The effect of credit risk does not dominate the value changes that result from the economic relationship; and
  - The hedge ratio is the same as that resulting from the quantity of the hedged item that the Company actually hedges and the quantity of the hedging instrument that the Company uses to hedge that quantity of hedged item.
- The Company applies cash flow hedge accounting for certain transactions. Hedging relationships qualify for cash flow hedges when they involve the hedging of exposure to variability in cash flows that is attributable to a particular risk associated with a recognized asset or liability or a highly probable forecasted transaction that may impact the statement of income.

Gains or losses relating to the effective portion of such hedges are recognized in other comprehensive income and reclassified to the statement of income in finance income (expense) in the periods when the hedged item affects the statement of income. The gains or losses relating to the ineffective portion are immediately recognized in finance income (expense).

When the hedging instrument expires or is settled in advance or no longer meets the criteria for hedge accounting, the cumulative gain or loss on the hedging instrument that has been recognized in other comprehensive income is recorded separately in equity until the forecast transaction occurs. When the forecast transaction is no longer expected to occur, the cumulative gain or loss on the hedging instrument that has been recognized in other comprehensive income is immediately reclassified from equity to the statement of income.

In addition, when a financial instrument designated as a hedging instrument expires or is settled, the Company may replace it with another financial instrument in a manner such that the hedge relationship continues to occur. Likewise, whenever a hedged transaction effectively occurs, its financial instrument previously designated as a hedging instrument may be designated for a new hedge relationship.

#### 4.4. Inventories

Inventories are determined by the weighted average cost method and mainly comprise crude oil, intermediate products and oil products, as well as natural gas, LNG, fertilizers and biofuels, adjusted to the net realizable value when it is lower than its carrying amount.

Net realizable value is the estimated selling price of inventory in the ordinary course of business, less estimated cost of completion and estimated expenses to complete its sale.

Crude oil and LNG inventories can be traded or used for production of oil products and/or electricity generation, respectively.

Intermediate products are those product streams that have been through at least one of the refining processes, but still need further treatment, processing or converting to be available for sale.

Biofuels mainly include ethanol and biodiesel inventories.

Materials, supplies and others mainly comprise production supplies and operating materials used in the operations of the Company, stated at the average purchase cost, not exceeding replacement cost.

#### 4.5. Investments in other companies

An associate is an entity over which the Company has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but not the ability to exercise control or joint control over those policies. The definition of control is set out in note 4.1.

A joint arrangement is an arrangement over which two or more parties have joint control (pursuant to contractual provisions). A joint arrangement is classified either as a joint operation or as a joint venture depending on the rights and obligations of the parties to the arrangement.

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In a joint operation, the parties have rights to the assets and obligations for the liabilities related to the arrangement, while in a joint venture the parties have rights to the net assets of the arrangement. Some of the Company's activities in the E&P segment are conducted through joint operations.

Profit or loss, assets and liabilities related to joint ventures and associates are accounted for by the equity method. In a joint operation the Company recognizes the amount of its assets, liabilities and related income and expenses.

Accounting policies of joint ventures and associates have been adjusted, where necessary, to ensure consistency with the policies adopted by Petrobras. Distributions received from an investee reduce the carrying amount of the investment.

#### 4.6. Business combinations and goodwill

A business combination is a transaction in which the acquirer obtains control of another business, regardless it legal form. Acquisitions of businesses are accounted for using the acquisition method when control is obtained. Combinations of entities under common control are accounted for at cost. The acquisition method requires that the identifiable assets acquired and the liabilities assumed be measured at the acquisition-date fair value, with limited exceptions.

Goodwill is measured as the excess of the aggregate amount of: (i) the consideration transferred; (ii) the amount of any non-controlling interest in the acquiree; and (iii) in a business combination achieved in stages, the fair value of the acquirer's previously held equity interest in the acquiree at the acquisition-date; over the net of the amounts of the identifiable assets acquired and the liabilities assumed. When this aggregate amount is lower than the net of the amounts of the identifiable assets acquired and the liabilities assumed, a gain on a bargain purchase is recognized in the statement of income.

Changes in ownership interest in subsidiaries that do not result in loss of control of the subsidiary are equity transactions. Any excess of the amounts paid/received, including directly attributable costs, over the carrying value of the ownership interest acquired/disposed of is recognized in shareholders' equity as changes in interest in subsidiaries.

#### 4.7. Oil and Gas exploration and development expenditures

The costs incurred in connection with the exploration, appraisal and development of crude oil and natural gas production are accounted for using the successful efforts method of accounting, as set out below:

Geological and geophysical costs related to exploration and appraisal activities incurred until economic and technical feasibility can be demonstrated are expensed.

Amounts paid for obtaining concessions for exploration of crude oil and natural gas (capitalized acquisition costs) are initially capitalized as intangible assets and are transferred to property, plant and equipment once the technical and commercial feasibility can be demonstrated.

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Costs directly attributable to exploratory wells, including their equipment and installations, pending determination of proved reserves are capitalized within property, plant and equipment. In some cases, exploratory wells have discovered oil and gas reserves, but at the moment the drilling is completed they are not yet able to be classified as proved. In such cases, the expenses continue to be capitalized if the well has found a sufficient quantity of reserves to justify its completion as a producing well and progress on assessing the reserves and the economic and operating viability of the project is under way. An internal commission of technical executives of the Company reviews these conditions monthly for each well, by analysis of geoscience and engineering data, existing economic conditions, operating methods and government regulations. For additional information on proved reserves estimates, see note 5.1.

Costs related to exploratory wells drilled in areas of unproved reserves are charged to expense when determined to be dry or uneconomic by the aforementioned internal commission.

Costs related to the construction, installation and completion of infrastructure facilities, such as drilling of development wells, construction of platforms and natural gas processing units, construction of equipment and facilities for the extraction, handling, storing, processing or treating crude oil and natural gas, pipelines, storage facilities, waste disposal facilities and other related costs incurred in connection with the development of proved reserve areas are capitalized within property, plant and equipment.

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#### 4.8. Property, plant and equipment

Property, plant and equipment are measured at the cost to acquire or construct, including all costs necessary to bring the asset to working condition for its intended use and the estimated cost of dismantling and removing the asset and restoring the site, reduced by accumulated depreciation and impairment losses.

A condition for continuing to operate certain items of property, plant and equipment, such as industrial plants, offshore plants and vessels is the performance of regular major inspections and maintenance. Those expenditures are capitalized if a maintenance campaign is expected to occur, at least, 12 months later. Otherwise, they are expensed when incurred. The capitalized costs are depreciated over the period through the next major maintenance date.

Spare parts are capitalized when they are expected to be used during more than one period and can only be used in connection with an item of property, plant and equipment. These are depreciated over the useful life of the item of property, plant and equipment to which they relate.

Borrowing costs directly attributable to the acquisition or construction of qualifying assets are capitalized as part of the costs of these assets. General borrowing costs are capitalized based on the Company's weighted average cost of borrowings outstanding applied over the balance of assets under construction. In general, the Company suspends capitalization of borrowing to the extent investments in a qualifying asset hibernates during a period greater than one year or whenever the asset is prepared for its intended use.

Assets directly associated to oil and gas production of a contract area without useful life lower than the estimated length of reserves depletion, such as signature bonuses, are depreciated or amortized based on the unit-of-production method.

The unit-of-production method of depreciation (amortization) is computed based on a unit of production basis (monthly production) over the proved developed oil and gas reserves, except for signature bonuses for which unit of production method takes into account the monthly production over the total proved oil and gas reserves on a field-by-field basis.

Assets related to oil and gas production with useful lives shorter than the life of the field; floating platforms and other assets unrelated to oil and gas production are depreciated on a straight-line basis over their useful lives, which are reviewed annually. Note 12.2 provides further information on the estimated useful life by class of assets. Lands are not depreciated.

#### 4.9. Intangible assets

Intangible assets are measured at the acquisition cost, less accumulated amortization and impairment losses and comprise rights and concessions, including the signature bonus paid for concessions and production sharing agreements for exploration and production of oil and natural gas (capitalized acquisition costs), public service concessions, trademarks, patents, software and goodwill.

Internally-generated intangible assets are not capitalized and are expensed as incurred, except for development costs that meet the recognition criteria related to the completion and use of assets, probable future economic benefits, and others.

Signature bonuses paid for obtaining concessions for exploration of crude oil and natural gas are initially capitalized within intangible assets and are transferred to property, plant and equipment when the technical and commercial feasibility can be demonstrated. They are not amortized before their transference to property, plant and equipment. Intangible assets with a finite useful life, other than amounts paid for obtaining concessions for exploration of oil and natural gas of producing properties, are amortized over the useful life of the asset on a straight-line basis. In the event of a signature bonus encompassing an area in which exploration activities occur in different locations, a portion of the signature bonus is transferred to property, plant and equipment whenever the technical and commercial feasibility can be demonstrated for a specific location, based on the ratio between the oil in place at this location and total reservoir volume of the area.

Intangible assets with an indefinite useful life are not amortized but are tested annually for impairment. Their useful lives are reviewed annually.

#### 4.10. Impairment of property, plant and equipment and intangible assets

Property, plant and equipment and intangible assets with definitive lives are tested for impairment when there is an indication that the carrying amount may not be recoverable. Assets are assessed for impairment at the smallest identifiable group that generates largely independent cash inflows from other assets or groups of assets (the cash-generating unit - CGU). Note 5.3 presents detailed information about the Company's CGUs.

Assets related to development and production of oil and gas assets (fields or group of fields) that have indefinite useful lives, such as goodwill, are tested for impairment annually, irrespective of whether there is any indication of impairment.

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The impairment test is performed through the comparison of the carrying amount of an individual asset or a cash-generating unit (CGU) with its recoverable amount. Whenever the recoverable amount is less than the carrying amount, an impairment loss is recognized to reduce the carrying amount to the recoverable amount. The recoverable amount of an asset or a cash-generating unit is the higher of its fair value less costs of disposal and its value in use. Considering the existing synergies between the Company's assets and businesses, as well as the expectation of the use of its assets for their remaining useful lives, value in use is generally used by the Company for impairment testing purposes. When specifically indicated, the Company assesses differences between its assumptions and assumptions that would be used by market participants in the determination of the fair value of an asset or CGU.

Value in use is estimated based on the present value of the risk-adjusted (for specific risks) future cash flows expected to arise from the continuing use of an asset or cash-generating unit, discounted at a pre-tax discount rate. This rate is obtained from the Company's post-tax weighted average cost of capital (WACC). Cash flow projections are mainly based on the following assumptions: foreign exchange rates and prices based on the Company's most recent business and management plan and strategic plan; production curves associated with existing projects in the Company's portfolio, operating costs reflecting current market conditions, and investments required for carrying out the projects.

Reversal of previously recognized impairment losses is permitted for assets other than goodwill.

#### 4.11. Impairment of associates and joint ventures (equity-accounted investments)

The Company assesses its investments in associates and joint ventures (equity-accounted investments) for impairment whenever there is an indication that their carrying amounts may not be recoverable.

When performing impairment testing of an equity-accounted investment, goodwill, if it exists, is also considered part of the carrying amount to be compared to the recoverable amount.

Except when specifically indicated, value in use is generally used by the Company for impairment testing purposes in proportion to the Company's interests in the present value of future cash flow projections via dividends and other distributions.

Reversals of previously recognized impairment losses are permitted.

#### 4.12. Leases

Leases that transfer substantially all the risks and rewards incidental to ownership of the leased item are recognized as finance leases.

For finance leases, when the Company is the lessee, assets and liabilities are recognized at the lower of the fair value of the underlying asset or the present value of the minimum lease payments, both determined at the inception of the lease.

Capitalized lease assets are depreciated on a systematic basis consistent with the depreciation policy the Company adopts for property, plant and equipment that are owned. Where there is no reasonable certainty that the Company will obtain ownership by the end of the lease term, capitalized lease assets are depreciated over the shorter of the lease term or the estimated useful life of the asset.

When the Company is the lessor, a receivable is recognized at the amount of the net investment in the lease.

If a lease does not transfer substantially all the risks and rewards incidental to ownership of the leased item, it is classified as an operating lease. Operating leases are recognized as expenses over the period of the lease.

Contingent rents are recognized as expenses when incurred.

As discussed in note 6.1, the IFRS 16 provisions have governed the accounting treatment for leases from January 1, 2019.

#### 4.13. Assets classified as held for sale

Non-current assets, disposal groups and liabilities directly associated with those assets are classified as held for sale if their carrying amounts will, principally, be recovered through the sale transaction rather than through continuing use.

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The condition for classification as held for sale is met only when the sale is approved by the Company's Board of Directors and the asset or disposal group is available for immediate sale in its present condition and there is the expectation that the sale will occur within 12 months after its classification as held for sale. However, an extended period required to complete a sale does not preclude an asset (or disposal group) from being classified as held for sale if the delay is caused by events or circumstances beyond the Company's control and there is sufficient evidence that the Company remains committed to its plan to sell the assets (or disposal groups).

Assets (or disposal groups) classified as held for sale and the associated liabilities are measured at the lower of their carrying amount and fair value less costs to sell. Assets and liabilities are presented separately in the statement of financial position.

#### 4.14. Decommissioning costs

Decommissioning costs are future obligations to perform environmental restoration, dismantle and remove a facility when the Company terminates its operations due to the exhaustion of the area or economic feasibility.

When a future legal obligation exists and can be reliably measured, costs related to the abandonment and dismantling of areas are recognized as part of the cost of an asset (with a corresponding liability) based on the present value of the expected future cash outflows, discounted at a rate reflecting market assessments in terms of time value of money and liability specific risk.

Unwinding of the discount on the corresponding liability is recognized as a finance expense, when incurred. Decommissioning costs estimates are revised annually, at least.

#### 4.15. Provisions, contingent assets and contingent liabilities

Provisions are recognized when there is a present obligation that arises from past events and for which it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, which must be reasonably estimable.

Contingent assets and liabilities are not recognized. Contingent liabilities are disclosed whenever the likelihood of loss is considered possible, including those for which the amount outflow of resources is not reasonably estimable.

Contingent assets are disclosed whenever an inflow of economic benefits is probable. However, when such inflow is virtually certain, the related asset is not a contingent asset and it is recognized.

#### 4.16. Income taxes

Income tax expense for the period includes current and deferred taxes. They are recognized in the statement of income of the period, except when the tax arises from a transaction or event which is recognized directly in equity.

##### a) Current income taxes

Current income taxes are computed based on taxable profit for the year, determined in accordance with the rules established by the taxation authorities, using tax rates that have been enacted or substantively enacted at the end of the reporting period.

Current income taxes are offset when they relate to income taxes levied on the same taxable entity and by the same tax authority, when there is a legal right and the entity has the intention to set off current tax assets and current tax liabilities, simultaneously.

b)Deferred income taxes

Deferred income taxes are recognized on temporary differences between the tax base of an asset or liability and its carrying amount. They are measured at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax assets are generally recognized for all deductible temporary differences and carryforward of unused tax losses or credits to the extent that it is probable that taxable profit will be available against which those deductible temporary differences can be utilized. When there are insufficient taxable temporary differences relating to the same taxation authority and the same taxable entity, a deferred tax is recognized to the extent that it is probable that the entity will have sufficient taxable profit in future periods, based on projections approved by management and supported by the Company's Business and Management Plan.

Deferred tax assets and deferred tax liabilities are offset when they relate to income taxes levied on the same taxable entity, when a legally enforceable right to set off current tax assets and current tax liabilities exists and when the deferred tax assets and deferred tax liabilities relate to taxes levied by the same tax authority on the same taxable entity.

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#### 4.17. Employee benefits (Post-Employment)

Actuarial commitments related to post-employment defined benefit plans and health-care plans are recognized as liabilities in the statement of financial position based on actuarial calculations which are revised annually by an independent qualified actuary (updating for material changes in actuarial assumptions and estimates of expected future benefits), using the projected unit credit method, net of the fair value of plan assets, when applicable, from which the obligations are to be directly settled. Under the projected credit unit method, each period of service gives rise to an additional unit of benefit entitlement and each unit is measured separately to determine the final obligation. Actuarial assumptions include demographic assumptions, financial assumptions, medical costs estimates, historical data related to benefits paid and employee contributions.

Service cost are accounted for within results and comprises: (i) current service cost, which is the increase in the present value of the defined benefit obligation resulting from employee service in the current period; (ii) past service cost, which is the change in the present value of the defined benefit obligation for employee service in prior periods, resulting from a plan amendment (the introduction, modification, or withdrawal of a defined benefit plan) or a curtailment (a significant reduction by the entity in the number of employees covered by a plan); and (iii) any gain or loss on settlement.

Net interest on the net defined benefit liability (asset) is the change during the period in the net defined benefit liability (asset) that arises from the passage of time. Such interest is accounted for in results.

Remeasurement of the net defined benefit liability (asset) is recognized in shareholders' equity, in other comprehensive income, and comprises: (i) actuarial gains and losses and; (ii) the return on plan assets, excluding amounts included in net interest on the net defined benefit liability (asset).

The Company also contributes amounts to defined contribution plans, that are expensed when incurred and are computed based on a percentage of salaries.

#### 4.18. Share capital and distributions to shareholders

Share capital comprises common shares and preferred shares. Incremental costs directly attributable to the issue of new shares (share issuance costs) are presented (net of tax) in shareholders' equity as a deduction from the proceeds.

To the extent the Company proposes distributions to shareholders, such dividends and interest on capital are determined in accordance with the limits defined in the Brazilian Corporation Law and in the Company's bylaws.

Interest on capital is a form of dividend distribution, which is deductible for tax purposes in Brazil to the entity distributing interest on capital. Tax benefits from the deduction of interest on capital are recognized in the statement of income.

#### 4.19. Other comprehensive income



Other comprehensive income includes: i) changes in fair value of financial assets classified as subsequently measured at fair value through other comprehensive income; ii) effective portion of cash flow hedge; iii) remeasurement of defined benefit plans; and iv) cumulative translation adjustment.

#### 4.20. Government grants

A government grant is recognized when there is reasonable assurance that the grant will be received and the Company will comply with the conditions attached to the grant.

#### 4.21. Revenue from contracts with customers

The main contracts with customers involve oil exports and the sale of oil products, natural gas, biofuels and electricity in the domestic market. The Company evaluates contracts with customers that will be subject to revenue recognition and identifies the distinct goods and services promised in each of them.

Performance obligations are promises to transfer to the customer goods or services (or a bundle of goods or services) that are distinct, or series of distinct goods or services that are substantially the same and that have the same pattern of transfer to the customer.

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Revenues are measured based on the amount of consideration to which an entity expects to be entitled in exchange for transferring promised goods or services to a customer, excluding amounts collected on behalf of third parties. Transaction prices are based on contractually stated prices, reflecting the Company's pricing methodologies and policies based on market parameters.

When transferring a good, that is, when the customer obtains its control, the company satisfies the performance obligation and recognizes the respective revenue, which usually occurs at a point in time upon delivery.

#### 5. Critical accounting policies: key estimates and judgments

The preparation of the consolidated financial information requires the use of estimates and judgments for certain transactions and their impacts on assets, liabilities, income and expenses. The assumptions are based on past transactions and other relevant information and are periodically reviewed by management, although the actual results could differ from these estimates.

Information about those areas that require significant judgment or involve a higher degree of complexity in the application of the accounting policies and that could materially affect the Company's financial condition and results of operations is set out as follows.

##### 5.1. Oil and gas reserves

Oil and gas reserves are estimated based on economic, geological and engineering information, such as well logs, pressure data and drilling fluid sample data and are used as the basis for calculating unit-of-production depreciation, depletion and amortization rates, impairment testing, decommissioning costs estimates and for projections of high probable future exports subject to cash flow hedge.

These estimates require the application of judgment and are reviewed at least annually based on a re-evaluation of already available geological, reservoir or production data and new geological, reservoir or production data, as well as changes in prices and costs that are used in the estimation of reserves. Revisions can also result from significant changes in the Company's development strategy or in the production capacity.

The Company determines its oil and gas reserves both pursuant to the U.S. Securities and Exchange Commission - SEC and the ANP/SPE (Brazilian Agency of Petroleum, Natural Gas and Biofuels / Society of Petroleum Engineers) criteria. The main differences between the two criteria are: selling price of crude oil (ANP/SPE establishes the use of the Company's forecasted price, while SEC determines the use of an average price considering each first day of the last 12 months); concession period (ANP permission for the use of reserve quantities after the concession period). Additionally, pursuant to the SEC criteria, only proved reserves are determined, while proved and unproved reserves are determined pursuant to the ANP/SPE criteria.

According to the definitions prescribed by the SEC, proved oil and gas reserves are those quantities of oil and gas which, by analysis of geoscientific and engineering data, can be estimated with reasonable certainty to be

economically producible from a given date forward, from known reservoirs and under existing economic conditions, operating methods, and government regulation. Proved reserves are subdivided into developed and undeveloped reserves.

Proved developed oil and gas reserves are those that can be expected to be recovered through: (i) existing wells with existing equipment and operating methods; (ii) extraction technology installed and operational at the time of the reserves estimate, extracting oil and gas in other ways than using wells.

Although the Company is reasonably certain that proved reserves will be produced, the timing and amount recovered can be affected by a number of factors including completion of development projects, reservoir performance, regulatory aspects and significant changes in long-term oil and gas price levels.

Detailed information on reserves is presented as unaudited supplementary information.

a) Impacts of oil and gas reserves on depreciation, depletion and amortization

Depreciation, depletion and amortization are measured based on estimates of reserves prepared by the Company's technicians in a manner consistent with SEC definitions. Reviews to the Company's proved developed and undeveloped reserves impact prospectively the amounts of depreciation, depletion and amortization recognized in the statement of income and the carrying amounts of oil and gas properties assets.

Therefore, considering all other variables being constant, a decrease in estimated proved reserves would increase, prospectively, depreciation, depletion and amortization expense, while an increase in reserves would reduce depreciation, depletion and amortization.

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Notes 4.8 and 12 provide more detailed information on depreciation, amortization and depletion.

b) Impacts of oil and gas reserves on impairment testing

The Company assesses the recoverability of the carrying amounts of oil and gas exploration and development assets annually, regardless of any absence of impairment indication. The measurement of their value in use is based on proved and probable reserves pursuant to the ANP/SPE definitions.

c) Impacts of oil and gas reserves on decommissioning costs estimates

The timing of abandonment and dismantling areas is based on the length of reserves depletion, in accordance with ANP/SPE definitions. Therefore, the review of the timing of reserves depletion may impact the provision for decommissioning cost estimates.

d) Impacts of oil and gas reserves on highly probable future exports subject to cash flow hedge accounting

The Company estimates highly probable future exports in accordance with future exports forecasted in the scope of its Business and Management Plan - BMP and its Strategic Plan projections, which are driven by proved and probable reserves estimates. Changes in such estimates may impact future exports forecasts and, consequently, hedge relationship designations may also be impacted. For example, whenever future exports for which a hedging relationship has been designated are no longer considered as highly probable, the Company revokes this designation and the cumulative foreign exchange gains or losses recognized in other comprehensive income remain in shareholders' equity until the forecast exports occur. Additionally, if the future exports are also no longer expected to occur, the cumulative foreign exchange recognized in other comprehensive income is immediately reclassified from shareholders' equity to the statement of income.

5.2. Main assumptions for impairment testing

Impairment testing involves uncertainties mainly related to its key assumptions: average Brent prices and Brazilian real/U.S. dollar average exchange rate. These assumptions are relevant to virtually all of the Company's operating segments and a significant number of interdependent variables are derived from these key assumptions and there is a high degree of complexity in their application in determining value in use for impairment tests.

The markets for crude oil and natural gas have a history of significant price volatility and although prices can drop precipitously, industry prices over the long term tends to continue being driven by market supply and demand fundamentals.

Projections relating to the key assumptions are derived from the Business and Management Plan for the first five years and consistent with the Strategic Plan for the following years. These assumptions are consistent with market evidence, such as independent macro-economic forecasts, industry commentators and experts. Back testing analysis and feedback process in order to continually improve forecast techniques are also performed.

The Company's oil price forecast model is based on a nonlinear relationship between variables reflecting market supply and demand fundamentals. This model also takes into account other relevant factors, such as historical idle capacity, industry costs, oil and gas production forecasted by specialized firms, the relationship between the oil price and the U.S. dollar exchange rate, as well as the impact of OPEC on the oil market.

The Real/U.S. dollar exchange rate projections are based on econometric models that take into account long-term assumptions involving observable inputs, such as country risk, commodity prices, interest rates and the value of the U.S. Dollar relative to a basket of foreign currencies (U.S. Dollar Index – USDX).

Changes in the economic environment may result in changing assumptions and, consequently, the recognition of impairment charges on certain assets or CGUs. For example, the Brent price directly impacts the Company's sales revenue and refining margins, while the Brazilian real/U.S. dollar exchange rate mainly impacts our capital and operating expenditures.

Changes in the economic and political environment may also result in higher country risk projections that would increase discount rates for impairment testing.

In addition, changes in reserve volumes, production curve expectations and lifting costs could trigger the need for impairment assessment, as well as capital expenditure decisions, which are also affected by the Company's plan to reduce its leverage, may result in postponement or termination of projects, reducing their economic feasibility.

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The recoverable amount of certain assets may not substantially exceed their carrying amounts and, therefore, it is reasonably possible that outcomes in future periods that are different from the current assumptions may result in the recognition of additional impairment charges on these assets, as described in note 14.1.2.

### 5.3. Identifying cash-generating units for impairment testing

Identifying cash-generating units (CGUs) requires management assumptions and judgment, based on the Company's business and management model. Changes in the aggregation of assets into CGUs may occur due to a review of investment, strategic or operational factors, which could result in changes in the interdependencies between those assets and, consequently, alter the aggregation or breakdown of assets into CGUs. Therefore, this change could result in additional impairment charges or reversals. The assumptions set out below have been consistently applied by the Company:

#### a) Exploration and Production CGUs:

i) Crude oil and natural gas producing properties CGU: comprises exploration and development assets related to crude oil and natural gas fields and groups of fields in Brazil and abroad. In 2018, the following changes in the aggregation of CGUs occurred: (i) Barracuda-Caratinga group (formed by Barracuda and Caratinga fields, which became interdependent due to the redetermination in the Macabu reservoir); (ii) Sapinhoá group (due to the declaration of commerciality of Nordeste, Noroeste and Sudoeste de Sapinhoá fields, which are interdependent with Sapinhoá field); (iii) Tartaruga Verde group (formed by Espadarte, Tartaruga Verde and Sudoeste de Tartaruga Verde fields, which were declared interdependent since both fields share the same reservoir and relevant infrastructure); (iv) North group (Carapeba, Vermelho, Pargo and Garoupinha fields were removed from this CGU and grouped into a single CGU, due to the termination of the production in Garoupinha field, and the sale approval of the three other fields); and (v) Canto do Amaro group (from which the Pajeú field was removed due to its sale approval). Therefore, at December 31, 2018, Exploration and Production CGUs had 138 fields and 43 groups (totaling 184 fields).

The drilling rigs are not part of any grouping of assets and are assessed for impairment separately.

#### b) Refining, transportation and marketing CGUs:

i) Downstream CGU: comprises refineries and associated assets, terminals and pipelines, as well as logistics assets operated by Transpetro, with a combined and centralized operation of logistical and refining assets in Brazil. These assets are managed with a common goal of achieving efficiency, profitability and strategic value long term on a nationwide basis. They are not operated for the generation of profit by asset/location. The operational planning is made in a centralized manner and these assets are not managed, measured or evaluated by their individual results. The refineries do not have autonomy to choose the oil to be processed, the mix of oil products to produce, the markets in which these products will be traded, which amounts will be exported, which intermediaries will be received and to decide the sales prices of oil products. The operational decisions are analyzed through an integrated model of operational planning for market supply. This model evaluates the solutions to supply the market considering all the options for production, importing, exporting, logistics and inventories seeking a comprehensive optimum of Petrobras and not the profit of each unit. The decision regarding a new investment is not based on the profitability of the project

for the asset where it will be installed, but for the Petrobras Group. The model in which the entire planning is based, used in the studies of technical and economic feasibility of new investments in refining, may, in its indications, allocate a lower economic kind of oil to a certain refinery or define a lower economic mix of products to it, or even force it to supply more distant markets (area of influence), leading it to operate with reduced margins if seen individually, in case this is the best for the integrated system as a whole. Pipelines and terminals are an integral part and interdependent portion of the refining assets, required to supply the market.

ii) CGU Comperj – comprises assets under construction of the first refining unit of Petrochemical Complex of Rio de Janeiro. In 2014, the Company decided to postpone this project for an extended period of time;

iii) CGU Second Refining Unit of RNEST – comprises assets under construction of the second refining unit of Abreu e Lima refinery. In 2014, the Company decided to postpone this project for an extended period of time;

iv) Transportation CGU: comprises assets relating to Transpetro's fleet of vessels.

v) PANAMAX CGU: comprises of three Panamax class vessels under construction (EI-512, EI-513 and EI-514) for which the Company decided, in December 2017, to postpone their completion for an extended period of time; thus, these assets are no longer part of Transportation CGU.

vi) Hidrovia CGU: comprises the fleet of vessels of the Hidrovia project (transportation of ethanol along the Tietê River) that are under construction.

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vii) SIX CGU: shale processing plant; and

viii) Other operations abroad defined as the smallest group of assets that generates independent cash flows.

c) Gas & Power CGUs:

i) Natural gas CGU: comprises natural gas pipelines, natural gas processing plants, consolidating the purchase, transportation and treatment of natural gas segments, in order to enable the commercialization of natural gas and its liquids (LPG, NGL and ethane). Since 2017, due to the strategic positioning defined in the Business and Management Plan to leave the fertilizer and nitrogen segment, all plants were removed from the CGU and had individual impairment tests. During 2018, the assets related to GASFOR II were excluded from this CGU due to the postponement of the project for an extended period of time, and are assessed for impairment separately;

ii) CGU UFN III: comprises assets under construction of the fertilizer plant Unidade de Fertilizantes e Nitrogenados III (UFN III). This working in progress has been halted since 2014 and the startup of this plant was postponed for an extended period of time.

iii) Power CGU: comprises the thermoelectric power generation plants;

iv) Fafens CGUs: The fertilizer plants Fafen BA and Fafen SE have been assessed for impairment separately since 2017.

v) Other CGUs: operations abroad defined as the smallest group of assets that generates largely independent cash flows.

d) Distribution CGU:

Mainly comprises the distribution assets related to the operations of Petrobras Distribuidora S.A.

e) Biofuels CGUs:

i) Biodiesel CGU: An integrated unit of biodiesel plants defined based on the production planning and operation process, that takes into consideration domestic market conditions, the production capacity of each plant, as well as the results of biofuels auctions and raw materials supply.

ii) Quixadá CGU: comprises the assets of Quixadá Biofuel Plant. In September 2016, it was removed from the Biodiesel CGU following the decision to discontinue its operations.

Investments in associates and joint ventures, including goodwill, are assessed for impairment separately.

Further information on impairment testing is set out in notes 4.10, and 14.



#### 5.4. Pension and other post-retirement benefits

The actuarial obligations and net expenses related to defined benefit pension and health care post-retirement plans are computed based on several financial and demographic assumptions, of which the most significant are:

• **Discount rate:** comprises the projected future inflation in addition to an equivalent real interest rate that matches the duration of the pension and health care obligations with the future yield curve of long-term Brazilian Government Bonds; and

• **Medical costs:** comprise the projected growth rates based on per capita health care benefits paid over the last five years, which are used as a basis for projections, converged to the general price inflation index within 30 years. These and other estimates are reviewed at least annually and may differ materially from actual results due to changing market and financial conditions, as well as actual results of actuarial assumptions.

The sensitivity analysis of discount rates and changes in medical costs as well as additional information about actuarial assumptions are set out in note 22.

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#### 5.5. Estimates related to contingencies and legal proceedings

The Company is defendant in arbitrations and in legal and administrative proceedings involving civil, tax, labor and environmental issues arising from the normal course of its business, and makes use of estimates to recognize the amounts and the probability of outflow of resources, based on reports and technical assessments from legal advisors and on the management's assessment.

These estimates are performed individually, or aggregated if there are cases with similar characteristics, primarily considering factors such as assessment of the plaintiff's demands, consistency of the existing evidence, jurisprudence on similar cases and doctrine on the subject. Specifically for actions of outsourced employees, the Company estimates the expected loss based on a statistical procedure, due to the number of actions with similar characteristics.

Arbitral, legal and administrative decisions against the Company, new jurisprudence and changes on the existing evidences can result in changes regarding the probability of outflow of resources and on the estimated amounts, according to the assessment of the legal basis.

Note 31 provides further detailed information about contingencies and legal proceedings.

#### 5.6. Decommissioning costs estimates

The Company has legal and constructive obligations to remove equipment and restore onshore and offshore areas at the end of operations. Its most significant asset removal obligations involve removal and disposal of offshore oil and gas production facilities in Brazil and abroad. Estimates of costs for future environmental cleanup and remediation activities are based on current information about costs and expected plans for remediation.

These estimates require performing complex calculations that involve significant judgment since: i) the obligations are long-term; ii) the contracts and regulations contain subjective definitions of the removal and remediation practices and criteria involved when the events actually occur; and iii) asset removal technologies and costs are constantly changing, along with regulations, environmental, safety and public relations considerations.

The Company is constantly conducting studies to incorporate technologies and procedures to optimize the process of abandonment, considering industry best practices. However, the timing and amounts of future cash flows are subject to significant uncertainty.

Notes 4.14 and 20 provide further detailed information about the decommissioning provisions.

#### 5.7. Deferred income taxes

The recognition of deferred taxes involves significant estimates and judgments by the Company. Deferred tax assets are recognized to the extent that it is probable that taxable profit will be available against which a deductible temporary difference can be utilized or it is probable that the entity will have sufficient taxable profit in future periods. In evaluating whether it will have sufficient taxable profit in future periods to support the recognition of deferred tax

assets, the Company uses future projections and estimates based on its Business and Management Plan (BMP), which is approved by the Board of Directors annually. Future taxable profits projections are mainly based on the following assumptions: i) Brent crude oil prices; ii) foreign exchange rates; and iii) the Company's projected net finance expenses (income).

Changes in deferred tax assets and liabilities are presented in note 21.5.

#### 5.8. Cash flow hedge accounting involving the Company's future exports

The Company determines its future exports as "highly probable future exports" based on its Business and Management Plan - BMP and its Strategic Plan. The highly probable future exports are determined by a percentage of projected exports revenue over the mid and long term, taking into account the Company's operational and capital expenditure optimization model, limited to a threshold based on a historical percentage of the oil production that is usually sold abroad. Future exports forecasts are reviewed whenever the Company reviews its BMP and Strategic Plan assumptions. The approach for determining exports as highly probable future exports is reviewed annually, at least.

See note 33.2 for more detailed information about cash flow hedge accounting and a sensitivity analysis of the cash flow hedge involving future exports.

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#### 5.9. Write-off – overpayments incorrectly capitalized

As described in note 3, in the third quarter of 2014, the Company developed an estimation methodology and wrote off R\$ 6,194 of capitalized costs representing the estimated amounts that Petrobras had overpaid for the acquisition of property, plant and equipment.

The Company acknowledges the degree of uncertainty involved in the estimation methodology and continues to monitor the ongoing investigations and the availability of other information concerning the amounts it may have overpaid in the context of the payment scheme. If reliable information becomes available that indicates with sufficient precision that the Company's estimate should be modified, it will evaluate materiality and, if so, adjust.

However, as previously discussed, the Company believes it has used the most appropriate methodology and assumptions to determine the amounts of overpayments incorrectly capitalized and there is no evidence that would indicate the possibility of a material change in the amounts written-off.

#### 5.10. Expected credit losses on financial assets

The Company uses judgment for inputs and assumptions, such as risk of default, the determination of whether or not there has been a significant increase in credit risk and expectation of recovery, that are factored into the estimate of expected credit losses.

### 6. New standards and interpretations

#### 6.1. New International Financial Reporting Standards not yet adopted

##### 6.1.1. IFRS 16 – Leases

On January 13, 2016, the IASB issued IFRS 16 “Leases”, which has been effective since January 1, 2019, superseding the following standards and related interpretations: IAS 17 -Leases; IFRIC 4 - Determining whether an Arrangement contains a Lease; SIC-15 - Operating Leases – Incentives; and SIC-27 - Evaluating the Substance of Transactions Involving the Legal Form of a Lease. IFRS 16 sets out the principles for the recognition, measurement, presentation and disclosure of leases, from the lessees and lessors' perspectives.

#### Accounting policies

Among the changes arising from IFRS 16, this standard eliminates the classification of leases as either operating leases or finance, providing for a single lessee accounting model in which all leases result in the recognition of a right-of-use asset and a lease liability at the commencement date of the lease.

Following the adoption of IFRS 16, lease payments under operating leases will not be charged to operating results on accrual basis. Instead, depreciation of the right to use a leased asset, as well as the finance expenses and foreign exchange gains or losses over the lease liability will affect the results. Finance expenses may qualify for borrowing costs capitalization in accordance with IAS 23 and foreign exchange gains and losses may be first recognized within equity if designated as hedge instrument, as set out in IFRS 9.

Most of the Company's lease arrangements are denominated in U.S. dollars and foreign exchange gains and losses arising from them may be designated for hedging relationship according to the current cash flow hedge accounting policy involving the Company's future exports.

The Company will elect to apply short-term lease exemption and will recognize payments associated with such leases as expenses over the arrangements terms.

#### Transition

According to the transition provisions set forth in IFRS 16, the Company will apply this standard retrospectively with the cumulative effect of its initial application recognized at January 1, 2019, without restatement of prior period information, and the following practical expedients were chosen:

- Application of this Standard to contracts that were previously identified as leases (note 18.2);

Lease liabilities measured at the present value of the remaining lease payments, discounted by the lessee's incremental borrowing rate at the date of initial application;

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Recognition of right-of-use assets at an amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognized in the statement of financial position immediately before the date of initial application, excluding initial direct costs.

Key estimates and judgments

The incremental borrowing rates used to determine the present value of the remaining lease payments were determined mainly based on the Company's cost of funding based on yields of bonds issued by the Company, adjusted by terms and currency of the lease arrangements, economic environment of the country where the lessee operates and similar collaterals.

The incremental borrowing rates applicable to the most significant lease arrangements range from 2.47% p.a. to 7% p.a.

Disclosure

The right-of-use assets will be presented as Property, plant and equipment (PP&E), primarily comprising the following underlying assets: drilling rig and other exploration and production equipment, vessels and support vessels, helicopters, lands and buildings. The lease liabilities will be presented as Finance debt.

Accordingly, the Company estimates that its balances of PP&E and Finance debt will increase approximately R\$ 110 billion, due to changes brought up by the recognition, measurement and disclosure provision under IFRS 16 initial application. As the right-of-use assets will be recognized at an amount equal to the lease liability, the change will not affect equity. With respect to the leverage target described in note 34.4, the adjusted net debt / EBITDA ratio would be increased by approximately 0.5x.

In the statement of cash flows, operating lease payments, which are currently presented within Cash flows from operating activities, will be presented as Cash flows from financing activities made up of repayment of principal and interest. However, such change does not affect the Company's cash and cash equivalents balance.

Other significant matters

The changes arising from IFRS 16 adoption will affect, prospectively, the Net Debt/Adjusted Ebitda ratio, a financial measure that is set forth in the Company's Business and Management Plan. The impacts on this metric in 2019 will be provided only for comparative purposes. The Company does not intend to implement changes in its business practice and there was no need to renegotiate covenant clauses in finance debts.

6.1.2. IFRIC 23 – Uncertainty over Income Tax Treatments

In May 2017, the International Accounting Standards Board (Board) issued IFRIC 23, which has been effective since January 1, 2019. This Interpretation clarifies how to apply the recognition and measurement requirements in IAS 12

when there is uncertainty over income tax treatments.

When there is uncertainty over income tax treatments, this Interpretation addresses:

- Whether an entity considers uncertain tax treatments separately;
- The assumptions an entity makes about the examination of tax treatments by taxation authorities;
- How an entity determines taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates; and
- How an entity considers changes in facts and circumstances.

According to the transition provisions set forth in this interpretation, the Company will apply this interpretation retrospectively with the cumulative effect of its initial application recognized at January 1, 2019 within equity. The Company did not identify any material impact arising from IFRIC 23.

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#### 6.2. Brazilian Accounting Pronouncements Committee (Comitê de Pronunciamentos Contábeis - CPC)

The CPC issue accounting pronouncements and interpretations equivalent to the IFRS issued by IASB. The following table sets out the main pronouncements and interpretations issued by the CPC not effective as of December 31, 2018, which the Company did not adopt them in advance:

CPC	Equivalent IFRS	Effective date
ICPC 22 - Incerteza sobre Tratamento de Tributos sobre o Lucro	IFRIC 23 - Uncertainty over Income Tax Treatments	January 1, 2019
CPC 06 (R2) - Operações de Arrendamento Mercantil	IFRS 16 - Leases	January 1, 2019

The transitional provisions and the effects of the initial adoption of the aforementioned pronouncements and interpretations are the same presented in note 6.1.



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## 7. Cash and cash equivalents and Marketable securities

## 7.1. Cash and cash equivalents

Cash and cash equivalents comprise cash in hand, term deposits with banks and short-term highly liquid financial investments that are readily convertible to known amounts of cash, are subject to insignificant risk of changes in value and have a maturity of three months or less from the date of acquisition.

	Consolidated		Parent Company	
	12.31.2018	12.31.2017	12.31.2018	12.31.2017
Cash at bank and in hand	3,344	5,193	102	8
Short-term financial investments				
- In Brazil				
Brazilian interbank deposit rate investment funds and other short-term deposits	7,266	3,889	2,197	1,050
Other investment funds	45	57	17	10
	7,311	3,946	2,214	1,060
- Abroad				
Time deposits	14,812	20,632	1,756	–
Automatic investing accounts and interest checking accounts	25,992	37,337	2,262	237
Other financial investments	2,395	7,386	–	–
	43,199	65,355	4,018	237
Total short-term financial investments	50,510	69,301	6,232	1,297
Total cash and cash equivalents	53,854	74,494	6,334	1,305

Short-term financial investments in Brazil primarily consist of investments in funds holding Brazilian Federal Government Bonds and related repo investments that mature within three months as of the date of their acquisition. Short-term financial investments abroad comprise time deposits that mature in three months or less from the date of their acquisition, highly-liquid automatic investment accounts, interest checking accounts and other short-term fixed income instruments.

The principal uses of funds in 2018 were for debt service obligations (R\$ 141,483) including pre-payment of debts, and for capital expenditures (R\$ 43,987), and they were principally provided by operating activities (R\$ 95,846), proceeds from financing (R\$ 38,023), disposal of investments and assets (R\$ 20,218) and foreign exchange variations over the balance of cash and cash equivalents (R\$ 8,342).

## 7.2. Marketable securities

	12.31.2018				Consolidated		Parent
	In Brazil	Total	In Brazil	Abroad	01.01.2018 Total	12.31.2018 Total	01.01.2018 Total
Fair value through profit or loss	4,198	4,198	4,222	–	4,222	3,974	3,531
Fair value through other comprehensive income	30	30	42	2,015	2,057	30	42
Amortised cost	175	175	169	–	169	172	162
<b>Total</b>	<b>4,403</b>	<b>4,403</b>	<b>4,433</b>	<b>2,015</b>	<b>6,448</b>	<b>4,176</b>	<b>3,735</b>
Current	4,198	4,198	4,222	2,015	6,237	3,974	3,531
Non-current	205	205	211	–	211	202	204

Marketable securities classified as fair value through profit or loss refer mainly to investments in Brazilian Federal Government Bonds. These financial investments have maturities of more than three months and are mostly classified as current assets due to their maturity or the expectation of their realization in the short term.

The amounts of marketable securities at January 1, 2018 are classified by categories according to IFRS 9 as presented in note 2.3.1.

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## 8. Trade and other receivables

## 8.1. Trade and other receivables, net

	Consolidated		Parent Company	
	12.31.2018	12.31.2017	12.31.2018	12.31.2017
Trade receivables				
Third parties	25,629	23,138	9,208	9,898
Related parties				
Investees (note 19.7)	2,641	1,752	17,364	14,874
Receivables from the electricity sector (note 8.4) (*)	17,051	17,362	15,092	13,467
Subtotal	45,321	42,252	41,664	38,239
Other trade receivables				
Third parties				
Receivables from divestments (**)	5,020	2,885	5,020	2,885
Finance lease receivables	2,011	1,818	–	–
Other receivables	5,134	5,449	3,141	2,109
Related parties				
Diesel subsidy (note 19.7)	1,550	–	1,550	–
Investments in the Receivables Investment Fund - FIDC-NP (note 19.4)	–	–	9,845	14,222
Petroleum and alcohol accounts - receivables from Brazilian Government (Note 19.7)	1,191	829	1,191	829
Subtotal	14,906	10,981	20,747	20,045
Total trade receivables	60,227	53,233	62,411	58,284
Expected credit losses - ECL - Third parties	(13,137)	(12,194)	(4,106)	(4,464)
Expected credit losses - ECL - Related parties	(3,545)	(7,473)	(3,435)	(4,370)
Total trade receivables, net	43,545	33,566	54,870	49,450
Current	22,264	16,446	36,731	34,239
Non-current	21,281	17,120	18,139	15,211

(\*) It includes the amount of R\$ 770 at December 31, 2018 (R\$ 771 at December 31, 2017) regarding finance lease receivable from AME-D.

(\*\*) It relates to amounts receivable from the divestment of the NTS and the contingent portion of Roncador.

Trade and other receivables were previously classified as loans and receivables in accordance with former IAS 39. As set out in note 2.3.1, following the adoption of IFRS 9, such assets are currently classified as measured at amortised cost, except for certain receivables with final prices linked to changes in commodity price after their transfer of

control, which are classified as measured at fair value through profit and loss and amount to R\$ 306 as of December 31, 2018.

### 8.2. Aging of trade and other receivables – third parties

	Consolidated		Parent Company					
	12.31.2018	12.31.2017	12.31.2018	12.31.2017				
	Trade receivables ECL	Trade receivables ECL						
Not due	22,718	(1,394)	19,053	(906)	10,899	(222)	8,640	(2)
Overdue								
Up to 3 months	1,876	(211)	1,972	(241)	1,592	(149)	1,465	(141)
From 3 to 6 months	135	(47)	171	(120)	83	(30)	101	(99)
From 6 to 12 months	186	(78)	275	(156)	32	(22)	146	(146)
More than 12 months	12,879	(11,407)	11,819	(10,771)	4,763	(3,683)	4,540	(4,076)
Total	37,794	(13,137)	33,290	(12,194)	17,369	(4,106)	14,892	(4,464)

### 8.3. Changes in credit losses

	Consolidated		Parent Company	
	12.31.2018	12.31.2017	12.31.2018	12.31.2017
Opening balance	19,667	17,682	8,834	7,676
Initial application of IFRS 9	405	–	64	–
Additions	322	2,269	288	1,305
Write-offs	(4,540)	(349)	(1,645)	(147)
Transfer of assets held for sale	21	–	–	–
Cumulative translation adjustment	807	65	–	–
Closing balance	16,682	19,667	7,541	8,834
Current	6,645	6,842	4,032	4,632
Non-current	10,037	12,825	3,509	4,202

In 2018, write-offs of expected credit losses, in the amount of R\$ 4,540, primarily reflects the effects related to the agreements signed with companies from electricity sector, as described in note 8.4.

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In 2017, besides the losses on receivables from electricity sector amounting to R\$ 681, additions also reflected impairments over lease receivables, as a result of the termination, in the third quarter of 2017, of a finance lease agreement relating to the Vitória 10,000 drilling rig, in the amount of R\$ 894.

## 8.4. Trade receivables – electricity sector (isolated electricity system in the northern region of Brazil)

	Receivables outside the scope of DAAs	DAA 2014	DAA 2018	Finance lease	Others	Total
Receivables	7,878	10,277	–	771	12	18,938
ECL	(7,235)	(1,097)	–	–	(12)	(8,344)
Balance at December 31, 2017	643	9,180	–	771	–	10,594
Sales	4,460	–	–	–	–	4,460
Amounts received	(2,746)	(1,387)	(2,045)	(140)	(9)	(6,327)
Interest	133	595	82	144	–	954
Derecognition of receivables	(4,501)	–	–	(5)	–	(4,506)
Agreements in 2018		434	4,825	–	–	5,259
Fair value adjustment						–
(Additions)/reversals of ECL	(1,846)	1,077	(3)	–	9	(763)
Derecognition of receivables - ECL	4,501	–	–	–	–	4,501
Balance at December 31, 2018	644	9,899	2,859	770	–	14,172
Receivables	5,224	9,919	2,862	770	3	18,778
ECL	(4,580)	(20)	(3)	–	(3)	(4,606)
Balance at December 31, 2018	644	9,899	2,859	770	–	14,172

	Receivables	ECL	Total
Related parties - Eletrobras Group			
Amazonas Energia - AME	14,517	(3,536)	10,981
Others	2,534	(6)	2,528
Total	17,051	(3,542)	13,509
Third parties			
Cia de Gás do Amazonas - CIGÁS	603	(9)	594
Cia de Eletricidade do Amapá - CEA	884	(884)	–
Others	240	(171)	69
Total	1,727	(1,064)	663
Balance at December 31, 2018	18,778	(4,606)	14,172
Balance at December 31, 2017	18,938	(8,344)	10,594

The Company supplies fuel oil, natural gas, and other products to power distributors controlled by Eletrobras and to independent power producers (Produtores Independentes de Energia – PIE) that operate in the isolated electricity system in the northern region of Brazil. This isolated system comprises electricity generation and distribution systems not totally connected to the Brazilian National Interconnected Power Grid (Sistema Interligado Nacional).

Due to operational, regulatory and administrative factors, the costs of the isolated electricity system is substantially covered by the Fuel Consumption Account (Conta de Consumo de Combustível – CCC), a fund regulated and overseen by the Brazilian National Electricity Agency (Agência Nacional de Energia Elétrica - ANEEL), that receives funds from the Brazilian Energy Development Account (Conta de Desenvolvimento Energético – CDE). The CDE is a fund created by the Brazilian Federal Government to promote power development in Brazil and its transfers of funds to CCC are based on fees paid by all of concessionaires of electricity distribution and transmission in Brazil. However, regulatory and administrative issues have impacted funds flows from CCC to the companies operating in the isolated system since 2013, which also affected the payments of distributors controlled by Eletrobras for products supplied by the Company.

As a result, on December 31, 2014, the Company (Petrobras parent company and its subsidiary BR Distribuidora) entered into debt acknowledgement agreements (DAAs 2014) concerning the balance of its receivables as of November 30, 2014 with distributors controlled by Eletrobras, to be settled in 120 monthly installments updated by the Selic interest rate (Brazilian short-term interest rate). The balance of DAAs 2014 was 89% collateralized by payables from the CDE to the CCC and, despite some periodic delays, these payments have continued. At December 31, 2017, the amounts of DAAs 2014 totaled R\$ 10,277.

The Company continued to sell its products to the isolated electricity system but took several measures to safeguard its interests arising from sales after the signing of the DAAs 2014, including judicial collection of all overdue receivables, as well as suspension of fuel supply on credit. Thus, the allowance for credit losses on receivables from electricity sector amounted to R\$ 8,344 at December 31, 2017, primarily reflecting the historical defaults of companies operating in the isolated electricity system in the northern region of Brazil relating to receivables not under DAAs 2014.

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At the end of 2017, following the inclusion of the power distributors controlled by Eletrobras within the Investments Partnership Program (Programa de Parcerias de Investimentos – PPI), a Brazilian Federal program that foresees new infrastructure investments and privatizations, along with the process of privatization of the distributors controlled by Eletrobras, the Company intensified negotiations with the Eletrobras group aiming at reaching an agreement that would resolve disputes and mitigate future defaults.

Accordingly, both parties reached an agreement on April 30, 2018 in which the structure and indexation of collateralization under the DAAs 2014 was recomposed and new debt acknowledgement agreements comprising a portion of receivables under judicial disputes were signed (DAAs 2018). In addition, the parties also entered into debt assumption agreements in which Eletrobras would assume a significant portion of overdue receivables in case of the privatization of power distributors.

Following improvements in Eletrobras credit risk, the new collateralization structure under DAAs 2014 provides for replacement of original collateral by guaranties provided by Eletrobras (54%), collateral based on credits from Brazilian Treasury (34%) and new payables from the CDE (12%). However, the collateralization based on credits from Brazilian Treasury owned by Eletrobras Distributors, expected to be effective by the end of June 2018, did not occur as the Provisional Measure 814/2017 lost its effectiveness since June 1, 2018 and the Bill 10,332/18, the terms of which would reestablish the previous condition for such collateralization, was rejected by the Brazilian Senate in October 2018.

The DAAs 2018 comprise receivables from sales of fuel oil and natural gas, which had been past due since December 2014 and under judicial collection. These agreements outline the settlement of R\$ 1,600 and R\$ 4,500 (gross nominal values), related to Petrobras parent company and its subsidiary Petrobras Distribuidora, respectively, in 36 monthly instalments bearing interest at 124.75% of the Brazilian interbank deposit rate (CDI). However, their recognition and measurement take into account the conditions attached to their guarantees, which in the case of Petrobras Distribuidora are substantially dependent on the privatization of distributors of Eletrobras group and, with respect to Petrobras parent company, an unsuccessful privatization process would not lead to the cancellation of surety provided by Eletrobras.

On December 3, 2018, the parties entered into a new agreement under which:

- The collateral of DAAs 2014 based on credits from Brazilian Treasury was replaced by surety provided by Eletrobras;
- Some contracts were renegotiated in order to fulfill certain conditions necessary for the privatization of the distributors;
- Past due receivables until October 31, 2018 amounting to R\$ 571 were rescheduled under the same terms of the agreement of April 2018; and
- Creation of an escrow account in order to ensure the collection of future gas sales.

Based on the agreements reached in 2018, along with the conclusion of the privatization process of distributors of Eletrobras group (Ceron, Boa Vista Energia e Eletroacre) the Company recognized R\$ 5,529 as finance income in

2018 primarily reflecting receivables under the DAAs 2018, which had been under judicial collection, recognized at their fair value due to the material changes in their contractual terms.

In 2018, the Company recognized credit losses amounting to R\$ 763 (R\$ 681 in 2017) primarily reflecting overdue receivables outside the scope of DAAs (R\$ 1,846), notably from sale of gas for which collections are outstanding, partially offset by the replacement of collaterals of DAAs 2014 and debts assumed by Eletrobras following the privatization of its distributors (R\$ 1,077).

Moreover, the Company has monitored the progress of AME privatization process, which is conditioned to certain conditions precedent, notably the effective transfer of its control, as well as additional investments and collaterals. According to the progress of this process, the Company's assessment of credit risk over these receivables was not significantly affected at December 31, 2018.



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## 9. Inventories

	Consolidated		Parent Company	
	12.31.2018	12.31.2017	12.31.2018	12.31.2017
Crude oil	16,081	12,065	13,160	10,197
Oil products	10,686	9,309	9,528	7,347
Intermediate products	2,364	2,027	2,364	2,027
Natural gas and LNG (*)	474	222	399	66
Biofuels	582	572	80	64
Fertilizers	300	83	193	80
Total products	30,487	24,278	25,724	19,781
Materials, supplies and others	4,335	3,803	3,583	3,384
Total	34,822	28,081	29,307	23,165

(\*) LNG - Liquefied Natural Gas

In the year ended December 31, 2018, the Company recognized as cost of sales R\$ 1,595 reducing inventories to net realizable value (R\$ 211 as of year ended December 31, 2017) primarily due to changes in international prices of crude oil and oil products.

At December 31, 2018, the Company had pledged crude oil and oil products volumes as collateral for the Terms of Financial Commitment (TFC) signed by Petrobras and Petros in 2008, in the amount of R\$ 17,421 (R\$ 13,454 as of December 31, 2017), as set out in note 23.

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#### 10. Disposal of Assets and other changes in organizational structure

The Company has an active partnership and divestment portfolio, which takes into account opportunities for disposal of non-strategic assets in several areas in which it operates. The partnerships provide for the sharing and development of new technologies, strengthening corporate governance, and sharing future risks and investments. The divestment and partnership portfolio is dynamic, since the development of transactions also depends on conditions beyond the control of the Company. The divestment projects and strategic partnerships follow the procedures aligned with the guidelines of the Brazilian Federal Auditor's Office (Tribunal de Contas da União – TCU) and the current legislation.

In 2018, partnerships and divestments resulted in US\$ 6 billion cash inflows to the Company, which, along with other initiatives included in the Company's Business and Management Plan, enable the Company to reduce and improve its indebtedness and debt profile.

On October 3, 2018, the 1st Federal Court of the state of Sergipe, by means of a preliminary injunction relating to a public action, ordered Petrobras and ANP to suspend the sale process of oil fields located in the state of Bahia (Buracica and Miranga groups and related facilities) alleging absence of a proper bidding process, that would result in impending damage to the public treasury. On October 24, 2018, the Federal Regional Court of the 5th Region rejected the request for suspension of the effects of the preliminary ruling previously presented by the Federal Government.

On December 19, 2018, an injunction was issued against the Company before the Brazilian Federal Supreme Court, later suspended on January 11, 2019 by the president of this Court, until court assessment on this injunction. Thus, the Company is able to resume the publication of any opportunities related to new E&P divestment projects, following the normal course of its business.

The competitive process for the divestment of the wholly-owned subsidiary Transportadora Associada de Gás S.A. (TAG) was previously suspended by decision of the Federal Regional Court of the 5th Region, but the Superior Court of Justice reversed this decision on January 15, 2019. Therefore, on January 17, 2019, Petrobras resumed the process for the disposal of 90% of TAG, for 100% of Araucária Nitrogenados S.A., as well as for forming partnerships in refining business.

Moreover, the Brazilian Federal Attorney-General's Office (AGU) stated that Petrobras meets the requirements on this divestment process, since it has legislative authorization to dispose of its subsidiaries and complies with applicable regulation for divestment of assets by state-owned companies, relating to corporate governance, transparency and market best practices.

##### 10.1. Disposal of assets

###### Second installment of the exploratory block BM-S-8 sale

On July 28, 2016 the Board of Directors of Petrobras approved the disposal of the Company's 66% interest in the exploratory block BM – S-8 to Statoil Brasil Óleo e Gás Ltda, which includes the Carcará area located in the pre-salt of

Santos Basin, for the amount of US\$ 2.5 billion.

The first installment of US \$ 1.25 billion, corresponding to 50% of the transaction value, was received on November 22, 2016, and the remaining amount relates to two contingent payments.

The production sharing agreement with respect to the Norte de Carcará area, entered into by the Brazilian Federal Government, Statoil, Petrogal and Exxon, was made official on February 2, 2018 through the Brazilian Federal Register (official gazette). This fact completed the conditions precedent for the second payment of the exploratory block BM-S-8. Accordingly, the Company received R\$ 987 (US\$ 300 million) on March 21, 2018 and accounted for it within other income and expenses.

The third installment of this sale, in the amount of US\$ 950 million, is still pending of certain future events related to the signing of a unitization agreement and will be recognized if and when these events occur.

#### Disposal of Liquigás

On November 17, 2016 the Company's Board of Directors approved the disposal of its wholly-owned subsidiary Liquigás Distribuidora S.A, a group entity from the RT&M business segment (Refining, Transportation and Marketing), to Companhia Ultragaz S.A., a subsidiary of Ultrapar Participações S.A. In January 2017, this sale was approved at Ultrapar's and Petrobras' Shareholders' Meetings for the amount of R\$ 2,666.

On February 28, 2018, the Brazilian Antitrust Regulator (CADE) ruled on this matter and disallowed this sale. The sales and purchase agreement was subject to a termination clause providing for compensation to the Company in case of such decision. Accordingly, the Company received R\$ 286 on March 13, 2018 and the related assets and liabilities are no longer classified as held for sale.

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#### Strategic alliance with Total

On December 21, 2016, the Company entered into a master agreement with Total, in connection with the Strategic Alliance established in the Memorandum of Understanding signed on October 24, 2016. Accordingly, certain E&P assets were classified as held for sale at December 31, 2016 due to the share of interests established in this agreement, as described below:

• Transfer of the Company's 22.5% stake in the concession area named as Iara, comprising Sururu, Berbigão and West of Atapu fields, which are subject to unitization agreements with Entorno de Iara (an area under the Assignment Agreement in which the Company holds 100% stake and is located in the Block BM-S-11). The Company will continue to operate the block;

• Transfer of the Company's 35% stake in the concession area of Lapa field, located in the Block BM-S-9. Total will also become the operator and the Company will retain a 10% interest in this area; and

• Transfer of the Company's 50% interests in Termobahia S.A, including the power plants Celso Furtado and Rômulo Almeida. In 2016, the Company recognized an impairment loss on this transaction in the amount of R\$ 156.

On February 28, 2017, the Company and Total signed purchase and sale agreements with respect to the aforementioned assets. Total will pay to the Company the amount of US\$ 1,675 million in cash for assets and services, subject to price adjustments. In addition, a long-term line of credit in the amount of US\$ 400 million will be provided by Total, which may be used to fund the Company's investments in the Iara fields.

The aforementioned agreements supplement the ones already executed on December 21, 2016, such as: (i) the Company's preemptive right to purchase a 20% interest in block 2 of the Perdido Foldbelt area, in the Mexican sector of the Gulf of Mexico, (ii) the joint exploration studies in the exploratory areas of Equatorial Margin and in Santos Basin; and (iii) the Technological partnership agreement in the areas of digital petrophysics, geological processing and subsea production systems.

On January 12, 2018, Petrobras and Total closed the aforementioned transfers of interests of Iara and Lapa fields, after performing all conditions precedent to this transaction.

This transaction totaled US\$ 1.95 billion, including price adjustments, but not including the long-term line of credit. Accordingly, the Company recognized R\$ 2,236 as other income and expenses in the first quarter of 2018.

On December 21, 2018, Petrobras and Total entered into the following agreements:

• Petrobras exercised its put option, as provided in the contract signed in January 2018, transferring its remaining 10% stake in Lapa field to Total, in block BM-S-9. This transaction is still subject to some conditions precedent; and

• Investment agreement for the creation of a joint venture, with the participation of 49% of Petrobras and 51% of Total Eren S.A. (an associate of Total), with the objective of developing onshore projects in solar and wind energy in Brazil. This agreement has legally binding obligations, where both companies are committed to prepare the required

documentation to establish the joint venture, aiming at developing a portfolio of projects of up to 500MW of installed capacity over a 5-year horizon.

The negotiations relating to the power plants deal are ongoing and the assets and liabilities thereof remained classified as held for sale at December 31, 2018.

#### Disposal of Suape and Citepe petrochemical plants

On December 28, 2016, the Company's Board of Directors approved the disposal of the interests in the wholly-owned subsidiaries Companhia Petroquímica de Pernambuco (PetroquímicaSuape) and Companhia Integrada Têxtil de Pernambuco (Citepe), both from the RT&M business segment, to Grupo Petrotex S.A. de C.V. and to Dak Americas Exterior, S.L., both subsidiaries of Alpek, S.A.B. de C.V., which is a company from Grupo Alfa S.A.B. de C.V. (a Mexican public company), for the amount of US\$ 385 million, to be disbursed at the transaction closing and subject to adjustments relating to working capital, net debt and recoverable taxes.

This transaction was approved at Petrobras' Shareholders' Meeting on March 27, 2017.

On February 7, 2018, the CADE approved this transaction provided the execution of an Agreement on Concentration of Control (Acordo de Controle de Concentração – ACC).

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On April 30, 2018, this transaction was completed with the payment of R\$ 1,523 (US\$ 435 million) after the fulfillment of all conditions precedent and adjustments established in the purchase and sale agreement, except for the final price adjustment, whose calculation is based on the audited financial statements of these companies.

Thereby, reversals of impairment in the amount of R\$ 313 were accounted for in 2018 (R\$ 277 and R\$ 36 in the second and third quarters of 2018, respectively).

#### Sale of Azulão field

On November 22, 2017, the Company entered into an agreement with Parnaíba Gás Natural S.A., a subsidiary of Eneva S.A, concerning the assignment of its entire participation in the Azulão Field (Concession BA-3), located in the state of Amazonas, in the amount of US\$ 54.5 million.

This transaction was concluded on April 30, 2018 upon fulfillment of the conditions precedent, adjustments set forth in the agreement and payment of US\$ 56.5 million to the Company, resulting in a R\$ 163 gain accounted for as other income and expenses.

#### Strategic alliance with Equinor ASA (formerly Statoil)

On December 18, 2017, the Company entered into agreements with the Norwegian company Equinor relating to the assets of the strategic partnership, in continuity with the Heads of Agreement (“HoA”) signed and disclosed on September 29, 2017. The main signed contracts are:

- (i) Strategic Alliance Agreement (“SAA”) - agreement describing all documents related to the strategic partnership, covering all negotiated initiatives;
- (ii) Sale and Purchase Agreement (“SPA”) - sale of 25% of Petrobras’ interest in the Roncador field to Equinor.
- (iii) Strategic Technical Alliance Agreement (“STAA”) - strategic agreement for technical cooperation aiming at maximizing the value of the asset and focusing on increasing the recoverable oil volume (recovery factor), including the extension of the useful life of the field; and
- (iv) Gas Term Sheet - Equinor may hire a certain processing capacity of natural gas at the Cabiúnas Terminal (TECAB) for the development of the BM-C-33 area, where the companies already are partners and Equinor is the operator.

The strategic alliance, among other goals, aims at applying the Equinor’s expertise in mature fields in the North Sea towards increasing the recovery factor of Roncador field. Accordingly, the parties signed the STAA for technical cooperation and the joint development of projects.

The SPA has a total amount of US\$ 2.9 billion, made up of US\$ 117.5 million paid at the signature date of the agreement, contingent payments relating to investments in projects to increase the recovery factor of the field, limited to US\$ 550 million, and the remaining amount will be paid at the transaction closing.

At December 31, 2017, a R\$ 1,314 loss was recognized on this transaction, as its sale price was lower than carrying amount.

On June 14, 2018, this transaction was completed upon receipt of US\$ 2 billion, including price adjustments at its closing amounting to US\$ 14 million, in addition to the US\$ 117.5 million received as an advance on the signing date. Additionally, Equinor will make payments, limited to US\$ 550 million, to the extent investments in projects for improvement of the recovery factor occur. The present value of such payments was recognized as account receivables in the amount of US\$ 386 million, net of the aforementioned advance.

Following the closing of this transaction, the Company recognized R\$ 801 as an additional loss within other income and expenses as a result of price adjustment under the SPA.

All the conditions precedent to the closing were fulfilled, including approval by the ANP and CADE, as well as the negotiation of contracts for the use of production facilities and of the purchase of associated gas by Petrobras. The final price adjustment of this transaction will occur in up to 180 business days after the closing.

#### Sale of distributors in Paraguay

On June 26, 2018 the Board of Directors approved the sale to Copetrol Group of its entire interest held through its wholly-owned subsidiary Petrobras International Braspetro B.V. (PIB BV) in Petrobras Paraguay Distribución Limited (PPDL UK), Petrobras Paraguay Operaciones y Logística SRL (PPOL) and Petrobras Paraguay Gas SRL (PPG).

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The proceeds estimated from this sale is US\$ 383.5 million (R\$ 1.45 billion), of which US\$ 49.3 million was deposited in an escrow account at the signing date, and the remaining amount will be disbursed to the Company when the transaction closes, including US\$ 55 million related to cash balance of these companies. The sale amount is still subject to adjustments due to changes in working capital until the conclusion of the transaction.

The corresponding assets and liabilities of this transaction are classified as held for sale as of December 31, 2018 as the conclusion of the transaction is still subject to approval procedures according to the Paraguay regulation.

#### Joint venture in Gulf of Mexico

In October 2018, the Company, through its wholly-owned subsidiary Petrobras America Inc. (PAI), entered into an agreement with Murphy Exploration & Production Company – USA (“Murphy”), a wholly-owned subsidiary of Murphy Oil Corporation, in order to establish a joint venture (MP Gulf of Mexico, LLC) consisting of their producing properties of oil and gas activities in the Gulf of Mexico.

On November 30, 2018, the operation was completed with the creation of a joint venture with 80% of Murphy and 20% of PAI, with the contribution of all oil and gas producing assets located in the Gulf of Mexico, of both companies. The transaction was concluded with Murphy's following the payment of US\$ 795 million to PAI, after price adjustments provided for in the contract, corresponding to the difference between the value of assets used as contribution by both parties at the transaction closing. The agreement also set forth contingent payments of up to US\$ 150 million to be made until 2025, and investments of up to US\$ 50 million to be carried out by Murphy, linked to PAI production development costs in the St. Malo field. These remaining payments were measured at their present value, amounting to US\$ 158 million, and were accounted for as receivables.

An impairment loss in the amount of R\$ 2,775 was accounted for in the statement of income, of which R\$ 1,291 relates to the last quarter of 2018 (see note 14).

#### Sale of Petrobras Oil & Gas B.V. (PO&GBV)

On October 31, 2018, the wholly owned subsidiary Petrobras International Braspetro BV (PIBBV) entered into an agreement to sale its 50% interest in PO&GBV to Petrovida Holding B.V, a company formed in partnership by Vitol Investment Partnership II Ltd, Africa Oil Corp and Delonex Energy Ltd.

PO&GBV is a joint venture in the Netherlands formed by PIBBV (50%) and BTG Pactual E&P B.V. (50%), consisting of assets located in Nigeria. It has 8% interest in the Agbami producing field, and 16% interest in Akpo producing field and Egina developing field (final stage). PO&GBV does not operate any of these fields.

The transaction will involve a total amount of up to US\$ 1,530 million, with a cash payment of US\$ 1,407 million, subject to adjustments until the closing of the transaction, and a deferred payment of up to US\$ 123 million (nominal



value), to be settled as soon as the Agbami field redetermination process is implemented.

This transaction is subject to customary conditions precedent, such as approvals by relevant Nigerian authorities. Therefore, the investment in PO&GBV is classified as held for sale as of December 31, 2018, and an impairment reversal in the amount of R\$ 181 was accounted for within equity-accounted investments.

#### Sale of onshore producing fields

On December 27, 2018, the Company's Board of Directors approved the sale of its total interest in 34 onshore producing fields, located in Potiguar basin, in the state of Rio Grande do Norte, to 3R Petroleum company, in the amount of US\$ 453.1 million.

Accordingly, the related assets and liabilities were reclassified as held for sale and reversals of impairments previously recognized on these assets were accounted for at December 31, 2018, as described in note 14.2.

#### Sale of interest in three offshore producing fields in Campos basin

On November 28, 2018, the Company's Board of Directors approved the sale of interest in Pargo, Carapeba and Vermelho fields (the Northeast group of fields), located in shallow waters on the coast of the state of Rio de Janeiro, to Perenco company. The transaction value amounts to US\$ 370 million, of which 20% (US\$ 74 million) paid at the contract signature, and the remaining balance will be paid at the transaction closing, subject to price adjustments.



At December 31, 2017, the amounts also comprise assets and liabilities pertaining to Liquigás, Suape and Citepe petrochemical plants, the concession areas named as Iara and Lapa, the entire interest in Azulão field and 25% interest in Roncador field.

### 10.3. Other changes in organizational structure

#### Incorporation of PDET

On December 11, 2018, the Extraordinary General Meeting of Petrobras approved the incorporation of PDET Offshore S.A. in Petrobras Parent Company, without share capital increase.

#### Sale and merger of Nova Fronteira Bioenergia

On December 15, 2016, the Company's wholly-owned subsidiary PBIO (biofuels business segment) entered into an agreement with the São Martinho group to merge PBIO's interests in Nova Fronteira Bioenergia S.A. (49%) into São Martinho.

On February 23, 2017, São Martinho granted to PBIO additional 24 million of its common shares, corresponding to 6.593% of its total capital. These shares were accounted for as available-for-sale securities.

On February 16, 2018, following the approval by its Extraordinary General Shareholder's Meeting, PBIO disposed of, through a public auction held in the Brazilian stock exchange (B3), these 24 million of shares, at the share price of R\$ 18.51 reais. The settlement of the transaction occurred on February 21, 2018, finalizing the complete disposal of PBIO's interests in São Martinho's capital.

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## 10.4. Cash flows from sales of interest with loss of control

In 2018 and 2017, the Company disposed of its interest in certain subsidiaries over which control was lost. The following table summarizes cash flows arising from losing control in subsidiaries:

	Cash received	Cash in subsidiary before losing control	Net Proceeds
2018			
Suape and Citepe petrochemical plants (note 10.1)	1.523	50	1.473
2017			
NTS	7.917	282	7.635
Petrobras Chile Distribución	1.556	328	1.228
Total	9.473	610	8.863

## Disposal of interest in Nova Transportadora do Sudeste (NTS)

On April 4, 2017, the sale of a 90% interest in Nova Transportadora do Sudeste – NTS, a group entity from the gas and power business segment, to Brookfield Infrastructure Partners (BIP) and its affiliates, through a Private Equity Investment Fund (FIP), was completed in the amount of US\$ 5.08 billion, and the Company recognized a gain in the amount of R\$ 7,040 accounted for as other income and expenses.

## Disposal of distribution assets in Chile

This transaction was concluded on January 4, 2017 and the net proceeds from this sale were US\$ 470 million was paid by Southern Cross Group at the transaction closing. Accordingly, the Company recognized a gain of R\$ 2 as other income and expenses. In addition, a R\$ 248 loss was reclassified from shareholders' equity to other income and expenses within the income statement, reflecting the reclassification of cumulative translation adjustments resulting from the depreciation of the Chilean Peso against the U.S Dollar from the time of the acquisition of this investment to its disposal.

For further information on sales of interest with loss of control in 2017, see note 10.1 of the previous year's financial statements.

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## 11. Investments

## 11.1. Direct investments (Parent Company)

	Main business segment	% Petrobras' ownership	% Petrobras' voting rights	Shareholders' equity (deficit)	Net income (loss) for the year	Country
Consolidated entities						
Subsidiaries						
Petrobras Netherlands B.V. - PNBV (i)	E&P	100.00	100.00	114,418	9,098	Netherlands
Petrobras Distribuidora S.A. - BR	Distribution	71.25	71.25	9,686	3,193	Brazil
Petrobras International Braspetro - PIB BV (i)	Several segments (ii)	100.00	100.00	27,888	(7,389)	Netherlands
Petrobras Transporte S.A. - Transpetro	RTM	100.00	100.00	3,432	(809)	Brazil
Petrobras Logística de Exploração e Produção S.A. - PB-LOG	E&P	100.00	100.00	3,658	879	Brazil
Transportadora Associada de Gás S.A. - TAG	Gas & Power	100.00	100.00	12,915	2,479	Brazil
Petrobras Gás S.A. - Gaspetro	Gas & Power	51.00	51.00	2,012	271	Brazil
Petrobras Biocombustível S.A.	Biofuels	100.00	100.00	1,666	180	Brazil
Petrobras Logística de Gás - Logigás	Gas & Power	100.00	100.00	722	338	Brazil
Liquigás Distribuidora S.A.	RTM	100.00	100.00	997	147	Brazil
Araucária Nitrogenados S.A.	Gas & Power	100.00	100.00	90	(328)	Brazil
Termomacaé Ltda.	Gas & Power	100.00	100.00	264	74	Brazil
Braspetro Oil Services Company - Brasoil (i)	Corporate	100.00	100.00	419	7	Cayman Islands
Breitener Energética S.A.	Gas & Power	93.66	93.66	779	123	Brazil
Termobahia S.A.	Gas & Power	98.85	98.85	579	14	Brazil
Baixada Santista Energia S.A.	Gas & Power	100.00	100.00	299	11	Brazil
Petrobras Comercializadora de Energia Ltda. - PBEN	Gas & Power	100.00	100.00	91	9	Brazil
Fundo de Investimento Imobiliário RB Logística - FII	E&P	99.20	99.20	52	(94)	Brazil
Petrobras Negócios Eletrônicos S.A. - E-Petro	Corporate	100.00	100.00	39	6	Brazil

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Termomacaé Comercializadora						
de Energia Ltda	Gas & Power	100.00	100.00	11	1	Brazil
5283 Participações Ltda.	Corporate	100.00	100.00	3	–	Brazil
Joint operations						
Fábrica Carioca de						
Catalizadores S.A. - FCC	RTM	50.00	50.00	250	61	Brazil
Ibitermo S.A.	Gas & Power	50.00	50.00	160	38	Brazil
Joint Ventures						
Logum Logística S.A.	RTM	30.00	30.00	1,045	(112)	Brazil
Cia Energética Manauara S.A.	Gas & Power	40.00	40.00	207	112	Brazil
Petrocoque S.A. Indústria e						
Comércio	RTM	50.00	50.00	243	102	Brazil
Refinaria de Petróleo						
Riograndense S.A.	RTM	33.20	33.20	(81)	6	Brazil
Brasympe Energia S.A.	Gas & Power	20.00	20.00	87	4	Brazil
Brentech Energia S.A.	Gas & Power	30.00	30.00	97	10	Brazil
Metanol do Nordeste S.A. -						
Metanor	RTM	34.54	34.54	30	2	Brazil
Eólica Mangue Seco 4 -						
Geradora e Comercializadora de						
Energia Elétrica S.A.	Gas & Power	49.00	49.00	44	4	Brazil
Eólica Mangue Seco 3 -						
Geradora e Comercializadora de						
Energia Elétrica S.A.	Gas & Power	49.00	49.00	42	3	Brazil
Eólica Mangue Seco 1 -						
Geradora e Comercializadora de						
Energia Elétrica S.A.	Gas & Power	49.00	49.00	38	3	Brazil
Eólica Mangue Seco 2 -						
Geradora e Comercializadora de						
Energia Elétrica S.A.	Gas & Power	51.00	51.00	37	2	Brazil
Companhia de Coque Calcinado						
de Petróleo S.A. - Coquepar	RTM	45.00	45.00	(3)	17	Brazil
Participações em Complexos						
Bioenergéticos S.A. - PCBIOS	Biofuels	50.00	50.00	1	–	Brazil
Associates						
Sete Brasil Participações S.A.						
(iii)	E&P	5.00	5.00	(23,006)	(147)	Brazil
Fundo de Investimento em						
Participações de Sondas - FIP						
Sondas						
	E&P	4.59	4.59	(1)	–	Brazil
Braskem S.A. (iv)	RTM	36.20	47.03	7,173	2,945	Brazil
UEG Araucária Ltda.	Gas & Power	20.00	20.00	363	(83)	Brazil
Deten Química S.A.	RTM	27.88	27.88	438	83	Brazil
Energética SUAPE II	Gas & Power	20.00	20.00	359	128	Brazil
Termoelétrica Potiguar S.A. -						
TEP	Gas & Power	20.00	20.00	189	81	Brazil
Nitroclor Ltda.	RTM	38.80	38.80	1	–	Brazil
Bioenergética Britarumã S.A.	Gas & Power	30.00	30.00	–	–	Brazil

Nova Transportadora do Sudeste - NTS	Gas & Power	10.00	10.00	3,208	1,934	Brazil
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- (i) Companies abroad with financial statements prepared in foreign currency.
- (ii) It covers activities abroad in E&P, RTM, Gas & Power and Distribution segments.
- (iii) Despite the negative amount of net assets, allowance for losses was not recognized as the Company's obligations with Sete Brasil are limited to the investments made in this associate.
- (iv) Equity and net income at September 30, 2018, most recent information disclosed.

The main investees of PNBV are: Tupi BV (65%), Guar BV (45%), Agri Development BV (90%), Libra (40%), Papa Terra BV (62.5%), Roncador BV (75%), Iara BV (42.5%) and Lapa BV (10%). They are dedicated to construction and lease of equipment and platforms for Brazilian E&P consortia and are incorporated under the law of the Netherlands. PNBV's interests in these entities comprise the voting rights.

The main investees of PIB BV are the wholly-owned subsidiaries Petrobras Global Trading B.V. – PGT, Petrobras Global Finance B.V. —PGF; Petrobras America Inc. – PAI. PGT is incorporated under the law of The Netherlands and is dedicated to the trade of oil, oil products, biofuels and LNG (liquefied natural gas), as well as to the funding of its activities in light of Petrobras Group. PGF also is incorporated under the law of The Netherlands and is the finance subsidiary of Petrobras Group, raising funds through bonds issued in the international market. PAI is incorporated under the law of United States and is dedicated to E&P (MP Gulf of Mexico, LLC) and refining activities (Pasadena).

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## 11.2. Changes in investments (Parent Company)

	Balance at 12.31.2017	Investments	Restructuring, capital decrease and others	Results in equity-accounted investments (*)	Cumulative translation adjustments (CTA)	Other comprehensive income	Dividends	Balance at 12.31.2018
<b>Subsidiaries</b>								
PNBV	87,093	–	(176)	9,058	15,784	–	–	111,759
PIB BV (**)	25,290	3,107	(266)	(7,482)	5,203	12	–	25,864
TAG	12,347	–	–	1,990	–	493	(2,020)	12,810
<b>Petrobras</b>								
Distribuidora	5,986	–	(126)	2,393	–	(358)	(1,179)	6,716
Transpetro	4,102	–	(30)	(825)	176	(49)	(83)	3,291
PB-LOG	2,937	–	–	756	–	–	(1,155)	2,538
PBIO	1,490	–	–	180	–	(4)	–	1,666
Gaspetro	994	–	5	137	–	–	(111)	1,025
Breitener	678	–	–	99	–	–	(49)	728
Logigás	621	–	–	339	–	(10)	(227)	723
<b>Araucária</b>								
Nitrogenados	175	264	–	(328)	–	(20)	–	91
Termomacaé								
Ltda	86	204	–	(25)	–	–	–	265
Liquigás	–	–	1,071	105	–	1	(76)	1,101
<b>Other</b>								
subsidiaries	1,041	–	220	(223)	(24)	(4)	(350)	660
Joint operations	223	–	–	50	–	–	(66)	207
Joint ventures	264	23	(3)	125	–	(3)	(77)	329
<b>Associates</b>								
<b>Nova</b>								
Transportadora								
do Sudeste - NTS	1,094	–	(69)	194	–	–	(198)	1,021
Other associates	4,916	–	–	1,073	342	(501)	(816)	5,014
	149,337	3,598	626	7,616	21,481	(443)	(6,407)	175,808
<b>Other</b>								
investments	19	–	–	–	–	–	–	19
	149,356	3,598	626	7,616	21,481	(443)	(6,407)	175,827
<b>Provision for</b>								
<b>losses in</b>								
<b>subsidiaries</b>								
				253				
				(19)				



Results in  
investees  
transferred to  
assets held for  
sale

Results in  
equity-accounted  
investments and  
other  
comprehensive  
income

7,850

(\* ) It Includes unrealized profits from transactions between companies.

The initial application of IFRS 9 changed the investment in subsidiaries PNBV (R\$ 176), PIB BV (R\$ 266), Petrobras Distribuidora (R\$ 126) and Transpetro (R\$ 30), due to changes on contractual cash flows of finance liabilities and to impairment of finance assets.

### 11.3. Changes in investments in joint ventures and associates (Consolidated)

	Balance at 12.31.2017	Investments	Restructuring, Transfers to held for sale	capital decrease and others	Results in equity-accounted investments	Cumulative translation adjustments (CTA)	Other comprehensive income	Dividends	Balance 12.31
Joint Ventures									
Petrobras Oil & Gas B.V.									
- PO&G	4,664	-	(4,595)	-	258	514	-	(841)	-
MP Gulf of Mexico, LLC (* )	-	30	-	2,300	35	44	-	-	2,409
State-controlled natural gas distributors	1,140	1	-	-	269	-	-	(218)	1,192
Compañía Mega S.A. - MEGA	163	-	-	-	12	166	-	(37)	304
Petrochemical joint ventures	95	-	-	(3)	60	-	-	(21)	131
Other joint ventures	346	98	-	66	45	1	(3)	(58)	495
Associates									
Nova Transportadora do Sudeste - NTS	1,094	-	-	(69)	194	-	-	(198)	1,021
	4,833	-	-	-	1,034	342	(501)	(796)	4,912

Petrochemical  
associates

Other

associates	158	32		(47)	12	14	-	(4)	165
Other investees	61	-	-	(2)	-	2	-	-	61
Total	12,554	161	(4,595)	2,245	1,919	1,083	(504)	(2,173)	10,69

(\* ) As set out in note 10.1.

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## 11.4. Investments in non- consolidated listed companies

Company	Thousand-share lot		Type	Quoted stock exchange prices (R\$ per share)		Market value	
	12.31.2018	12.31.2017		12.31.2018	12.31.2017	12.31.2018	12.31.2017
Associate							
Braskem S.A.	212,427	212,427	ON	45.51	43.50	9,668	9,241
Braskem S.A.	75,762	75,762	PNA	47.38	42.87	3,590	3,248
						13,258	12,489

The market value of these shares does not necessarily reflect the realizable value upon sale of a large block of shares.

On June 15, 2018, the Company was informed by Odebrecht S.A that it had initiated negotiations with LyondellBasell for a potential transaction involving the transfer of Odebrecht's entire interest in Braskem. This transaction is subject, among other conditions, to due diligence, negotiation of definitive agreements and all necessary approvals. There is no binding obligation between the parties to assure the conclusion of the transaction.

Depending on the outcome of this transaction, the Company will assess the terms and conditions of LyondellBasell's offer in the context of exercising its tag-along right as set forth in Braskem S.A. Shareholder's Agreement.

According to an amendment to Braskem S.A. Shareholder's Agreement on September 25, 2018, preferred shares owned by the Company became also subject to tag-along rights as already set forth for the ordinary shares.

Information on the main estimates used in the cash flow projections to determine the value in use of Braskem is set out in Note 14.

## 11.5. Non-controlling interest

The total amount of non-controlling interest at December 31, 2018 is R\$ 6,318 (R\$ 5,624 in 2017), primarily comprising R\$ 2,785 of Petrobras Distribuidora (R\$ 2,620 in 2017), R\$ 987 of Gaspetro (R\$ 957 in 2017), R\$ 252 of TBG (R\$ 251 in 2017), and R\$ 798 refer to Consolidated Structured Entities (R\$ 940 in 2017).

A seguir estão apresentadas suas informações contábeis sumarizadas:

	Gaspetro	Consolidated Structured entities	TBG	Petrobras Distribuidora

	2018	2017	2018	2017	2018	2017	2018	2017
Current assets	308	263	3,200	2,407	676	463	12,803	10,703
Long-term receivables	225	246	3,029	3,658	2	2	6,236	6,754
Investments	1,395	1,343	–	–	–	–	34	35
Property, plant and equipment	2	3	–	–	1,797	1,964	5,797	5,816
Other non-current assets	296	295	–	–	9	11	475	453
	2,226	2,150	6,229	6,065	2,484	2,440	25,345	23,761
Current liabilities	100	78	292	749	672	821	4,561	4,413
Non-current liabilities	114	119	5,139	4,374	1,296	1,107	11,098	10,523
Shareholders' equity	2,012	1,953	798	942	515	512	9,686	8,825
	2,226	2,150	6,229	6,065	2,483	2,440	25,345	23,761
Sales revenues	418	356	–	–	1,553	1,332	97,770	84,567
Net Income	271	238	(520)	338	586	542	3,193	1,151
Increase (decrease) in cash and cash equivalents	(25)	48	469	181	27	228	2,573	(172)

Gaspetro, a Petrobras' subsidiary, holds interests in several state distributors of natural gas in Brazil. The Company holds 51% of interests in this indirect subsidiary.

Structured entities include Charter Development LLC – CDC, dedicated to construct, acquirer and charter FPSOs, and Companhia de Desenvolvimento e Modernização de Plantas Industriais – CDMPI, which is dedicated to coking and hydrotreating of coke naptha from Henrique Lage refinery (REVAP).

TBG is an indirect subsidiary which operates in natural gas transmission activities mainly through Bolivia-Brazil Gas Pipeline. The Company holds 51% of interests in this indirect subsidiary.

Petrobras Distribuidora (BR) is a company that operates in distribution, transportation, trade and industrialization of oil products and other fuels. It is controlled by Petrobras parent company, which holds a 71.25% interest.

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## 11.6. Summarized information on joint ventures and associates

The Company invests in joint ventures and associates in Brazil and abroad, whose activities are related to petrochemical companies, gas distributors, biofuels, thermoelectric power plants, refineries and other activities. Condensed financial information is set out below:

	2018			2017				Associates In Brazil	
	Joint ventures		Other companies abroad	Joint ventures		Other companies			Associates
	In Brazil	MP Gulf of Mexico, LLC		In Brazil	Brazil	PO&G abroad			
Current assets	4,501	587	613	23,269	3,104	2,068	237	18,952	
Non-current assets	2,014	–	38	5,337	1,659	236	4	4,810	
Property, plant and equipment, net	3,356	14,114	175	41,500	2,968	12,261	25	30,904	
Other non-current assets	2,458	–	–	3,343	2,397	1	–	3,240	
	12,329	14,701	826	73,449	10,128	14,566	266	57,906	
Current liabilities	4,506	333	278	23,451	3,324	914	96	19,758	
Non-current liabilities	2,609	2,322	89	61,842	2,114	7,268	2	53,498	
Shareholders' equity	5,247	9,637	305	(11,289)	4,690	6,384	168	(14,522)	
Non-controlling interest	(33)	2,409	154	(555)	–	–	–	(828)	
	12,329	14,701	826	73,449	10,128	14,566	266	57,906	
Sales revenues	14,527	337	496	64,353	10,244	1,780	463	50,421	
Net Income (loss) for the year	335	177	62	4,966	510	869	83	4,274	
	20 to				20 to				
Ownership interest - %	83%	20%	34 to 50%	5 to 49%	83%	50%	34 to 50%	5 to 49%	

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Notes to the financial statements

(Expressed in millions of reais, unless otherwise indicated)

## 12. Property, plant and equipment

## 12.1. By class of assets

	Consolidated				Parent Company	
	Land, buildings and improvement	Equipment and other assets (*)	Assets under construction (**)	Exploration and development costs (oil and gas producing properties) (***)	Total	Total
Balance at January 1, 2017	22,756	256,571	125,702	166,847	571,876	424,771
Additions	6	3,720	35,232	98	39,056	26,930
Additions to / review of estimates of decommissioning costs	–	–	–	14,617	14,617	14,366
Capitalized borrowing costs	–	–	6,299	–	6,299	4,593
Write-offs	(47)	(19)	(1,745)	(113)	(1,924)	(1,708)
Transfers (****)	1,007	10,406	(24,259)	9,766	(3,080)	546
Depreciation, amortization and depletion	(1,393)	(23,383)	–	(17,115)	(41,891)	(31,793)
Impairment recognition	(470)	(3,041)	(1,842)	(2,895)	(8,248)	(6,516)
Impairment reversal	169	2,698	536	2,247	5,650	4,347
Cumulative translation adjustment	20	1,156	733	93	2,002	–
Balance at December 31, 2017	22,048	248,108	140,656	173,545	584,357	435,536
Cost	32,795	425,419	140,656	286,112	884,982	664,479
Accumulated depreciation, amortization and depletion	(10,747)	(177,311)	–	(112,567)	(300,625)	(228,943)
Balance at December 31, 2017	22,048	248,108	140,656	173,545	584,357	435,536
Additions	18	6,530	31,490	22	38,060	64,158
Additions to / review of estimates of decommissioning costs	–	–	–	18,187	18,187	18,193
	–	–	6,572	–	6,572	5,338

Capitalized borrowing costs						
Write-offs	(220)	(58)	(1,219)	(97)	(1,594)	(1,529)
Transfers (****)	(481)	52,550	(69,945)	14,029	(3,847)	(1,761)
Depreciation, amortization and depletion	(1,299)	(23,807)	–	(18,136)	(43,242)	(33,009)
Impairment recognition	–	(2,821)	(945)	(6,484)	(10,250)	(5,459)
Impairment reversal	1	1,175	86	862	2,124	1,908
Cumulative translation adjustment	122	12,915	5,390	1,035	19,462	–
Balance at December 31, 2018	20,189	294,592	112,085	182,963	609,829	483,375
Cost	30,337	498,728	112,085	298,905	940,055	733,750
Accumulated depreciation, amortization and depletion	(10,148)	(204,136)	–	(115,942)	(330,226)	(250,375)
Balance at December 31, 2018	20,189	294,592	112,085	182,963	609,829	483,375
Weighted average of useful life in years	40					
	(25 to 50)	20				
	(except land)	(3 to 31)		Units of production method		

(\*) It is composed of platforms, refineries, thermoelectric power plants, natural gas processing plants, pipelines, rights of use and other operating, storage and production plants, also including exploration and production assets depreciated based on the units of production method.

(\*\*) See note 30 for assets under construction by business area.

(\*\*\*) It is composed of exploration and production assets related to wells, abandonment and dismantling of areas, signature bonuses associated to proved reserves and other costs directly associated to the exploration and production of oil and gas.

(\*\*\*\*) It includes transfers to/from assets held for sale.

For the year ended December 31, 2018, additions to property, plant and equipment primarily relate to the development of oil and gas production in the pre-salt area, where four main new production systems started operating: FPSOs P-74 and P-75, located in the Búzios field; FPSO P-69, located in the Lula field; and FPSO Campos dos Goytacazes, located in the Tartaruga Verde field. In addition, the Company completed the first stage of production tests in the Mero field, the first field in the production sharing regime to start operating in Brazil, whose declaration of commerciality took place in 2017 (note 13.3).

In 2017, important platforms started operating in 2017, such as the FPSOs Libra Pioneer, in Mero field, and P-66, in South of Lula field, as well as the interconnection of new wells to FPSOs Cidade de Saquarema, Cidade de Maricá and Cidade de Itaguaí, in pre-salt fields of Santos basin.

At December 31, 2018, property, plant and equipment include assets under finance leases of R\$ 372 in the parent company and R\$ 3,957 in the consolidated (R\$ 390 and R\$ R\$ 5,969, respectively, at December 31, 2017).



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## 12.2. Estimated useful life – Consolidated

Estimated useful life	Buildings and improvements, equipment and other assets		
	Cost	Accumulated depreciation	Balance at 12.31.2018
5 years or less	14,918	(11,292)	3,626
6 - 10 years	38,897	(24,301)	14,596
11 - 15 years	12,782	(5,872)	6,910
16 - 20 years	132,779	(52,207)	80,572
21 - 25 years	83,161	(18,340)	64,821
25 - 30 years	54,022	(15,503)	38,519
30 years or more	90,371	(26,517)	63,854
Units of production method	100,972	(60,252)	40,720
	527,902	(214,284)	313,618
Buildings and improvements	29,174	(10,148)	19,027
Equipment and other assets	498,728	(204,136)	294,591

## 12.3. Unitization Agreements

A unitization agreement occurs when a reservoir extends across two or more license or contract areas. In this case, parties pool their individual interests in return for an interest in the overall unit and determine their new equity interest in the single producing unit.

Events that occurred prior to the individualization of production may lead to the need for compensation between the parties. These events include the monetization of production and the realization of expenses of different natures. An amount to be reimbursed by the Company will be recognized as a liability when it derives from a contractual obligation or, when the outflow of funds is deemed probable and the amount can be reliably estimated. An amount to be reimbursed to Company will be recognized as an asset only when there is a contractual right to reimbursement or when it is practically certain.

In 2018, Petrobras entered into Production Individualization Agreements (Acordos de Individualização da Produção - AIPs) with Pré-Sal Petróleo S.A. (PPSA) and its partners (Shell, Petrogal and Total) in certain E&P consortiums, submitting these agreements to ANP's approval. These agreements provide for the equalization of expenses and production volumes relating to Sapinhoá, Lula, Tartaruga Verde, Sururu and Berbigão fields.

Therefore, in the last quarter of 2018, a R\$ 456 provision was accounted for and the related expense within other income and expenses.

The table below presents the effects of the agreements:

	12.31.2018
Equalization payables (*)	1.064
Indexation charges	8
Write-offs	(235)
Payments made	(381)
Remaining payables	456

(\*) It was accounted for within other income and expenses as set out note 26.

On December 21, 2018, the Company, Shell and Repsol reimbursed PPSA for the unitization of Sapinhoá field, The Company is the operator of this field and the amount disbursed with respect to its interest was R\$ 381, according to the Agreement of Equalization of Expenses and Volumes.

#### 12.4. Concession for exploration of oil and natural gas - Assignment Agreement (“Cessão Onerosa”)

Petrobras and the Brazilian Federal Government entered into the Assignment Agreement in 2010, which grants the Company the right to carry out prospecting and drilling activities for oil, natural gas and other liquid hydrocarbons located in the pre-salt area, subject to a maximum production of five billion barrels of oil equivalent. The agreement has a term of forty years and is renewable for a further five years subject to certain conditions. As of December 31, 2018, the Company’s property, plant and equipment include the amount of R\$ 74,808 related to the Assignment Agreement.

Petrobras has already declared commerciality in fields of all six blocks under this agreement: Franco (Búzios), Florim (Itapu), Nordeste de Tupi (Sépia), Entorno de Iara (Norte de Berbigão, Sul de Berbigão, Norte de Sururu, Sul de Sururu, Atapu), Sul de Guará (Sul de Sapinhoá) and Sul de Tupi (Sul de Lula).

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The agreement establishes that its review procedures will commence immediately after the declaration of commerciality for each area and must be based on reports by independent experts engaged by Petrobras and the ANP.

If the review of the Assignment Agreement determines that the value of acquired rights is greater than the amount initially paid, the Company may be required to pay the difference to the Brazilian Federal Government, or may proportionally reduce the total volume of barrels acquired. If the review determines that the value of the acquired rights is lower than initially paid by the Company, the Brazilian Federal Government will reimburse the Company for the difference by delivering cash or bonds or equivalent means of payment, subject to budgetary regulations.

The formal review procedures for each block are based on costs incurred over the exploration phase, and estimated costs and production for the development period. The review of the Assignment Agreement may result in renegotiation of: (i) the amount of the agreement; (ii) the total volume (in barrels of oil) to be produced; (iii) the term of the agreement; and (iv) the minimum percentages of local content.

The information gathered made possible the identification of volumes exceeding five million barrels of oil equivalent.

In November 2017, the Company set up an internal commission responsible for the negotiation with the Brazilian Federal Government, composed of representatives of the Chief Exploration and Production Officer and the Chief Financial Officer.

In January 2018, the Brazilian Federal Government established, through the Interministerial Ordinance No. 15/2018, the Interministerial Commission responsible for negotiating and concluding the terms of this review.

The negotiations are ongoing and have taken into account appraisals by independent experts engaged by both parties and their respective reports. On September 14, 2018, the Brazilian Energy Policy Council (Conselho Nacional de Política Energética – CNPE) enacted Resolution 12/2018 recommending the Brazilian Ministry of Mines and Energy (Ministério de Minas e Energia - MME) to send a draft of an amendment to the agreement to the Brazilian Federal Auditor's Office (Tribunal de Contas da União – TCU) in order to make an assessment of its terms. Accordingly, this draft was sent to TCU and to the Company and the negotiations toward the end of the review will progress after TCU assessment.

The draft under review by the TCU consolidates one of several scenarios that have been discussed between the commissions. This scenario, after assessment of the TCU and approval by the parties, may result in a credit in favor of the Company. Due to the features of the review, any credit in favor of the Company will be only confirmed following an amendment to the agreement that results in a contractual right and would support the recognition of an account receivable.

The identification of the volume exceeding five million barrels of oil equivalent provides an opportunity for both parties to reach an agreement in case of compensation to the Company arising from the review. The Brazilian Energy

Policy Council also recommended that the Brazilian Ministry of Mines and Energy, by means of Resolution 12/2018, send drafts of the public auction and the agreement for the bidding rounds of the exceeding volume under production-sharing regime. Aiming to support an eventual negotiation where this compensation would be paid through the right over exceeding volume, the Company completed its assessment based on reports issued by the independent experts it has engaged.

This review process of the Assignment Agreement has been monitored by the Minority Shareholders Committee, which is composed of two board members elected by the minority shareholders and by a third independent member with knowledge in technical-financial analysis of investment projects. This Committee provides support to the board's decisions through opinions about related matters.

#### 12.5. Oil and Gas fields operated by Petrobras returned to ANP

In 2018, the following oil and gas fields were returned to ANP: Japiim, Camarão Norte, part of Espadarte and part of Sibite. These fields were returned to ANP mainly due to their economic unfeasibility and, as a consequence, the Company wrote off the amount of R\$ 151 thousand (R\$ 240 thousand relating to Mosquito, Siri and Saíra fields in 2017) in addition to impairments recognized in prior years.

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## 13. Intangible assets

## 13.1. By class of assets

	Consolidated			Parent Company		
	Rights and	Software		Goodwill	Total	
	Concessions	Acquired	in-house	Total	Total	
Balance at January 1, 2017	8,725	222	998	718	10,663	8,764
Addition	3,035	51	194	–	3,280	3,145
Capitalized borrowing costs	–	–	14	–	14	14
Write-offs	(256)	–	(8)	–	(264)	(34)
Transfers	(5,376)	5	–	–	(5,371)	(5,257)
Amortization	(64)	(91)	(323)	–	(478)	(366)
Impairment recognition	(108)	(1)	–	–	(109)	(2)
Cumulative translation adjustment 3	–	–	–	2	5	–
Balance at December 31, 2017	5,959	186	875	720	7,740	6,264
Cost	6,637	1,638	4,055	720	13,050	10,266
Accumulated amortization	(678)	(1,452)	(3,180)	–	(5,310)	(4,002)
Balance at December 31, 2017	5,959	186	875	720	7,740	6,264
Addition	3,321	129	183	–	3,633	3,517
Capitalized borrowing costs	–	–	12	–	12	12
Write-offs	(56)	–	–	–	(56)	(51)
Transfers	(162)	24	–	42	(96)	(158)
Amortization	(54)	(81)	(269)	–	(404)	(316)
Cumulative translation adjustment 16	–	1	–	24	41	–
Balance at December 31, 2018	9,024	259	801	786	10,870	9,268
Cost	9,876	1,888	4,283	786	16,833	13,568
Accumulated amortization	(852)	(1,629)	(3,482)	–	(5,963)	(4,300)
Balance at December 31, 2018	9,024	259	801	786	10,870	9,268
Estimated useful life in years	(*)	5	5	Indefinite		

(\*) Mainly composed of assets with indefinite useful lives, which are reviewed annually to determine whether events and circumstances continue to support an indefinite useful life assessment.

On March 29, 2018, the Company acquired seven offshore blocks in the fifteenth round of bids under the concession regime. The Company will be the operator in two blocks located in Campos basin, which were acquired in partnership with Exxon and Equinor. Another two blocks within Campos basin were acquired in partnership with Exxon and Qatar Petroleum and will be operated by ExxonMobil. The other three blocks are located in Potiguar basin, of which two were acquired in partnership with Shell and will be operated by the Company, and one was totally acquired by Company. The total amount of the signature bonus paid by the Company in August 2018 was R\$ 2,210.

In 2018, the Company paid R\$ 1,075 as signature bonus related to the production sharing contract, as set out in note 13.3.

At December 31, 2018, no impairment was identified on goodwill.

### 13.2. Exploration rights returned to the Brazilian Agency of Petroleum, Natural Gas and Biofuels - Agência Nacional de Petróleo, Gás Natural e Biocombustíveis (ANP)

Exploration areas returned to the ANP in 2018, totaling R\$ 25 (R\$ 10 in 2017) are set out below:

Area	Exploratory phase	
		Exclusive Partnership
Sergipe-Alagoas Basin	5	–
Espírito Santo Basin	2	–
Barreirinhas Basin	1	–

### 13.3. Exploration rights - production sharing contract

Following the first pre-salt public auction held in October, 2013, the Libra consortium, composed of Petrobras, Shell, Total, CNPC, CNOOC and the Pré-Sal Petróleo S.A. (PPSA) as the manager of the agreement, entered into a production sharing contract with the Federal Government on December 2, 2013. The signature bonus (acquisition cost) of R\$ 15 billion was paid by the consortium. The Company paid R\$ 6 billion relating to its share of the acquisition cost paid by the consortium, initially recognized in its intangible assets as Rights and Concessions.

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On November 30, 2017, ANP was informed about the declaration of commerciality of the Northwest area of Libra, confirming the potential of the area and its economic viability. In total, twelve wells have been drilled in Libra block, of which nine in the Northwest area. Following the declaration of commerciality, the Northwest area of Libra is now named Mero field (Campo de Mero). The results confirmed oil reservoirs at thickness of up to 410 meters with high porosity and permeability. The production tests confirmed the high productivity and oil quality of these reservoirs. Following this declaration of commerciality, R\$ 5,240 was transferred to property, plant and equipment with respect to a portion of the signature bonus relating to the Northwest area of Libra

The Ministry of Mines and Energy granted to the consortium an extension of the exploration phase by 27 months to the Central and Southeast areas of the block, where new assessments will be performed to evaluate the economic viability of these areas. The portion of the signature bonus pertaining to these areas amounts to R\$ 760 at December 31, 2018.

On October 27, 2017, the Company acquired three offshore blocks in the second and third rounds of bids under the production sharing regime, in partnership with Shell, British Petroleum (BP), Repsol and CNODC Brasil Petróleo e Gás. The total amount of signature bonus paid by the Company was R\$ 1,140. The contracts were signed on January 31, 2018.

On June 7, 2018, the Company acquired three offshore blocks (Uirapuru, Dois Irmãos and Três Marias) in partnership with other companies through the 4<sup>th</sup> ANP Bidding Round under the production-sharing regime. The Company will be the operator of all these blocks and the total amount of the signature bonus paid by the Company in September 2018 was R\$ 1,005.

On September 28, 2018, the Company acquired the Sudoeste de Tartaruga Verde block through the 5th ANP Bidding Round under the production-sharing regime. The Company offered the minimum profit oil set forth in this bidding and a bonus of R\$ 70 was paid in November 2018.

#### 13.4. Service concession agreement - Distribution of piped natural gas

As of December 31, 2018, intangible assets include service concession agreements related to piped natural gas distribution in Brazil, in the amount of R\$ 564 (R\$ 565 in 2017), maturing between 2029 and 2043, which may be renewed. According to the distribution agreements, service is provided to customers in the industrial, residential, commercial, automotive, air conditioning and transport sectors, among others.

The consideration receivable is a factor of a combination of operating costs and expenses, and return on capital invested. The rates charged for gas distribution are subject to periodic reviews by the state regulatory agency.

The agreements establish an indemnity clause for investments in assets which are subject to return at the end of the service agreement, to be determined based on evaluations and appraisals.

On February 2, 2016, the state of Espírito Santo enacted Law No. 10,493/2016 under which the service concession agreements related to piped natural gas distribution are considered ineffective pursuant to Brazilian Federal Law 8,987/1995. The law states that a bidding process is required for this concession, or the establishment of a state-run company to provide this service, which would receive compensation pursuant to this law. This was appealed by the Company.

Accordingly, the Company entered into an agreement with the State of Espírito Santo, through a Memorandum of Understanding signed on August 12, 2016, aiming to evaluate the establishment of a state-run company of that state, to provide the public service of distributing piped natural gas. The evaluation is ongoing as of December 31, 2018.

This concession is accounted for as intangible assets totaling R\$ 312 as of December 31, 2018 (R\$ 270 as of December 31, 2017) and the Company has not recognized any provision on this matter based on indemnity established by law.



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#### 14. Impairment

The Company annually tests its assets for impairment on December 31 or when there is an indication that their carrying amount may not be recoverable. In 2018, impairment losses and reversals were primarily recognized in the last quarter reflecting assets management and updates of mid and long-term assumptions used in the recent Company's Business and Management Plan (BMP 2019-2023) concluded and approved in December 2018.

A higher estimate in decommissioning costs of E&P fields contributed significantly to the recognition of impairment losses, notably in Sergipe-Alagoas basin (Camorim, Piranema and Guaricema fields) and Campos basin (Linguado and Bicudo). However, these losses were partially offset by the effects of certain projects review, with consequent lengthening in the expected production curve in fields located in the Santos and Espirito Santo basins, which generated reversals of impairments previously recognized.

The deterioration in the scenario of future freight prices for the Transpetro's fleet of vessels, the need to cease the operation of a single buoy mooring (Monobóia 2 - PDET), the continuous plan to withdrawal from fertilizer business and the decision to postpone for an extended period the GASFOR II project, resulting in its removal from the Natural Gas CGU in the fourth quarter of 2018, also led the company to recognize impairment losses.

The Company accounted for impairment losses for certain assets in the scope of the partnership and divestment program, mainly with respect to oil and gas production fields in Gulf of Mexico.

The table below shows the impairment losses, net of reversals, recognized within the statement of income in 2018 and 2017:

Assets or CGUs, by nature (*)	Consolidated			Business segment	Comments
	Carrying amount	Recoverable amount (**)	Impairment (***)		
	2018				
Property, plant and equipment and intangible assets					
Producing properties relating to oil and gas activities in Brazil (several CGUs)	27,199	38,450	1,994	E&P - Brazil - RTM -	item (a1)
Transpetro's fleet of vessels	6,667	5,037	1,630	Brazil -	item (b1)
Oil and gas production and drilling equipment in Brazil	772	23	749	E&P - Brazil - RTM -	item (c1)
UFN III	1,210	774	436	Brazil -	item (d)
Producing properties relating to oil and gas activities Abroad (several CGUs)	8,751	6,021	2,775	E&P - Abroad	item (e1)

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GASFOR II	225	–	225	Gas & Power - Brazil	item (f1)
Comperj	180	–	180	RTM - Brazil	item (g1)
Second refining unit in RNEST	4,315	4,232	83	RTM - Brazil	item (h1)
Others	2,579	2,929	54	Several segments	
			8,126		
Assets classified as held for sale					
Producing properties relating to oil and gas activities - in Riacho da Forquilha	375	1,749	(128)	E&P - Brazil	item 14.2
Others	94	417	(309)	Several segments	
<b>Total</b>			<b>7,689</b>		
	<b>2017</b>				
Property, plant and equipment and intangible assets					
Producing properties relating to oil and gas activities in Brazil (several CGUs)	39,119	53,160	(2,824)	E&P - Brazil	item (a2)
Transpetro's fleet of vessels	5,554	5,565	(11)	RTM - Brazil	item (b2)
Second refining unit in RNEST	5,677	4,170	1,507	RTM - Brazil	item (h2)
Fertilizer Plants	1,337	–	1,337	Gas & Power - Brazil	item (j)
Oil and gas production and drilling equipment in Brazil	1,190	12	1,178	E&P - Brazil	item (c2)
Producing properties relating to oil and gas activities Abroad (several CGUs)	710	296	414	E&P - Abroad	item (e2)
Panamax vessels - Transpetro	364	–	364	RTM - Brazil	item (k)
Araucária	226	–	226	Gas & Power - Brazil	item (l)
Comperj	167	–	167	RTM - Brazil	item (g2)
Conecta and DGM	122	–	122	Distribution - Abroad	item (i)
Others	610	380	230	Several segments	
			2,710		
Assets classified as held for sale					
Producing properties relating to oil and gas activities in Roncador	10,465	9,151	1,314	E&P - Brazil	item 14.2
Others	1,049	1,211	(162)	Several segments	
			<b>3,862</b>		

(\* ) It only includes carrying amounts and recoverable amounts of impaired assets or assets for which reversals were recognized.

(\*\* ) The recoverable amounts of assets for impairment computation were their value in use, except for oil and gas production and drilling equipment that were based on their fair value.

(\*\*\*) Reversals are presented in brackets.

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## 14.1. Impairment of property, plant and equipment and intangible assets

For impairment testing purposes, the Company bases its cash flow projections on:

▣ The estimated useful life of the asset or assets grouped into the CGU, based on the expected use of those assets, considering the Company's maintenance policy;

▣ Assumptions and financial budgets/forecasts approved by management for the period corresponding to the expected life cycle of each different business; and

▣ A pre-tax discount rate derived from the Company's post-tax weighted average cost of capital (WACC).

Information on key assumptions for impairment testing and the definition of Company's CGUs are presented in notes 5.2 and 5.3, respectively. Management assumptions and judgements, which are based on the Company's business and management model, are required on these matters.

The cash flow projections used to measure the value in use of the CGUs in 2018 were mainly based on the following estimates of key assumptions for impairment testing:

For comparative purposes, estimates of key assumptions for impairment testing in 2018, 2017 and 2016 are shown below:

	2019	2020	2021	2022	2023	Long-term average
Average Brent (US\$/bbl)	66	67	72	75	75	73
Average Brazilian Real (excluding inflation) - Real / U.S. dollar exchange rate	3.64	3.56	3.50	3.46	3.44	3.37

For comparative purposes, estimates of key assumptions for impairment testing in 2016 are shown below:

	2018	2019	2020	2021	2022	Long-term average
Average Brent (US\$/bbl)	53	58	66	70	73	71
Average Brazilian Real (excluding inflation) - Real / U.S. dollar exchange rate	3.44	3.47	3.47	3.46	3.49	3.40

Information on the main impairment losses and reversals of property, plant and equipment and intangible assets are described below:

## a1) Producing properties in Brazil – 2018

Impairment assessment for producing properties in Brazil under the concession regime for oil and gas resulted in a net reversal of impairment losses of R\$ 1,194. Cash flow projections were based on financial budgets/forecasts approved by management and the post-tax discount rates (excluding inflation) derived from the WACC for the E&P business of 7.4% p.a. at December 31, 2018. This amount comprises:

Impairment losses totaling R\$ 4,013 primarily related to CGUs Camorim (R\$ 533), Linguado (R\$ 531), Piranema (R\$ 356), Guaricema (R\$ 352), Juruá (R\$ 348), Bicudo (R\$ 318), Caioba (R\$ 232), Pper-1 group (R\$ 188), Garoupinha (R\$ 150), Frade (R\$ 148), Castanhal (R\$ 137) and Papa Terra (R\$ 135). These losses were substantially due to higher estimates of future decommissioning costs driven by costs related to subsea facilities and equipment and depreciation of the Brazilian real against the U.S. dollar.

Reversals of impairment totaling R\$ 2,019 primarily from the CGUs Cvit group (R\$ 601), Uruguá group (R\$ 575), Ceará Mar group (R\$ 192), Dom João (R\$ 88), Miranga group (R\$ 61), Fazenda Belém group (R\$ 49) and Bijupirá-Salema group (R\$ 51), due to upward revision in the estimated production curves following a review of certain projects investments, as set out in the BMP 2019-2023.

#### a2) Producing properties in Brazil – 2017

Impairment assessment for producing properties in Brazil under the concession regime for oil and gas resulted in a net reversal of impairment losses of R\$ 2,824. Cash flow projections were based on financial budgets/forecasts approved by management and the post-tax discount rates (excluding inflation) derived from the WACC for the E&P business of 7.6% p.a. at December 31, 2017. This amount comprises:

Reversals of impairment totaling R\$ 5,627 primarily from North group (R\$ 2,961), Espadarte field (R\$ 406), Papa-Terra field (R\$ 396), Uruguá group (R\$ 325), Pampo field (R\$ 296), Fazenda Alegre group (R\$ 146), Cidade de São Mateus group (R\$ 142), Riachuelo field (R\$ 131), Fazenda Imbé group (R\$ 91), Fazenda Bálsamo field (R\$ 83), Peroá group (R\$ 80), São Mateus group (R\$ 62) and Riacho da Forquilha field (R\$ 58). These reversals substantially reflected the lower post-tax real discount rate, the approval of investments in enhancing recovery of mature fields and the lower tax burden set forth in the new tax rules applicable to the oil and gas industry (see note 21.4).

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Impairment losses totaling R\$ 2,803 mainly related to CGUs Piranema (R\$ 737), Salgo (R\$ 339) Ceara Mar group (R\$ 309), Cvit group (R\$ 204), Miranga group (R\$ 190), Fazenda Belém group (R\$ 159), Frade (R\$ 131), Dom João (R\$ 87) and Candeias (R\$ 60). These losses were substantially driven by an expected acceleration of production cessation reflecting an optimization of investment portfolio, as well as by a lower risk-adjusted discount rate for decommissioning costs, which also increased the costs of assets related to the abandonment and dismantling of these areas.

b1) Transpetro's fleet of vessels – 2018

The lower freight rates projected in PNG 2019-2023 significantly affected impairment assessment of the Transpetro's fleet of vessels, resulting in the recognition of impairment losses in the amount of R\$ 428 in 2018. The post-tax discount rates (excluding inflation) applied to the transportation sector ranged from 3.8% p.a. to 6.6% p.a.

b2) Transpetro's fleet of vessels - 2017

An impairment reversal of R\$ 11 was recognized for Transpetro's fleet of vessels. Cash flow projections were based on: financial budgets/forecasts set forth in BMP 2018-2022; taking into account operating and unused vessels and vessels under construction; and post-tax discount rates (excluding inflation) ranging from 4.11% p.a. to 9.19% p.a. derived from the WACC for the transportation industry, considering financial leverage and the respective tax benefits.

c1) Oil and gas production and drilling equipment in Brazil – 2018

In 2018, impairment losses for oil and gas production and drilling equipment in Brazil that were not directly related to oil and gas producing properties amounted to R\$ 749, as a result of: i) ceased operation of the single buoy mooring Monobóia 2 – PDET (R\$ 656); ii) lower fair value of certain equipment related to the FPSO P-72 and P- 73 that could not be committed to other projects, when compared to their carrying amount (R\$ 93).

c2) Oil and gas production and drilling equipment in Brazil – 2017

In 2017, impairment losses amounted to R\$ 1,178 as a result of: i) lower fair value of certain equipment related to the FPSO P-72 and P- 73 that could not be committed to other projects, when compared to their carrying amount (R\$ 413); ii) decommissioning of a crane and launch ferry (R\$ 370) and iii) hibernation of equipment of Inhaúma Shipyard excluded from the initial scope of Inhauma logistic center (R\$ 407).

d) Fertilizer Plant - UFN III – 2018

An impairment loss of R\$ 436 was recognized for the fertilizer plant UFN III (Unidade de Fertilizantes e Nitrogenados III) due to its lower fair value.

e1) Producing properties abroad – 2018

The Company recognized an impairment loss in the amount of R\$ 2,775 with respect to producing properties of oil and gas activities in the Gulf of Mexico. The impairment loss was primarily driven by changes in operational assumptions and discount rate considering the terms of the agreement between the Company and Murphy Oil Corporation in order to establish a joint venture through such assets.

e2) Producing properties abroad – 2017

In 2017, impairment losses of R\$ 414 were recognized for E&P assets located in the United States, principally reflecting the expected cessation of production and definitive abandonment of operation in Hadrian South field. Cash flow projection were based on: financial budgets/forecasts approved by Management; 5.7% p.a. post-tax real discount rate (5.5% p.a. in 2016) derived from the WACC for the E&P business in United States.

f) GASFOR II – 2018

Management decided to halt the development of the GASFOR II project, carried out by TAG, for an extended period. Accordingly, this asset was excluded from the Natural Gas CGU and its impairment test was performed separately. Due to its halt, it is not possible to estimate future cash flows arising from the use of this asset, resulting in the recognition of impairment losses in the amount equal to the carrying amount thereof (R\$ 225).

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g1) Comperj - 2018

As set forth in BMP 2019-2023, the resumption of the Comperj project still depends on new partnerships. However, the construction of Comperj's first refining unit facilities that will also support the natural gas processing plant (UPGN) are in progress as the facilities are part of the infrastructure for transporting and processing natural gas from the pre-salt layer in the Santos Basin. Nevertheless, due to the interdependence between such infrastructure and Comperj first refining unit, the Company recognized additional impairment charges, totaling R\$ 180 in 2018.

g2) Comperj - 2017

In 2017, the resumption of the Comperj project was still depending on new partnerships. Accordingly, due to the same aforementioned reasons, the Company recognized impairment charges, in 2017, totaling R\$ 167.

h1) Second refining unit in RNEST – 2018

The impairment assessment over the Second refining unit in RNEST resulted in the recognition an impairment loss amounting to R\$ 83, as its start-up was postponed by five months. The real discount rate applied was 7.3% p.a. post-tax discount rate derived from the WACC for the refining business, reflecting a specific risk premium for the postponed project.

h2) Second refining unit in RNEST - 2017

An impairment loss of R\$ 1,507 was recognized for the second refining unit in RNEST. Cash flow projections were based on: financial budgets/forecasts approved by Management; and an 7.7% p.a. post-tax discount rate (excluding inflation) derived from the WACC for the refining business, reflecting a specific risk premium for the postponed project. The impairment loss was mainly attributable to: (i) higher costs of raw materials and ii) lower refining margin, as set forth in BMP 2018-2022.

i) Conecta and DGM – 2017

Following prices forecast and current agreements of natural gas supply in Uruguay, the Company recognized impairment losses for intangible assets and property, plant and equipment, in the amount of R\$ 122, with respect to concession agreements for natural gas distribution carried out by the subsidiaries Conecta and DGM.

j) Fertilizer Plants - 2017

The Company decided to halt its operations in the fertilizer plants Camaçari-BA (FAFEN-BA) and Laranjeiras-SE (FAFEN-SE), following its plans to optimize its investment portfolio as set out in BMP 2018-2022, thereby, being removed from the Gas & Power CGU, assessed for impairment separately and their cash flow projections for the



period covered by the BMP 2018-2022 were not able to be estimated. Accordingly, an impairment loss amounting to R\$ 1,337 was recognized in 2017 with respect to these fertilizer plants.

k) Panamax vessels – Transpetro - 2017

In December 2017, the decision to hibernate the construction of three vessels of PANAMAX project (EI-512, EI-513 and EI-514) triggered their removal from the Transpetro's fleet of vessels CGU. These assets were assessed for impairment separately and, as a result, the Company accounted for an impairment loss for the total carrying amounts of these assets (R\$ 364).

l) Araucária - 2017

Indications of impairment were identified during this period, such as lower sales volume and prices, as well as higher production costs. Therefore, the Company assessed the related assets for impairment and, as a result, an impairment charge of R\$ 226 was recognized primarily in the second quarter of 2017 due to negative cash flow projections that were based on financial budget and forecasts approved by the management and a post-tax real discount rate of 6.6% p.a. derived for the weighted average cost of capital (WACC) for the fertilizer business.

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## 14.1.1. Assets most sensitive to future impairment

As set out in note 4.10, whenever the recoverable amount of an asset or CGU falls below the carrying amount, an impairment loss is recognized to reduce the carrying amount to the recoverable amount. The following table presents the assets and CGU most sensitive to future impairment losses as their recoverable amounts were close to their current carrying amount. Changes in material assumptions for impairment testing may result in the recognition of additional impairment charges on such assets in future periods.

	12.31.2018	Consolidado		
		Carrying amount	Recoverable amount	Sensitivity (*)
Producing properties relating to oil and gas activities in Brazil (3 CGUs)	E&P	1,181	1,284	(25)

(\*) It is based on a 10% reduction in the recoverable amount of CGUs.

For information on the main assumptions for impairment testing, see note 5.2.

## 14.2. Assets classified as held for sale

Following the Company's Board of Director approvals of disposal of certain assets in 2018, as described in note 10, impairment reversals amounted to R\$ 437 for assets held for sale, including the effects arising from the sale of onshore producing fields located in Potiguar basin., in the state of Rio Grande do Norte, to the Brazilian company 3R Petroleum.

In 2017, impairment losses amounting to R\$ 1,152 on assets held for sale were primarily attributable to the sale of 25% interest in Roncador field.

## 14.3. Investments in associates and joint ventures (including goodwill)

Value in use is generally used for impairment test of investments in associates and joint ventures (including goodwill). The basis for estimates of cash flow projections includes: projections covering a period of 5 to 12 years, zero-growth rate perpetuity, budgets, forecasts and assumptions approved by management and a pre-tax discount rate derived from the WACC or the Capital Asset Pricing Model (CAPM), when applicable.

## 14.3.1. Investment in publicly traded associate (Braskem S.A.)

Braskem's shares are publicly traded on stock exchanges in Brazil and abroad. As of December 31, 2018, the quoted market value of the Company's investment in Braskem was R\$ 13,258 based on the quoted values of both Petrobras' interest in Braskem's common stock (47% of the outstanding shares), and preferred stock (22% of the outstanding shares). However, there is extremely limited trading of the common shares, since non-signatories of the shareholders' agreement hold only approximately 3% of the common shares.

Given the operational relationship between Petrobras and Braskem, the recoverable amount of the investment for impairment testing purposes was determined based on value in use, considering future cash flow projections and the manner in which the Company can derive value from this investment via dividends and other distributions to arrive at its value in use. As the recoverable amount was higher than the carrying amount, no impairment losses were recognized for this investment.

Cash flow projections to determine the value in use of Braskem were based on the following key assumptions:

- Estimated average exchange rate of R\$ 3.64 to U.S.\$1.00 in 2019 (converging to R\$ 3.37 in the long run);
- Average Brent crude oil price at US\$ 66 in 2019, converging to US\$ 73 in the long run;
- Prices of feedstock and petrochemical products reflecting projected international prices;
- Petrochemical products sales volume estimates reflecting projected Brazilian and global G.D.P growth;
- Post-tax real discount rate (excluding inflation) of 9.6%p.a (same rate in 2017); and
- Increases in the EBITDA margin during the growth cycle of the petrochemical industry in the next years and declining in the long run.

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#### 14.3.2. Investments in state-controlled natural gas distributors

In 2018, impairment assessments on investments in state-controlled natural gas distributors did not give rise to any indication that these assets would be impaired, with a carrying amount of R\$ 3,680. Post-tax real discount rate (excluding inflation) used in such assessment was 5.8% p.a (5.9% p.a in 2017).

#### 14.3.3. Impairment losses on equity-method investments

In 2018, the Company accounted for a R\$ 108 reversal of impairment losses previously recognized as results in equity-accounted investments, substantially attributable to POGBV and Riograndense Refinery (RPR).

In 2017, the Company accounted for R\$ 64 as results in equity-accounted investments, substantially attributable to the investees Logum, Belém Bioenergia Brasil and Refinaria de Petróleo Riograndense.

#### 15. Exploration and evaluation of oil and gas reserves

The exploration and evaluation activities include the search for oil and gas reserves from obtaining the legal rights to explore a specific area to the declaration of the technical and commercial viability of the reserves.

Changes in the balances of capitalized costs directly associated with exploratory wells pending determination of proved reserves and the balance of amounts paid for obtaining rights and concessions for exploration of oil and natural gas (capitalized acquisition costs) are set out in the following table:

	Consolidated	
Capitalized Exploratory Well Costs / Capitalized Acquisition Costs (*)	12.31.2018	12.31.2017
Property, plant and equipment		
Opening Balance	14,957	16,728
Additions to capitalized costs pending determination of proved reserves	1,308	2,543
Capitalized exploratory costs charged to expense	(38)	(345)
Transfers upon recognition of proved reserves	(280)	(3,974)
Cumulative translation adjustment	62	5
Closing Balance	16,009	14,957
Intangible Assets	7,671	4,599
Capitalized Exploratory Well Costs / Capitalized Acquisition Costs	23,680	19,556

(\*) Amounts capitalized and subsequently expensed in the same period have been excluded from this table.

For detailed information about signature bonus paid and declaration of commerciality in 2018, see note 13.

Exploration costs recognized in the statement of income and cash used in oil and gas exploration and evaluation activities are set out in the following table:

	Consolidated	
	2018	2017
	Jan-Dec	Jan-Dec
Exploration costs recognized in the statement of income		
Geological and geophysical expenses	1,203	1,154
Exploration expenditures written off (includes dry wells and signature bonuses)	317	893
Contractual penalties	324	486
Other exploration expenses	60	30
Total expenses	1,904	2,563
Cash used in:		
Operating activities	1,265	1,185
Investment activities	4,821	5,776
Total cash used	6,086	6,961

For the year ended December 31, 2018, the Company recognized a provision in the amount of R\$ 324 (R\$ 486 in 2017) arising from potential contractual penalties for non-compliance with minimum percentages of local content in 131 blocks for which the exploratory phases were concluded.

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## 15.1. Aging of Capitalized Exploratory Well Costs

The following tables set out the amounts of exploratory well costs that have been capitalized for a period of one year or more after the completion of drilling, the number of projects whose costs have been capitalized for a period greater than one year, and an aging of those amounts by year (including the number of wells relating to those costs):

Aging of capitalized exploratory well costs*	Consolidated	
	2018	2017
Exploratory well costs capitalized for a period of one year	331	367
Exploratory well costs capitalized for a period greater than one year	15,677	14,590
Ending balance	16,008	14,957
Number of projects relating to exploratory well costs capitalized for a period greater than one year	49	54
		Number of
	2018	wells
2017	203	2
2016	1,115	4
2015	3,124	16
2014	4,033	16
2013 and previous years	7,202	36
Ending balance	15,677	74

(\*). Amounts paid for obtaining rights and concessions for exploration of oil and gas (capitalized acquisition costs) are not included.

Exploratory well costs that have been capitalized for a period greater than one year since the completion of drilling amount to R\$ 15,677. Those costs relate to 49 projects comprising (i) R\$ 14,857 for wells in areas in which there has been ongoing drilling or firmly planned drilling activities in the near term and for which an evaluation plan (“Plano de Avaliação”) has been submitted for approval by ANP; and (ii) R\$ 820 relate to costs incurred to evaluate the reserves and their potential development.

## 16. Trade payables

Consolidated	Parent Company
12.31.2018	12.31.2017
12.31.2018	12.31.2017

Third parties in Brazil	15,530	12,144	12,636	9,651
Third parties abroad	6,092	4,564	3,071	2,934
Related parties	2,894	2,369	13,433	9,594
Balance in current liabilities	24,516	19,077	29,140	22,179

In 2018, there was an increase in trade payables in Brazil due to a rise in oil purchases, following a higher supply of crude oil produced by third parties in Brazil, as well as due to the new production individualization agreements. The increase in trade payables abroad primarily reflects higher international prices and a rise in imports of oil, oil products, natural gas and NGL.

## 17. Finance debt

### 17.1. Balance by type of finance debt

	Consolidated		Parent Company	
	12.31.2018	12.31.2017	12.31.2018	12.31.2017
Banking Market	37,107	41,924	36,091	39,443
Capital Market	12,863	12,070	5,945	5,874
Development banks	12,967	18,428	4,796	6,634
Related parties	–	–	23,920	25,499
Others	34	124	–	–
Total in Brazil	62,971	72,546	70,752	77,450
Banking Market	93,474	103,420	38,541	35,432
Capital Market	153,548	171,721	–	–
Development banks	157	–	157	–
Export credit agencies	15,038	12,142	1,744	1,711
Related parties	–	–	214,685	153,524
Others	973	895	–	–
Total abroad	263,190	288,178	255,127	190,667
Total finance debt	326,161	360,724	325,879	268,117
Current	14,207	23,160	105,527	74,724
Non current	311,954	337,564	220,352	193,393

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In order to reflect the changes in accounting practices arising from the application of IFRS 9, the Company remeasured its financing agreements in force at January 1, 2018 which previously had their contractual clauses renegotiated and the modifications thereof did not result in substantial changes, as set out in note 2.3.1. Accordingly, the balance of current and non-current debt increased by R\$ 800 due to the initial application of IFRS 9, which was recognized within equity at January 1, 2018.

17.2. Changes in finance debt and reconciliation with cash flows from financing activities

	Balance at 12.31.2016	Initial application of IFRS9	Additions		Interest amortization (*)	Foreign Transaction exchange / inflation indexation charges		Cumulative translation adjustment (CTA)	Modification of contractual cash flows	Balance at 12.31.2017
			(new funding obtained)	Principal amortization (*)		costs during the period (**)				
In Brazil	84,477	–	21,647	(33,986)	(7,324)	7,326	356	50	–	72,546
Abroad	300,512	–	60,033	(81,276)	(13,577)	15,498	3,439	3,549	–	288,178
Total	384,989	–	81,680	(115,262)	(20,901)	22,824	3,795	3,599	–	360,724

	Balance at 12.31.2017	Initial application of IFRS9	Additions		Interest amortization (*)	Foreign Transaction exchange / inflation indexation charges		Cumulative translation adjustment (CTA)	Modification of contractual cash flows	Balance at 12.31.2018
			(new funding obtained)	Principal amortization (*)		costs during the period (**)				
In Brazil	72,546	215	8,196	(18,917)	(4,465)	4,846	93	457	–	62,952
Abroad	288,178	585	30,337	(99,436)	(16,216)	16,021	5,018	38,749	(46)	263,433
Total	360,724	800	38,533	(118,353)	(20,681)	20,867	5,111	39,206	(46)	326,814

Purchase of PP&E on credit	(510)	–	–	–	–	–	–	–	–	–
Debt restructuring	–	–	(2,205)	–	–	–	–	–	–	–
Deposits linked to financing	–	–	–	–	(278)	–	–	–	–	–
Finance leases	–	–	34	–	–	–	–	–	–	–
Net cash used in financing	–	–	38,023	(120,524)	(20,959)	–	–	–	–	–



activities

(\* ) It includes pre-payments.

(\*\* ) It includes premium and discount over notional amounts, as well as gains and losses by modifications in contractual cash f

In line with the Company's Business and Management Plan and following its liability management strategy, recent funds have been raised in order to settle older debts, as well as aiming at improving the debt repayment profile taking into account its alignment with investments returns over the long run.

For the year ended December 31, 2018, proceeds from financing amounted to R\$ 38,023, principally reflecting: (i) funds raised from the domestic and international banking market in the amount of R\$ 26,227 maturing from 4.5 to 6.5 years; (ii) global notes issued in the capital market in the amount of R\$ 6,359 (US\$ 1,962 million) and maturing in 2029; and (iii) proceeds from Export Credit Agency amounting to R\$ 3,774.

In addition, the Company repaid several finance debts, notably: (i) R\$ 49,719 (US\$ 13,943 million) relating to repurchase of global bonds previously issued by the Company in the capital market, with net premium paid to bond holders amounting to R\$ 1,015 (US\$ 329 million); (ii) pre-payment of banking loans in the domestic and international market totaling R\$ 55,116; and (iii) pre-payment of R\$ 4,932 with respect to financings with the Brazilian Development Bank (Banco Nacional de Desenvolvimento Econômico e Social – BNDES).

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## 17.3. Summarized information on current and non-current finance debt

Maturity in	Consolidated						Total (**)	Fair value
	2019	2020	2021	2022	2023	2024 onwards		
Financing in U.S. Dollars (US\$) (*):	8,134	5,960	17,816	22,190	35,933	151,853	241,886	250,942
Floating rate debt	5,264	5,708	9,788	16,888	23,926	48,632	110,206	
Fixed rate debt	2,870	252	8,028	5,302	12,007	103,221	131,680	
Average interest rate	5.4%	5.9%	5.8%	5.7%	5.7%	6.5%	6.2%	
Financing in Brazilian Reais (R\$):	5,347	8,384	8,099	15,134	8,369	16,692	62,025	56,653
Floating rate debt	3,561	7,423	7,110	13,855	7,487	12,028	51,464	
Fixed rate debt	1,786	961	989	1,279	882	4,664	10,561	
Average interest rate	6.1%	6.1%	6.7%	6.5%	6.7%	5.9%	6.3%	
Financing in Euro (€):	481	849	1,255	2,654	2,003	6,389	13,631	16,500
Floating rate debt	4	674	–	–	–	–	678	
Fixed rate debt	477	175	1,255	2,654	2,003	6,389	12,953	
Average interest rate	4.5%	4.6%	4.8%	4.9%	4.6%	4.6%	4.7%	
Financing in Pound Sterling (£):	226	–	–	–	–	8,374	8,600	8,842
Fixed rate debt	226	–	–	–	–	8,374	8,600	
Average interest rate	5.9%	–	–	–	–	6.3%	6.2%	
Financing in other currencies:	19	–	–	–	–	–	19	19
Floating rate debt	–	–	–	–	–	–	–	
Fixed rate debt	19	–	–	–	–	–	19	
Average interest rate	9.9%	–	–	–	–	–	9.9%	
Total at December 31, 2018	14,207	15,193	27,170	39,978	46,305	183,308	326,161	332,956
Average interest rate	5.5%	5.9%	5.9%	5.8%	5.8%	6.4%	6.1%	
Total at December 31, 2017	23,160	21,423	31,896	42,168	59,594	182,483	360,724	385,780
Average interest rate	5.6%	5.9%	5.9%	5.9%	5.7%	6.4%	6.1%	

(\*) It includes debt raised in Brazil (in Brazilian reais) indexed to the U.S. dollar.

(\*\*) The average maturity of outstanding debt at December 31, 2018 is 9.05 years (9.14 years at December 31, 2017).

The fair value of the Company's finance debts is mainly determined and categorized into a fair value hierarchy as follows:

Level 1- quoted prices in active markets for identical liabilities, when applicable, amounting to R\$ 151,339 at December 31, 2018 (R\$ 179,451 at December 31, 2017); and

Level 2 – discounted cash flows based on discount rate determined by interpolating spot rates considering financing debts indexes proxies, taking into account their currencies and also Petrobras' credit risk, amounting to R\$ 181,617 at December 31, 2018 (R\$ 206,329 as of December 31, 2017).

The sensitivity analysis for financial instruments subject to foreign exchange variation is set out in note 34.2.

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## 17.4. Capitalization rate used to determine the amount of borrowing costs eligible for capitalization

The capitalization rate used to determine the amount of borrowing costs eligible for capitalization was the weighted average of the borrowing costs applicable to the borrowings that were outstanding during the period, other than borrowings made specifically for the purpose of obtaining a qualifying asset. For the year ended December 31, 2018, the capitalization rate was 6.35% p.a. (6.16% p.a. for the year ended December 31, 2017).

## 17.5. Lines of credit

Company	Financial institution	Date	Maturity	Amount Available (Lines of Credit)	Used	Balance
Abroad (Amounts in US\$ million)						
PGT BV	CHINA EXIM	10/24/2016	5/23/2019	1,000	900	100
PGT BV	Syndicate of banks	3/7/2018	2/7/2023	4,350	–	4,350
PGT BV	Credit Agricole Corporate New Development Bank	4/12/2018	6/20/2019	400	222	178
Petrobras	Bank	8/27/2018	8/27/2022	200	40	160
<b>Total</b>				<b>5,950</b>	<b>1,162</b>	<b>4,788</b>
In Brazil						
Petrobras	Banco do Brasil	3/23/2018	1/26/2023	2,000	–	2,000
Petrobras	Banco Bradesco	6/1/2018	5/31/2023	2,000	–	2,000
Petrobras	Banco do Brasil	10/4/2018	9/5/2025	2,000	–	2,000
Transpetro	BNDES Caixa Econômica Federal	1/7/2008	8/12/2041	452	204	248
Transpetro	Federal	1/23/2010	Not defined	329	–	329
<b>Total</b>				<b>6,781</b>	<b>204</b>	<b>6,577</b>

On March 7, 2018, the Company entered into a revolving credit facility (RCF) with a syndicate of 17 banks, in the amount of US\$ 4,350 million. The Company also entered into two lines of credits with Banco do Brasil and one with Bradesco Bank in the amount of R\$ 2,000 each one. The Company can promptly access these funds at any moment until their maturities.

## 17.6. Covenants and Collateral

### 17.6.1. Covenants

The Company has covenants that were not in default at December 31, 2018 in its loan agreements and notes issued in the capital markets requiring, among other obligations i) the presentation of interim financial statements within 90 days of the end of each quarter (not reviewed by Independent Registered Public Accounting Firm) and audited financial statements within 120 days of the end of each fiscal year, with a grace period ranging from 30 to 60 days, depending on the agreement; ii) Negative Pledge / Permitted Liens clause; iii) clauses of compliance with the laws, rules and regulations applicable to the conduct of its business including (but not limited to) environmental laws; (iv) clauses in financing agreements that require both the borrower and the guarantor to conduct their business in compliance with anti-corruption laws and anti-money laundering laws and to institute and maintain policies necessary for such compliance; (v) clauses in financing agreements that restrict relations with entities or even countries sanctioned primarily by the United States (including, but not limited to, the Office of Foreign Assets Control (OFAC), Department of State and Department of Commerce), the European Union and United Nations; and vi) covenants with respect to debt level in some of its loan agreements with the Brazilian Development Bank (Banco Nacional de Desenvolvimento Econômico e Social - BNDES).

### 17.6.2. Collateral

Most of the Company's debt is unsecured, but certain specific funding instruments to promote economic development are collateralized. In addition, financing agreements with China Development Bank (CDB) are also collateralized, as set out in note 19.5.

The loans obtained by structured entities are collateralized based on the projects' assets, as well as liens on receivables of the structured entities.

The Company's capital market financing relates primarily to unsecured global notes.

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## 18. Leases

## 18.1. Future minimum lease payments / receipts – finance leases

Estimated lease payments / receivable	Consolidated Receipts			Payments			Parent Company Payments
	Future value	Annual interest	Present value	Future value	Annual interest	Present value	Present value
2019	478	(245)	233	174	(85)	89	792
2020 - 2023	1,804	(754)	1,050	433	(230)	203	2,005
2024 onwards	1,842	(344)	1,498	1,282	(859)	423	899
At December 31, 2018	4,124	(1,343)	2,781	1,889	(1,174)	715	3,696
Current			233			89	792
Non-current			2,548			626	2,904
At December 31, 2018			2,781			715	3,696
Current			180			84	1,261
Non-current			2,433			675	4,108
At December 31, 2017			2,613			759	5,369

## 18.2. Future minimum lease payments – operating leases

Operating leases mainly include oil and gas production units, drilling rigs and other exploration and production equipment, vessels and support vessels, helicopters, land and building leases.

	Consolidated	Parent Company
2019	43,133	101,258
2020	34,801	49,729
2021	32,929	46,892
2022	27,878	40,841
2023	25,180	37,367
2024 em diante	205,653	258,146
Em 31 de dezembro de 2018	369,574	534,233
Em 31 de dezembro de 2017	304,398	485,306

At December 31, 2018, the balance of estimated future minimum lease payments under operating leases includes R\$ 212,435 in the Consolidated and R\$ 213,028 in the Parent Company (R\$ 174,336 in the Consolidated and R\$ 174,332 in the Parent Company at December 31, 2017) with respect to assets under construction, for which the lease term has not commenced.

In 2018, the Company recognized expenditures of R\$ 26,129 in the Consolidated and R\$ 39,509 in the Parent Company (R\$ 32,674 in the Consolidated and R\$ 48,225 in the Parent Company at December 31, 2016) for operating leases installments.

As shown in note 6.1, the CPC 06 (IFRS 16) provisions will govern the accounting treatment for operating leases from January 1, 2019.

#### 19. Related-party transactions

The Company has a related-party transactions policy, which is annually revised and approved by the Board of Directors, and is applicable to all the Petrobras Group, in accordance with the Company's by-laws.

In order to ensure the goals of the Company are achieved and to align them with transparency of processes and corporate governance best practices, this policy guides Petrobras while entering into related-party transactions and dealing with potential conflicts of interest on these transactions, based on the following assumptions and provisions:

- Prioritization of the Company's interests regardless of the counterparty;
- Arm's length basis;
- Compliance with market conditions, especially concerning terms, prices and guarantees or with adequate compensatory payment;
- Accurate and timely disclosure in accordance with applicable authorities.

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The Audit Committee must approve in advance transactions between the Company and its associates, the Brazilian Federal Government, including its agencies or similar bodies and controlled entities, taking into account the materiality established by this policy. The Audit Committee reports monthly to the Board of Directors.

Transactions with entities controlled by key management personnel or by their close family members are also approved in advance by the Audit Committee regardless of the amount involved.

Transactions with the Brazilian Federal Government, including its agencies or similar bodies and controlled entities, which are under the scope of Board of Directors approval, must be preceded by the Audit Committee and Minority Shareholders Committee assessment and must have prior approval of, at least, 2/3 of the board members.

The related-party transactions policy also aims to ensure an adequate and diligent decision-making process for the Company's key management.

## 19.1. Commercial transactions by operation with companies of the Petrobras' group (parent company)

	12.31.2018			12.31.2017		
	Current	Non-current	Total	Current	Non-current	Total
<b>Assets</b>						
Trade and other receivables						
Trade and other receivables, mainly from sales	13,451	–	13,451	11,776	–	11,776
Dividends receivable	1,585	–	1,585	1,161	–	1,161
Intercompany loans	–	22	22	–	34	34
Advance for capital increase	–	254	254	–	–	–
Amounts related to construction of natural gas pipeline	–	654	654	–	845	845
Finance leases	130	–	130	103	–	103
Other operations (*)	840	429	1,269	491	466	957
Assets held for sale	–	–	–	820	–	820
	101	9,142	9,243	–	–	–
<b>Total</b>	<b>16,107</b>	<b>10,501</b>	<b>26,608</b>	<b>14,351</b>	<b>1,345</b>	<b>15,696</b>
<b>Liabilities</b>						
Finance leases	(771)	(2,384)	(3,155)	(1,242)	(3,592)	(4,834)
Intercompany loans	(9,529)	–	(9,529)	–	(3,315)	(3,315)
Prepayment of exports	(66,764)	(136,983)	(203,747)	(37,373)	(112,835)	(150,208)
Accounts payable to suppliers	(13,390)	–	(13,390)	(9,525)	–	(9,525)
Purchases of crude oil, oil products and others	(8,147)	–	(8,147)	(5,001)	–	(5,001)
Affreightment of platforms	(4,544)	–	(4,544)	(3,927)	–	(3,927)
Advances from clients	(699)	–	(699)	(597)	–	(597)
Other operations	(42)	(452)	(494)	(69)	(439)	(508)



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Liabilities related to assets held for sale	-	-	-	(44)	-	(44)
Total	(90,496)	(139,819)	(230,315)	(48,253)	(120,181)	(168,434)

(\*) It includes advances to PNBV relating to the nationalization of platforms P-67, P-69, P-74, P-75, P-76 and P-77, taking advantage of Repetro Sped, as set out in note 21.4.

(\*\*) Increase relative to the loan operation between Petrobras and PGT held in December 2018.

	Jan-Dec/2018	Jan-Dec/2017
Profit or Loss		
Revenues, mainly sales revenues	164,630	134,264
Foreign exchange and inflation indexation charges	(10,237)	(4,405)
Financial income (expenses), net	(11,390)	(10,297)
Total	143,003	119,562

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## 19.2. Commercial transactions with companies of the Petrobras' group (parent company)

	12.31.2018			12.31.2017			12.31.2017	
	Current	Non-current	Total	Total	Current	Non-current	Total	Total
	Assets	Assets	Assets	Assets	Liabilities	Liabilities	Liabilities	Liabilities
Controlled entities (*)								
BR	1,714	–	1,714	1,566	(222)	–	(222)	(307)
PIB BV	5,649	137	5,786	6,330	(77,697)	(136,983)	(214,680)	(154,072)
Gaspetro	1,156	104	1,260	953	(435)	–	(435)	(372)
PNBV	3,524	9,157	12,681	1,812	(6,564)	–	(6,564)	(4,281)
Transpetro	557	161	718	1,011	(1,163)	–	(1,163)	(1,216)
Logigás	128	654	782	1,149	(142)	–	(142)	(238)
Thermoelectrics	95	22	117	86	(187)	(639)	(826)	(1,012)
Fundo de Investimento								
Imobiliário	135	–	135	98	(141)	(1,109)	(1,250)	(1,483)
TAG	551	–	551	612	(1,344)	–	(1,344)	(1,068)
PDET Off Shore (**)	–	–	–	–	–	–	–	(837)
Other subsidiaries	1,893	266	2,159	1,723	(1,227)	–	(1,227)	(679)
Total Subsidiaries	15,402	10,501	25,903	15,340	(89,122)	(138,731)	(227,853)	(165,565)
Structured Entities								
CDMPI	–	–	–	–	(478)	(636)	(1,114)	(1,562)
Total Structured Entities	–	–	–	–	(478)	(636)	(1,114)	(1,562)
Associates and joint ventures								
Companies from the petrochemical sector	326	–	326	172	(14)	–	(14)	(34)
Other associates and joint ventures	379	–	379	184	(882)	(452)	(1,334)	(1,273)
Total associates and joint ventures	705	–	705	356	(896)	(452)	(1,348)	(1,307)
Total	16,107	10,501	26,608	15,696	(90,496)	(139,819)	(230,315)	(168,434)

(\*) It Includes its controlled entities, joint operations and joint ventures.

(\*\*) On August 23, 2017, the Parent Company purchased the totality of shares of PDET Offshore, becoming a wholly-owned subsidiary. On December 11, 2018, PDET was incorporated into Petrobras.

## 19.2.1. Profit or loss

	Jan-Dec/2018	Jan-Dec/2017
Subsidiaries		
BR	81,631	69,573
PIB BV	30,601	23,871
Gaspetro	9,135	7,565
PNBV	1,222	2,199
Transpetro	950	916
Logigás	108	32
Thermoelectrics	(116)	(162)
Fundo de Investimento Imobiliário	(89)	(190)
TAG	84	205
PDET Off Shore	(96)	(100)
Other subsidiaries	4,864	2,788
Total Subsidiaries	128,294	106,697
Structured Entities		
CDMPI	(265)	(310)
Total Structured Entities	(265)	(310)
Associates and joint ventures		
Companies from the petrochemical sector	14,395	12,782
Other associates and joint ventures	579	393
Total associates and joint ventures	14,974	13,175
Total	143,003	119,562

## Annual rates for intercompany loans

	Parent Company			
	Assets		Liabilities	
	12.31.2018	12.31.2017	12.31.2018	12.31.2017
Up to 5%	–	–	(9,529)	–
From 5.01% to 7%	–	–	–	(3,315)
More than 9.01%	22	34	–	–
Total	22	34	(9,529)	(3,315)

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## 19.3. Non standardized receivables investment fund

The Parent Company invests in the receivables investment fund FIDC-NP, which comprises mainly receivables and non-performing receivables arising from operations performed by subsidiaries of the Petrobras Group. Investments in FIDC-NP are recognized as other receivables.

The assignment of performing and non-performing receivables is recognized as current finance debt.

	Parent Company	
	12.31.2018	12.31.2017
Other receivables	9,845	14,222
Assignment of receivables	(23,920)	(25,499)
	Jan-Dec/2018	Jan-Dec/2017
Finance income FIDC-NP	834	1,179
Finance expense FIDC-NP	(1,344)	(1,965)
Net finance income (expense)	(510)	(786)

## 19.4. Guarantees

Petrobras guarantees certain financial operations carried out by its subsidiaries in Brazil and abroad.

Petrobras, based on contractual clauses that support the financial operations between the subsidiaries and third parties, offers guarantees, mainly fidejussory, to the payment of debt service in the event that a subsidiary defaults on a debt.

The outstanding balance of financial operations carried out by these subsidiaries and guaranteed by Petrobras is set out below:

Maturity date of the loans	12.31.2018					12.31.2017	
	PGF (*)	PGT (**)	PNB	V	TAG	Others	Total
2018	–	–	–	–	–	–	1,780
2019	1,281	–	–	–	–	1,281	7,926
2020	1,175	–	362	–	3,569	5,106	15,497
2021	9,030	–	484	–	654	10,168	22,722
2022	7,689	–	3,875	3,179	387	15,130	40,152
2023	14,097	5,102	2,360	–	970	22,529	28,994
2023 onwards	121,381	54,199	–	–	68	175,648	146,318
Total	154,653	59,301	7,081	3,179	5,648	229,862	263,389

(\*) Petrobras Global Finance B.V., subsidiary of PIB BV.

(\*\*) Petrobras Global Trading B.V., subsidiary of PIB BV.

Petrobras entered into two finance agreements with China Development Bank (CDB), maturing in 2026 and 2027 are also collateralized based on future oil exports for specific buyers limited to 200 thousand barrels per day up to 2019, 300 thousand barrels per day from 2020 to 2026, and 100 thousand barrels per day in 2027. This collateral may not exceed the amount of the related debt, amounting to R\$ 38,825 (US\$ 10,020 million) at December 30, 2018, and to R\$ 35,775 (US\$ 10,815 million) at December 31, 2017.

On January 30, 2018, the Company prepaid the remaining balance of a financing agreement with CDB maturing in 2019, in the amount of US\$ 2.8 billion.

In accordance with the Company's Business and Management Plan, the extension of these terms is associated to a better indebtedness level, as set out in note 17.

#### 19.5. Investment fund of subsidiaries abroad

At December 30, 2018, a subsidiary of PIB BV had R\$ 5,744 (R\$ 4,675 at December 31, 2017) invested in an investment fund abroad that held debt securities of PDET and of consolidated structured entities, mainly with respect to CDMPI and Charter projects.

#### 19.6. Transactions with joint ventures, associates, government entities and pension plans

The Company has engaged, and expects to continue to engage, in the ordinary course of business in numerous transactions with joint ventures, associates, pension plans, as well as with the Company's controlling shareholder, the Brazilian federal government, which includes transactions with banks and other entities under its control, such as financing and banking, asset management and others.

The balances of significant transactions are set out in the following table:

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	Consolidated			
	12.31.2018		12.31.2017	
	Assets	Liabilities	Assets	Liabilities
Joint ventures and associates				
State-controlled gas distributors	1,189	440	971	468
Petrochemical companies	350	26	194	53
Other associates and joint ventures	1,102	2,882	587	2,286
Subtotal	2,641	3,348	1,752	2,807
Government entities				
Government bonds	7,588	–	5,631	–
Banks controlled by the Brazilian Government	28,846	40,035	19,317	49,375
Receivables from the Electricity sector (note 8.4)	17,051	–	17,362	1
Petroleum and alcohol account - receivables from Brazilian Government	1,191	–	829	–
Diesel Price Subsidy Program	1,550	–	–	–
Brazilian Federal Government (Dividends)	–	1,254	–	–
Empresa Brasileira de Administração de Petróleo e Gás Natural – Pré-Sal Petróleo S.A. – PPSA	–	557	–	–
Others	248	474	149	716
Subtotal	56,474	42,320	43,288	50,092
Pension plans	229	372	226	311
Total	59,344	46,040	45,266	53,210
Current assets	16,837	9,796	8,347	6,659
Non-current assets	42,507	36,244	36,919	46,551

The income/expenses of significant transactions are set out in the following table:

	Consolidated	
	Jan-Dec/2018	Jan-Dec/2017
Joint ventures and associates		
State-controlled gas distributors	8,464	7,040
Petrochemical companies	13,778	12,273
Other associates and joint ventures	(3,287)	(2,043)
Subtotal	18,955	17,270
Government entities		
Government bonds	393	488

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Banks controlled by the Brazilian Government	(3,234)	(4,678)
Receivables from the Electricity sector	6,365	2,055
Petroleum and alcohol account - receivables from Brazilian Government	362	4
Diesel subsidy	6,017	–
Brazilian Government (Dividends and interest on capital)	13	–
Pré-Sal Petróleo S.A. – PPSA	(1,756)	–
Others	513	705
Subtotal	8,673	(1,426)
Pension plans	–	1
Total	27,628	15,845
Revenues, mainly sales revenues	32,327	23,995
Purchases and services	(8,294)	(5,105)
Foreign exchange and inflation indexation charges, net	(1,150)	759
Finance income (expenses), net	4,745	(3,804)
Total	27,628	15,845

In addition to the aforementioned transactions, Petrobras and the Brazilian Federal Government entered into the Assignment Agreement in 2010, which grants the Company the right to carry out prospecting and drilling activities for hydrocarbons located in the pre-salt area limited to the production of five billion barrels of oil equivalent. For detailed information on Assignment Agreement, see note 12.4.

In 2018, the Company participated in three competitive processes and, subsequently, in the second bidding round of oil sales carried out by the Pre-Sal Petróleo SA - PPSA, the state-owned company that represents the interests of the Brazilian Federal Government. In the first three processes, the Company committed to acquire approximately 200,000 m<sup>3</sup> of oil from Mero field. With respect to the bidding process, the Company committed to acquire, from September 2018 to August 2021, approximately 1,781,000 m<sup>3</sup> of oil from Mero and Sapinhoá fields. The estimated amount of these transactions is R\$ 2,942.

On November 27, 2018, Petrobras signed a lease agreement with the Federal University of Rio de Janeiro (UFRJ) for the concession of land use in areas where the Company's research and development center is located. This contract will last 50 years, renewable for an equal period, with a total estimated value of R\$ 787.

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#### 19.6.1. Diesel Price Subsidy Program

In 2018, after risk assessment, the Company joined the Diesel Price Subsidy Program established by the Brazilian Federal Government. This program grants reimbursements to diesel producers and importers to the extent that their selling prices to the domestic distributors are equal or lower than prices determined by relevant regulation. The amount of this government grant results from the following parameters governed by each phase of the program as shown below:

Phase	Períod	Methodology of computation	Regulation
1st phase	June 1 to June 7, 2018	R\$0.07 per liter	Decree 9,392/2018
2nd phase	June 8 to July 31, 2018	Difference between reference price provided for by ANP (Preço de Referência - PR) and the sales price to domestic distributors (Preço de Comercialização - PC), limited to R\$ 0.30 per liter	Decree 9,403/2018
3rd phase	August 1 to December 31, 2018	Difference between PR and PC, limited to R\$ 0.30 per liter, taking into account a fixed portion comprising charges related to Social Integration Program and Social Security Financing (PIS and COFINS) and previous differences greater than the limit	Decree 9,454/2018

The PR was driven by diesel international prices and U.S. dollar exchange rates. The first and second phases of the program included sales of different types of diesel, such as marine diesel. From the third phase of program, the subsidy has become restricted to sales of road diesel and, additionally, a fixed portion made up of charges related Social Integration Program and Social Security Financing (PIS and COFINS), as well as differences exceeding R\$ 0.30 per liter in previous periods, have been included in its computation.

The settlement of the subsidy was granted to the extent the Company provided all necessary information to ANP in order to prove its fiscal regularity and prices of diesel sold in accordance with the relevant regulation. The period of the subsidy computation was up to thirty days with ANP confirmation within fifteen business days after receiving all the necessary documentation.

On October 10, 2018, ANP refused to grant the Company the subsidy of R\$ 63 related to the first phase of the program, alleging that the Company did not comply with the requirements. The Company has taken measures to enable the collection and recognition of such amount.

Such revenue recognition occurred as the diesel was sold and delivered to distributors and the right to the grant was recognized within current account receivables. Through December 31, 2018, the Company accounted for R\$ 6,017 as revenues with respect to sales within the second and third phases of the program (see note 25.2). Of this amount, R\$ 4,464 was disbursed to the Company in 2018.



The Company collected the remaining balance of the subsidy in the first two months of 2019.

19.6.2. Petroleum and Alcohol accounts - Receivables from the Brazilian Federal Government

Pursuant to Provisional Measure 2,181 of August 24, 2001, the Brazilian Federal Government may settle the balance of receivables related to the Petroleum and Alcohol accounts by using National Treasury Notes in an amount equal to the outstanding balance, or allow the Company to offset the outstanding balance against amounts payable to the Federal Government, including taxes payable, or both.

The Company provided all the information required by the National Treasury Secretariat (Secretaria do Tesouro Nacional - STN) in order to resolve disputes between the parties and conclude the settlement with the Brazilian Federal Government.

Following several negotiation attempts at the administrative level, the Company filed a lawsuit in July 2011 to collect the receivables.

On October 28, 2016, the court ruled in favor of the Company disallowing the use of an alleged debt from the liquidated company of the group, Petrobras Comércio Internacional S.A. – Interbrás, by the Brazilian Federal Government, when offsetting the outstanding balance.

On July 18, 2017, the Brazilian Federal Government appealed the ruling and, in July 2018, the Regional Federal Court (Tribunal Regional Federal – TRF) denied the appeal, sustained the aforementioned ruling from 2016 and determined the settlement of the amount owed by the Brazilian Federal Government including inflation charges from August 2011 based on the National Consumer Price Index – IPCA and interest at rates provided for the Brazilian Federal Justice.

In September 2018, the Brazilian Supreme Court ruled on a decision of including inflation indexation on an amount to be paid by the Brazilian Federal Government with respect to another proceeding in which the Company is not a party. According to this decision, such inflation charges were stayed and this decision affects all similar claims in which the Brazilian Federal Government is a party.

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Accordingly, as of December 31, 2018, the balance of receivables related to the Petroleum and Alcohol accounts was R\$ 1,191 (R\$ 829 as of December 31, 2017) and the Company recognized R\$ 344 as finance income reflecting the interest accrued on such receivables. In addition, a favorable decision of Brazilian Supreme Court with respect to the inflation charges based on IPCA would represent an increase of R\$ 1,033, at December 31, 2018, on the amount owed by the Brazilian Federal Government.

#### 19.7. Compensation of key management personnel

The criteria for compensation of employees and officers are established based on the relevant labor legislation and the Company's Positions, Salaries and Benefits Plan (Plano de Cargos e Salários e de Benefícios e Vantagens).

The compensation of employees (including those occupying managerial positions) and officers in December 2018 and December 2017 were:

	Amounts in reais	
	Dec/2017	Dec/2016
Compensation of employees, excluding officers		
Lowest compensation	3,707.32	3,131.40
Average compensation	18,892.94	18,151.73
Highest compensation	103,659.27	99,490.61
Compensation of highest paid Petrobras officer	116,761.20	116,761.20

The compensation of Executive Officers and Board Members of Petrobras parent company, which are based on the assumptions governed by the Secretariat of Management and Governance of the State-owned Companies (Secretaria de Coordenação e Governança das Empresas Estatais – SEST) and the Ministry of Mines and Energy, is set out as follows:

	Jan-Dec/2018			Jan-Dec/2017		
	Officers	Board	members Total	Officers	Board	members Total
Wages and short-term benefits	13.0	1.0	14.0	12.2	0.9	13.1
Social security and other employee-related taxes	3.7	0.2	3.9	3.5	0.1	3.6
Post-employment benefits (pension plan)	1.0	–	1.0	1.0	–	1.0
Variable compensation	5.3	–	5.3	–	–	–
Benefits due to termination of tenure	2.0	–	2.0	–	–	–
Total compensation recognized in the statement of income	25.0	1.2	26.2	16.7	1.0	17.7

Total compensation paid	17.6	1.2	18.8	16.7	1.0	17.7
Average number of members in the period (*)	7.92	10.08	18.00	7.92	9.00	16.92
Average number of paid members in the period (**)	7.92	6.00	13.92	7.92	5.75	13.67

(\*) Monthly average number of members.

(\*\*) Monthly average number of paid members.

For the year ended December 31, 2018, charges related to compensation of the board members and executive officers of the Petrobras group amounted to R\$ 88.9 (R\$ 77.4 for the year ended December 31, 2017).

The Company's General Shareholder's Meeting held on April 26, 2018 determined the amount of R\$ 28.3 as the threshold of executive officers and board members compensation for the period from April 2018 to March 2019, as well as approved the increase in the number of board members to 11.

The compensation of the Advisory Committees to the Board of Directors is apart from the fixed compensation set for the Board Members and, therefore, has not been classified under compensation of Petrobras' key management personnel.

The monthly compensation of Audit Committee members is fixed at 10% of monthly average executive officers' compensation, excluding certain social security benefits and paid vacation.

The General Shareholder's Meeting held on October 4, 2018 amended the Company's Bylaws and created the Statutory Audit Committee of the Petrobras Conglomerate, an additional advisory committee to the Board of Directors serving as the audit committee for the Brazilian subsidiaries from Petrobras group with no such exclusive committee as required by the Law 13,303/16. The monthly compensations of its chairman and other members are fixed at 40% and 30%, respectively, of monthly average executive officers' compensation, excluding certain social security benefits and paid vacation.

In accordance with Brazilian regulations applicable to companies controlled by the Brazilian Government, Board members who are also members of the Audit Committee or Audit Committee of the Petrobras Conglomerate are only compensated with respect to their Audit Committee duties. The total compensation concerning these members was R\$ 701 thousand for the year ended December 31, 2018 (R\$ 841 thousand with social security and related charges).

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In 2018, the Board of Directors approved the variable compensation program (PRV) of the Board of Executive Officers for the year 2018. The amount of compensation to be paid varies according to the percentage of achievement of the financial and operational targets. The program foresees compensations being disbursed through 5 years and may also trigger other compensations to officers from 2019, due to the achievement of certain prerequisites at December 31, 2018.

Benefits due to termination of tenure amounting to R\$ 2 refer to the remuneration for a period of six months, in compliance with the Public Federal Employee Conflict of Interest Law (Law 12,813/2013).

Exemption from damage (indemnity)

The company's bylaws establishes the obligation to indemnify and keep the officers without losses, members with statutory functions and other employees and agents that legally act through officers' delegation, so as to cope with certain expenses related to arbitration, judicial or administrative processes that involve acts performed in the exercise of their duties or powers, since the date of your possession or the since the beginning of the contractual relation with the Company.

The period of the agreement coverage began on December 18, 2018 and continues until the occurrence of the following events, whichever comes last: (i) the end of the fifth (5th) year following the date on which the beneficiary leave, for any reason, to exercise the mandate, function or position; (ii) the course of the time required in transit of any Process in which the Beneficiary is partly due to the practice of Regular Management Act; or (iii) the course of the limitation period according to law to events that can generate the obligations of indemnification by the Company, including, but not limited to, the criminal statute applicable deadline, even if such period is applied by administrative authorities. The maximum exposure established by the company (global limit for all eventual claims) until April 2020 is R\$1,955.

Indemnity agreements shall not cover: (i) acts covered under and insurance policy purchased by the Company, as formally recognized and implemented by the insurance company; (ii) acts outside the regular exercise of the duties or powers of the Beneficiaries; (iii) acts in bad faith act, malicious acts, fraud or serious fault on the part of the Beneficiaries; (iv) self-interested acts or in favor of third parties that damage the company's social interest; (v) obligation to pay damages arising from social action according to article 159 of Law 6,404/76 or reimbursement of the damages according to art. 11, § 5º, II of Law 6,385/76; (iv) other cases where a manifest conflict of interest with the company is established. It is worth noting that after a final unappealable decision, if it is proved that the act performed by the beneficiary is not subject to indemnification, the beneficiary is obligated to return the advanced amounts to the company.

In case of potential conflicts of interest, it is important to mention that the Company may hire outside professionals, with a principled, impartial and independent reputation and with a strong experience to evaluate eventual indemnity lawsuits, verifying whether or not the act will be covered. In addition, the beneficiary of an indemnity agreement would be prevented from attending meetings or discussions concerning the payment approval of his or her own expenses.

## 20. Provision for decommissioning costs

	Consolidated		Parent Company	
	12.31.2018	12.31.2017	12.31.2018	12.31.2017
Non-current liabilities				
Opening balance	46,785	33,412	45,677	32,615
Adjustment to provision	15,722	13,522	15,730	13,272
Transfers related to liabilities held for sale <sup>(*)</sup>	(4,650)	(379)	(3,610)	(379)
Payments made	(1,761)	(2,265)	(1,761)	(2,183)
Interest accrued	2,358	2,418	2,296	2,352
Others	183	77	–	–
Closing balance	58,637	46,785	58,332	45,677

The estimates for abandonment and dismantling of oil and natural gas producing properties are revised annually at December 31 along with the annual process of oil and gas reserves certification and whenever an indication of significant change in the assumptions used in the estimates occurs.

In 2018, the increase to this provision in the amount of R\$ 15.7 billion, primarily reflecting: (i) R\$ 5.7 billion due to the depreciation of the Real against the US Dollar, with a direct impact on costs accounted for in US dollars; (ii) R\$ 6.2 billion connected to changes in the scope and timing of intermediate abandonments of equipment expected to occur during the useful life of producing fields; and (iii) R\$ 7 billion relating to higher costs to decommission assets in the near-term. These factors were partially offset (R\$ 3 billion) by increases in useful lives of certain fields following higher oil prices forecast, lower operational costs estimates and upward review in their production curves.

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## Notes to the financial statements

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## 21. Taxes

## 21.1. Income taxes and other taxes

Income tax and social contribution	Consolidated					
	Current assets		Current liabilities		Non-current liabilities	
	12.31.2018	12.31.2017	12.31.2018	12.31.2017	12.31.2018	12.31.2017
<b>Taxes in Brazil</b>						
Income taxes	2,840	1,464	257	130	0	0
Income taxes - Tax settlement programs	–	–	216	753	2,139	2,219
	2,840	1,464	473	883	2,139	2,219
<b>Taxes abroad</b>						
	23	120	344	107	0	–
<b>Total</b>	<b>2,863</b>	<b>1,584</b>	<b>817</b>	<b>990</b>	<b>2,139</b>	<b>2,219</b>

Other taxes and contributions	Consolidated							
	Current assets		Non-current assets		Current liabilities		Non-current liabilities (*)	
	12.31.2018	12.31.2017	12.31.2018	12.31.2017	12.31.2018	12.31.2017	12.31.2018	12.31.2017
<b>Taxes in Brazil:</b>								
<b>Current / Deferred ICMS (VAT)</b>	3,028	3,089	2,714	2,338	3,574	3,377	–	–
<b>Current / Deferred PIS and COFINS</b>	1,714	2,711	10,337	7,548	1,196	2,711	–	–
<b>CIDE</b>	84	47	–	–	195	344	–	–
<b>Production taxes</b>	–	–	–	–	6,807	5,311	–	–
<b>Withholding income taxes</b>	–	–	–	–	1,194	520	–	–
<b>Tax Settlement Program (**)</b>	–	–	–	–	6	2,144	–	–
<b>Others</b>	134	566	612	237	712	545	414	284
<b>Total in Brazil</b>	<b>4,960</b>	<b>6,413</b>	<b>13,663</b>	<b>10,123</b>	<b>13,684</b>	<b>14,952</b>	<b>414</b>	<b>284</b>
<b>Taxes abroad</b>	60	65	54	48	94	94	–	–
<b>Total</b>	<b>5,020</b>	<b>6,478</b>	<b>13,717</b>	<b>10,171</b>	<b>13,778</b>	<b>15,046</b>	<b>414</b>	<b>284</b>

(\*) Other non-current taxes are classified as other non-current liabilities.

(\*\*) It includes the amount of R\$ 6 relating to tax amnesty and refinancing program (REFIS) from previous periods.



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## 21.2. Brazilian federal settlement programs

In 2017, the Company joined certain settlement programs created by the Brazilian Federal Government, which enabled the settlement of significant disputes in which the Company was a defendant, with certain benefits, such as the use of tax loss carry forwards and reduction in interests, penalties and related charges. The settlement of disputes involving Brazilian Federal Tax Authorities, Brazilian Federal Agencies and similar bodies reduced tax debts is shown below:

Provisional measures	Signed into law	Brazilian federal settlement programs	Amount of		
			Disputes	relief	Debts
766/17	-	Tax Settlement Program - PRT (*)	1,660	-	1,660
783/17	13496/17	Special Tax Settlement Program - PERT	7,259	3,285	3,974
780/17	13494/17	Non-Tax Debts Settlement Program - PRD	1,076	358	718
795/17	13586/17	Withholding income tax on remittances for payment of charter of vessels	28,141	26,418	1,723
			38,136	30,061	8,075

(\*) Benefit of using tax loss carryforwards to settle 80% of the debt.

During 2018, the Company settled most of the balance of respective liabilities carried on the statement of financial position as presented in the table below:

	12.31.2017			12.31.2018		
	Payments	Use of tax loss carryforwards	Inflation indexation	Others		
<b>PRT</b>						
Income taxes	507	-	(504)	-	1	4
<b>PERT</b>						
Income taxes	2,461	(207)	-	156	(59)	2,351
Other taxes	131	(195)	-	7	57	-
	2,592	(402)	-	163	(2)	2,351
<b>PRD</b>						
Production taxes	288	(310)	-	6	16	-
Law 13,586/17						
Withholding income tax	1,723	(1,835)	-	62	50	-
<b>Total</b>	<b>5,110</b>	<b>(2,547)</b>	<b>(504)</b>	<b>231</b>	<b>65</b>	<b>2,355</b>
Current	2,891					216
Non-current	2,219					2,139



The following table presents the settlement years of the outstanding amounts under these programs:

	2019	2020	2021	2022	2023	2024	onwards	Total
PRT	4	-	-	-	-	-		4
PERT	212	212	212	212	212	1,291		2,351
	216	212	212	212	212	1,291		2,355

#### 21.2.1. Tax Settlement Program (Programa de Regularização Tributária - PRT)

The PRT enabled relief for the settlement of tax and non-tax debts overdue up to November 30, 2016 to the Brazilian Federal Tax Authorities (Brazilian Federal Revenue Service and National Treasury Attorney's Office).

The Company joined the program to settle, principally, proceedings at administrative level totaling R\$ 1,660, for which outflow of resources were probable, related to disallowed tax credits applied for income taxes and other Brazilian Federal taxes computation.

After assessing the reliefs provided by the PRT, the Company decided to settle the total debt of these tax disputes (R\$ 1,660) with the benefit of using tax loss carry forwards to pay R\$ 1,328, of which R\$ 821 was used in 2017 and R\$ 507 in June 2018. The amount of R\$ 332 was settled in a lump sum payment.

After joining the PRT in May 2017, the Company recognized a reversal of provisions for legal proceedings previously recognized for this matter in the amount of R\$ 1,560. The impacts of this program were accounted for in the second quarter of 2017 within the Company's statement of income amounting to R\$ 264 after tax effects, as shown in note 21.2.5.

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#### 21.2.2. Special Tax Settlement Program (Programa Especial de Regularização Tributária - PERT)

The PERT enabled relief for the settlement of tax and non-tax debts overdue up to April 30, 2017 to the Brazilian Federal Tax Authorities (Brazilian Federal Revenue Service and National Treasury Attorney's Office), including amounts under disputes involving these authorities.

The Company elected to join the PERT to settle the legal proceeding, in the amount of R\$ 6,541, with respect to a notice of deficiency issued due to the use of expenses arising from the Terms of Financial Commitment (TFC), signed by Petrobras and Petros Plan in 2008, as deductible in determining taxable profit. The Company decided to settle this tax dispute, by paying R\$ 4,356, which takes into account the benefits reliefs on interests, penalties and related charges. Of this amount, R\$ 1,344 was settled up to December 2017, and the remaining amount is being settled through 145 monthly installments bearing interest from January 2018 onwards. In addition, pursuant the law 13,496 enacted on October 24, 2017, which enabled incremental relief relating to this matter, the remaining amount was recalculated and decreased by R\$ 779.

Pursuant to the Provisional Measure 807/2017 enacted on October 31, 2017, the period to join this program was extended from August 31 to November 14, 2017. Therefore, the Company decided in the third quarter of 2017 to settle other disputes relating to debts in the scope of the Brazilian Federal Revenue Service amounting to R\$ 718. After the relief under the PERT, the total amount of these disputes was reduced to R\$ 394, of which R\$ 325 was settled in January 2018 through a lump sum payment, and the remaining amount is being settled through 141 monthly installments.

Accordingly, the Company recognized the amount of R\$ 5,905 within the statement of income in 2017, made up of tax debts after reliefs and tax effects, reversals of deferred income tax assets for unused tax losses from 2012 to 2017, as well as indexation charges.

#### 21.2.3. Non-Tax Debts Settlement Program (Programa de Regularização de Débitos não Tributários - PRD)

The PRD enabled relief for the settlement of non-tax debts overdue to the Brazilian Federal Agencies and similar bodies up to October 25, 2017, including amounts under disputes and debts in the scope of other settlement programs involving these authorities.

The Company joined the PRD to settle some legal proceedings involving ANP, with respect to production tax debts for which the likelihood of losses were deemed probable, following a court ruling in August 2017 granting to ANP its arguments. After assessing the benefits from relief on interest, penalties and related charges provided for by this program, the Company decided to settle these disputes, totaling R\$ 1,076 by paying R\$ 718 plus interest, of which R\$ 288 was settled in January 2018.

Accordingly, the Company recognized R\$ 519 within the statement of income in December 31, 2017, after tax effects, as shown in note 21.2.5.

21.2.4. Settlement program under law 13,586/2017

As presented in note 21.4, the law 13,586 enacted on December 28, 2017, provided for the tax treatment of several relevant issues relating to the exploration and production of oil or natural gas. This law also established the settlement program of withholding income tax on remittances abroad related to charter contracts for vessels, enabling the regularization of events occurred in the period from 2008 to 2014.

The decision to join the program was based on the economic benefits thereof. Proceeding with the disputes would involve financial efforts to provide significant judicial deposits and this program gave rise to the possibility of ceasing disputes at administrative and judicial levels related to the period from 2008 to 2013, as well as amounts relating to the 2014 not yet under dispute. The Company paid R\$ 1,723 in 12 consecutive installments bearing interest at SELIC rate, of which the first was paid in January 2018.

Accordingly, the Company recognized R\$ 1,137 within the statement of income in December 31, 2017, after tax effects, as shown in note 21.2.5.

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## 21.2.5. Impacts of the tax settlement programs within statement of income of 2017

	Consolidated				Total
	PRT	PERT	PRD	Law 13,586/17	
Cost of sales	–	–	(412)	–	(412)
Other taxes	(544)	(1,169)	(80)	(1,048)	(2,841)
Finance expenses	(802)	(990)	(226)	(675)	(2,693)
Income taxes - notice of deficiency	(314)	(1,815)	–	–	(2,129)
Total - after reliefs	(1,660)	(3,974)	(718)	(1,723)	(8,075)
Impacts of PIS/COFINS on settlement programs	–	(222)	(21)	–	(243)
Income taxes - deductible expenses	(164)	614	220	586	1,256
Other income and expenses - reversal of provision	1,560	35	–	–	1,595
Total	(264)	(3,547)	(519)	(1,137)	(5,467)
Income taxes - reversal of unused tax losses from 2012 to 2017	–	(2,287)	–	–	(2,287)
Impacts within the statement of income (before indexation charges)	(264)	(5,834)	(519)	(1,137)	(7,754)
Indexation charges	–	(71)	–	–	(71)
Impacts within the statement of income	(264)	(5,905)	(519)	(1,137)	(7,825)

## 21.3. Tax amnesty programs – State Tax

In accordance with its current corporate governance process and following cost-benefit analysis, the Company elected, during the nine-month period ended September 30, 2018, to settle in cash VAT (ICMS) tax disputes by joining states amnesty settlement programs and taking advance of their reliefs, as shown below:

State	Benefits received	Disputes	Reduction Benefit	Amount to be paid after benefit (*)
TO 3,346/18 10,341/18 and	Reduction of 90% of debts from fines and interest	18	11	7
RN 27,679/18	Reduction of 95% of fines, 80% of the interest and 50% of Vat tax forgiveness	796	678	118
SE 8,458/2018	Reduction of 90% of fines and interest	977	848	129
MT 1,630/18	Reduction of 75% of interest, fines and penalties	405	188	217
BA 14,016/18	Reduction of 90% of fines and interest	1.042	(771)	270
RJ 182/18	Reduction of 50% of interest and 70% or 85% of the fines related to ICMS, with the respective charges	1.459	(718)	741
RS 54,346/2018	Reduction of up to 85% and 40% over fines and interest, respectively	3	(1)	2
		4.699	(3.215)	1.484

(\*) Amounts recognized as other taxes (R\$ 1,120) and finance expenses (R\$ 364).

#### 21.4. New Taxation Model for the Oil and Gas Industry

On December 28, 2017, the Brazilian Federal Government enacted Law No. 13,586, which outlines a new taxation model for the oil and gas industry and, along with the Decree 9,128/2017, establishes a new special regime for exploration, development and production of oil, gas and other liquid hydrocarbons named Repetro-Sped.

Due to the application of this new regime, the Company expects greater legal stability in the oil and gas industry in Brazil, which may encourage higher investments and reduce the number of litigations involving the industry players.

Regarding the Repetro-Sped, this regime provides for the continuation of total tax relief over goods imported with temporary permanence in Brazil, as previously governed by the former Repetro (Special Customs Regime for the Export and Import of Goods designated to Exploration and Production of Oil and Natural Gas Reserves), and adds this relief to goods permanently held in Brazil. Accordingly, the absence of the need to return such goods to foreign countries eliminates future cost of removal. This benefit made possible the migration of all the goods acquired in the former REPETRO to the REPETRO-Sped, with lower operating and financial costs. Since 2018, the Company has transferred the ownership of oil and gas assets under this regime from foreign subsidiaries to the parent company in Brazil and intends to finish this process until 2020. The regime will expire in December, 2040.

Following the creation of Repetro-Sped, the Brazilian states, pursuant to a decision of the Brazilian National Council of Finance Policies (CONFAZ), agreed to grant tax incentives relating to VAT (ICMS) over transactions in the scope of this regime to the extent each state enacts its specific regulation providing for the tax relief for the oil and gas industry.

At the date of issuance of these financial statements, the states enacting new regulations governing the VAT tax incentives authorized by CONFAZ were: Amazonas, Bahia, Ceará, Espírito Santo, Rio de Janeiro, Rio Grande do Norte, São Paulo, Sergipe, Minas Gerais and Piauí.

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## 21.5.Reconciliation between statutory tax rate and effective tax expense rate

The following table provides the reconciliation of Brazilian statutory tax rate to the Company's effective rate on income before income taxes:

	Consolidated		Parent Company	
	2018	2017	2018	2017
Net income (losses) before income taxes	43,776	6,174	37,382	5,119
Nominal income taxes computed based on Brazilian statutory corporate tax rates (34%)	(14,884)	(2,099)	(12,710)	(1,740)
Adjustments to arrive at the effective tax rate:				
Tax benefits from the deduction of interest on capital distribution (*)	2,293	51	2,101	(168)
Tax benefits from the deduction of interest on capital distribution	1,306	2,154	–	–
Different jurisdictional tax rates for companies abroad (**)	(139)	(227)	(164)	(227)
Tax incentives	273	541	169	13
Tax loss carryforwards (unrecognized tax losses)	(1,825)	(475)	(14)	–
Non-taxable income (non-deductible expenses), net (***)	(3,099)	(1,564)	(68)	526
Tax settlement programs (***)	–	(4,415)	–	(4,231)
Agreement with US authorities	(1,161)	–	(1,161)	–
Others	159	237	245	262
Income taxes expense	(17,078)	(5,797)	(11,603)	(5,565)
Deferred income taxes	(2,787)	(1,452)	(398)	(4,071)
Current income taxes	(14,291)	(4,345)	(11,205)	(1,494)
Total	(17,078)	(5,797)	(11,603)	(5,565)
Effective tax rate of income taxes	39.0%	93.9%	31.0%	108.7%

(\*)It includes tax benefits from the deduction of interest on capital received from non-consolidated companies, as well as paid to non-controlling interests.

(\*\*) It relates to Brazilian income taxes on earnings of offshore investees, as established by Law No. 12,973/2014.

(\*\*\*) It includes results in equity-accounted investments and actuarial expenses relating to health care plan.

(\*\*\*\*) Income taxes in the scope of PRT and PERT and reversals of losses carry forwards from 2012 to 2017, as shown in note 21.2.5.

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## 21.6. Deferred income taxes - non-current

a) The changes in the deferred income taxes are presented as follows:

	Consolidated										Parent Company	
	Property, Plant and Equipment	Exploration and decommissioning costs	Others (*)	Loans, trade and other receivables / payables and financing	Finance for leases	Provision for legal proceedings	Tax losses	Inventories	Employee benefits	Others	Total	Total
Balance at January 1, 2017	(36,518)		3,055	11,446	(294)	3,676	19,684	1,398	9,807	928	13,182	4,873
Recognized in the statement of income for the year	1,148		(4,108)	(3,569)	(200)	3,671	888	434	–	446	(1,290)	(4,070)
Recognized in shareholders' equity (**)	–		–	(2,718)	–	–	(223)	–	(892)	28	(3,805)	(2,827)
Cumulative translation adjustment	–		10	–	–	–	88	–	–	–	98	–
Use of tax credits	–		–	–	–	–	(873)	–	–	–	(873)	(841)
Others	–		(598)	(51)	64	(67)	386	51	(31)	351	105	103
Balance at December 31, 2017	(35,370)		(1,641)	5,108	(430)	7,280	19,950	1,883	8,884	1,753	7,417	(2,762)
Initial application of IFRS9	–		–	388	–	–	–	–	–	15	403	105
Balance at January 1,	(35,370)		(1,641)	5,496	(430)	7,280	19,950	1,883	8,884	1,768	7,820	(2,657)

2018											
Recognized in the statement of income for the period	7,288	(3,880)	(5,339)	(489)	721	(1,114)	(121)	663	(516)	(2,787)	(398)
Recognized in shareholders' equity (**)	–	–	6,919	–	–	–	–	(455)	4	6,468	6,611
Cumulative translation adjustment	–	83	(42)	–	–	739	–	–	(15)	765	–
Use of tax credits	–	–	–	–	–	(4,063)	–	–	(389)	(4,452)	(4,452)
Others	–	(94)	60	350	6	53	–	33	(374)	34	(132)
Balance at December 31, 2018	(28,082)	(5,532)	7,094	(569)	8,007	15,565	1,762	9,125	478	7,848	(1,028)
Deferred tax assets										11,373	–
Deferred tax liabilities										(3,956)	(2,762)
Balance at December 31, 2017										7,417	(2,762)
Deferred tax assets										10,384	–
Deferred tax liabilities										(2,536)	(1,028)
Balance at December 31, 2018										7,848	(1,028)

(\*) It mainly includes impairment adjustments and capitalized borrowing costs.

(\*\*) The amounts presented as Loans, trade and other receivables/payables and financing, relate to the tax effect on exchange rate variation recognized within other comprehensive income (cash flow hedge accounting) as set out note 34.2.

Income taxes in Brazil comprise corporate income tax (IRPJ) and social contribution on net income (CSLL). Brazilian statutory corporate tax rates are 25% and 9%, respectively. The Company recognizes the deferred tax assets based on assessment of uncertainty over income tax treatments in the context of applicable tax laws, as well as projections of future taxable profits in a ten-year perspective supported by the Business and Management Plan, which is revised annually.



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## a) Timing of reversal of deferred income taxes

Deferred tax assets were recognized based on projections of taxable profit in future periods supported by the Company's 2019-2023 Business and Management Plan (BMP). The main goals and objectives outlined in its business plan include business restructuring, divestment plan, demobilization of assets and reducing operating expenses.

Management considers that the deferred tax assets will be realized to the extent the deferred tax liabilities are reversed and expected taxable events occur, based on its 2019-2023 BMP.

The estimated schedule of recovery/reversal of net deferred tax assets (liabilities) recoverable (payable) as of December 31, 2018 is set out in the following table:

	Deferred income tax and social contribution			
	Consolidated		Parent Company	
	Assets	Liabilities	Assets	Liabilities
2019	1,039	(343)	–	–
2020	1,494	(245)	–	–
2021	1,798	(83)	–	–
2022	1,917	105	–	–
2023	2,017	1,249	–	1,028
2024 onwards	2,119	1,853	–	–
Recognized deferred tax assets	10,384	2,536	–	1,028
In Brazil	12	–	–	–
Abroad	5,703	–	–	–
Unrecognized deferred tax assets	5,715	–	–	–
Total	16,099	2,536	–	1,028

At December 31, 2018, the Company had tax loss carryforwards arising from offshore subsidiaries, for which no deferred tax assets had been recognized. These tax losses totaling R\$ 5,703 (R\$ 8,799 at December 31, 2017) arose mainly from oil and gas exploration and production and refining activities in the United States of R\$ 5,416 (R\$ 7,837 at December 31, 2017), as well as activities in Spain in the amount of R\$ 267 (R\$ 959 at December 31, 2017).

An aging of the unrecognized tax carryforwards, from companies abroad is set out below:

Year	Unrecognized deferred tax assets
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2020	56
2021	140
2022	5
2023	51
2024	35
2025	14
2026	263
2027	302
2028	342
2029	377
2030 and thereafter	4,118
Total	5,703

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## 22. Short-term benefits

The balance of the main short-term benefits for employees, current and non-current, is presented as follows:

	Parent			
	Consolidated		Company	
	2018	2017	2018	2017
Accrued vacation pay	3,025	2,794	2,546	2,364
Profit sharing	1,375	457	1,190	394
Employees variable compensation program	1,041	–	1,004	–
Voluntary Separation Incentive Plan	141	112	58	104
Salaries and related charges	844	968	679	800
Total	6,426	4,331	5,477	3,662

## 22.1. Profit sharing

Changes in the provision for profit sharing are presented below:

	Consolidated		
	Petrobras	Methodology	Other methodologies
			Total
Balance at December 31, 2017	455	2	457
Adjustment to provision - 2017	25	–	25
Payments – 2017	(480)	(7)	(487)
Additions - 2018	1,608	31	1,639
Advances - 2018	(234)	(25)	(259)
Balance at December 31, 2018	1,374	1	1,375

The Company's profit sharing benefits comply with Brazilian legal requirements and those of the Brazilian Secretariat of Coordination and Governance of State Owned Enterprises (SEST), of the Ministry of Planning, Budget and Management, and of the Ministry of Mines and Energy and the current collective bargaining agreement. This compensation is computed based on the consolidated net income attributable to the shareholders of Petrobras.

The computation of the amount of profit sharing benefits takes into account the results of six corporate indicators, for which annual goals are defined by the Executive Board and approved by the Board of Directors pursuant to the review of the Annual Business Plan (PAN). The annual goals are based on the results of the following corporate indicators: (i) total volume of crude oil and oil products spill; (ii) Lifting cost excluding production taxes in Brazil; (iii) Crude oil and NGL production in Brazil; (iv) Feedstock processed excluding NGL in Brazil; (v) Vessel operating efficiency;

and (vi) Percentage of compliance with natural gas delivery schedules.

The results of the six individual goals are factored into a consolidated result that will determine the percentage of the profit to be distributed as a profit sharing benefit to employees. At December 31, 2018, the consolidated result reaches 100%, which represents a percentage of 6.25% to be applied in the distribution computation.

For 2018, the Company recognized a provision of R\$ 1,608 as other income and expenses regarding profit sharing benefits in accordance with clauses of the collective bargaining agreement.

In 2017, as the Company recorded a net loss for the year and all the annual goals were achieved, the profit sharing benefit was the half a month salary for each employee added to half of the lowest amount of profit sharing paid in the prior year. Based on these terms, the Company recognized a provision of R\$ 455 in 2017 as other income and expenses.

The subsidiary Liquigás and the joint operations Fábrica Carioca de Catalizadores (FCC) and Ibiritermo have their specific methodology for profit sharing computation pursuant to their own collective bargaining agreement, apart from other entities of the group. Altogether, they provisioned R\$ 31 in 2018.

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#### 22.2. Employees variable compensation program

The Company has an active variable compensation program for its employees (PRVE), focusing on meritocracy and encouraging employees to achieve better results.

The employees are entitled to the variable compensation whenever the Company recognizes a net income for the year and reaches at least 90% of the top metrics outlined in the BMP. The amount granted is a combination of this achievement and the employee performance during the year. The variable compensation does not affect the amounting of profit sharing to be distributed to each employee. However, in case of a profit sharing higher than a variable compensation, the employee is only entitled to receive its profit sharing.

On December 31, 2018, the Company reached the top metrics and provisioned R\$ 1,041 (R\$ 1,004 in the Parent Company) as other operating income and expenses. Due to the loss in 2017, there was no provision pertaining to this program.

#### 22.3. New Employee Career and Compensation Plan

On July 2, 2018, the Company released to its workforce the Employee Career and Compensation Plan (Plano de Carreiras e Remuneração – PCR), an upgrade of the remuneration and career model, with the goal of matching the new initiatives of personnel management to the current and future business needs, besides meeting the demands of the employees for recognition and more innovative work models.

The new plan enhances the Company's personnel management model by means of a number of criteria that enables higher rewards based on skills and performance, broader mobility and career development.

The PCR results in a greater alignment with practices suggested by the SEST. The employees were able to join the program until September 14, 2018, except for certain specific cases.

The Company granted monetary incentive to employees joining the program in order to achieve a higher number of enrollments in the plan, and estimates that this cost will be offset in the mid-term through the application of the recognition and reward best practices.

Through December 31, 2018, the Company disbursed R\$ 1,156 with respect to the 39,781 employees who joined the program in 2018 and accounted for this charge within other income and expenses.



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## 23. Employee benefits (Post-Employment)

The balance of post-employment benefits is set out as follows:

	Consolidated		Parent Company	
	2018	2017	2018	2017
<b>Liabilities</b>				
Petros Pension Plan	–	35,487	–	33,559
Petros Pension Plan - Renegotiated	27,711		26,136	
Petros Pension Plan - Non-renegotiated	11,161		10,466	
Petros 2 Pension Plan	1,591	861	1,295	687
AMS Medical Plan	47,411	35,732	43,980	32,930
Other plans	275	132	–	–
<b>Total</b>	<b>88,149</b>	<b>72,212</b>	<b>81,877</b>	<b>67,176</b>
<b>Current</b>	<b>3,137</b>	<b>2,791</b>	<b>2,976</b>	<b>2,657</b>
<b>Non-current</b>	<b>85,012</b>	<b>69,421</b>	<b>78,901</b>	<b>64,519</b>
<b>Total</b>	<b>88,149</b>	<b>72,212</b>	<b>81,877</b>	<b>67,176</b>

## a) Pension plans

The Company's post-retirement plans are managed by Fundação Petrobras de Seguridade Social (Petros Foundation), which was established by Petrobras as a nonprofit legal entity governed by private law with administrative and financial autonomy.

## a.1) Petros Plan

The Petros Plan was established by Petrobras in July 1970 as a defined-benefit pension plan and currently provides post-retirement benefits for employees of Petrobras and Petrobras Distribuidora S.A., in order to complement government social security benefits. The Petros Plan has been closed to new participants since September 2002.

Petros Foundation performs an annual actuarial review of its costs using the capitalization method for most benefits. The employers (sponsors) make regular contributions in amounts equal to the contributions of the participants (active employees, assisted employees and retired employees), on a parity basis.

On February 15, 2018, the Superintendence of Post-retirement Benefits (PREVIC) authorized the split of Petros Plan into two new separate plans: Petros Plan – Renegotiated (PPR) and Petros Plan – Non-renegotiated (PPNR). The Petros Plan split has been in place since April 1, 2018.

As of December 31, 2018, the balance of the Terms of Financial Commitment (TFC), signed by Petrobras and Petros Foundation in 2008 is R\$ 12,661 (R\$ 12,247 in the Parent Company). The TFC is a financial commitment agreement to cover obligations under the pension plans (PPR and PPNR), which amounts are due in 20 years, with 6% p.a. semiannual coupon payments based on the updated balance. The Company has provided crude oil and oil products pledged as security for the TFC totaling R\$ 17,421.

The employers' expected contributions to such plans for 2019 are R\$ 763 (R\$ 721 in the Parent Company). Interest payments on TFC are expected to reach R\$ 755 (R\$ 730 in the Parent Company). Estimated costs amounting to R\$ 3,246 (R\$ 3,047 in the Parent Company) will be recognized within the income statement ratably over the year (increase in the present value of the defined benefit).

The average durations of the actuarial liability related to the plans PPR and PPNR, as of December 31, 2018, are 13.08 and 11.69 years, respectively (12.51 years as of December 31, 2017 for the former Petros Plan).

#### Deficit settlement plan – Petros Plan

The Petros Plan has a deficit settlement plan (PED) in place due to its accumulated deficit until 2015. This deficit, updated by interest and inflation, reached R\$ 22.6 billion at December 31, 2017. The PED was approved by the Executive Council of Petros Foundation on September 12, 2017 and assessed by the Company and the SEST.

Additional contributions from participants and sponsors commenced in March 2018. Certain participants appealed before the judiciary and have had their contributions suspended based on judicial injunctions. In these cases, the Company has not paid its parity contributions. In 2018, the Company made contributions amounting to R\$ 607 (R\$ 562 in the Parent Company) with respect of contributions under the PED.



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Pursuant to relevant regulation, the sponsors and participants will cover this deficit based on their respective proportions of regular contributions (parity basis).

The deficit of Petros Plan was transferred to PPR and PPNR on April 1, 2018.

#### Split of Petros Plan

This split arose from the renegotiation procedures held in 2006-2007 period and in 2012, when 75% of the participants accepted the option to change to a model that sets forth solely inflation indexation on the annual adjustment of their benefits. The other participants' benefits remained adjusted by the same rate as the Petrobras' workforce had their salaries adjusted.

Assets and actuarial liability of Petros plan were transferred to the new plans based on future commitments on a participant basis. As there were no changes in post-retirement benefits rules, the actuarial liabilities of these plans were reviewed only during the annual actuarial assumptions review carried out in December 2018.

The movement of these events is shown below:

	Consolidated			Total
	Petros	PPR	PPNR	
Changes in the present value of obligations				
Obligations at the beginning of 2018	82,968	–	–	82,968
Interest expense	1,916	–	–	1,916
Current service cost	76	–	–	76
Contributions paid by participants	279	–	–	279
Benefits paid	(1,621)	–	–	(1,621)
Balance at March 31, 2018	83,618	–	–	83,618
Transfer due to split of Petros plan	(83,618)	62,954	20,664	–
Current interest cost	–	4,333	1,416	5,749
Current service cost	–	202	27	229
Contributions paid by participants	–	828	261	1,089
Benefits Paid	–	(3,337)	(2,984)	(6,321)
Remeasurement: Experience (gains) / losses (*)	–	(4,907)	(112)	(5,019)
Remeasurement: (gains) / losses - demographic assumptions	–	23	270	293
Remeasurement: (gains) / losses - financial assumptions	–	4,569	1,274	5,843
Obligations at the end of the year of December 31, 2018	–	64,665	20,816	85,481
Changes in the fair value of plan assets				
Fair value of plan assets at the beginning of the year	47,481	–	–	47,481

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Interest income	1,091	–	–	1,091
Contributions paid by the sponsor (Company)	302	–	–	302
Contributions paid by participants	279	–	–	279
Benefits Paid	(1,621)	–	–	(1,621)
Balance at March 31, 2018	47,532	–	–	47,532
Transfer due to split of Petros plan	(47,532)	35,857	11,675	–
Interest income	–	2,474	801	3,275
Contributions paid by the sponsor (Company)	–	867	279	1,146
Contributions paid by participants	–	828	261	1,089
Term of financial commitment (TFC) paid by the Company	–	534	204	738
Benefits Paid	–	(3,337)	(2,984)	(6,321)
Remeasurement: Return on plan assets due to lower interest income	–	(269)	(581)	(850)
Fair value of plan assets at the end of the year of December 31, 2018	–	36,954	9,655	46,609
Amounts recognized in the Statement of Financial Position				
Present value of obligations	–	64,665	20,816	85,481
(-) Fair value of plan assets	–	(36,954)	(9,655)	(46,609)
Net actuarial liability as of December 31,	–	27,711	11,161	38,872
Changes in the net actuarial liability				
Balance as of January 1,	35,487	–	–	35,487
Remeasurement effects recognized in OCI (**)	–	(46)	2,013	1,967
Current service cost	76	202	27	305
Net interest on liabilities / (assets)	825	1,859	615	3,299
Contributions paid	(302)	(867)	(279)	(1,448)
Payments related to Term of financial commitment (TFC)	–	(534)	(204)	(738)
Transfer due to spin-off	(36,086)	27,097	8,989	–
Balance at December 31, 2018	–	27,711	11,161	38,872

(\*) It includes the effect of the extraordinary contributions of the participants related to the deficit with the Petros plan, as set out in note 23.

(\*\*) Other Comprehensive Income

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#### a.2) Petros 2 Plan

Petros 2 Plan was established in July 2007 by Petrobras and certain subsidiaries as a variable contribution plan recognizing past service costs for contributions for the period from August 2002 to August 29, 2007. The Petros 2 Plan currently provides post-retirement benefits for employees of Petrobras, Petrobras Distribuidora S.A., Stratura Asfaltos, Termobahia, Termomacaé, Transportadora Brasileira Gasoduto Brasil-Bolívia S.A. – TBG, Petrobras Transporte S.A. – Transpetro, Petrobras Biocombustível and Araucária Nitrogenados. The plan is open to new participants although there will no longer be payments relating to past service costs.

Certain elements of the Petros 2 Plan have defined benefit characteristics, primarily the coverage of disability and death risks and the guarantee of minimum defined benefit and lifetime income. These actuarial commitments are treated as defined benefit components of the plan and are accounted for by applying the projected unit credit method. Contributions paid for actuarial commitments that have defined contribution characteristics are accrued monthly in the statement of income and are intended to constitute a reserve for programmed retirement. The contributions for the portion of the plan with defined contribution characteristics were R\$ 950 (R\$ 824 in the Parent Company) in 2018.

The defined benefit portion of the contributions was suspended from July 1, 2012 to June 30, 2019, as determined by the Executive Council of Petros Foundation, based on advice of the actuarial consultants from Petros Foundation. Therefore, the entire contributions are being applied to the individual accounts of plan participants.

For 2019, the employers' expected contributions to the defined contribution portion of the plan are R\$ 987 (R\$ 843 in the Parent Company). Estimated costs amounting to R\$ 309 (R\$ 251 in the Parent Company) will be recognized within the income statement ratably over the year (increase in the present value of the defined benefit).

The average duration of the actuarial liability related to the plan, as of December 31, 2018 is 42.48 years (43.53 at December 31, 2017).

#### a.3) Petros 3 Plan

On December 18, 2018, the Board of Directors approved a proposal for a new pension plan with defined contribution characteristics to be offered. Its adhesion is voluntary to the participants of Petros Plan –Renegotiated and Petros Plan – Non-renegotiated.

The migration to this new plan will only be possible after the proposal review and approval by all relevant bodies. The proposal has already been approved by the Petros Deliberative Council and the Petrobras Board of Directors and is awaiting approval from PREVIC and SEST.

The participants' new benefit will be recalculated based on future commitments on a participant basis at the time of migration. Therefore, each participant will have an individual account, and the amount of the retirement benefit will

depend on the accumulated balance, being recalculated annually in connection with the return on plan assets.

#### a.4) Other plans

The Company also sponsors other pension and health care plans of certain of its Brazilian and international subsidiaries. Most of these plans are unfunded and their assets are held in trusts, foundations or similar entities governed by local regulations.

#### b) Pension Plans assets

Pension plans assets follow a long term investment strategy based on the risks assessed for each different class of assets and provide for diversification, in order to lower portfolio risk. The portfolio profile must comply with the Brazilian National Monetary Council (Conselho Monetário Nacional – CMN) regulations.

Petros Foundation establishes investment policies for 5-year periods, reviewed annually. Petros uses an asset liability management model (ALM) to address net cash flow mismatches of the benefit plans, based on liquidity and solvency parameters, simulating a 30-year period.

	PPR		PPNR		PP2	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Fixed-income	50%	100%	45%	100%	55%	70%
Variable-income	-	25%	-	30%	5%	12%
Structured investments	-	4%	-	4%	-	6%
Real estate properties	-	12%	-	12%	-	2%
Loans to participants	-	8%	-	8%	2%	5%
Investments abroad	-	-	-	-	-	5%

The pension plan assets by type of asset are set out as follows:

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Type of asset	Consolidated		2017			
	2018		Total fair			
	Quoted prices in active markets	Unquoted prices	value	%	Total fair value(*)	%
Receivables	–	4,211	4,211	9	3,769	8
Fixed income	25,272	4,800	30,072	61	28,733	58
Government bonds	25,272	–	25,272	–	22,308	–
Fixed income funds	–	3,642	3,642	–	6,005	–
Other investments	–	1,158	1,158	–	420	–
Variable income	8,063	492	8,555	17	10,461	21
Common and preferred shares	8,063	–	8,063	–	9,518	–
Other investments	–	492	492	–	943	–
Structured investments	–	920	920	2	1,235	2
Real estate properties	–	3,214	3,214	7	3,456	7
Loans to participants	–	2,064	2,064	4	2,050	4
<b>Total</b>	<b>33,335</b>	<b>15,701</b>	<b>49,036</b>	<b>100</b>	<b>49,704</b>	<b>100</b>

(\*) Amounts reclassified for comparative purposes.

As of December 31, 2018, the investment portfolio included debentures of R\$ 42, Company's common shares in the amount of R\$ 12 and real estate properties leased by the Company in the amount of R\$ 1,332.

Loans to participants are measured at amortized cost, which is considered to be an appropriate estimate of fair value.

The Company has improved its monitoring model over Petros Foundation, mainly through the enhancement on internal controls over investment portfolio and the establishment of specific committees to provide technical advisory for the members indicated by the Company to the Executive and Fiscal Councils of Petros Foundation, in accordance with relevant regulation establishing practices to be performed by the Board of Directors and Executive Officers of the sponsors.

c) Medical Benefits: Health Care Plan – (Assistência Multidisciplinar de Saúde - AMS)

Petrobras, Petrobras Distribuidora S.A., Petrobras Transporte S.A. – Transpetro, Petrobras Biocombustível, Transportadora Brasileira Gasoduto Brasil-Bolívia – TBG and Termobahia operate a medical benefit plan for their employees in Brazil (active and retired) and their dependents: the AMS health care plan. The plan is managed by the

Company based on a self-supporting benefit assumption and includes health prevention and health care programs. The plan is mainly exposed to the risk of an increase in medical costs due to new technologies, new types of coverage and to a higher level of usage of medical benefits. The Company continuously improves the quality of its technical and administrative processes, as well as the health programs offered to beneficiaries in order to mitigate such risks.

The employees make fixed monthly contributions to cover high-risk procedures and variable contributions for a portion of the cost of the other procedures, both based on the contribution tables of the plan, which are determined based on certain parameters, such as salary and age levels. The plan also includes assistance towards the purchase of certain medicines in registered drugstores throughout Brazil. There are no health care plan assets.

Benefits are paid and recognized by the Company based on the costs incurred by the participants, of which the Company satisfies 70% of these costs as governed by the collective bargaining agreement.

The average duration of the actuarial liability related to this health care plan, as of December 31, 2018, is 22.24 years (22.08 as of December 31, 2017).

#### CGPAR resolutions

On January 18, 2018, the Inter-ministerial Commission for Corporate Governance and Administration of Participations of the Union (CGPAR), through CGPAR Resolutions 22 and 23, established guidelines and parameters of governance and cost limits to health care plans operated by state-owned companies.

The main objective of the resolutions is to make feasible the sustainability and the economic, financial and actuarial balance of the health plans operated by state-owned companies.

The company has up to 48 months to adjust the AMS health plan to this new regulation provisions and is assessing the financial impacts it may cause, including among others, a possible decrease in its actuarial liability following the parity basis of contribution, between the Company and the participants, determined by this rule.

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23.1. Net actuarial liabilities and expenses calculated by independent actuaries and fair value of plans assets  
Aggregate information is presented for other plans, whose total assets and liabilities are not material:

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a) Changes in the actuarial liabilities, in the fair value of the assets and in the amounts recognized in the statement of financial position - consolidated

	2018					2017				
	Pension plans Defined		Other			Pension plans		Other		
	Benefits Plans (*)	Petros 2	AMS	plans	Total	Petros	2	AMS	plans	Total
Changes in the present value of obligations										
Obligations at the beginning of the year	82,968	2,935	35,732	281	121,916	84,318	2,211	36,549	251	123,329
Interest expense	7,665	278	3,361	25	11,329	8,863	235	3,900	28	13,026
Current service cost	305	121	565	18	1,009	288	143	510	14	955
Contributions paid by participants	1,368	–	–	1	1,369	217	–	–	1	218
Benefits paid	(7,942)	(127)	(1,667)	(10)	(9,746)	(6,084)	(110)	(1,489)	(9)	(7,692)
Remeasurement: Experience (gains) / losses (**)	(5,019)	30	(421)	–	(5,410)	(8,796)	195	(1,659)	21	(10,239)
Remeasurement: (gains) / losses - demographic assumptions	293	–	642	1	936	71	(96)	(200)	(28)	(253)
Remeasurement: (gains) / losses - financial assumptions	5,843	624	9,199	(7)	15,659	4,091	357	(1,879)	21	2,590
Others	–	–	–	123	123	–	–	–	(18)	(18)
Obligations at the end of the year	85,481	3,861	47,411	432	137,185	82,968	2,935	35,732	281	121,916
Changes in the fair value of plan assets										
Fair value of plan assets at the beginning of the year	47,481	2,074	–	149	49,704	49,278	1,256	–	127	50,661
Interest income	4,366	195	–	7	4,568	5,136	132	–	8	5,276
Contributions paid by the sponsor (Company)	1,448	–	1,667	11	3,126	733	–	1,489	10	2,232
Contributions paid by participants	1,368	–	–	1	1,369	217	–	–	1	218
Term of financial commitment (TFC) paid by the Company	738	–	–	–	738	712	–	–	–	712
Benefits Paid	(7,942)	(127)	(1,667)	(10)	(9,746)	(6,084)	(110)	(1,489)	(9)	(7,692)
Remeasurement: Return on plan assets due to lower interest	(850)	128	–	(13)	(735)	(2,511)	796	–	12	(1,703)



income										
Others	-	-	-	12	12	-	-	-	-	-
Fair value of plan assets at the end of the year	46,609	2,270	-	157	49,036	47,481	2,074	-	149	49,704
Amounts recognized in the Statement of Financial Position										
Present value of obligations	85,481	3,861	47,411	432	137,185	82,968	2,935	35,732	281	121,916
(-) Fair value of plan assets	(46,609)	(2,270)	-	(157)	(49,036)	(47,481)	(2,074)	-	(149)	(49,704)
Net actuarial liability as of December 31,	38,872	1,591	47,411	275	88,149	35,487	861	35,732	132	72,212
Changes in the net actuarial liability										
Balance as of January 1,	35,487	861	35,732	132	72,212	35,040	955	36,549	124	72,668
Remeasurement effects recognized in other comprehensive	1,967	526	9,420	7	11,920	(2,123)	(340)	(3,738)	2	(6,199)
Costs incurred in the period	305	121	565	18	1,009	288	143	510	14	955
Current service cost	3,299	83	3,361	18	6,761	3,727	103	3,900	20	7,750
Contributions paid	(1,448)	-	(1,667)	(11)	(3,126)	(733)	-	(1,489)	(10)	(2,232)
Payments related to Term of financial commitment (TFC)	(738)	-	-	-	(738)	(712)	-	-	-	(712)
Others	-	-	-	111	111	-	-	-	(18)	(18)
Balance as of December 31,	38,872	1,591	47,411	275	88,149	35,487	861	35,732	132	72,212

(\*) It includes the changes in Petros plan, PPR and PPNR plans.

(\*\*) It includes additional contributions of participants regarding the deficit settlement plan as set out in note 23.1.

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## b) Defined benefit costs

	Consolidated					Other	
	Pension plans Petros plan	PPR	PPNR	Petros 2	AMS	Medical plan	Total
	2018						
Service cost	76	202	27	121	565	18	1,009
Interest on net liabilities (assets)	825	1,859	615	83	3,361	18	6,761
Net expenses for the year	901	2,061	642	204	3,926	36	7,770
Related to active employees:							
Included in the cost of sales	148	353	91	107	849	–	1,548
Operating expenses in statement of income	70	173	41	60	443	30	817
Related to retirees	683	1,535	510	37	2,634	6	5,405
Net expenses for the year	901	2,061	642	204	3,926	36	7,770
	2017						
Service cost	288	0	0	143	510	14	955
Interest on net liabilities (assets)	3,727	0	0	103	3,900	20	7,750
Net expenses for the year	4,015	–	–	246	4,410	34	8,705
Related to active employees:							
Included in the cost of sales	755	0	0	129	841	2	1,727
Operating expenses in statement of income	331	0	0	77	426	28	862
Related to retirees	2,929	0	0	40	3,143	4	6,116
Net expenses for the year	4,015	–	–	246	4,410	34	8,705

## c) Sensitivity analysis of the defined benefit plans

The effect of a 100 basis points (bps) change in the assumed discount rate and medical cost trend rate is as set below:

	Consolidated Discount Rate		Medical Cost	
	Pension Benefits	Medical Benefits	Medical Benefits	Medical Benefits
	+ 1 p.p.	- 1 p.p.	+ 1 p.p.	- 1 p.p.
Pension Obligation	(6.641)	15.070	(5.804)	7.242
Current Service cost and interest cost	51	544	(286)	344
			961	(455)

## d) Actuarial assumptions

				2018
Assumptions	PPR	PPNR	Petros 2	AMS
Discount rate - (real rate)(1)	9.11%	9.08%	9.22%	9.16%
Nominal discount rate (real rate + inflation) (2)	For 2019: 5.55% As of 2020: 5.33%	For 2019: 5.40% As of 2020: 5.24%	For 2019: 7.28% As of 2020: 6.84%	according to security plan -
Expected changes in medical and hospital costs (3)	n/a	n/a	n/a	12.03% to 4% p.a.
Mortality table	EX-PETROS 2013 (bidecremental)	EX-PETROS 2017 (bidecremental)	AT-2000 female, smoothed in a 10% American group reduced by 40%	EX-PETROS 2013 (bidecremental)
Disability table	American group	American group	American group reduced by 40%	American group
Mortality table for disabled participants	AT-49 male	AT-49 male	IAPB 1957 strong	AT-49 male
Age of retirement	Male, 56 years / Female, 55 years	Male, 58 years / Female, 56 years	1st eligibility	Male, 56 years / Female, 55 years

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			2017
Assumptions	Petros plan	Petros 2	AMS
Discount rate - (real rate)(1)	9.52%	9.63%	9.59%
Nominal discount rate (real rate + inflation) (2)	5.19%	6.59%	according to security plan
Expected changes in medical and hospital costs (3)	n/a	n/a	11.3% to 4.5% p.a.
Mortality table	EX-PETROS 2013 (bidecremental)	AT-2000 female, smoothed in a 10%	EX-PETROS 2013 (bidecremental)
Disability table	American group	American group reduced by 40%	American group
Mortality table for disabled participants	AT-49 male	IAPB 1957 strong	AT-49 male
Age of retirement	Male, 57 years / Female, 56 years	1st eligibility	Male, 57 years / Female, 56 years

(1) Inflation reflects market projections: 4.01% for 2019 and converging to 4% in 2026 onwards.

(2) Expected salary growth only of Petrobras, the sponsor, based on the Salaries and Benefits Plan.

(3) Decreasing rate, converging in 30 years to the long-term expected inflation. Refers only to Petrobras (sponsor) rate.

## e) Expected maturity analysis of pension and medical benefits

	2018						
	Pension plans			Medical Plan		Other plans	Total
	PPR	PPNR	PP2	A	M	S	
Up to 1 year	4,952	1,844	130	1,615		14	8,555
1 to 2 years	4,508	1,583	128	1,700		13	7,932
2 to 3 years	4,405	1,511	125	1,775		10	7,826
3 to 4 years	4,293	1,440	123	1,843		11	7,710
Over 4 years	46,507	14,438	3,355	40,478		384	105,162
Total	64,665	20,816	3,861	47,411		432	137,185

23.2. Other defined contribution plans

Petrobras, through its subsidiaries in Brazil and abroad, also sponsors other defined contribution pension plans for employees. Contributions paid amounting to R\$ 8 in 2018 were recognized in the statement of income.

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## 24. Equity

### 24.1. Share capital (net of share issuance costs)

As of December 31, 2018, subscribed and fully paid share capital, net of issuance costs, was R\$ 205,432, represented by 7,442,454,142 outstanding common shares and 5,602,042,788 outstanding preferred shares, all of which are registered, book-entry shares with no par value. Preferred shares have priority on returns of capital, do not grant any voting rights and are non-convertible into common shares.

### 24.2. Capital reserve

Capital reserve comprises treasury shares owned by Petrobras, in the amount of R\$ 7, held in the Brazilian depository bank.

### 24.3. Capital transactions

#### 24.3.1. Incremental costs directly attributable to the issue of shares

It includes any transaction costs directly attributable to the issue of new shares, net of taxes.

#### 24.3.2. Change in interest in subsidiaries

It includes any excess of amounts paid/received over the carrying value of the interest acquired/disposed. Changes in interests in subsidiaries that do not result in loss of control of the subsidiary are equity transactions, such as the change in BR Distribuidora, in 2017.

#### 24.3.3. Treasury shares

Shares held in treasury in the amount of R\$ 2, represented by 222,760 common shares and 72,909 preferred shares.

### 24.4. Profit reserves

#### 24.4.1. Legal reserve

It represents 5% of the net income for the year, calculated pursuant to article 193 of the Brazilian Corporation Law.

#### 24.4.2. Statutory reserve

Appropriated by applying a minimum of 0.5% of the year-end share capital and is retained to fund technology research and development programs. The balance of this reserve may not exceed 5% of the share capital, pursuant to article 55 of the Company's bylaws.

#### 24.4.3. Tax incentives reserve

Government grants are recognized in the statement of income and are appropriated from retained earnings to the tax incentive reserve in the shareholders' equity pursuant to article 195-A of Brazilian Corporation Law. This reserve may only be used to offset losses or increase share capital.

In 2018, R\$ 772 was appropriated to this reserve relating to the subvention of investments, of which R\$ 643 arising from the result of 2018 and R\$ 129 from the results of 2014 to 2017.

The effect of the tax incentives granted from 2014 to 2017 by Superintendência de Desenvolvimento do Nordeste (SUDENE) and Superintendência de Desenvolvimento da Amazônia (SUDAM), in the north and northeast regions of Brazil, were not allocated to the tax incentives reserve, due to the absence of income in those years. From the R\$ 772 abovementioned, R\$ 728 relates to this incentive, of which R\$ 111 is destined for reinvestments with own resources.

24.4.4. Profit retention reserve

It Includes funds intended for capital expenditures, primarily in oil and gas exploration and development activities, as per the capital budget of the Company, pursuant to article 196 of the Brazilian Corporation Law.

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The Board of Directors proposes to retain in the shareholder's equity, within the profit retention reserve, the amount of R\$ 14,912 in order to partially fund the annual investment program determined in the capital budget for 2019, to be approved at the Shareholder's General Meeting.

#### 24.5. Other comprehensive income

In 2018, the Company primarily recognized as other comprehensive income the following effects:

- Cumulative translation adjustment gain of R\$ 21,887 primarily reflecting translations from the main functional currency of Petrobras group (Brazilian real) into the presentation currency (U.S. dollar);
- Actuarial loss on defined benefit plans in the amount of R\$ 12,375, after taxes.
- Foreign exchange rate variation loss of R\$ 13,431 after taxes and amounts reclassified to the statement of income, recognized in the Company's equity, as a result of its cash flow hedge accounting policy. In 2018, the cumulative balance of foreign exchange variation losses, net of tax effects, was R\$ 33,273 (see note 34.2).

#### 24.6. Dividends

Pursuant to Brazilian Corporation Law, the Company's shareholders are entitled to receive minimum mandatory dividends (and/or interest on capital) of 25% of the adjusted net income for the year in proportion to the number of common and preferred shares held by them.

To the extent the Company proposes dividend distributions, preferred shares have priority in dividend distribution, which is based on the highest of 3% of the preferred shares' net book value or 5% of the preferred share capital. Preferred shares participate under the same terms as common shares in capital increases resulting from the capitalization of profit reserves or retained earnings. However, this priority does not necessarily grant dividend distributions to the preferred shareholders in the event of loss for a year.

The General Shareholders Meeting held on April 26, 2018 amended provisions in the Company's bylaws governing distribution to shareholders (dividends and interest on capital) on a quarterly basis. The quarterly distributions were included in the Company's minimum mandatory distribution for 2018 and were updated by Selic rate from the date of the payments to the end of the fiscal year.

Distributions to shareholders for 2018 amounting to R\$ 7,055, to be approved at the 2019 Shareholder's General Meeting, are consistent with the minimum mandatory dividend of 25% of the adjusted income and withholding income tax rate of 15%, and include a complement to common shareholders as the distributions during 2018 were higher than the minimum mandatory dividend for this year. This proposal meets the priority rights of the preferred shareholders, whose criteria of 5% on the part of the capital represented by this class of shares prevailed for 2019.

##### 24.6.1. Proposed dividends

Proposed dividends, subject to approval at the General Shareholders Meeting, are set out as follows:

2018



Net income for the period (Parent Company) attributable to shareholders of Petrobras	25,779
Appropriations:	
Legal reserve	(1,289)
Tax incentives reserve	(772)
Other appropriations	10
Adjusted net income	23,728
Minimum mandatory distribution:	
Distributable dividends (25%)	5,932
Withholding taxes - IRRF (15%) on interest on capital approved in 2018	1,035
Complementary dividends to common shares	88
Total proposed dividends	7,055
Preferred shares (PN) - R\$ 0.9225 per share	5,168
Common shares (ON) - R\$ 0.2535 per share	1,887

In 2018, the Board of Directors approved advances of dividends in the form of interest on capital, in the amount of R\$ 6,902, of which:

(i) R\$ 2,608 (R\$ 2,368 net of taxes) paid in 2018, corresponding to a gross amount of R\$ 0.20 per common and preferred shares. These installments are being discounted from the proposed dividends for the year 2018, monetarily adjusted according to the variation of the Selic interest rate, from the date of effective payment until December 31, 2018; and

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(ii) R\$ 4,294 (R\$ 3,787 net of taxes) will be paid within 60 days after the General Shareholders' Meeting of 2019, corresponding to a gross amount of R\$ 0.05 per common share and R\$ 0.70 per preferred share, taking into account the shareholder's position at December 21, 2018.

Interest on capital is subject to withholding income tax of 15%, except for immune and exempt shareholders, as established in Law 9,249/95. This interest was charged to dividends for the year, as provided for in the Company's Bylaws, recorded in the statement of income, as required by tax legislation, and reversed against retained earnings, as determined by CVM Resolution No. 207/96, resulting in a tax credit in the amount of R\$ 2,347.

## 24.6.2. Dividends payable

On December 31, 2018, the balance of dividends payable to the shareholders, net of prepayments during the year, is set as follows:

	Parent Company		Total
	Preferred shares	Common shares	
Interest on capital advances – paid	1,120	1,488	2,608
Interest on capital advances - approved on December 18, 2018	3,922	372	4,294
Complementary dividends payable	107	-	107
Inflation indexation on interest on capital advances	19	27	146
Total proposed dividends	5,168	1,887	7,055
R\$ 0.05 per share, shareholder's position at May 21, 2018 – paid on May 29, 2018 – interest on capital	(280)	(372)	(652)
R\$ 0.05 per share, shareholder's position at August 13, 2018 – paid on August 23, 2018 – interest on capital	(280)	(372)	(652)
R\$ 0.10 per share, shareholder's position at November 21, 2018 – paid on December 03, 2018 – interest on capital	(560)	(744)	(1,304)
Advances made	(1,120)	(1,488)	(2,608)
Dividends payable before inflation indexation and withholding taxes	4,048	399	4,447
Inflation indexation on advances of interest on capital	(19)	(27)	(46)
Withholding taxes (IRRF) on interest on capital approved on December 18, 2018 – non exempt shareholders	(481)	(26)	(507)
Dividends payable at December 31, 2018	3,548	346	3,894
Interest on capital advances - approved on December 18, 2018 (net of IRRF)	3,441	346	3,787
Complementary dividends (R\$ 0.019043 per preferred share)	107	-	107

Dividends and interest on capital will be made available on the date fixed by the Annual Shareholders' Meeting, and will be adjusted according to the variation of the Selic interest rate, from December 31, 2018 until the date of payment.

In addition to the dividends payable to Petrobras' shareholders, there are dividends payable to non-controlling shareholders of Petrobras Distribuidora (R\$ 224), Logigás (R\$ 143), Gaspetro (R\$ 26) and other subsidiaries, totaling R\$ 4,296 accounted for in the statement of financial position as of December 31, 2018.

Due to the loss recorded in 2017, the Board of Directors did not propose dividend distributions for those years.

#### 24.7. Earnings per share

	Consolidated and Parent Company					
	Jan-Dec/2018			Jan-Dec/2017		
	Common	Preferred	Total	Common	Preferred	Total
Basic and diluted numerator						
Net income (loss) attributable to shareholders of Petrobras	14,708	11,071	25,779	(254)	(192)	(446)
Basic and diluted denominator						
Weighted average number of common and preferred shares outstanding	7,442,454,142	5,602,042,788	13,044,496,930	7,442,454,142	5,602,042,788	13,044,496,930
Basic and diluted losses per common and preferred share (R\$ per share)	1.98	1.98	1.98	(0.03)	(0.03)	(0.03)

Basic earnings per share are calculated by dividing the net income (loss) attributable to shareholders of Petrobras by the weighted average number of outstanding shares during the period.

Diluted earnings (losses) per share are calculated by adjusting the net income (loss) attributable to shareholders of Petrobras and the weighted average number of outstanding shares during the period taking into account the effects of all dilutive potential shares (equity instrument or contractual arrangements that are convertible into shares).

Basic and diluted earnings (losses) are identical as the Company has no potential share in issue.

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## 25. Sales revenues

### 25.1. Revenues from contracts with customers

As an integrated energy company, revenues from contracts with customers derive from different products sold according to our operating segments, taking into consideration specific characteristics of the markets where it operates. For additional information about the operating segments of the Company, its activities and its respective products sold, see notes 4.2 and 30.

The determination of transaction prices derives from methodologies and policies based on the parameters of these markets, reflecting operating risks, level of market share, changes in exchange rates and international commodity prices, including Brent oil prices, oil products such as diesel and gasoline, and the Henry Hub Index.

As described in note 4.21, revenues from sales are recognized at the moment the control is transferred to the client, that usually occurs upon delivery or when the service is provided. Generally, prices for products and services are fixed prior to or shortly after delivery. Therefore, no significant changes in transactions prices are expected to be recognized in periods after the satisfaction of the performance obligations, except for some exports in which final prices are linked to changes in commodity price after their transfer of control (note 7.1). Sales proceeds are generally collected in the short-term, thus there are no significant financing components.

In addition, the company acts as an agent in the biofuel segment, where there is no control of the biodiesel sold to distributors at any time during the sale operation. Those revenues totaled R\$ 97 in 2018.

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## 25.2. Disaggregation of revenues

	Consolidated			
	Consolidated		Parent Company	
	2018	2017	2018	2017
Gross sales	442.539	362.577	376.101	306.796
Sales taxes (*)	(92.703)	(78.882)	(95.002)	(78.832)
Sales revenues (**)	349.836	283.695	281.099	227.964
Diesel	103.049	79.993	86.402	62.711
Diesel subsidy	5.461	–	5.461	–
Automotive gasoline	57.383	53.534	42.706	39.052
Liquefied petroleum gas	16.379	12.786	14.655	11.109
Jet fuel	14.608	10.003	15.430	10.426
Naphtha	9.017	8.410	9.017	8.410
Fuel oil (including bunker fuel)	4.663	4.447	4.541	4.536
Other oil products	15.551	12.053	14.079	10.607
Subtotal oil products	226.111	181.226	192.291	146.851
Natural gas	20.588	16.539	19.795	15.932
Ethanol, nitrogen products and renewables	7.822	12.388	1.050	10.896
Breakage	2.466	–	2.481	–
Electricity	7.554	11.578	7.499	11.486
Services and others	3.092	2.920	4.339	3.541
Domestic market	267.633	224.651	227.455	188.706
Exports	57.986	41.724	53.644	39.258
Sales abroad (***)	24.217	17.320	–	–
Foreign market	82.203	59.044	53.644	39.258
Sales revenues (**)	349.836	283.695	281.099	227.964

(\*) Includes, mainly, CIDE, PIS, COFINS and ICMS (VAT).

(\*\*) Sales revenues by business segment are set out in note 30.

(\*\*\*) Sales revenues from operations outside of Brazil, including trading and excluding exports.

In the domestic market, as well as in exports and sales abroad, the Company had higher revenues than in 2017.

Domestic market revenues were influenced by higher average prices of oil products, especially diesel, gasoline and other oil products, in line with the increase in international prices and the depreciation of the real against the US dollar, as well as a lower sales volume of gasoline and naphtha, partially compensated by the growth in diesel sales

due to the lower volume imported by other players. In addition, due to higher commodity prices, there was an increase in natural gas revenues.

There was an increase in export revenues, basically oil and oil products, due to higher prices, following the rise in international prices and the depreciation of the real against the US dollar, and a higher volume of gasoline exported due to the loss of participation in ethanol in the domestic market, partially offset by a reduction in the volume of oil exported due to lower production. The increase in sales revenues abroad reflects the increase in international prices.

As set out in note 19.7.1, the revenue recognition of the diesel subsidy occurs when the diesel is sold and delivered to distributors. At December 31, 2018, the Company accounted for R\$ 6,017 of gross sales (R\$ 5,461 of sales revenues) relating to this subsidy.

In the years ended December 31, 2018 and 2017, there was no customer whose sales revenues totaled 10% or more of the Company's sales revenues.

The impacts of the adoption of IFRS 15 in 2018 are presented in note 2.3.2.

### 25.3. Remaining performance obligations

The company has current sales contracts with original expected duration of more than 1 year, in which volumes of goods or services for future sales are determined with their respective payment terms.

The estimated remaining values of these contracts at the end of 2018 presented below are based on volumes of goods and services for future sales, as well as prices prevailing at December 31, 2018 or practiced in recent sales when they reflect the more directly observable information:

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	Consolidated	
	Total	Expected recognition within 1 year
Domestic market		
Gasoline	234.772	39.245
Diesel	172.242	39.880
Natural gas	106.054	28.945
Services and others	35.749	5.697
Ethanol, nitrogen products and renewables	32.961	4.151
Naphtha	26.086	13.043
Other oil products	20.361	3.958
Electricity	18.912	1.756
Jet fuel	3.626	3.622
Foreign market		
Exports	130.755	15.955
Sales abroad	1.212	102
Total	782.730	156.354

The revenues will be recognized once goods are transferred and services are provided to the customers and their measurement and timing of recognition will be subject to future demands, changes in commodities prices, exchange rates and other market factors.

The table above does not include information on contracts with original expected duration of one year or less, such as spot-market contracts, variable considerations which are constrained, and information on contracts only establishing general terms and conditions (Master Agreements), for which volumes and prices will only be defined in subsequent contracts.

In addition, electricity sales are mainly driven by demands to generate electricity from thermoelectric power plants, according to the Brazilian National Electric System Operator (ONS) requests. These requests are substantially affected by Brazilian hydrological conditions, thus, the table above presents fixed amounts representing sales of certified capacity in accordance with the installed capacity of the Company.

#### 25.4. Contract liabilities

The balance of contract liabilities carried on the statement of financial position at December 31, 2018 amounted to R\$ 950 (R\$ 1,110 at December 31, 2017). This amount is classified as other current liabilities and primarily comprises advances from customers in take and ship or pay contracts, that, will be recognized as revenue based on future sales of natural gas or following the non-exercise of the right by the customer.

## 26. Other income and expenses

	Consolidated		Parent Company	
	2018	2017	2018	2017
Pension and medical benefits - retirees	(5,405)	(6,116)	(5,075)	(5,710)
Agreement with US Authorities	(3,536)	–	(3,536)	–
Unscheduled stoppages and pre-operating expenses	(4,746)	(5,100)	(4,223)	(4,718)
Gains / (losses) related to legal, administrative and arbitration proceedings (*)	(7,439)	(2,835)	(5,355)	(2,159)
Gains / (losses) with commodities derivatives	(1,371)	–	(1,506)	–
Profit sharing	(1,664)	(487)	(1,412)	(393)
Employee Career and Compensation Plan - PCR	(1,156)	–	(1,156)	–
Institutional relations and cultural projects	(826)	(828)	(638)	(654)
Operating expenses with thermoelectric power plants	(392)	(214)	(466)	(292)
Health, safety and environment	(272)	(224)	(268)	(221)
Allowance for impairment of other receivables	(219)	(1,382)	(216)	(383)
Provision for the class action agreement	–	(11,198)	–	(9,599)
Reclassification of cumulative translation adjustments – CTA	–	(116)	–	–
Gain on remeasurement of investment retained with loss of control	–	698	–	698
Equalization of expenses - Production Individualization Agreements	(1,064)	–	(1,064)	–
Variable compensation program (**)	(1,099)	–	(1,009)	–
Government grants	930	292	662	46
Ship/Take or Pay agreements	479	1,737	302	1,666
Gains / (losses) on disposal/write-offs of assets (***)	1,086	4,825	1,416	4,565
Expenses/Reimbursements from E&P partnership operations	1,227	1,189	1,227	1,189
Amounts recovered from Lava Jato investigation	1,801	814	1,801	732
Gains / (losses) on decommissioning of returned/abandoned areas	2,365	1,093	2,365	1,093
Others	240	(118)	23	(591)
<b>Total</b>	<b>(21,061)</b>	<b>(17,970)</b>	<b>(18,128)</b>	<b>(14,731)</b>

(\*) In 2018, it includes foreign exchange losses relating to the Class Action Settlement provision, in the amount of R\$ 1,646.

(\*\*) It includes R\$ 50 of the variable compensation program of Petrobras Distribuidora, as well as R\$ 5 relating to the key management personnel of Petrobras.

(\*\*\*) In 2018, it primarily comprises gains with divestments, as set out in note 10.1. In 2017, it includes returned areas and cancelled projects, as well as the divestment in NTS.



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The main factors for the increase of expenses in 2018 were:

- lower gains from disposal of assets;
- losses relating to the market value of the put options contracted to protect the price of part of the oil production, considering its nature of insurance and protection against the changes in the commodity's price;
- expenses relating to the Employee Career and Compensation Plan; and
- expenses relating to unitizations, which provided for the equalization of expenses and production volumes of Sapinhoá, Lula, Tartaruga Verde, Berbigão and Sururu fields, in the amount of R\$ 1,064.

These effects were partially offset by:

- lower provision for legal proceedings, due to the class action agreement in 2017, reversal of tax provision following the negotiations for the settlement of tax debts with the states of Mato Grosso and Rio de Janeiro; on the other hand, provisions were made for agreements to close the investigations with US authorities, agreement with the ANP on the unitisation of fields at Parque das Baleias, and arbitration in the United States relating to the contract to provide drilling services for the Titanium Explorer drilling rig (Vantage), as well as exchange rate variation over the Class Action liability accounted for in US dollars, reflecting the devaluation of the Real against the US dollar;
- gain on decommissioning of areas; and
- additional amounts recovered from Lava Jato investigation.

## 27. Costs and Expenses by nature

	Consolidated		Parent Company	
	2018	2017	2018	2017
Materials, third-party services, freight, rent and other related costs	(68,883)	(60,894)	(66,331)	(61,977)
Raw material and products for resale	(81,448)	(64,102)	(53,772)	(43,470)
Depreciation, depletion and amortization	(43,646)	(42,478)	(33,325)	(32,159)
Production taxes	(39,866)	(25,241)	(39,795)	(25,168)
Employee compensation	(32,289)	(28,866)	(26,666)	(23,452)
(Losses) / Gains on legal, administrative and arbitration proceedings	(7,439)	(2,835)	(5,355)	(2,159)
Agreement with US Authorities	–	(11,198)	–	(9,599)
Gains / (losses) with Commodities Derivatives	(1,371)	–	(1,506)	–
Unscheduled stoppages and pre-operating expenses	(4,746)	(5,100)	(4,223)	(4,718)
Other taxes (*)	(2,790)	(5,921)	(2,106)	(4,657)
Allowance for impairment of trade receivables	(324)	(2,271)	(288)	(1,306)
Institutional relations and cultural projects	(826)	(828)	(638)	(654)
Exploration expenditures written-off (includes dry wells and signature bonuses)	(317)	(893)	(317)	(561)
Health, safety and environment	(272)	(224)	(268)	(221)
Impairment (losses) / reversals	(7,689)	(3,862)	(3,403)	(3,220)

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Agreement with US Authorities	(3,536)	–	(3,536)	–
Reclassification of cumulative translation adjustment - CTA	–	(116)	–	–
Gain on remeasurement of investment retained with loss of control	–	698	–	698
Amounts recovered from Lava Jato investigation	1,801	814	1,801	732
Gains / (losses) on disposal/write-offs of assets (**)	1,085	4,825	1,416	4,565
Equalization of expenses - Production Individualization Agreements	(1,064)	–	(1,064)	–
Changes in inventories	6,741	421	6,142	(373)
Total	(286,879)	(248,071)	(233,234)	(207,699)

In the Statement of income

Cost of sales	(225.293)	(192.100)	(180.852)	(156.109)
Selling expenses	(16.861)	(14.510)	(18.312)	(18.490)
General and administrative expenses	(8.932)	(9.314)	(6.215)	(6.465)
Other taxes (*)	(2.790)	(5.921)	(2.106)	(4.657)
Exploration costs	(1.904)	(2.563)	(1.875)	(2.199)
Research and development expenses	(2.349)	(1.831)	(2.343)	(1.828)
Impairment	(7.689)	(3.862)	(3.403)	(3.220)
Other income and expenses	(21.061)	(17.970)	(18.128)	(14.731)
Total	(286.879)	(248.071)	(233.234)	(207.699)

(\*) In 2017, it includes the impact of tax settlement programs in the amount of R\$ 2,298.

(\*\*) In 2018, it includes gains with divestments, as set out in note 10.1. In 2017, it includes returned areas and cancelled projects, as well as the divestment in NTS.

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Increase in cost of sales in 2018 reflects:

• higher production taxes and import costs of crude oil, oil products and natural gas, due to higher international prices and depreciation of the real against the dollar. Production taxes were also impacted by increased production in fields with higher special participation rates;

• increased costs from operations abroad, following higher international prices; and

• higher share of crude oil imports on feedstock processed and of LNG on sales mix, due to lower production.

Selling expenses increased in 2018, mainly due to the payment of tariffs for the use of third party gas pipelines, following the sale of Nova Transportadora do Sudeste (NTS) in April 2017, higher expected credit losses in the electricity sector, as well as higher expenses with LNG regasification terminals and coastal navigation services, due to the depreciation of the real against the US dollar.

The lower general and administrative expenses reflect lower expenses with outsourced consulting, IT and administrative services, following financial discipline of controlling expenses.

The reduction in other taxes is mainly due to the Company's decision, in 2017, to benefit from the Tax Settlement Programs.

## 28. Net finance income (expense)

	Consolidated		Parent Company	
	2018	2017	2018	2017
Debt interest and charges	(21,848)	(22,915)	(16,840)	(16,619)
Foreign exchange gains (losses) and indexation charges on net debt (*)	(11,088)	(13,184)	(10,227)	(8,269)
Discount and premium on repurchase of debt securities	(1,015)	(1,067)		–
Income from investments and marketable securities (Government Bonds)	2,054	1,850	598	638
Financial result on net debt	(31,897)	(35,316)	(26,469)	(24,250)
Capitalized borrowing costs	6,584	6,313	5,350	4,607
Gains (losses) on derivatives	(1,434)	(212)	36	12
Unwinding of discount on the provision for decommissioning costs	(2,366)	(2,432)	(2,304)	(2,365)
Other finance expenses and income, net (**)	7,338	(1,523)	4,317	(877)
Other foreign exchange gains (losses) and indexation charges, net	675	1,571	737	1,013
Net finance income (expenses)	(21,100)	(31,599)	(18,333)	(21,860)
Income	11,647	3,337	5,948	2,917
Expenses	(20,898)	(23,612)	(14,826)	(17,521)
Foreign exchange gains (losses) and indexation charges	(11,849)	(11,324)	(9,455)	(7,256)
Total	(21,100)	(31,599)	(18,333)	(21,860)

(\*) Includes debt raised in Brazil (in Brazilian reais) indexed to the U.S. dollar.

(\*\*) It includes R\$ 5,259 related to electricity sector as described in note 8.4.

Net finance expenses decreased in 2018, mainly due to:

- gain on the agreements signed in 2018 relating to receivables from the electricity sector (Eletrobras);
- expenses arising from the Company's decision to joint Brazilian federal settlement programs in 2017;
- reduction of interest expenses due to prepayments of debts;
- updating of interest expenses on the receivable of the petroleum and alcohol accounts, as a result of the favorable final decision (note 19.7.2);

These effects were partially offset by higher foreign exchange variation and indexation charges, due to the appreciation of 5.3% of the US dollar against the exposure in pounds.

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## 29. Supplemental information on statement of cash flows

	Consolidated		Parent Company	
	2018	2017	2018	2017
Amounts paid/received during the period:				
Withholding income tax paid on behalf of third-parties	3,069	2,729	2,985	2,640
Capital expenditures and financing activities not involving cash				
Purchase of property, plant and equipment on credit	521	427	1,747	–
Finance leases	–	277	–	277
Provision/(reversals) for decommissioning costs	18,187	14,617	18,193	14,367
Use of deferred tax and judicial deposit for the payment of contingency	222	1,004	138	916
Pre-payment of exports	–	–	34,161	22,384

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## 30. Segment information

The operating segment information is reported in the manner in which the Company's senior management assesses business performance and makes decisions regarding investments and resource allocation.

Consolidated assets by  
operating segment -  
12.31.2018

	Exploration and Production	Refining, Transportation & Marketing	Gas & Power	Biofuels	Distribution	Corporate	Eliminations	Total
Current assets	20,630	46,360	7,853	308	9,978	72,653	(14,176)	143,606
Non-current assets	492,059	124,450	52,626	535	9,940	36,500	757	716,867
Long-term receivables	31,443	12,731	5,908	9	3,245	31,232	910	85,478
Investments	2,520	5,046	2,932	176	–	16	–	10,690
Property, plant and equipment	450,073	105,998	42,845	350	5,923	4,793	(153)	609,829
Operating assets	361,027	94,337	33,003	345	5,087	4,098	(153)	497,744
Under construction	89,046	11,661	9,842	5	836	695	–	112,085
Intangible assets	8,023	675	941	–	772	459	–	10,870
<b>Total Assets</b>	<b>512,689</b>	<b>170,810</b>	<b>60,479</b>	<b>843</b>	<b>19,918</b>	<b>109,153</b>	<b>(13,419)</b>	<b>860,473</b>

Consolidated assets by  
operating segment -  
12.31.2017

	Exploration and Production	Refining, Transportation & Marketing	Gas & Power	Biofuels	Distribution	Corporate	Eliminations	Total
Current assets	25,056	41,912	5,992	213	9,795	90,878	(17,937)	155,909
Non-current assets	453,344	127,015	55,391	413	10,451	30,676	(1,684)	675,606
Long-term receivables	25,206	11,014	7,924	12	3,553	24,772	(1,526)	70,955
Investments	4,727	4,937	2,747	108	16	19	–	12,554
Property, plant and equipment	418,421	110,488	43,767	293	6,158	5,388	(158)	584,357
Operating assets	302,308	96,652	34,999	280	5,300	4,320	(158)	443,701
Under construction	116,113	13,836	8,768	13	858	1,068	–	140,656
Intangible assets	4,990	576	953	–	724	497	–	7,740

Total Assets	478,400	168,927	61,383 626	20,246	121,554	(19,621)	831,515
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Consolidated Statement  
of Income by operating  
segment - 2018

	Gas							Total
	Exploration and Production	Refining, Transportation & Marketing	& Power	Biofuels	Distribution	Corporate	Eliminations	
Sales revenues	191,546	269,138	45,028	929	102,013	–	(258,818)	349,836
Intersegments	182,983	61,145	12,516	877	1,297	–	(258,818)	–
Third parties	8,563	207,993	32,512	52	100,716	–	–	349,836
Cost of sales	(105,599)	(245,936)	(33,288)	(872)	(95,910)	–	256,312	(225,293)
Gross profit	85,947	23,202	11,740	57	6,103	–	(2,506)	124,543
Expenses	(19,463)	(12,677)	(8,989)	(13)	(3,396)	(16,911)	(137)	(61,586)
Selling	(291)	(6,496)	(6,870)	(7)	(3,193)	95	(99)	(16,861)
General and administrative	(934)	(1,365)	(551)	(69)	(826)	(5,185)	(2)	(8,932)
Exploration costs	(1,904)	–	–	–	–	–	–	(1,904)
Research and development	(1,622)	(42)	(75)	–	(4)	(606)	–	(2,349)
Other taxes	(411)	(768)	(241)	(17)	(267)	(1,086)	–	(2,790)
Impairment	(5,348)	(1,687)	(723)	69	–	–	–	(7,689)
Other income and expenses	(8,953)	(2,319)	(529)	11	894	(10,129)	(36)	(21,061)
Net income (loss) before financial results and income taxes	66,484	10,525	2,751	44	2,707	(16,911)	(2,643)	62,957
Net finance income (expenses)	–	–	–	–	–	(21,100)	–	(21,100)
Results in equity-accounted investments	297	1,299	355	(26)	(8)	2	–	1,919
Net Income (loss) before income taxes	66,781	11,824	3,106	18	2,699	(38,009)	(2,643)	43,776
Income taxes	(22,604)	(3,578)	(935)	(15)	(921)	10,077	898	(17,078)
Net income (loss)	44,177	8,246	2,171	3	1,778	(27,932)	(1,745)	26,698
Net income (loss) attributable to:	44,196	8,405	1,709	3	1,290	(28,079)	(1,745)	25,779



Shareholders of Petrobras Non-controlling interests	(19)	(159)	462	–	488	147	–	919
Net income (loss)	44,177	8,246	2,171	3	1,778	(27,932)	(1,745)	26,698

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Consolidated Statement  
of Income by operating  
segment - 2017

	Gas							
	Exploration and Production	Refining, Transportation & Marketing	& Power	Biofuels	Distribution	Corporate	Eliminations	Total
Sales revenues	134,737	214,067	39,549	682	88,050	–	(193,390)	283,695
Intersegments	130,195	51,549	9,672	644	1,330	–	(193,390)	–
Third parties	4,542	162,518	29,877	38	86,720	–	–	283,695
Cost of sales	(89,222)	(184,469)	(28,118)	(706)	(81,451)	–	191,866	(192,100)
Gross profit	45,515	29,598	11,431	(24)	6,599	–	(1,524)	91,595
Expenses	(11,969)	(11,548)	(2,158)	(72)	(4,047)	(26,408)	231	(55,971)
Selling	(397)	(5,526)	(5,745)	(6)	(3,180)	86	258	(14,510)
General and administrative	(1,049)	(1,461)	(529)	(72)	(874)	(5,328)	(1)	(9,314)
Exploration costs	(2,563)	–	–	–	–	–	–	(2,563)
Research and development	(1,066)	(40)	(83)	–	(2)	(640)	–	(1,831)
Other taxes	(1,633)	(651)	(827)	(21)	(132)	(2,657)	–	(5,921)
Impairment	142	(2,297)	(1,684)	(23)	–	–	–	(3,862)
Other income and expenses	(5,403)	(1,573)	6,710	50	141	(17,869)	(26)	(17,970)
Net income (loss) before financial results and income taxes	33,546	18,050	9,273	(96)	2,552	(26,408)	(1,293)	35,624
Net finance income (expenses)	–	–	–	–	–	(31,599)	–	(31,599)
Results in equity-accounted investments	440	1,411	374	(85)	8	1	–	2,149
Net Income (loss) before income taxes	33,986	19,461	9,647	(181)	2,560	(58,006)	(1,293)	6,174
Income taxes	(11,406)	(6,137)	(3,154)	33	(867)	15,294	440	(5,797)
Net income (loss)	22,580	13,324	6,493	(148)	1,693	(42,712)	(853)	377
Net income (loss) attributable to:								

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Shareholders of Petrobras	22,453	13,510	6,113	(148)	1,663	(43,184)	(853)	(446)
Non-controlling interests	127	(186)	380	–	30	472	–	823
Net income (loss)	22,580	13,324	6,493	(148)	1,693	(42,712)	(853)	377

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In the Exploration and Production (E & P) segment, there was an increase in operating income due to the effects of higher Brent prices, reversal of expenses with decommissioning of areas, partially offset by higher costs with production taxes, impairment losses and provisions for legal proceedings.

In the Refining, Transportation and Marketing (RTM) segment, operating income was reduced due to the lower margin of oil products, mainly gasoline, diesel and LPG, and higher selling expenses, partially offset by inventories formed at lower prices and lower impairment.

Regarding the Gas & Power segment, despite the positive effect of higher margins on gas sales, operating income decreased due to the increase in selling expenses with the payment of tariffs for the use of pipelines of the Southeast grid (NTS), following the sale of the NTS in April 2017.

In the Distribution segment, the increase in operating income reflects the reversal of the provision for losses on lawsuits arising from the Settlement Agreement signed with the State of Mato Grosso, partially offset by the reduction in average selling margins and volumes sold.

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## 31. Provisions for legal proceedings

## 31.1. Provisions for legal proceedings, judicial deposits and contingent liabilities

The Company recognizes provisions based on the best estimate of the costs of proceedings for which it is probable that an outflow of resources embodying economic benefits will be required and that can be reliably estimated. These proceedings mainly include:

- Labor claims, in particular: (i) opt-out claims related to a review of the methodology by which the minimum compensation based on an employee's position and work schedule (Remuneração Mínima por Nível e Regime - RMNR) is calculated; (ii) lawsuits relating to overtime pay and (iii) actions of outsourced employees;
- Tax claims including: (i) claims relating to Brazilian federal tax credits applied that were disallowed; and (ii) alleged misappropriation of VAT (ICMS) tax credits on import of platforms;
- Civil claims relating to: (i) agreement to settle the Consolidated Securities Class Action before the United States District Court for the Southern District of New York; (ii) collection of royalties over the shale extraction; (iii) non-compliance with contractual terms relating to oil platform construction; (iv) compensation relating to an easement over a property; (v) collection of production taxes over natural gas production; (vi) penalties applied by ANP relating to measurement systems; (vii) termination of the drilling service contract tied to ship-probe Titanium Explorer; and (viii) differences in production taxes (special participation) relating to the unification of oil fields in the Parque das Baleias complex.

Provisions for legal proceedings are set out as follows:

	Consolidated		Parent Company	
	12.31.2018	12.31.2017	12.31.2018	12.31.2017
Labor claims	4,236	4,513	3,661	4,020
Tax claims	1,901	4,065	1,574	2,581
Civil claims	22,126	14,362	16,602	12,190
Environmental claims	432	300	420	286
Other claims	–	1	–	–
Total	28,695	23,241	22,257	19,077
Current	13,493	7,463	11,673	6,397
Non-current	15,202	15,778	10,584	12,680

	Consolidated		Parent Company	
	12.31.2018	12.31.2017	12.31.2018	12.31.2017

Opening Balance	23,241	11.052	19.077	8.391
Additions, net of reversals	4,834	12.726	2.855	10.982
Use of provision	(2,399)	(1.448)	(2.174)	(1.072)
Accruals and charges	2,680	909	2.499	776
Others	339	2	—	—
Closing Balance	28,695	23.241	22.257	19.077

In preparing its consolidated financial statements for the year ended December 31, 2018, the Company considered all available information concerning legal proceedings in which the Company is a defendant, in order to estimate the amounts of obligations and probability that outflows of resources will be required.

The main additions to the provision for legal proceedings in 2018 were primarily attributable to differences in special participation relating to the unification of oil fields in the Parque das Baleias complex, termination service contract tied to drilling rig Titanium Explorer, unfavorable court rulings that changed the probabilities of outflows of resources relating to certain claims to probable, as well as changes in the assessment of civil claim for compensation. These additions were partially offset by reversal of provisions relating to the class action requiring a review of the RMNR following a favorable decision of the Brazilian Supreme Court, to an extrajudicial settlement of BR Distribuidora relating to tax debts with the state of Mato Grosso, as well as the tax relief of VAT (ICMS) on jet fuel sales and on imports of platforms, granted by state amnesty programs.

Foreign exchange losses over the provision for the Class Action in the USA, as well as withholding income tax disbursed on the installments of the class action settlement (see note 31.4), also affected the balance of provisions for legal proceedings during the year ended December 31, 2018.

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## 31.2. Judicial deposits

Judicial deposits made in connection with legal proceedings are set out in the table below according to the nature of the corresponding lawsuits:

	Consolidated		Parent Company	
Non-current assets	12.31.2018	12.31.2017	12.31.2018	12.31.2017
Tax	17,682	10,922	16,733	10,052
Labor	4,500	3,998	4,104	3,637
Civil	3,188	2,947	3,043	2,842
Environmental	621	581	596	554
Others	12	17	–	–
Total	26,003	18,465	24,476	17,085

	Consolidated		Parent Company	
	12.31.2018	12.31.2017	12.31.2018	12.31.2017
Opening Balance	18,465	13,032	17,085	11,735
Additions, net of reversals	6,700	5,155	6,587	5,044
Use of provision	(315)	(441)	(214)	(343)
Accruals and charges	1,069	721	1,018	649
Others	84	(2)	–	–
Closing balance	26,003	18,465	24,476	17,085

In the year ended December 31, 2018, the Company made judicial deposits in the amount of R\$ 6,700 mainly resulting from an unfavorable decision issued by the Regional Federal Court of Rio de Janeiro (Tribunal Regional Federal – TRT/RJ) in October 2017, with respect to withholding income tax on remittances for payments of vessel charters from 1999 to 2002, as well as judicial deposits related to tax claim alleging taxable income from foreign subsidiaries and associates located outside Brazil, as set out in note 31.3.

## 31.3. Contingent liabilities

Contingent liabilities for which either the Company is unable to make a reliable estimate of the expected financial effect that might result from resolution of the proceeding, or a cash outflow is not probable, are not recognized as liabilities in the financial statements but are disclosed in the notes to the financial statements, unless the likelihood of any outflow of resources embodying economic benefits is considered remote.

The estimates of contingent liabilities for legal proceedings are indexed to inflation and updated by applicable interest rates. As of December 31, 2018, estimated contingent liabilities for which the possibility of loss is not considered remote are set out in the following table:

	Consolidated	
	12.31.2018	12.31.2017
Fiscais	144,491	129,466
Trabalhistas	33,396	23,825
Cíveis - Gerais	25,336	31,825
Cíveis - Ambientais	16,357	7,787
Total	219,580	192,903

A brief description of the nature of the main contingent liabilities (tax, civil, environmental and labor) is set out in the following table:

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Description of tax matters	Estimate	
	12.31.2018	12.31.2017
Plaintiff: Secretariat of the Federal Revenue of Brazil		
1) Withholding income tax (IRRF), Contribution of Intervention in the Economic Domain (CIDE), Social Integration Program (PIS) and Contribution to Social Security Financing (COFINS) on remittances for payments of vessel charters. Current status: The claim about the incidence of withholding income tax (Imposto de Renda Retido na Fonte- IRRF) on remittances for payments of vessel charters, occurred from 1999 to 2002, involves the legality of the normative rule issued by the Federal Revenue of Brazil, which ensured no taxation over those remittances. The Company considers the likelihood of loss as possible, since there are decisions from Superior Courts favorable to the understanding of the Company, and will continue to defend its opinion.		
The other claims, concerning CIDE and PIS/COFINS, involve lawsuits in different administrative and judicial stages, for which the Company understands there is a possible likelihood of loss, since there are legal predictions in line with the position of the Company.	44,822	43,141
2) Income from foreign subsidiaries and associates located outside Brazil not included in the computation of taxable income (IRPJ and CSLL). Current status: This claim involves lawsuits in different administrative and judicial stages. The Company considers the likelihood of loss as possible, since there are decisions from Superior Courts favorable to the understanding of the Company. There is a notice issued for one more year.	20,179	13,191
3) Requests to compensate federal taxes disallowed by the Brazilian Federal Tax Authority. Current status: This claim involves lawsuits in different administrative and judicial stages.	12,227	11,977
4) Incidence of social security contributions over contingent bonuses paid to employees. Current status: A definitive favorable decision was rendered for some cases, and the remaining claims involve lawsuits in different administrative and judicial stages.	3,599	5,097
5) Collection of Contribution of Intervention in the Economic Domain (CIDE) on transactions with fuel retailers and service stations protected by judicial injunctions determining that fuel sales were made without gross-up of such tax. Current status: This claim involves lawsuits in different judicial stages.	2,280	2,224
6) Deduction from the basis of calculation of taxable income (income tax - IRPJ and social contribution - CSLL) of several expenses related to employee benefits. Current status: The court ruled on this matter in the second quarter of 2017 granting the deduction of these expenses from the taxable profit computation, but limited it to 20% of the payroll and compensation of key management participants in the plan. In 2017, after assessing the fundamentals of this court ruling, the Company considered as probable the likelihood of	2,100	2,028

outflow of resources with respect to the portion of the deduction that exceeds the 20% limit, and as remote the portion within the 20% limit.

The other claims of this item, which have different legal basis, remain with their likelihood of loss as possible and are in different administrative and judicial stages.

Plaintiff: States of SP, CE, PB, RJ, BA, PA and AL Finance Departments

7) VAT (ICMS) and VAT credits on internal consumption of bunker fuel and marine diesel, destined to chartered vessels.

Current status: This claim involves several tax notices from the states, including two new material notices applied in the third quarter of 2018, which are in different administrative and judicial stages.

5,125 1,912

Plaintiff: States of RJ, BA and AL Finance Departments

8) VAT (ICMS) on dispatch of liquid natural gas (LNG) and C5+ (tax document not accepted by the tax authority), as well as challenges on the rights to this VAT tax credit.

Current status: This claim involves lawsuits in different administrative and judicial stages.

4,641 4,519

Plaintiff: Municipal governments of the cities of Anchieta, Aracruz, Guarapari, Itapemirim, Marataízes, Linhares, Vila Velha and Vitória

9) Alleged failure to withhold and pay tax on services provided offshore (ISSQN) in favor of some municipalities in the State of Espírito Santo, under the allegation that the service was performed in their "respective coastal waters".

Current status: This claim involves lawsuits in different administrative and judicial stages.

4,353 4,050

Plaintiff: States of RJ, SP, PR, RO and MG Finance Departments

10) Additional VAT (ICMS) due to differences in rates on jet fuel sales to airlines in the domestic market, among other questions relating to the use of tax benefits.

Current status: This claim involves lawsuits in different administrative and judicial stages.

3,738 3,595

Plaintiff: States of RJ, AL, AM, PA, BA, GO, MA, SP and PE Finance Departments

11) Alleged failure to write-down VAT (ICMS) credits related to zero tax rated or non-taxable sales made by the Company and its customers.

Current status: This claim involves lawsuits in different administrative and judicial stages.

3,649 3,404

Plaintiff: States of RJ, SP, ES, BA, PE, MG, RS, AL, SE and CE Finance Departments

12) Misappropriation of VAT tax credit (ICMS) that, per the tax authorities, are not related to property, plant and equipment.

Current status: This claim involves lawsuits in different administrative and judicial stages.

3,487 3,287

Plaintiff: States of PR, AM, BA, ES, PA, PE, SP, PB and AL Finance Departments

13) Incidence of VAT (ICMS) over alleged differences in the control of physical and fiscal inventories.

Current status: This claim involves lawsuits in different administrative and judicial levels.

3,448 3,227

Plaintiff: State of Rio de Janeiro Finance Department

14) The plaintiff alleges that the transfers without segregating VAT (ICMS), under the special regime, reduced the total credits of the central department.

Current status: The Company presented administrative defense from the notices issued, pending court assessment.

3,101 -

Plaintiff: States of SP, RS and SC Finance Departments

15) Collection of VAT (ICMS) related to natural gas imports from Bolivia, alleging that these states were the final destination (consumers) of the imported gas.

Current status: This claim involves lawsuits in different administrative and judicial stages, as well as three civil lawsuits in the Federal Supreme Court.

2,868 2,817

Plaintiff: State of São Paulo Finance Department

16) Deferral of payment of VAT (ICMS) taxes on B100 Biodiesel sales and the charge of a 7% VAT rate on B100 on Biodiesel interstate sales, including states in the Midwest, North and Northeast regions of Brazil and the State of Espírito Santo.

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Current status: This claim involves lawsuits in different administrative and judicial stages. In the third quarter of 2018, the company obtained final favorable decisions in proceedings in administrative stages, contributing to the partial reduction of the exposure.	2,552	2,933
17) Charge of VAT (ICMS), as a result of the temporary admission being unauthorized, since the customs clearance regarding the import of the rig has been done in Rio de Janeiro instead of São Paulo.		
Current status: This claim involves lawsuits in different judicial stages. The State of São Paulo Finance Department appeal was denied, thus the likelihood of loss became remote in the third quarter of 2018.	–	2,518
Plaintiff: States of MG, MT, GO, RJ, PA, CE, BA, PR, SE, AL, RN, SP and PR Finance Departments		
19) Misappropriation of VAT tax credit (ICMS) on the acquisitions of goods that, per the tax authorities, are not related to inventories.		
Current status: There are notices issued by these states. This claim involves lawsuits in different administrative and judicial stages.	2,281	941
Plaintiff: States of RJ, SP, SE and BA Finance Departments		
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18) Misappropriation of VAT tax credit (ICMS) on the acquisitions of goods that, per the tax authorities, are not related to property, plant and equipment. Current status: This claim involves lawsuits in different administrative and judicial stages. New lawsuits during the third quarter of 2018 contributed to the increase of the balance. Plaintiff: States of GO, PA, RJ, RR, SC, SP and TO.	2,197	1,696
21) Charge of VAT (ICMS) on remittance and symbolic return of jet fuel to retail establishment which, in the understanding of the tax authority, should have retention and collection of the ICMS for the subsequent operations, since it is considered a remittance to a retail taxpayer established in the State. Current status: This claim involves lawsuits in different administrative and judicial stages. Plaintiff: States of PE and BA Finance Departments.	1,445	1,376
22) Alleged incorrect application of VAT (ICMS) tax base with respect to interstate sales of natural gas transport through city-gates in the State of Pernambuco destined to the distributors in that State. The Finance Department of the State of Pernambuco understands that activity as being an industrial activity which could not be characterized as an interstate sale transaction (considering that the Company has facilities located in Pernambuco), consequently charging the difference on the tax levied on the sale and transfer transactions. Current status: This claim involves lawsuits in different judicial stages. Plaintiff: States of AM, BA, RS and RJ Finance Departments	1,177	1,108
20) Disagreement about the basis of calculation of VAT (ICMS) on interstate sales and transfers between different stores from the same contributor. Current status: This claim involves lawsuits in different administrative and judicial stages.	675	1,481
23) Other tax matters	14,547	12,944
Total for tax matters	144,491	129,466

Description of labor matters	Estimate	
	12.31.2018	12.31.2017
Plaintiff: Employees and Sindipetro Union of ES, RJ, BA, MG, SP, PE, PB, RN, CE, PI, PR and SC. 1) Actions requiring a review of the methodology by which the minimum compensation based on an employee's position and work schedule (Remuneração Mínima por Nível e Regime - RMNR) is calculated. Current status: The Superior Labor Court (Tribunal Superior do Trabalho - TST) denied the special appeal filed by the Company. Petrobras filed a Motion for Clarification on the decision,	24,233	14,940

which was denied by the TST. The Company will file the appropriate appeal. On July 26, 2018, a minister of the Superior Federal Court (Superior Tribunal Federal - STF) granted Petrobras' request to prevent the effects of the judgment of the TST, determining the suspension of individual and class actions on this subject, pending the deliberation on this matter in the Supreme Court or further deliberation of the rapporteur minister assigned to this case. On August 13, 2018, the rapporteur confirmed the decision of the minister and extended the decision to the ongoing actions on the matter, suspending all cases relating to this subject.

Plaintiff: Sindipetro of Norte Fluminense – SINDIPETRO/NF

2) The plaintiff claims Petrobras failed to pay overtime for standby work exceeding 12-hours per day. It also demands that the Company respects a 12-hour limit of standby work per workday, as well as an 11-hour period for rest between workdays, subject to a daily fine.

Current status: The claim was denied by the TST, but the plaintiff is still able to appeal.

3) Other labor matters	1,362	1,286
Total for labor matters	7,801	7,599
	33,396	23,825

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Description of civil matters	Estimate	
	12.31.2018	12.31.2017
Plaintiff: Several plaintiffs in Brazil and EIG Management Company in USA		
1) Arbitration in Brazil and lawsuit in the USA regarding Sete Brasil.		
Current status: The Company litigates, confidentially, in several arbitrations on the case, one of them was given arbitration award favorable to Petrobras. The unsuccessful investor in this arbitration award filed an annulment requirement, which did not have the injunction granted even with appeal to the lower court. The lawsuit brought by EIG and its affiliates alleges that the Company has committed fraud by inducing the claimants to invest in "Sete" through communications that would have omitted an alleged corruption scheme involving Petrobras and "Sete". The U.S. District Court for the District of Columbia upheld in part Petrobras' preliminary defense (motion to dismiss). Petrobras appealed the court's decision to dismiss in part Petrobras' preliminary defense. On January 19, 2018, oral argument on the appeal was held before the U.S. Court of Appeals for the District of Columbia Circuit. On July 3, 2018, a panel of the Court of Appeals rendered a decision, by a majority, rejecting Petrobras' appeal. This ruling did not discuss the merits of EIG's allegations and examined only whether Petrobras would be exempt from prosecution in the US at the initial stage of the case. Petrobras presented a Petition for Rehearing on August 2, 2018 and on October 1st, 2018 the D.C. Circuit denied it.	8,068	7,036
Plaintiff: Agência Nacional de Petróleo, Gás Natural e Biocombustíveis - ANP		
2) Administrative proceedings challenging an ANP order requiring Petrobras to pay additional special participation fees and royalties (production taxes) with respect to several fields. It also includes contention about fines imposed by ANP due to alleged failure to comply with the minimum exploration activities program, as well as alleged irregularities relating to compliance with oil and gas industry regulation.		
Current status: The claims involve lawsuits in different administrative and judicial stages.	6,442	5,410
3) Proceedings challenging an ANP order requiring Petrobras to unite Lula and Cernambi fields on the BM-S-11 joint venture; to unite Baúna and Piracicaba fields; to unite Tartaruga Verde and Mestiça fields; and to unite Baleia Anã, Baleia Azul, Baleia Franca, Cachalote, Caxaréu, Jubarte and Pirambu, in the Parque das Baleias complex, which would cause changes in the payment of special participation charges.		
Current status: This list involves claims that are disputed in court and in arbitration proceedings, as follows:	1,112	8,711
a) Lula and Cernambi: initially, the Company made judicial deposits for the alleged differences resulting from the special participation. However, with the reversal of the favorable injunction, the arbitration is stayed and currently the payment of these alleged differences have been made directly to ANP, until a final judicial decision is handed down.		

b) Baúna and Piracicaba: the Court reassessed previous decision that disallowed judicial deposits, therefore the Company is currently depositing the controversial amounts. The arbitration is stayed.

c) Tartaruga Verde and Mestiça: The Company has authorization to make the judicial deposits relating to these fields. The Regional Federal Court of the Second Region has the opinion that the Chamber of Arbitration has jurisdiction on this claim and the arbitration is ongoing. On both parties initiative, the arbitration is stayed.

d) Parque das Baleias complex: the Judiciary stated decisions allowing the arbitration with ANP. Therefore, the Chamber of Arbitration disallowed ANP to charge for special participation, establishing that Petrobras should provide collateral on the debt to be negotiated. On both parties initiative, the arbitration is stayed, with the objective of seeking an alternative to solve this dispute, which amounts to R\$ 10.6 billion at December 31, 2018. In December 2018, the ANP held a hearing presenting a draft of the preliminary agreement developed by the technical departments of Petrobras and ANP, including the calculation of the updated amounts of special participation due up the last quarter of 2018, totaling R\$ 3.5 billion. Therefore, the Company believes, as of December 31, 2018, that an outflow of resources in this amount is probable to settle the controversy with the ANP and, as a result, recognized a provision for this proceeding in 2018.

Plaintiff: Vantage Deepwater Company and Vantage Deepwater Drilling Inc.

4) International litigations relating to the unilateral termination of the drilling service contract tied to Titanium Explorer drilling rig.

Current status: An unfavorable arbitration award was rendered on July 2, 2018 in Texas, USA. The Arbitral Tribunal formed by three arbitrators decided by a majority vote that Vantage is entitled to receive US\$ 622 million, bearing interests at a 15.2% annual rate, in compensation for early termination of the contract related to the drilling service provided by the Titanium Explorer drilling rig, and for services already billed. On August 31, 2018, the Company challenged the arbitral award, arguing that it has been denied the fundamental safeguards of due process, as expressed by the dissenting arbitrator. On August 27, 2018, the Dutch Judiciary granted an injunction in favor of Vantage, blocking any amounts and assets due to Petrobras, arising from obligations of some of its Netherlands-based subsidiaries until August 27, 2018, limited to US\$ 684 million. The injunction also reaches the subsidiaries Petrobras Netherlands B.V. and Petrobras International Braspetro B.V. On November 15, 2018, Vantage filed a motion before the Dutch Judicial Branch for the recognition of the arbitration award. On December 19, 2018, the Federal Court of Texas denied the Company's request to collect the dissenting arbitrator's testimony. On March 08, 2019, the Federal Court of Texas will hold a final hearing on the request for confirmation of the arbitration award made by Vantage and the request for annulment made by Petrobras. Therefore, the Company understands the chance of loss is probable and made a provision for this proceeding in the last quarter of 2018.

	-	1,323
5) Other civil matters	9,714	9,345
Total for civil matters	25,336	31,825

Description of environmental matters	Estimate	
	12.31.2018	12.31.2017

Plaintiff: Ministério Público do Estado do Rio de Janeiro.

1) Five public civil actions filed by the Public Prosecutor's Office of the State of Rio de Janeiro against Petrobras, the State Environmental Institute - INEA and Rio de Janeiro State,

requesting proof of compliance with regulation relating to the environmental licensing of COMPERJ, complementation of technical researchs, as well as compensation for collective material and moral damages.

Current status: The five actions are currently stayed.

8,121 –

Plaintiff: Ministério Público Federal, Ministério Público Estadual do Paraná, AMAR - Associação de Defesa do Meio Ambiente de Araucária, IAP - Instituto Ambiental do Paraná and IBAMA - Instituto Brasileiro de Meio Ambiente e Recursos Naturais Renováveis.

2) Legal proceeding related to specific performance obligations, indemnification and compensation for damages related to an environmental accident that occurred in the State of Paraná on July 16, 2000.

Current status: The court partially ruled in favor of the plaintiff. However, both parties (the plaintiff and the Company) filed an appeal.

3,493 3,115

Plaintiff: Instituto Brasileiro de Meio Ambiente - IBAMA and Ministério Público Federal

3) Administrative proceedings arising from environmental fines related to exploration and production operations (Upstream) contested because of disagreement over the interpretation and application of standards by IBAMA, as well as a public civil action filed by the Ministério Público Federal for alleged environmental damage due to the accidental sinking of P-36 Platform.

Current status: A number of defense trials and the administrative appeal regarding the fines are pending, and others are under judicial discussion. With respect to the civil action, the Company appealed the ruling that was unfavorable in the lower court and monitors the use of the procedure that will be judged by the Regional Federal Court.

1,550 1,469

4) Other environmental matters

3,193 3,203

Total for environmental matters

16,357 7,787



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#### 31.4. Class action and related proceedings

##### 31.4.1. Class action and related proceedings in the USA

At the end of 2017, the Company signed an agreement to settle the Consolidated Securities Class Action (the Class Action Settlement) that had been filed against it and certain other defendants. As previously reported, between December 8, 2014 and January 7, 2015, five putative securities class action complaints were filed against the Company, Petrobras International Finance Company S.A. (“PifCo”), which was merged into Petrobras Global Finance B.V. (“PGF”), PGF (collectively with the Company and PifCo, the “Petrobras Defendants”), certain underwriters of debt securities (the “Underwriter Defendants”), among other defendants (the “Defendants”), in the United States District Court for the Southern District of New York (“SDNY” or the “District Court”). These actions were consolidated on February 17, 2015 (the “Consolidated Securities Class Action” or “Class Action”). The Court appointed a lead plaintiff, Universities Superannuation Scheme Limited (“USS”), on March 4, 2015.

In sum and substance, the complaints in the Consolidated Securities Class Action asserted claims under the Securities Exchange Act of 1934, as amended (the “Exchange Act”) and Securities Act of 1933, as amended (the “Securities Act”), alleging that in the Company’s press releases, filings with the SEC and other communications, the Company made materially false and misleading statements and omissions regarding the value of its assets, the amounts of the Company’s expenses and net income, the effectiveness of the Company’s internal controls over financial reporting, and the Company’s anti-corruption policies.

On June 22, 2018, the District Court granted final approval of the Class Action Settlement, rejecting challenges that had been raised by objectors.

The Class Action Settlement is intended to resolve all pending and prospective claims by purchasers of Petrobras securities, including debt securities issued by PifCo and/or PGF, in the United States, and by purchasers of Petrobras securities that are listed for trading on the New York Stock Exchange or pursuant to other covered transactions, or that clear or settle through the Depository Trust Company. Excluded from the definition of “covered transaction” are purchases of any Petrobras Security on the Brazilian Stock Exchange (B3).

The Class Action Settlement was entered into to eliminate the risk of an adverse judgment which, as Petrobras has previously reported, could have a material adverse effect on the Company and its financial situation, and puts an end to the uncertainties, burdens and costs of protracted litigation.

Under the Class Action Settlement, Petrobras (together with its subsidiary PGF) has agreed to pay US\$ 2,950 million to resolve claims in two installments of US\$ 983 million and a further installment of US\$ 984 million. Accordingly, the Company charged R\$ 11,198 to its statement of income for the last quarter of 2017 as other income and expenses, taking into account the gross up of tax related to the Petrobras’s portion of the settlement. On March 1, 2018, Petrobras and PGF disbursed the first installment into an escrow account designated by the lead plaintiff and accounted for it as

other current assets. The second installment was deposited on July 2, 2018, 10 days after the final approval of the Class Action Settlement. Foreign exchange losses on the provision amounted to R\$ 1,646 at December 31, 2018 and were accounted for as other income and expenses. The third installment was deposited on January 15, 2019.

Certain objectors have appealed the District Court's final decision to approve the Class Action Settlement, and one such appeal remains pending. In the event that a higher court annuls the agreement, or if the agreement does not become final for other reasons, the Company will return to its position prior to the Class Action Settlement and, depending on the outcome of the subsequent litigation, the Company might be required to pay substantial amounts, which could have a material adverse effect on the Company's financial condition, its consolidated results of operations or its consolidated cash flows for an individual reporting period.

A petition for a writ of certiorari filed by Petrobras to the United States Supreme Court on August 30, 2017 remains under consideration by the United States Supreme Court pending final approval of the Class Action Settlement. If the Class Action Settlement becomes final, Petrobras will dismiss the petition for writ of certiorari.

Individuals are seeking measures against Petrobras in Brazil to annul and/or suspend the Class Action Settlement. No adverse measure has been granted to date against the settlement.

In addition to the Consolidated Securities Class Action, 33 lawsuits were filed by individual investors before the same judge in the SDNY, and one was filed in the United States District Court for the Eastern District of Pennsylvania (collectively, the "Individual Actions"), consisting of allegations similar to those in the Consolidated Securities Class Action. All of the Individual Actions have been resolved, either because the individual plaintiffs voluntarily joined the Class Action, or through settlements. The terms of such settlements are confidential and Petrobras denies all allegations of wrongdoing. The settlements are aimed at eliminating the uncertainties, burdens and expense of ongoing litigation.

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In connection with consummated settlements of Individual Actions, the Company charged R\$ 1,508 to the statement of income as other income and expenses since 2016.

#### 31.4.2. Class action in the Netherlands

On January 23, 2017, the Stichting Petrobras Compensation Foundation (“Foundation”) filed a class action before the district court in Rotterdam, in the Netherlands, against Petrobras parent company and its subsidiaries Petrobras International Braspetro B.V. (PIBBV) and Petrobras Global Finance B.V. (PGF); joint venture Petrobras Oil & Gas B.V. (PO&G), and some former managers of Petrobras.

The Foundation allegedly represents the interests of an unidentified group of investors and alleges that as a result of the facts uncovered by the Lava Jato investigation the defendants acted unlawfully towards investors. Based on the allegations, the Foundation seeks a number of declaratory relieves from the Dutch court.

The Company filed their first response to the claim on May 3, 2017 (first docket date), presenting the law firms that will defend these companies and requesting a hearing to discuss some aspects of the case.

On August 23, 2017, a hearing was held at the District Court in Rotterdam to establish the timeframe for proceedings. Petrobras (and other defendants) presented preliminary defenses on November 29, 2017 and the Foundation presented its response on March 28, 2018. On June 28, 2018, a hearing was held for the parties to present oral arguments. On September 19, 2018, the District Court rendered its interim decision in the motion proceedings in which it accepted jurisdiction in most of 7 claims of the Foundation, without any assessment on the merits of the case.

On December 18, 2018, a hearing was held before the District Court and the schedule of the next phases of the collective action was defined. The next hearing shall be held on April 16, 2019.

This collective action involves complex issues that are subject to substantial uncertainties and depend on a number of factors such as the standing of the Foundation as the alleged representative of the investors' interests, the applicable rules to this complaint, the information produced the evidentiary phase of the proceedings, analysis by experts, the timing of court decisions and rulings by the court on key issues, and the Foundation only seeks declaratory reliefs in this collective action. Currently, it is not possible to determine if the Company will be found responsible for the payment of compensation in subsequent individual complaints after this action as this assessment depends on the outcome of these complex issues. Moreover, it is uncertain which investors will be able to file subsequent individual complaints related to this matter against the Company.

In addition, the allegations asserted are broad, span a multi-year period and involve a wide range of activities, and, at the current stage, the impacts of such allegations are highly uncertain. The uncertainties inherent in all such matters affect the amount and timing of the ultimate resolution of these actions. As a result, the Company is unable to make a

reliable estimate of eventual loss arising from this action. The company is victim of the corruption scheme uncovered by the Lava Jato investigation and aims to present and prove this before the Dutch Court.

The uncertainties inherent in all such matters do not enable the company to identify possible risks related to this action. Compensation for the alleged damages will only be determined by court rulings on complaints to be filed by individual investors. The Foundation is not able to demand compensation for damages.

The Company denies the allegations presented by the Foundation and intend to defend themselves vigorously.

#### 31.4.3. Arbitration in Brazil

Petrobras is also currently a party to 5 arbitration proceedings brought by Brazilian and foreign investors that purchased Petrobras' shares traded in Brazilian Stock Exchange (B3), alleging financial losses caused by facts uncovered in the Lava Jato investigation.

These claims involve complex issues that are subject to substantial uncertainties and depend on a number of factors such as the novelty of the legal theories, the timing of the Chamber of Arbitration decisions, the information produced in discovery and analysis by retained experts.

Moreover, the claims asserted are broad and span a multi-year period. The uncertainties inherent in all such matters affect the amount and timing of their ultimate resolution. As a result, the Company is unable to make a reliable estimate of eventual loss arising from such arbitrations asserted. The Company denies the allegations presented by these investors and intends to defend these claims vigorously. Moreover, half of amount deposited in accordance with the Commitment Assumption Agreement executed with the Brazilian Federal Prosecutor's Office (see note 3.3.1) may be used in the event of any loss involving such arbitration proceedings.

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Depending on the outcome of these complaints, the company may have to pay substantial amounts, which may cause a significant effect on its financial condition, its financial statements or consolidated cash flow in a certain period.

#### 31.4.4. Arbitration in Argentina

On September 11, 2018, Petrobras was served of an arbitral claim filed by Consumidores Financieros Asociación Civil para su Defensa ("Association") against the company and other individuals and legal entities, before the "Tribunal de Arbitraje General de la Bolsa de Comercio de Buenos Aires". Among other issues, the Association alleges Petrobras' liability for a supposed loss of market value of Petrobras' shares in Argentina, due to proceedings related to Lava Jato investigation.

As a result of a preliminary analysis, Petrobras considers that the claim is without grounds. However, considering: (i) that Petrobras has not yet replied the complaint; (ii) that the proceeding is at an early stage and (iii) the uncertainties inherent in this kind of proceedings, it is not possible for the Company to identify possible risks related to this arbitration and to produce a reliable estimate of the potential loss in this arbitration, if any.

Petrobras denies the allegations presented by the Association and intends to defend itself vigorously.

#### 31.5. Tax recoveries under dispute

##### 31.5.1. Recovery of PIS and COFINS

The Company filed civil lawsuits against the Brazilian Federal Government claiming to recover PIS and COFINS paid over finance income and foreign exchange variation gains, from February 1999 to January 2004.

The court granted to the Company, in all the lawsuits, the definitive right to recover those taxes, but it requires previous examination and approval by the court of the settlement reports (court-ordered liquidation stage). In 2017, there were a settlement reports issued in favor of the Company relating to the most significant amount to be recovered. However, final approvals by the court are still pending.

As of December 31, 2018, the Company had non-current receivables of R\$ 3,135 (R\$ 3,212 as of December 31, 2017) related to PIS and COFINS, which are indexed to inflation.

##### 31.5.2. Deduction of VAT tax (ICMS) from the basis of calculation of PIS and COFINS

The Company filed complaints against Brazilian Federal Government challenging the constitutionality of the inclusion, from 2001 to 2017, of VAT tax within the calculation basis of PIS and COFINS.

The Brazilian Supreme Court ruled on this matter, on March 2017, determining that such tax must not be included in the computation. However, the Brazilian Federal Government filed a motion to clarification in October 2017, and its assessment by the court is still pending.

The Regional Federal Court ruled in favor to the Company in August 2018, reinforcing the decision of the Brazilian Supreme Court.

The Company is gathering all the amounts involved in this matter, which covers a long period of time, and is not yet able to reasonably estimate this contingent asset until the issuance of these financial statements.

### 32. Commitment to purchase natural gas

The Company has an active GSA agreement (Gas Supply Agreement ) entered into with Yacimientos Petroliferos Fiscales Bolivianos – YPFB to purchase certain minimum volumes of natural gas at prices linked to the international fuel oil price through 2019, after which the agreement may be extended until all contracted volume has been delivered.

As of December 31, 2018, the total amount of the GSA for 2019 is nearly 11 billion cubic meters of natural gas (equivalent to 30.08 million cubic meters per day) and corresponds to a total estimated value of US\$ 2.09 billion. Based on the aforementioned extension clause, the Company foresees an extension of the GSA term to June 2022 on the same volume basis according to current indicators, representing an estimated additional amount of US\$ 4.85 billion, for the period from January 1, 2020 to June 30, 2022.

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**33. Collateral for crude oil exploration concession agreements**

The Company has granted collateral to the Brazilian Agency of Petroleum, Natural Gas and Biofuels (Agência Nacional de Petróleo, Gás Natural e Biocombustíveis - ANP) in connection with the performance of the Minimum Exploration Programs established in the concession agreements for petroleum exploration areas in the total amount of R\$ 9,012 of which R\$ 4,643 were still in force as of December 31, 2018, net of commitments undertaken. The collateral comprises crude oil from previously identified producing fields, pledged as collateral, amounting to R\$ 4,230 and bank guarantees of R\$ 413.

**34. Risk management**

The Company is exposed to a variety of risks arising from its operations, including price risk (related to crude oil and oil products prices), foreign exchange rates risk, interest rates risk, credit risk and liquidity risk. Corporate risk management is part of the Company's commitment to act ethically and comply with the legal and regulatory requirements of the countries where it operates. To manage market and financial risks the Company prefers structuring measures through adequate capital and leverage management. While managing risks, the Company considers its corporate governance and controls, involving the Executive Risk Committee, technical departments and statutory committees monitoring, under the guidance of the Board of Executive Officers and the Board of Directors. The Company takes account of risks in its business decisions and manages any such risk in an integrated manner in order to enjoy the benefits of diversification.

A summary of the positions of the derivative financial instruments held by the Company and recognized in other current assets and liabilities as of December 31, 2018, as well as the amounts recognized in the statement of income and other comprehensive income and the guarantees given is set out as follows:

	Statement of Financial Position				Maturity
	Fair value				
	Notional value		Asset Position (Liability)		
	12.31.2018	12.31.2017	12.31.2018	12.31.2017	
Derivatives not designated for hedge accounting					
Future contracts - total (*)	(14,043)	(15,561)	418	(323)	
Long position/Crude oil and oil products	40,017	43,862	–	–	2019/2020
Short position/Crude oil and oil products	(54,060)	(59,423)	–	–	2019/2020
Forward contracts - total					
Long position/Foreign currency forwards (BRL/USD) (**)	US\$ 137	US\$ 55	(9)	1	2019

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Short position/Foreign currency forwards (BRL/USD) (**)	US\$ 92	US\$ 78	(4)	(1)	2019
Long position/Foreign currency forwards (EUR/USD) (**)	EUR 3000	–	(478)	–	2019
	GBP 419	–	(43)	–	2019
Swap					
Foreign currency / Cross-currency Swap (**)	GBP 700	GBP 700	2	305	2026
Foreign currency / Cross-currency Swap (**)	GBP 600	GBP 600	(273)	41	2034
Total recognized in the Statement of Financial Position			(387)	23	–

(\*) Notional value in thousands of bbl.

(\*\*) Amounts in US\$, GBP and EUR are presented in million.

	Gains/(losses) recognized in the statement of income (*)		Gains/(losses) recognized in Shareholders' Equity (**)	
	2018	2017	2018	2017
Commodity derivatives	(1,371)	(470)	–	(30)
Foreign currency derivatives	(1,434)	286	–	–
Interest rate derivatives	–	(28)	–	13
	(2,805)	(212)	–	(17)
Cash flow hedge on exports (***)	(12,121)	(10,067)	(20,350)	7,994
Total	(14,926)	(10,279)	(20,350)	7,977

(\*) Amounts recognized in finance income in the period.

(\*\*) Amounts recognized as other comprehensive income in the period.

(\*\*\*) Using non-derivative financial instruments as designated hedging instruments, as set out in note 34.2.

	Guarantees given as collateral	
	12.31.2018	12.31.2017
Commodity derivatives	(185)	679
Foreign currency derivatives	271	(166)
Total	86	513

A sensitivity analysis of the derivative financial instruments for the different types of market risks as of December 31, 2018 is set out as follows:



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Financial Instruments	Risk	Consolidated		
		Probable Scenario (*)	Reasonably possible scenario (*)	Remote Scenario (*)
Derivatives not designated for hedge accounting				
Future contracts	Crude oil and oil products - price changes	–	(520)	(1,040)
	Foreign currency - depreciation BRL x			
Forward contracts	USD	5	(44)	(88)
		5	(564)	(1,128)

(\*) The probable scenario was computed based on the following risks: oil and oil products prices: fair value on December 31, 2018 / R\$ x U.S. Dollar - a 2.7% appreciation of the Real. Source: Focus.

#### 34.1. Risk management of crude oil and oil products prices

The Company is usually exposed to commodity price cycles, although it may use derivative instruments to hedge exposures related to prices of products purchased and sold to fulfill operational needs and in specific circumstances depending on business environment analysis and assessment of whether the Business and Management targets are being met.

Accordingly, Petrobras executed a hedge strategy for part of its oil exports foreseen for 2018. The transaction was carried out during February and March, in a volume equivalent to 128 million barrels of oil. Over-the-Counter Put Options (OTC Put Options) were purchased with an average cost of US\$ 3.48 per barrel and an average strike price of US\$ 65 / barrel . These options will expire at the end of 2018.

This transaction aims to hedge a portion of the cash flow from operating activities for 2018, guaranteeing a minimum price level for the volume under this transaction without limiting the sales price if the average Brent price in the year

exceeds the reference value, thereby protecting the Company in case of oil prices downturn while enabling to take advantage of higher prices. The goal is to reduce negative impacts on the Company's cash generation in the most adverse price scenarios, increasing the confidence on the strategy of reducing its leverage.

In the year ended December 31,2018, the Company accounted for a R\$ 1,466 loss as other income and expenses within corporate business segment due to a decrease in the fair value of these put options driven by the increase in the commodity price in the international market.

From September 2018, the Company also has executed a hedge strategy related to gasoline prices and foreign exchange rates by using commodity derivatives and non-deliverable forwards (NDF), in order to improve flexibility of its pricing policy for this oil product. It allows the Company to hold constant gasoline prices in the domestic market for periods of up to 15 days, which represents a better alignment between the Company interest and demands from customers and market players in general.

The Company may apply this strategy in periods of high volatility of prices in order to meet the aforementioned alignment and generate results equivalent to those that would be generated if prices were adjusted on a daily basis.

The Company recognized a R\$ 126 loss in the year ended December 31,2018 arising from this strategy.

#### 34.2. Foreign exchange risk management

The Company's Risk Management Policy provides for, as an assumption, an integrated risk management extensive to the whole corporation, pursuing the benefit from the diversification of its businesses.

By managing its foreign exchange risk, the Company takes into account the group of cash flows derived from its operations. This concept is especially applicable to the risk relating to the exposure of the Brazilian Real against the U.S. dollar, in which future cash flows in U.S. dollar, as well as cash flows in Brazilian Real affected by the fluctuation between both currencies, such as cash flows derived from diesel and gasoline sales in the domestic market, are assessed in an integrated manner.

Accordingly, the financial risk management mainly involves structured actions encompassing the business of the Company.

Changes in the Real/U.S. dollar spot rate, as well as foreign exchange variation of the Real against other foreign currencies, may affect net income and the statement of financial position due to the exposures in foreign currencies, such as:

High probable future transactions;

Monetary items; and

Firm commitments

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The Company seeks to mitigate the effect of potential variations in the Real/U.S. dollar spot rates mainly raising funds denominated in US dollars, aiming at reducing the net exposure between obligations and receipts in this currency, representing a form of structural protection that takes into account criteria of liquidity and cost competitiveness.

Foreign exchange variation on future exports denominated in U.S. Dollar in a given period are efficiently hedged by the US dollar debt portfolio taking into account changes in such portfolio over time.

The foreign exchange risk management strategy may involve the use of derivative financial instruments to hedge certain liabilities, mitigating foreign exchange rate risk exposure, especially when the Company is exposed to a foreign currency in which no cash inflows are expected, for example, Pound Sterling.

In the short-term, the foreign exchange risk is managed by applying resources in cash or cash equivalent denominated in Brazilian Real, U.S. Dollar or in another currency.

a) Cash Flow Hedge involving the Company's future exports

Considering the natural hedge and the risk management strategy, the Company designates hedging relationships to account for the effects of the existing hedge between a foreign exchange gain or loss from proportions of its long-term debt obligations (denominated in U.S. dollars) and foreign exchange gain or loss of its highly probable U.S. dollar denominated future export revenues, so that gains or losses associated with the hedged transaction (the highly probable future exports) and the hedging instrument (debt obligations) are recognized in the statement of income in the same periods.

Foreign exchange gains and losses on proportions of debt obligations (non-derivative financial instruments), as well as foreign exchange rate forward contracts (derivative financial instruments) have been designated as hedging instruments. Derivative financial instruments expired during the year were replaced by debts in the hedging relationships for which they had been designated.

Only a portion of the Company's forecast exports are considered highly probable. The highly probable future exports for each month are hedged by a proportion of the debt obligations with an equal US dollar nominal amount.

The Company's future exports are exposed to the risk of variation in the Brazilian Real/U.S. dollar spot rate, which is offset by the converse exposure to the same type of risk with respect to its debt denominated in US dollar.

The hedge relationships are assessed on a monthly basis and they may cease and may be re-designated in order to achieve the risk management strategy.

Whenever a portion of future exports for a certain period, for which their foreign exchange gains and losses hedging relationship has been designated is no longer highly probable, the Company revokes the designation and the cumulative foreign exchange gains or losses that have been recognized in other comprehensive income remain separately in equity until the forecast exports occur.

If future exports, for foreign exchange gains and losses hedging relationship has been designated is no longer expected to occur, any related cumulative foreign exchange gains or losses that have been recognized in other comprehensive income from the date the hedging relationship was designated to the date the Company revoked the designation is immediately recycled from equity to the statement of income.

In addition, when a financial instrument designated as a hedging instrument expires or settled, the Company may replace it with another financial instrument in a manner in which the hedge relationship continues to occur. Likewise, whenever a hedged transaction effectively occurs, its financial instrument previously designated as a hedging instrument may be designated for a new hedge relationship.

Ineffectiveness may occur as hedged items and hedge instruments have different maturity dates and due to discount rate used to determine their present value. Accordingly, the Company recognized a R\$ 230 loss as foreign exchange gain (losses) due to ineffectiveness.

The carrying amounts, the fair value as of December 31, 2018, and a schedule of expected reclassifications to the statement of income of cumulative losses recognized in other comprehensive income (shareholders' equity) based on a US\$ 1.00 / R\$ 3.8748 exchange rate are set out below:

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Hedging Instrument	Hedged Transactions	Nature of the Risk	Maturity Date	Present value of hedging instrument notional value at December 31, 2018	
				US\$ million	R\$
Foreign exchange gains and losses on proportion of non-derivative financial instruments cash flows	Foreign exchange gains and losses on a portion of highly probable future monthly exports revenues	Foreign Currency – Real vs U.S. Dollar	January 2019 to December 2028	66,168	256,390
Changes in the present value of hedging instrument notional value				US\$ millionR\$	
Amounts designated at December 31, 2017				58,400	193,189
Additional hedging relationships designated, designations revoked and hedging instruments re-designated				31,521	116,927
Exports affecting the statement of income				(6,881)	(25,151)
Principal repayments / amortization				(16,872)	(61,277)
Foreign exchange variation				–	32,702
Amounts designated at December 31, 2018				66,168	256,390
Nominal value of hedging instrument at December 31, 2018				75,223	291,476

The average ratio of future exports for which cash flow hedge accounting was designed to the highly probable future exports is 57.7%.

A roll-forward schedule of cumulative foreign exchange losses recognized in other comprehensive income as of December 31, 2018 is set out below:

	Exchange rate	Tax effect	Total
Balance at January 1, 2017	(38,058)	12,940	(25,118)
Recognized in shareholders' equity	(2,073)	705	(1,368)
Reclassified to the statement of income - occurred exports	10,059	(3,420)	6,639
Reclassified to the statement of income - exports no longer expected or not occurred	8	(3)	5
Balance at December 31, 2017	(30,064)	10,222	(19,842)
Recognized in shareholders' equity	(32,471)	11,040	(21,431)
Reclassified to the statement of income - occurred exports	12,121	(4,121)	8,000
Balance at December 31, 2018	(50,414)	17,141	(33,273)

Additional hedging relationships may be revoked or additional reclassification adjustments from equity to the statement of income may occur as a result of changes in forecast export prices and export volumes following a review of the Company's business plan. Based on a sensitivity analysis considering a US\$ 10/barrel decrease in Brent prices stress scenario, when compared to the Brent price projections in our BMP 2019-2023, would not indicate a reclassification adjustment from equity to the statement of income.

A schedule of expected reclassification of cumulative foreign exchange losses recognized in other comprehensive income to the statement of income as of December 31, 2018 is set out below:

	Consolidated							Total
	2019	2020	2021	2022	2023	2024	2025 2026 to 2028	
Expected realization	(11,691)	(10,225)	(9,700)	(10,589)	(6,365)	(3,387)	380 1,163	(50,414)

CPC 48 (IFRS 9) is effective from January 1, 2018 and provides for new requirements for hedge accounting. See note 2.3 for additional information on impacts of this new accounting standard on the Company's financial statements.

b) Cross currency swap – Pounds Sterling x Dollar

In 2017, the Company, through its wholly owned subsidiary Petrobras Global Trading B.V. (PGT), entered into cross currency swaps maturing in 2026 and 2034, with notional amounts of £ 700 million and £ 600 million, respectively, in order to hedge its Pounds/U.S. Dollar exposure arising from bonds issued amounting to £ 1,300. The Company does not expect to settle these swaps before their expiration dates.

c) Non Delivery Forward (NDF) – Euro x Dollar

In 2018, the Company, also through PGT, entered into non delivery forwards with notional amount of Euro 3,000 million and maturing in 2019, in order to reduce its euro x dollar exposure raised by bonds issued. The Company does not intend to settle such derivatives before their expiration dates.

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## d) Sensitivity analysis for foreign exchange risk on financial instruments

A sensitivity analysis is set out below, showing the probable scenario for foreign exchange risk on financial instruments, computed based on external data along with stressed scenarios (a 25% and a 50% change in the foreign exchange rates), except for assets and liabilities of foreign subsidiaries, when transacted in a currency equivalent to their respective functional currencies.

	Exposure at 12.31.2018	Risk	Consolidated		
			Probable Scenario (*)	Reasonably possible scenario	Remote Scenario
Financial Instruments					
Assets	27,828		(753)	6,957	13,914
Liabilities (**)	(283,631)	Dollar/Real	7,671	(70,908)	(141,816)
Cash flow hedge on exports	256,390		(6,934)	64,098	128,195
	587		(16)	147	293
Liabilities	–	Yen/Dollar	–	–	–
	–		–	–	–
Assets	31	Euro/Real	(1)	8	16
Liabilities	(76)		2	(19)	(38)
	(45)		1	(11)	(22)
Assets	13,638	Euro/Dollar	51	3,410	6,819
Liabilities	(26,109)		(98)	(6,527)	(13,055)
Non Deliverable Forward (NDF)					
	13,317		50	3,329	6,658
	846		3	212	422
Assets	5	Pound/Real	–	1	3
Liabilities	(79)		1	(20)	(40)
	(74)		1	(19)	(37)
Assets	9,055	Pound/Dollar	134	2,264	4,528
Liabilities	(15,620)		(231)	(3,905)	(7,810)
Derivative - cross currency swap					
	6,450		96	1,613	3,225
	2,079		31	520	1,039
	1,964		30	492	982
<b>Total</b>	<b>3,278</b>		<b>19</b>	<b>821</b>	<b>1,638</b>

(\*) On September 30, 2018, the probable scenario was computed based on the following risks: Real x U.S. Dollar - a 2.7% appreciation of the Real / Japanese Yen x U.S. Dollar - a 1% depreciation of the Japanese Yen/ Euro x U.S.

Dollar: a 0.4% appreciation of the Euro / Pound Sterling x U.S. Dollar: a 1.5% appreciation of the Pound Sterling / Real x Euro - a 2.3% appreciation of the Real / Real x Pound Sterling - a 1.2% appreciation of the Real. Source: Focus and Bloomberg.

(\*\*) It includes the Class Action provision as set out note 31.4.

### 34.3. Interest rate risk management

The Company considers that interest rate risk does not create a significant exposure and therefore, preferably does not use derivative financial instruments to manage interest rate risk, except for specific situations encountered by certain subsidiaries of Petrobras.

### 34.4. Capital management

The Company's objectives in its capital management is to achieve an adequate level of return on its capital structure in order to safeguard its ability to continue as a going concern, adding value to its shareholders and investors. Its main sources of funding have been cash provided by its operating activities, divestments.

In line with the assumptions in the 2019-2023 Business and Management Plan, the Company does not foresee net proceeds from financing for this period. However, the Company will continually assess options of funding following its liability management strategy, aiming at improving its debt repayment profile and achieving a lower cost of its debt along with an indebtedness level matching the capital expenditures. In 2018, the total debt decreased 9.6% and net debt decreased 4.2%, mainly as a result of repayments of principal and interest, and weighted average maturity of outstanding debt reached 9.14 years at December 31, 2018 (compared to 8.62 years at December 31, 2017).

Net debt is calculated as total debt (short-term debt and long-term debt) less cash, cash equivalents and government bonds from U.S.A., Germany and England, as well as time deposits with maturities higher than three months.

Adjusted EBITDA is computed by using the EBITDA (net income before net finance income (expense), income taxes, depreciation, depletion and amortization, results in equity-accounted investments, impairment of assets and gains or losses on disposal and write-offs of assets. These measures are not defined by the International Financial Reporting Standards – IFRS (non-GAAP measures) and should neither be considered in isolation or as substitutes for profit, indebtedness and cash flow provided by operating activities as defined by the IFRS, nor be compared to those measures of other companies.

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	Consolidated	
	12.31.2018	12.31.2017
Total debt	326,876	361,483
Cash and cash equivalents	53,854	74,494
Government bonds and time deposits (maturities higher than 3 months)	4,198	6,237
Net debt	268,824	280,752
Adjusted EBITDA	114,852	76,557
Net debt/Adjusted EBITDA ratio	2.34	3.67

In 2018, the Company reduced its Net debt/Adjusted EBITDA ratio for a level below the target of 2.5. For 2020, the target is to reduce it to 1.5.

The Company will continue its partnership and divestment program oriented by active portfolio management, with potential cash inflow of US \$ 26.9 billion in the BMP 2019-2023 period.

However, this divestment portfolio is dynamic and the occurrence of the transactions depends on business and market conditions, as well as the Company's continuing assessment of its businesses. Due to these reasons the rating conditions for assets available for sale were not fulfilled as set out in note 4.13.

#### 34.5. Credit risk

Credit risk management in Petrobras aims to mitigate risk of not collecting receivables, financial deposits or collateral from third parties or financial institutions through efficient credit analysis, granting and management based on quantitative and qualitative parameters that are appropriate for each market segment in which the Company operates.

The commercial credit portfolio is broad and diversified and comprises clients from the domestic and foreign markets. Credit granted to financial institutions is related to collaterals received, cash surplus invested and derivative financial instruments. It is spread among "investment grade" international banks rated by international rating agencies and Brazilian banks with low credit risk.

##### 34.5.1. Credit quality of financial assets

###### a) Trade and other receivables

The Company has internal credit commissions that assess creditworthiness and define credit limits, which are regularly monitored, based on the customer's main activity, commercial relationship and credit history with Petrobras, solvency, financial situation and external market assessment of the customer.

## b) Other financial assets

Credit quality of cash and cash equivalents, as well as marketable securities is based on external credit ratings provided by Standard & Poor's, Moody's and Fitch. The credit quality of those financial assets, that are neither past due nor have been impaired, are set out below:

	Consolidated			
	Cash and cash equivalents		Marketable securities (* )	
	2018	2017	2018	2017
AAA	–	–	3	–
AA	3,143	2,488	–	2,015
A	32,630	49,169	–	–
BBB	197	2,650	–	–
BB	10,071	11,797	–	–
B	7	12	–	–
AAA.br	2,737	417	4,176	–
AA.br	5,035	2,707	224	–
A.br	–	4,097	–	–
BB.br	–	1,050	–	3,843
Outras classificações	34	107	–	–
	53,854	74,494	4,403	5,858

(\* ) In 2017, it does not include the former investment in São Martinho shares as described in note 10.

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### 34.6. Liquidity risk

Liquidity risk is represented by the possibility of a shortage of cash or other financial assets in order to settle the Company's obligations on the agreed dates and is managed by the Company based on policies such as: centralization of cash management, optimization of the level of cash and cash equivalents held and reduction of working capital; maintenance of an adequate cash balance to ensure that cash need for investments and short-term obligations is met even in adverse market conditions; increase in the average debt maturity, increase in funding sources from domestic and international markets (new markets and financial products), as well as funds under the partnership and divestment program.

Following its liability management strategy, the Company regularly evaluates market conditions and may enter into transactions to repurchase its own securities or those of its affiliates, through a variety of means, including tender offers, make whole exercises and open market repurchases, in order to improve its debt repayment profile and cost of debt.

A maturity schedule of the Company's finance debt (undiscounted), including face value and interest payments is set out as follows:

Consolidated								
Maturity	2019	2020	2021	2022	2023	2024 and thereafter	12.31.2018	12.31.2017
Principal	9,329	15,768	27,696	40,457	46,954	190,235	330,439	365,632
Interest	19,189	18,750	17,723	16,073	13,623	113,646	199,004	200,887
Total	28,518	34,518	45,419	56,530	60,577	303,881	529,443	566,519

### 34.7. Insurance

The Company's insurance strategy involves acquiring insurance to cover risks that may produce material impacts and to cover risks that are subject to compulsory insurance coverage (pursuant to legal or contractual requirements). The remaining risks are self-insured and Petrobras intentionally assumes the entire risk by abstaining from contracting insurance. The Company assumes a significant portion of its risk, by entering into insurance policies that have deductible clauses up to the equivalent to US\$ 180 million.

The main information concerning the insurance coverage outstanding at December 31, 2018 is set out below:

Assets	Types of coverage	Amount insured	
		Consolidated	Parent company
Facilities, equipment inventory and products inventory	Fire, operational risks and engineering risks	565,299	438,668
Tankers and auxiliary vessels	Hulls	12,945	1,235
Fixed platforms, floating production systems and offshore drilling units	Oil risks	110,863	21,529
Total at December 31, 2018		689,107	461,432
Total at December 31, 2017		638,831	372,081

Petrobras does not have loss of earnings insurance or insurance related to automobiles and pipeline networks in Brazil.

### 35. Fair value of financial assets and liabilities

Fair values are determined based on market prices, when available, or, in the absence thereof, on the present value of expected future cash flows.

The hierarchy of the financial assets and liabilities, recorded at fair value, on a recurring basis, is set out below:

- Level 1: inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.
- Level 2: inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3: inputs are unobservable inputs for the asset or liability.

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	Fair value measured based on			
	Level I	Level II	Level III	Total fair value recorded
<b>Assets</b>				
Marketable securities	4,228	–	–	4,228
Foreign currency derivatives	–	2	–	2
Balance at December 31, 2018	4,228	2	–	4,230
Balance at December 31, 2017	6,051	346	–	6,397
<b>Liabilities</b>				
Foreign currency derivatives	–	(807)	–	(807)
Commodity derivatives	418	–	–	418
Balance at December 31, 2018	418	(807)	–	(389)
Balance at December 31, 2017	(323)	–	–	(323)

There are no material transfers between levels for the periods presented.

The estimated fair value for the Company's debt, computed based on the prevailing market rates, is set out in note 17.3.

The fair values of cash and cash equivalents, short-term debt and other financial assets and liabilities are equivalent or do not differ significantly from their carrying amounts.

### 36. Subsequent events

#### 36.1. Sale of Pasadena Refinery

On January 30, 2019, Petrobras America Inc. (PAI) entered into a Share Purchase Agreement (SPA) with Chevron USA Inc. (Chevron) for the sale of the shares held by PAI on Pasadena Refining System Inc. (PRSI) and PRSI Trading LLC (PRST), which make up the Pasadena refining system in the United States.

The value for this transaction is US\$ 562 million, of which US\$ 350 million refers to shares of Pasadena and US\$ 212 million relates to its working capital in October 2018. The final value is subject to working capital adjustments up to

the transaction closing.

The conclusion of this transaction is subject to the fulfillment of usual conditions precedent, such as approvals from the antitrust agencies of the United States and Brazil.

### 36.2. Public Offering of Debentures

On January 31, 2019, the Company finalized the bookbuilding of issuance of simple, non-convertible, unsecured debentures amounting to R\$ 3,600.

The Debentures of the 1st and 2nd series will count on the incentive pursuant to Law 12,431/2011 and other relevant regulations, with respective proceeds being used in exploration and production operations. The Company will use 90% of proceeds from the 3rd series to prepay a bank financing maturing in 2023, and the remainder for general corporate purposes.

The nominal amount of the 1st and 2nd series will be updated by the Brazilian price index rate (IPCA), mature in seven years and ten years, respectively. The 1st one will bear interest at IPCA rate plus 4.0460% p.a., while the second will be updated by IPCA rate plus 4.2186% p.a. The Debentures of the third series, whose nominal unit value will not be updated, will mature in seven years and bear interest at 106.25% of the Brazilian interbank offering rate (CDI).

## Supplementary information (unaudited)

(Expressed in millions of reais, unless otherwise indicated)

## Social Balance (unaudited)

Consolidated						
1 - Calculation basis	2018			2017		
Consolidated sales revenues (SR)	349,836			283,695		
Consolidated net income (loss) before profit sharing and taxes (OI)	43,776			6,174		
Consolidated gross payroll (GP) (i)	29,899			27,164		
2 - Internal Social Indicators	% of			% of		
	Amount	GP	SR	Amount	GP	SR
Meal and food	1,061	3.55	0.30	1,039	3.82	0.37
Compulsory payroll charges	5,653	18.91	1.62	5,633	20.74	1.99
Pension	3,202	10.71	0.92	2,451	9.02	0.86
Health Care	2,214	7.40	0.63	2,030	7.47	0.72
Health and Safety	211	0.71	0.06	183	0.67	0.06
Education	298	1.00	0.09	283	1.04	0.10
Culture	1	–	–	1	–	–
Professional training and development	203	0.68	0.06	141	0.52	0.05
Day-care assistance	45	0.15	0.01	70	0.26	0.02
Profit sharing and Variable compensation program	2,763	9.24	0.79	487	1.79	0.17
Others	56	0.19	0.02	67	0.25	0.02
Total - Internal social indicators	15,707	52.53	4.49	12,385	45.59	4.37
3 - External Social Indicators	% of			% of		
	Amount	OI	SR	Amount	OI	SR
Social and environmental	87	0.20	0.02	60	0.97	0.02
Culture	38	0.09	0.01	61	0.99	0.02
Sport	80	0.18	0.02	21	0.34	0.01
Total contributions for the community	205	0.47	0.06	142	2.30	0.05
Taxes (excluding payroll charges)	147,299	336.48	42.11	117,313	1,900.11	41.35
Total - External social indicators	147,504	336.95	42.17	117,455	1,902.41	41.40
4 - Environmental Indicators	% of			% of		
	Amount	OI	SR	Amount	OI	SR
Investments related to the Company's production/operation	3,078	7.03	0.88	2,522	40.85	0.89
With respect to establishing "annual goals" for minimizing wastage, input general consumption in production/operation and for increasing efficiency in the use of natural resources, the Company (I):	( ) does not have goals ( ) attains from 51% to 75%			( ) does not have goals ( ) attains from 51% to 75%		

<input type="checkbox"/> attains from 0 to 50% <input checked="" type="checkbox"/> attains from 76 to 100%	<input type="checkbox"/> attains from 0 to 50% <input checked="" type="checkbox"/> attains from 76 to 100%
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## Supplementary information (unaudited)

(Expressed in millions of reais, unless otherwise indicated)

## Social Balance (continuation)

		Consolidated	
5 - Indicators for the staff		2018	2016
N° of employees at the end of the period		63,361	62,703
N° of hired people during the period (II)		2,064	1,047
N° of contracted employees (outsourcing) (III)		116,065	117,201
N° of student trainees (IV)		700	987
N° of employees older than 45 (V)		25,223	24,082
N° of women that work in the Company (V)		10,518	10,411
% of leadership positions held by women (V)		18.1%	15.4%
N° of black people that work in the Company (VI)		17,914	17,491
% of leadership positions held by Negroes (VII)		17.7%	22.2%
N° of handicapped workers (VIII)		239	342
6 - Significant information with respect to the exercise of corporate citizenship			
		2018	Targets 2018
Ratio between the Company's highest and lowest compensation (IX)		27.9	-
Total number of work accidents (X)		1,361	1,129
The social and environmental projects developed by the Company were defined by:	( ) directors (X) directors and managers	( ) all employees	(X) directors and managers ( ) all employees

The health and safety standards in the work environment were defined and by:	(X) directors managers	( ) all the employees	( ) everyone + Cipa	(X) directors and managers	( ) all the employees	( ) everyone + Cipa
With respect to union freedom, the right to collective bargaining and internal representation of the employees, the Company:	( ) is not involved	( ) follows ILO standards	(X) encourages and follows ILO	( ) will not be involved	( ) will follow ILO standards	(X) will encourage and follow ILO
The pension benefits include:	( ) directors	( ) directors and managers	(X) all employees	( ) directors	( ) directors and managers	(X) all employees
Profit-sharing includes:	( ) directors	( ) directors and managers	(X) all employees	( ) directors	( ) directors and managers	(X) all employees
In the selection of suppliers, the same ethical standards and standards of social and environmental responsibility adopted by the Company:	( ) are not considered	( ) are suggested	(X) are required	( ) will not be considered	( ) will be suggested	(X) will be required
With respect to the participation of employees in voluntary work programs, the Company:	( ) is not involved	( ) gives support	(X) organizes and encourages	( ) will not be involved	( ) will give support	(X) will organize and encourage
Total number of complaints and criticisms from consumers: (XI)	Company 76,860	in Procon 54	in court 66	in the Company 6,953	in Procon -	in court 28
% of claims and criticisms in the attended or resolved: (XI)	Company 99.4%	in Procon 17.2%	in court 19.7%	in the Company 98%	in Procon -	in court 7%
Total value added to distribute (in thousands of R\$):	In 2018 281,097			In 2017 216,014		
Distribution of added value:	55% government 12% employees shareholders 7% retained	24% third parties		54% government 14% employees shareholders 0% retained	2% 32% third parties	0%

7 - Other information

- I. In 2018, the alert limit for wastage was 173,400 tons, and the Company achieved approximately 120,000 tons.
- II. Information of the Petrobras Group, which includes hiring through public selection processes in Brazil, and direct hiring from the Parent Company and its subsidiaries abroad.
- III. Reflects only the service providers who work at Petrobras facilities.
- IV. Information relating to interns of the Parent Company, controlled companies in Brazil (Petrobras Distribuidora, Transpetro, Breitener Energética, Breitener Tambaqui, Breitener Jaraqui, Gas Brasileiro and TBG) and controlled companies abroad (Argentina, Bolivia, Colombia, Singapore, USA, Netherlands, England and Uruguay). Other subsidiaries do not have internship programs.

V. Information relating to employees of the Parent Company, controlled companies in Brazil (Petrobras Distribuidora, Transpetro, Liquigas, Araucária, Breitener Energética, Breitener Jaraquí, Gas Brasileiro, TBG, Termobahia, Termomacaé and Petrobras Biocombustível) and controlled companies abroad (Argentina, Bolivia, Colombia, Singapore, USA, Netherlands, England and Uruguay, while Libya and Turkey do not have female employees).

VI. Information relating to employees of the Parent Company, controlled companies in Brazil (Petrobras Distribuidora, Transpetro, Liquigas, Araucária, Breitener Energética, Breitener Tambaquí, Breitener Jaraquí, Gas Brasileiro, Stratura, TBG, Termobahia, Termomacaé and Petrobras Biocombustível) who declared to be afro-descendant. For cultural reasons, this information is not able to be obtained in some subsidiaries abroad.

VII. Of the total leadership positions in the Parent Company held by employees who informed their color/race, 17.7% are held by people who declared to be afro-descendant. We do not have in our registers the self-declared color/race of those ones assigned to Petrobras Parent Company and it is not possible to include them in this calculation for managerial positions. For cultural reasons in some countries, this information can not be obtained and consolidated for all companies abroad.

VIII. Data obtained through the health records of the Company, from the self-declaration of the employee and medical analysis during the occupational exams. Information of 2018 relates only to Parent Company.

IX. Information of the Parent company.

X. It refers to the number of injured people. There is no specific target for the total number of work accidents. The number estimated for 2019 was based on the alert limit established for the TOR and HHER (hours-men of risk exposure) indexes projected for the year . Additionally, as top metrics, the TAR indicator (Recordable Accident Rate) is calculated at 1.01 for 2018, with a warning threshold of 0.99 in 2019.

XI. The information includes the number of complaints and criticisms received by the Parent Company, Petrobras Distribuidora and Liquigás. The targets for 2019 includes the Parent Company and Liquigás.

Additional information of general public concern – Law 13.303/16 (unaudited)

In order to comply with rules of disclosure about the activities that, in accordance with the requirements of article 3 of Petrobras' Bylaws, are related to the achievement of public interest purposes under conditions different from those of any other private sector company operating in the same market, we summarize below the commitments in effect in the year 2018.

#### I – Priority Thermoelectric Program – (Programa Prioritário de Termoeletricidade- PPT)

On February 24, 2000, the Brazilian federal government enacted the Decree No. 3.371 governing the implementation of thermoelectric power plants in Brazil through the Priority Thermoelectric Program (PPT). The thermoelectric power plants in the scope of this program were entitled to supply natural gas for up to 20 years with a pre-established price indexed to the U.S. inflation. The gas supply for the plants included in this program, in 2018, generated revenues of approximately R\$ 889 and costs of R\$ 2,276. As of December 31, 2018, the company had two plants in the scope of this program plus one plant, which supply of natural gas occurs by virtue of a court order.

Supplementary information (unaudited)

(Expressed in millions of reais, unless otherwise indicated)

II– National Program for Rationalization of the Use of Oil and Gas Products (Programa Nacional de Racionalização do Uso dos Derivados do Petróleo e do Gás Natural – CONPET)

On February 18, 1991, the Brazilian federal government established the National Program for Rationalization of the Use of Oil and Gas Products (CONPET), which was intended to develop an anti-waste culture in the use of non-renewable natural resources. The Company is also a member of the Brazilian Labeling Program (Programa Brasileiro de Etiquetagem - PBE) in partnership with the National Institute of Metrology, Quality and Technology (INMETRO), which goal is to stimulate the production and use of gas appliances and vehicles with lower carbon emission, in addition of taking part in other agreements for the elaboration of partnerships with entities for the purpose of monitoring and guidance on vehicular emissions. In 2018, the costs associated with CONPET were immaterial.

## Supplementary information (unaudited)

(Expressed in millions of reais, unless otherwise indicated)

## Supplementary information on Oil and Gas Exploration and Production (unaudited)

This section provides supplemental information on oil and gas exploration and production activities of the Company. The information included in items (i) through (iii) provides historical cost information pertaining to costs incurred in exploration, property acquisition and development, capitalized costs and results of operations. The information included in items (iv) and (v) presents information on Petrobras' estimated net proved reserve quantities, standardized measure of estimated discounted future net cash flows related to proven reserves, and changes in estimated discounted future net cash flows.

The Company, on December 31, 2018, maintains activities in Brazil; South America, which includes Argentina, Colombia and Bolivia; and North America, in Mexico. The equity-accounted investments are comprised of the operations of Petrobras Oil and Gas B.V. (PO&G) in Africa, in Nigeria, and the joint venture company of which Murphy Exploration & Production Company ("Murphy" ) has 80% stake and Petrobras America Inc ("PAI") 20% stake in North America, in United States of America. However, the Company only reports reserves in Brazil, United States of America, Nigeria and Argentina. Bolivian reserves are not included due to restrictions determined by Bolivian Constitution.

## i) Capitalized costs relating to oil and gas producing activities

Capitalized costs relating to oil and gas producing activities As set out in note 4.7, the Company uses the successful efforts method of accounting for appraisal and development costs of crude oil and natural gas production. In addition, notes 4.8 and 4.9 presents the accounting policies applied by the Company for recognition, measurement and disclosure of property, plant and equipment and intangible assets.

The following table summarizes capitalized costs for oil and gas exploration and production activities with the related accumulated depreciation, depletion and amortization, and asset retirement obligations:

	Consolidated entities					Total	Equity	
	Abroad				Total			Investees
	Brazil	America	America	Others				
December 31, 2018								
Unproved oil and gas properties	23,245	435	–	–	435	23,680	15,852	
Proved oil and gas properties	343,198	559	1	–	560	343,758	22	
Support Equipment	324,790	2,516	–	1,508	4,024	328,814	–	
Gross Capitalized costs	691,233	3,510	1	1,508	5,019	696,252	15,874	
Depreciation, depletion and amortization	(235,935)	(2,107)	(1)	(113)	(2,221)	(238,156)	(5,464)	

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Net capitalized costs	455,298	1,403	–	1,395	2,798	458,096	10,410
December 31, 2017							
Unproved oil and gas properties	19,195	361	–	–	361	19,556	–
Proved oil and gas properties	318,214	366	15,401	–	15,767	333,980	10,369
Support Equipment	284,558	2,005	267	1,298	3,570	288,128	19
Gross Capitalized costs	621,966	2,732	15,668	1,298	19,698	641,664	10,388
Depreciation, depletion and amortization	(209,213)	(1,666)	(7,334)	(39)	(9,040)	(218,253)	(4,257)
Net capitalized costs	412,753	1,065	8,334	1,259	10,658	423,411	6,131
December 31, 2016							
Unproved oil and gas properties	22,741	376	899	–	1,275	24,016	–
Proved oil and gas properties	284,439	288	13,896	–	14,184	298,623	9,162
Support Equipment	272,926	1,541	228	13	1,782	274,708	20
Gross Capitalized costs	580,106	2,205	15,023	13	17,241	597,347	9,182
Depreciation, depletion and amortization	(181,213)	(1,134)	(6,247)	(13)	(7,394)	(188,607)	(3,796)
Net capitalized costs	398,893	1,071	8,776	–	9,847	408,740	5,386

Supplementary information (unaudited)

(Expressed in millions of reais, unless otherwise indicated)

ii) Costs incurred in oil and gas property acquisition, exploration and development activities

Costs incurred are summarized below and include both amounts expensed and capitalized:

	Consolidated entities				Total	Total	Equity
	Abroad		Equity				
	South	North					Method
	Brazil	America	America	Others	Total	Total	Investees
December 31, 2018							
Acquisition costs:							
Proved	–	–	–	–	–	–	–
Unproved	3,285	–	–	–	–	3,285	–
Exploration costs	2,759	37	2	–	39	2,799	18
Development costs	35,101	118	831	–	949	36,050	916
<b>Total</b>	<b>41,145</b>	<b>155</b>	<b>833</b>	<b>–</b>	<b>988</b>	<b>42,134</b>	<b>934</b>
December 31, 2017							
Acquisition costs:							
Proved	–	–	–	–	–	–	–
Unproved	2,932	–	–	–	–	2,932	–
Exploration costs	3,905	106	14	–	121	4,026	12
Development costs	36,898	75	734	–	809	37,707	939
<b>Total</b>	<b>43,735</b>	<b>181</b>	<b>748</b>	<b>–</b>	<b>930</b>	<b>44,665</b>	<b>951</b>
December 31, 2016							
Acquisition costs:							
Proved	–	347	–	–	347	347	–
Unproved	–	–	–	–	–	–	–
Exploration costs	5,127	155	21	4	180	5,307	16
Development costs	42,342	622	523	–	1,145	43,487	1,374
<b>Total</b>	<b>47,469</b>	<b>1,124</b>	<b>544</b>	<b>4</b>	<b>1,672</b>	<b>49,141</b>	<b>1,390</b>

iii) Results of operations for oil and gas producing activities

The Company's results of operations from oil and gas producing activities for the years ended December 31, 2018, 2017 and 2016 are shown in the following table. The Company transfers substantially all of its Brazilian crude oil and gas production to the Refining, Transportation & Marketing segment in Brazil. The internal transfer prices calculated by the Company's model may not be indicative of the price the Company would have realized had this production been sold in an unregulated spot market. Additionally, the prices calculated by the Company's model may not be indicative of the future prices to be realized by the Company. Gas prices used are those set out in contracts with third parties.

Production costs are lifting costs incurred to operate and maintain productive wells and related equipment and facilities, including operating employees' compensation, materials, supplies, fuel consumed in operations and operating costs related to natural gas processing plants.

Exploration expenses include the costs of geological and geophysical activities and projects without economic feasibility. Depreciation and amortization expenses relate to assets employed in exploration and development activities. In accordance with Codification Topic 932 – Extractive Activities – Oil and Gas, income taxes are based on statutory tax rates, reflecting allowable deductions. Interest income and expense are excluded from the results reported in this table.

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## Supplementary information (unaudited)

(Expressed in millions of reais, unless otherwise indicated)

	Consolidated entities					Equity	
	Abroad				Total	Total	Investees
	Brazil	South		North			
		America	America				
December 31, 2018							
Net operation revenues:							
Sales to third parties	4,183	698	3,682	–	4,380	8,563	1,499
Intersegment	182,982	1	–	–	1	182,983	–
	187,165	699	3,682	–	4,381	191,546	1,499
Production costs	(72,111)	(283)	(560)	–	(843)	(72,954)	(162)
Exploration expenses	(1,875)	(27)	(2)	–	(29)	(1,904)	(7)
Depreciation, depletion and amortization	(31,621)	(145)	(804)	(75)	(1,024)	(32,645)	(433)
Impairment of oil and gas properties	(2,573)	–	(2,775)	–	(2,775)	(5,348)	–
Other operating expenses	(8,497)	(3,227)	(340)	(147)	(3,714)	(12,211)	(51)
Results before income tax expenses	70,488	(2,983)	(799)	(222)	(4,004)	66,484	846
Income tax expenses	(23,966)	1,014	272	75	1,361	(22,605)	(618)
Results of operations (excluding corporate overhead and interest costs)	46,522	(1,969)	(527)	(147)	(2,643)	43,879	228
December 31, 2017							
Net operation revenues:							
Sales to third parties	1,538	687	2,317	–	3,004	4,542	1,423
Intersegment	130,194	1	–	–	1	130,195	–
	131,732	688	2,317	–	3,005	134,737	1,423
Production costs	(57,160)	(228)	(520)	–	(748)	(57,908)	(164)
Exploration expenses	(2,199)	(119)	(245)	–	(364)	(2,563)	5
Depreciation, depletion and amortization	(30,220)	(141)	(963)	(25)	(1,129)	(31,349)	(394)
Impairment of oil and gas properties	556	(43)	(371)	–	(414)	142	–
Other operating expenses	(8,174)	(40)	(410)	(889)	(1,339)	(9,513)	(61)
Results before income tax expenses	34,535	117	(192)	(914)	(989)	33,546	809
Income tax expenses	(11,742)	(40)	65	311	336	(11,406)	(316)
Results of operations (excluding corporate overhead and interest costs)	22,793	77	(127)	(603)	(653)	22,140	493

December 31, 2016

## Net operation revenues:

Sales to third parties	2,363	776	1,948	–	2,724	5,087	1,165
Intersegment	109,101	1,845	–	–	1,845	110,946	96
	111,464	2,621	1,948	–	4,569	116,033	1,261
Production costs	(48,162)	(1,119)	(464)	–	(1,583)	(49,745)	(171)
Exploration expenses	(5,533)	(115)	(404)	(4)	(523)	(6,056)	(13)
Depreciation, depletion and amortization	(34,958)	(349)	(1,150)	–	(1,499)	(36,457)	(520)
Impairment of oil and gas properties	(10,134)	(418)	(148)	–	(566)	(10,700)	–
Other operating expenses	(5,425)	(347)	(634)	77	(904)	(6,329)	(84)
Income before income tax expenses	7,252	273	(852)	73	(506)	6,746	473
Income tax expenses	(2,466)	(162)	(1)	45	(118)	(2,584)	(330)
Results of operations (excluding corporate							
overhead and interest costs)	4,786	111	(853)	118	(624)	4,162	143

## Supplementary information (unaudited)

(Expressed in millions of reais, unless otherwise indicated)

## iv) Reserve quantities information

As presented in note 5.1, proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations – prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence within a reasonable time. Reserves estimate involves a high degree of judgment and complexity and its application affects different items of these Financial Statements.

The Company's estimated net proved oil and gas reserves and changes thereto for the years 2018, 2017 and 2016 are shown in the following table. Proved reserves are estimated in accordance with the reserve definitions prescribed by the Securities and Exchange Commission.

Developed oil and gas reserves are reserves of any category that can be expected to be recovered: (i) through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared to the cost of a new well; and (ii) through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is done by means not involving a well.

In some cases, substantial new investments in additional wells and related facilities will be required to recover these proved reserves and are named proved undeveloped reserves. Due to the inherent uncertainties and the limited nature of reservoir data, estimates of reserves are subject to changes as additional information becomes available. A summary of the annual changes in the proved reserves of oil is as follows (in millions of barrels):

	Crude oil in Brazil	Abroad		Africa	Total of crude oil abroad	Synthetic oil in	
		South America	North America			Brazil	Total
Proved developed and undeveloped reserves - Consolidated Entities (*)							
Reserves at December 31, 2015	8,544.1	52.3	90.6	-	142.9	6.9	8,693.9
Revisions of previous estimates	179.5	0.1	17.9	-	18.0	0.8	198.4
Extensions and discoveries	87.8	-	-	-	-	-	87.8
Improved Recovery	-	-	-	-	-	-	-
Sales of reserves	-	(46.6)	-	-	(46.6)	-	(46.6)
Purchases of reserves	-	0.7	-	-	0.7	-	0.7
Production for the year	(748.5)	(5.7)	(12.1)	-	(17.8)	(0.9)	(767.2)
Reserves at December 31, 2016	8,063.0	0.8	96.4	-	97.3	6.8	8,167.1
Revisions of previous estimates	649.3	0.3	31.4	-	31.7	0.2	681.1
Extensions and discoveries	69.1	0.3	-	-	0.3	-	69.4
Improved Recovery	212.7	-	-	-	-	-	212.7

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Sales of reserves	-	-	-	-	-	-	-
Purchases of reserves	-	-	-	-	-	-	-
Production for the year	(744.6)	(0.2)	(13.2)	-	(13.4)	(1.0)	(759.0)
Reserves at December 31, 2017 (1)	8,249.4	1.2	114.6	-	115.8	6.0	8,371.3
Transfers by loss of control (2)	-	-	(100.4)	-	(100.4)	-	(100.4)
Revisions of previous estimates	342.7	-	-	-	-	(0.3)	342.5
Extensions and discoveries	308.5	0.6	-	-	0.6	-	309.1
Improved Recovery	224.2	-	-	-	-	-	224.2
Sales of reserves	(254.8)	-	-	-	-	-	(254.8)
Purchases of reserves	-	-	-	-	-	-	-
Production for the year	(701.3)	(0.3)	(14.3)	-	(14.5)	(0.9)	(716.8)
Reserves at December 31, 2018	8,168.7	1.6	-	-	1.6	4.8	8,175.1

(1) In 2017, total proved reserves includes 263.7 million barrels related to assets held for sale.

(2) Amounts transferred from consolidated entities to equity method investees, as the Company concluded the operation that has resulted in the formation of a joint venture company ("JV"), of which Murphy Exploration & Production Company ("Murphy" ) has 80% stake and Petrobras America Inc ("PAI") 20% stake.

(\*) Apparent differences in the sum of the numbers are due to rounding off.

## Supplementary information (unaudited)

(Expressed in millions of reais, unless otherwise indicated)

Proved developed and undeveloped reserves - Equity Method Investees (*)	Abroad				Total of crude oil abroad	Brazil's Oil	Synthetic	Total
	Crude oil in Brazil	South America	North America	Africa				
Reserves at December 31, 2015	-	14.6	-	65.8	80.4	-	-	80.4
Revisions of previous estimates	-	-	-	11.9	11.9	-	-	11.9
Extensions and discoveries	-	-	-	-	-	-	-	-
Improved Recovery	-	-	-	-	-	-	-	-
Sales of reserves	-	(14.1)	-	-	(14.1)	-	-	(14.1)
Purchases of reserves	-	-	-	-	-	-	-	-
Production for the year	-	(0.5)	-	(8.7)	(9.2)	-	-	(9.2)
Reserves at December 31, 2016	-	-	-	69.0	69.0	-	-	69.0
Revisions of previous estimates	-	-	-	2.6	2.6	-	-	2.6
Extensions and discoveries	-	-	-	-	-	-	-	-
Improved Recovery	-	-	-	-	-	-	-	-
Sales of reserves	-	-	-	-	-	-	-	-
Purchases of reserves	-	-	-	-	-	-	-	-
Production for the year	-	-	-	(8.2)	(8.2)	-	-	(8.2)
Reserves at December 31, 2017	-	-	-	63.4	63.4	-	-	63.4
Transfers by loss of control (2)	-	-	100.4	-	100.4	-	-	100.4
Revisions of previous estimates	-	-	(0.9)	3.7	2.9	-	-	2.9
Extensions and discoveries	-	-	-	-	-	-	-	-
Improved Recovery	-	-	-	-	-	-	-	-
Sales of reserves	-	-	(80.4)	-	(80.4)	-	-	(80.4)
Purchases of reserves	-	-	7.9	-	7.9	-	-	7.9
Production for the year	-	-	(0.4)	(7.3)	(7.7)	-	-	(7.7)
Reserves at December 31, 2018 (1)	-	-	26.6	59.8	86.4	-	-	86.4

(1) In 2018, total proved reserves include 59.8 million barrels related to PO&G assets held for sale.

(2) Amounts transferred from consolidated entities to equity method investees, as the Company concluded the operation that has resulted in the formation of a joint venture company ("JV"), of which Murphy Exploration & Production Company ("Murphy" ) has 80% stake and Petrobras America Inc ("PAI") 20% stake.

(\*) Apparent differences in the sum of the numbers are due to rounding off.



## Supplementary information (unaudited)

(Expressed in millions of reais, unless otherwise indicated)

A summary of the annual changes in the proved reserves of natural gas is as follows (in billions of cubic feet):

Proved developed and undeveloped Natural Gas reserves - Consolidated Entities (*) in Brazil	Abroad			Total Natural Gas Abroad	Brazil's Gas	Synthetic Gas	Total
	South America	North America	Africa				
Reserves at December 31, 2015	9,587.7	680.5	138.5	-	819.1	9.3	10,416.1
Revisions of previous estimates	(476.2)	22.9	(19.3)	-	3.6	1.2	(471.4)
Extensions and discoveries	92.1	-	-	-	-	-	92.1
Improved Recovery	0.1	-	-	-	-	-	0.1
Sales of reserves	-	(631.9)	-	-	(631.9)	-	(631.9)
Purchases of reserves	-	93.3	-	-	93.3	-	93.3
Production for the year	(809.7)	(50.9)	(32.1)	-	(82.9)	(1.4)	(894.0)
Reserves at December 31, 2016	8,394.0	113.9	87.2	-	201.1	9.2	8,604.3
Revisions of previous estimates	(81.5)	19.5	(24.9)	-	(5.5)	0.1	(86.9)
Extensions and discoveries	37.4	41.0	-	-	41.0	-	78.4
Improved Recovery	204.2	-	-	-	-	-	204.2
Sales of reserves	-	-	-	-	-	-	-
Purchases of reserves	-	-	-	-	-	-	-
Production for the year	(877.9)	(14.2)	(21.3)	-	(35.5)	(1.2)	(914.6)
Reserves at December 31, 2017 (1)	7,676.1	160.2	40.9	-	201.1	8.1	7,885.3
Transfers by loss of control (2)	-	-	(36.8)	-	(36.8)	-	(36.8)
Revisions of previous estimates	737.2	-	-	-	-	(1.0)	736.2
Extensions and discoveries	136.8	70.1	-	-	70.1	-	206.9
Improved Recovery	207.6	-	-	-	-	-	207.6
Sales of reserves	(165.5)	-	-	-	-	-	(165.5)
Purchases of reserves	-	-	-	-	-	-	-
Production for the year	(801.8)	(16.2)	(4.1)	-	(20.3)	(1.3)	(823.5)
Reserves at December 31, 2018	7,790.5	214.1	-	-	214.1	5.7	8,010.3

(1) In 2017, total proved reserves include 173.7 billion cubic feet related to assets held for sale.

(2) Amounts transferred from consolidated entities to equity method investees, as the Company concluded the operation that has resulted in the formation of a joint venture company ("JV"), of which Murphy Exploration &amp; Production Company ("Murphy") has 80% stake and Petrobras America Inc ("PAI") 20% stake.

(\*) Apparent differences in the sum of the numbers are due to rounding off.





## Supplementary information (unaudited)

(Expressed in millions of reais, unless otherwise indicated)

Proved developed and undeveloped reserves - Equity Method Investees (*)	Natural Gas in Brazil	Abroad		Africa (1)	Total Natural Gas Abroad	Brazil's Synthetic Gas	Total
		South America	North America				
Reserves at December 31, 2015	-	16.9	-	16.6	33.5	-	33.5
Revisions of previous estimates	-	-	-	(4.1)	(4.1)	-	(4.1)
Extensions and discoveries	-	-	-	-	-	-	-
Improved Recovery	-	-	-	-	-	-	-
Sales of reserves	-	(16.8)	-	-	(16.8)	-	(16.8)
Purchases of reserves	-	-	-	-	-	-	-
Production for the year	-	(0.1)	-	-	(0.1)	-	(0.1)
Reserves at December 31, 2016	-	-	-	12.5	12.5	-	12.5
Revisions of previous estimates	-	-	-	5.7	5.7	-	5.7
Extensions and discoveries	-	-	-	-	-	-	-
Improved Recovery	-	-	-	-	-	-	-
Sales of reserves	-	-	-	-	-	-	-
Purchases of reserves	-	-	-	-	-	-	-
Production for the year	-	-	-	(0.9)	(0.9)	-	(0.9)
Reserves at December 31, 2017	-	-	-	17.3	17.3	-	17.3
Transfers by loss of control (2)	-	-	36.8	-	36.8	-	36.8
Revisions of previous estimates	-	-	(3.1)	34.8	31.8	-	31.8
Extensions and discoveries	-	-	-	-	-	-	-
Improved Recovery	-	-	-	-	-	-	-
Sales of reserves	-	-	(29.7)	-	(29.7)	-	(29.7)
Purchases of reserves	-	-	6.9	-	6.9	-	6.9
Production for the year	-	-	(0.1)	(4.8)	(4.9)	-	(4.9)
Reserves at December 31, 2018 (1)	-	-	10.8	47.3	58.1	-	58.1

1) In 2018, total proved reserves include 47.3 billion cubic feet related to PO&G assets held for sale.

(2) Amounts transferred from consolidated entities to equity method investees, as the Company concluded the operation that has resulted in the formation of a joint venture company ("JV"), of which Murphy Exploration & Production Company ("Murphy") has 80% stake and Petrobras America Inc. ("PAI") 20% stake.

(\*) Apparent differences in the sum of the numbers are due to rounding off.

Natural gas production volumes used in these tables are the net volumes withdrawn from our proved reserves, including fuel gas consumed in operations and excluding reinjected gas. Our disclosure of proved gas reserves also

includes fuel gas volumes, which represent 32% of our total proved reserves of natural gas at December, 2018.

The tables below summarizes information about the changes in total proved reserves of crude oil and natural gas, in millions of barrels of oil equivalent, in our consolidated entities and equity method investees for 2018, 2017 and 2016:  
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## Supplementary information (unaudited)

(Expressed in millions of reais, unless otherwise indicated)

Proved developed and undeveloped reserves (*)	Oil equivalent in Brazil	South America	North America	Africa	Abroad Total oil equivalent abroad	Total synthetic oil equivalent in Brazil	Total for all products
Reserves at December 31, 2015	10,142.1	165.7	113.7	-	279.4	8.5	10,430.0
Revisions of previous estimates	100.2	3.9	14.7	-	18.6	1.0	119.8
Extensions and discoveries	103.2	-	-	-	-	-	103.2
Improved Recovery	-	-	-	-	-	-	-
Sales of reserves	-	(151.9)	-	-	(151.9)	-	(151.9)
Purchases of reserves	-	16.3	-	-	16.3	-	16.3
Production for the year	(883.4)	(14.2)	(17.4)	-	(31.6)	(1.2)	(916.2)
Reserves at December 31, 2016	9,462.0	19.8	111.0	-	130.8	8.3	9,601.1
Revisions of previous estimates	635.7	3.5	27.2	-	30.7	0.2	666.6
Extensions and discoveries	75.4	7.1	-	-	7.1	-	82.5
Improved Recovery	246.7	-	-	-	-	-	246.7
Sales of reserves	-	-	-	-	-	-	-
Purchases of reserves	-	-	-	-	-	-	-
Production for the year	(891.0)	(2.6)	(16.7)	-	(19.3)	(1.2)	(911.4)
Reserves at December 31, 2017 (1)	9,528.8	27.9	121.5	-	149.3	7.4	9,685.5
Transfers by loss of control (2)	-	-	(106.5)	-	(106.5)	-	(106.5)
Revisions of previous estimates	465.6	-	-	-	-	(0.4)	465.2
Extensions and discoveries	331.3	12.3	-	-	12.3	-	343.6
Improved Recovery	258.8	-	-	-	-	-	258.8
Sales of reserves	(282.4)	-	-	-	-	-	(282.4)
Purchases of reserves	-	-	-	-	-	-	-
Production for the year	(834.9)	(3.0)	(15.0)	-	(17.9)	(1.2)	(854.0)
Reserves at December 31, 2018	9,467.1	37.2	-	-	37.2	5.8	9,510.1

(1) In 2017, total proved reserves includes 292.7 million barrels of oil equivalent related to assets held for sale.

(2) Amounts transferred from consolidated entities to equity method investees, as the Company concluded the operation that has resulted in the formation of a joint venture company ("JV"), of which Murphy Exploration & Production Company ("Murphy") has 80% stake and Petrobras America Inc. ("PAI") 20% stake.

(\*). Apparent differences in the sum of the numbers are due to rounding off.

## Supplementary information (unaudited)

(Expressed in millions of reais, unless otherwise indicated)

Proved developed and undeveloped reserves - Equity Method Investees (*)	Abroad				Total oil equivalent abroad	Total synthetic oil equivalent in Brazil	Total for all products
	Oil equivalent in Brazil	South America	North America	Africa			
Reserves at December 31, 2015	-	17.4	-	68.6	86.0	-	86.0
Revisions of previous estimates	-	-	-	11.2	11.2	-	11.2
Extensions and discoveries	-	-	-	-	-	-	-
Improved Recovery	-	-	-	-	-	-	-
Sales of reserves	-	(16.9)	-	-	(16.9)	-	(16.9)
Purchases of reserves	-	-	-	-	-	-	-
Production for the year	-	(0.5)	-	(8.7)	(9.2)	-	(9.2)
Reserves at December 31, 2016	-	0.0	-	71.1	71.1	-	71.1
Revisions of previous estimates	-	-	-	3.5	3.5	-	3.5
Extensions and discoveries	-	-	-	-	-	-	-
Improved Recovery	-	-	-	-	-	-	-
Sales of reserves	-	-	-	-	-	-	-
Purchases of reserves	-	-	-	-	-	-	-
Production for the year	-	-	-	(8.3)	(8.3)	-	(8.3)
Reserves at December 31, 2017	-	-	-	66.3	66.3	-	66.3
Transfers by loss of control (2)	-	-	106.5	-	106.5	-	106.5
Revisions of previous estimates	-	-	(1.4)	9.6	8.2	-	8.2
Extensions and discoveries	-	-	-	-	-	-	-
Improved Recovery	-	-	-	-	-	-	-
Sales of reserves	-	-	(85.4)	-	(85.4)	-	(85.4)
Purchases of reserves	-	-	9.1	-	9.1	-	9.1
Production for the year	-	-	(0.5)	(8.1)	(8.6)	-	(8.6)
Reserves at December 31, 2018 (1)	-	-	28.4	67.7	96.1	-	96.1

(1) In 2018, total proved reserves includes 67.7 million barrels of oil equivalent related to PO&amp;G assets held for sale.

(2) Amounts transferred from consolidated entities to equity method investees, as the Company concluded the operation that has resulted in the formation of a joint venture company ("JV"), of which Murphy Exploration & Production Company ("Murphy" ) has 80% stake and Petrobras America Inc ("PAI") 20% stake.

(\*) Apparent differences in the sum of the numbers are due to rounding off.

Proved developed and undeveloped reserves -Consolidated and Equity Method Investees (*)	Abroad					Total oil equivalent abroad	Total synthetic oil equivalent in Brazil	Total for all products
	Oil equivalent in Brazil	South America	North America	Africa				
Reserves at December 31, 2015	10,142.1	183.1	113.7	68.6	365.4	8.5	10,516.0	
Revisions of previous estimates	100.2	3.9	14.7	11.2	29.8	1.0	131.0	
Extensions and discoveries	103.2	-	-	-	-	-	103.2	
Sales of reserves	-	(168.8)	-	-	(168.8)	-	(168.8)	
Purchases of reserves	-	16.3	-	-	16.3	-	16.3	
Production for the year	(883.4)	(14.7)	(17.4)	(8.7)	(40.8)	(1.2)	(925.4)	
Reserves at December 31, 2016	9,462.0	19.8	111.0	71.1	201.8	8.3	9,672.2	
Revisions of previous estimates	635.7	3.5	27.2	3.5	34.3	0.2	670.1	
Extensions and discoveries	75.4	7.1	-	-	7.1	-	82.5	
Improved Recovery	246.7	-	-	-	-	-	246.7	
Sales of reserves	-	-	-	-	-	-	-	
Purchases of reserves	-	-	-	-	-	-	-	
Production for the year	(891.0)	(2.6)	(16.7)	(8.3)	(27.7)	(1.2)	(919.8)	
Reserves at December 31, 2017 (1)	9,528.8	27.9	121.5	66.3	215.6	7.4	9,751.7	
Revisions of previous estimates	465.6	-	(1.4)	9.6	8.2	(0.4)	473.3	
Extensions and discoveries	331.3	12.3	-	-	12.3	-	343.6	
Improved Recovery	258.8	-	-	-	-	-	258.8	
Sales of reserves	(282.4)	-	(85.4)	-	(85.4)	-	(367.8)	
Purchases of reserves	-	-	9.1	-	9.1	-	9.1	
Production for the year	(834.9)	(3.0)	(15.4)	(8.1)	(26.5)	(1.2)	(862.6)	
Reserves at December 31, 2018 (1)	9,467.1	37.2	28.4	67.7	133.3	5.8	9,606.2	

(1) In 2017, total proved reserves includes 292.7 million barrels of oil equivalent related to assets held for sale in Brazil; and in 2018, includes 67.7 million barrels of oil equivalent related to PO&G assets held for sale in Africa.

(2) Amounts transferred from consolidated entities to equity method investees, as the Company concluded the operation that has resulted in the formation of a joint venture company ("JV"), of which Murphy Exploration & Production Company ("Murphy" ) has 80% stake and Petrobras America Inc ("PAI") 20% stake.

(\*) Apparent differences in the sum of the numbers are due to rounding off.



Supplementary information (unaudited)

(Expressed in millions of reais, unless otherwise indicated)

In 2018, we incorporated 473.3 million boe of proved reserves by revising of previous estimates, including 233.5 million boe due to economic revisions, mainly due to the increase in prices, and 239.9 million boe due to technical revisions, mainly due to the good performance of reservoirs in the pre-salt layer of Santos and Campos basins, both in Brazil. In addition, we added 258.8 million boe in our proved reserves resulting from positive responses from improved recovery (water injection), and added 343.6 million boe in our proved reserves due to extensions and discoveries, mainly in the pre-salt of Santos basin.

We reduced 367.8 million boe of our proved reserves due to sales of reserves and increased 9.1 million boe in our proved reserves due to purchases of reserves, resulting in a net effect of a decrease of 358.7 million boe in our proved reserves.

Considering a production of 862.6 million boe in 2018 and changes above, the company total proved reserves resulted in 9,606.2 million boe. This 862.6 million boe production volume is the net volume withdrawn from our proved reserves. Therefore, exclude NGL (except for North America), as we estimate our oil and gas reserves at a reference point prior to the gas processing plants, and does not consider the production of Extended Well Tests (EWTs) in exploratory blocks and production in Bolivia, since the Bolivian Constitution prohibits the disclosure and registration of its reserves.

In 2017, we incorporated 670.1 million boe of proved reserves by revising of previous estimates, including 355.4 million boe due to economic revisions, mainly due to the increase in prices, and 314.7 million boe due to technical revisions, mainly due to better than forecasted behavior from reservoirs, in the pre-salt layer of Santos and Campos basins, both in Brazil. In addition, we added 246.7 million boe in our proved reserves resulting from positive responses from improved recovery (water injection), and added 82.5 million boe in our proved reserves due to extensions and discoveries, mainly in the pre-salt of Santos basin.

Considering a production of 919.8 million boe in 2017, the company total proved reserves resulted in 9,751.7 million boe. This 919.8 million boe production does not consider the production of Extended Well Tests (EWTs) in exploratory blocks and production in Bolivia, since the Bolivian Constitution prohibits the disclosure and registration of its reserves.

In 2016, we incorporated 103 million boe of proved reserves from extensions and discoveries in Brazil (Santos Basin), and we added 131 million boe to our proved reserves due to revisions of previous estimates, as a result of drilling of new production development wells and better reservoir response in onshore and offshore post-salt fields, in Brazil and the USA, and as result of positive answers from the reservoirs, recovery mechanisms (water injection) and operating efficiency of production systems in operation, as well as the growing drilling activities and tie-back activities, in the pre-salt layer of Santos and Campos Basins.

We reduced 169 million boe of our proved reserves due to sales of minerals in situ and increased 16 million boe in our proved reserves due to purchases of minerals in situ, resulting in a net effect of a decrease of 153 million boe in our



proved reserves. The net result of these additions and disposals, excluding production, was an increase of 81 million boe to our proved reserves in 2016. Considering a production of 925 million boe in 2016, our decrease of proved reserves was 844 million boe.

## Supplementary information (unaudited)

(Expressed in millions of reais, unless otherwise indicated)

	2018				2017				2016			
	Crude Oil	Synthetic Oil	Natural Gas	Synthetic Gas	Crude Oil	Synthetic Oil	Natural Gas	Synthetic Gas	Crude Oil	Synthetic Oil	Natural Gas	Synthetic Gas
	(millions of barrels)		(billions cubic feet)		(millions of barrels)		(billions cubic feet)	(billions cubic feet)	(millions of barrels)		(billions cubic feet)	
Net proved developed reserves:												
Consolidated Entities												
Brazil	4,339.5	4.8	4,807.0	5.7	4,282.2	6.0	8,515.9	4,250.1	6.8	5,034.2	9.2	
South America	1.0	–	83.5	–	0.7	–	56.7	0.5	–	33.7	–	
North America	–	–	–	–	72.1	–	24.2	79.6	–	83.6	–	
Abroad	1.0	–	83.5	–	72.8	–	80.9	80.1	–	117.3	–	
<b>Total Consolidated Entities</b>	<b>4,340.5</b>	<b>4.8</b>	<b>4,890.5</b>	<b>5.7</b>	<b>4,355.0</b>	<b>6.0</b>	<b>8,596.8</b>	<b>4,330.2</b>	<b>6.8</b>	<b>5,151.5</b>	<b>9.2</b>	
Nonconsolidated Entities												
North America (2)	20.0	–	8.3	–	–	–	–	–	–	–	–	
Africa	30.9	–	27.6	–	29.6	–	9.3	32.5	–	8.6	–	
Abroad	51.0	–	35.9	–	29.6	–	9.3	32.5	–	8.6	–	
<b>Total Nonconsolidated Entities</b>	<b>51.0</b>	<b>–</b>	<b>35.9</b>	<b>–</b>	<b>29.6</b>	<b>–</b>	<b>9.3</b>	<b>32.5</b>	<b>–</b>	<b>8.6</b>	<b>–</b>	
<b>Total Consolidated and Nonconsolidated Entities</b>	<b>4,391.5</b>	<b>4.8</b>	<b>4,926.4</b>	<b>5.7</b>	<b>4,384.6</b>	<b>6.0</b>	<b>8,606.0</b>	<b>4,362.7</b>	<b>6.8</b>	<b>5,160.1</b>	<b>9.2</b>	
Net proved undeveloped reserves:												
Consolidated Entities												
Brazil	3,829.2	–	2,983.5	–	3,967.2	–	3,160.2	3,812.9	–	3,359.7	–	
South America	0.5	–	130.6	–	0.5	–	103.5	0.3	–	80.2	–	

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North America	-	-	-	-	42.6	-	16.7	16.8	-	3,6	-
Abroad	0.5	-	130.6	-	43.0	-	120.2	17.1	-	83,8	-
Total Consolidated											
Entities	3,829.7	-	3,114.1	-	4,010.2	-	3,280.5	3,830.0	-	3,443,6	-
Nonconsolidated											
Entities											
North America (2)	6.5	-	2.5	-	-	-	-	-	-	-	-
Africa	28.9	-	19.7	-	33,8	-	8,0	36,5	-	3,9	-
Abroad	35.4	-	22.2	-	33,8	-	8,0	36,5	-	3,9	-
Total											
Nonconsolidated											
Entities	35.4	-	22.2	-	33,8	-	8,0	36,5	-	3,9	-
Total Consolidated											
and											
Nonconsolidated											
Entities	3.865,1	-	3.136,3	-	4.044,0	-	3.288,5	3.866,5	-	3.447,5	-

(1) It includes amounts related to assets held for sale in 2017 (191.9 million barrels of oil and 131.8 billion cubic feet of natural gas in net proved developed reserves and 71.9 million barrels of oil and 41.9 billion cubic feet of natural gas in net proved undeveloped reserves) in Brazil and in 2018 (30.9 million barrels of oil and 27.6 billion cubic feet of natural gas in net proved developed reserves and 28.9 million barrels of oil and 19.7 billion cubic feet of natural gas in net proved undeveloped reserves) in Africa (PO&G).

(2) In 2018, North America oil reserves includes 4.2% of natural gas liquid (NGL) in proved developed reserves and 3.6% of NGL in proved undeveloped reserves.

(\*) Apparent differences in the sum of the numbers are due to rounding off.

Supplementary information (unaudited)

(Expressed in millions of reais, unless otherwise indicated)

e) Standardized measure of discounted future net cash flows relating to proved oil and gas quantities and changes therein

The standardized measure of discounted future net cash flows, related to the above proved oil and gas reserves, is calculated in accordance with the requirements of Codification Topic 932 – Extractive Activities – Oil and Gas.

Estimated future cash inflows from production in Brazil are computed by applying the average price during the 12-month period prior to the ending date of the period covered by the report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions. Future price changes are limited to those provided by contractual arrangements existing at the end of each reporting year. Future development and production costs are those estimated future expenditures necessary to develop and produce year-end estimated proved reserves based on year-end cost, assuming continuing economic conditions. Estimated future income taxes (including future social contributions on net income - CSLL) are calculated by applying appropriate year-end statutory tax rates. The amounts presented as future income taxes expenses reflect allowable deductions considering statutory tax rates. Discounted future net cash flows are calculated using 10% mid-period discount factors. This discounting requires a year-by-year estimate of when the future expenditures will be incurred and when the reserves will be produced.

The valuation prescribed under Codification Topic 932 – Extractive Activities – Oil and Gas requires assumptions as to the timing and amount of future development and production costs. The calculations are made as of December 31 each year and should not be relied upon as an indication of Petrobras' future cash flows or the value of its oil and gas reserves.

Information relating to the standardized measure of discounted future net flows, presented originally in U.S. dollars in Form 20-F of the SEC, were converted to reais for these financial statements. Therefore, in order to maintain consistency with the criteria used in measuring the estimates of future cash flows, as described above, the Exchange rate used for converting each period follows the average prices calculated as the unweighted arithmetic average of the first-day-of-the-month price for each month within the 12-month period prior to the end of the reporting period. Exchange differences arising from translation are shown as cumulative translation adjustments in the following tables.

## Supplementary information (unaudited)

(Expressed in millions of reais, unless otherwise indicated)

	Consolidated entities				Equity	
	Abroad			Total	Total	Method
	Brazil (2)	South	North			
		America	America	(3)		
December 31, 2018						
Future cash inflows	2,188,096	4,044	-	4,044	2,192,140	22,235
Future production costs	(981,563)	(1,544)	-	(1,544)	(983,107)	(5,851)
Future development costs	(124,063)	(792)	-	(792)	(124,855)	(1,925)
Future income tax expenses	(405,518)	(330)	-	(330)	(405,848)	(3,709)
Undiscounted future net cash flows	676,952	1,378	-	1,378	678,330	10,749
10 percent midyear annual discount for timing of estimated cash flows (1)	(272,896)	(707)	-	(707)	(273,603)	(2,271)
Standardized measure of discounted future net cash flows	404,056	671	-	671	404,727	8,478
December 31, 2017						
Future cash inflows	1,400,992	2,912	17,107	20,019	1,421,011	11,127
Future production costs	(679,781)	(1,314)	(7,311)	(8,625)	(688,406)	(2,734)
Future development costs	(149,113)	(469)	(2,071)	(2,540)	(151,653)	(1,671)
Future income tax expenses	(201,304)	(284)	(273)	(558)	(201,862)	(1,082)
Undiscounted future net cash flows	370,794	844	7,452	8,296	379,090	5,640
10 percent midyear annual discount for timing of estimated cash flows (1)	(167,574)	(441)	(2,256)	(2,697)	(170,271)	(1,513)
Standardized measure of discounted future net cash flows	203,220	404	5,196	5,599	208,819	4,127
December 31, 2016						
Future cash inflows	1,260,888	2,116	13,437	15,553	1,276,441	10,407
Future production costs	(738,852)	(843)	(7,597)	(8,440)	(747,292)	(3,839)
Future development costs	(149,444)	(425)	(1,875)	(2,300)	(151,744)	(2,481)
Future income tax expenses	(163,121)	(229)	(141)	(370)	(163,491)	(808)
Undiscounted future net cash flows	209,471	619	3,824	4,443	213,914	3,279
10 percent midyear annual discount for timing of estimated cash flows(1)	(88,016)	(274)	(898)	(1,172)	(89,188)	(1,221)
Standardized measure of discounted future net cash flows	121,455	345	2,926	3,271	124,726	2,058

(1) Semiannual capitalization

(2) Includes the amount of R\$ 5,649 million related to assets classified as held for sale in 2017.

(3) Includes the amount of R\$ 6,090 million related to PO&amp;G assets classified as held for sale in 2018.

Bolivian proved reserves are not included due to restrictions determined by Bolivian Constitution.  
Apparent differences in the sum of the numbers are due to rounding off.

## Supplementary information (unaudited)

(Expressed in millions of reais, unless otherwise indicated)

	Consolidated entities				Equity	
	Abroad			Total	Total	Method
	Brazil (1)	South	North			
		America	America	(2)		
Balance at January 1, 2018	203,220	404	5,196	5,599	208,819	4,127
Transfers by loss of control (3)	–	–	(5,191)	(5,191)	(5,191)	5,547
Sales and transfers of oil and gas, net of production cost	(114,976)	(278)	(3,069)	(3,347)	(118,323)	(1,346)
Development cost incurred	35,101	118	831	949	36,050	916
Net change due to purchases and sales of minerals in place	(17,357)	–	–	–	(17,357)	(6,877)
Net change due to extensions, discoveries and improved recovery related costs	41,030	447	–	447	41,477	–
Revisions of previous quantity estimates	38,866	–	–	–	38,866	169
Net change in prices, transfer prices and in production costs	264,214	161	1,392	1,553	265,767	6,614
Changes in estimated future development costs	6,753	(275)	(429)	(704)	6,049	(339)
Accretion of discount	20,322	68	545	613	20,935	470
Net change in income taxes	(105,122)	(14)	–	(14)	(105,136)	(1,814)
Other - unspecified	–	(16)	–	(16)	(16)	433
Cumulative translation adjustments	32,006	56	725	781	32,787	576
Balance at December 31, 2018	404,057	671	–	671	404,728	8,478
	404,057	671	–	671	404,728	8,478
Balance at January 1, 2017	121,455	346	2,925	3,271	124,726	2,058
Sales and transfers of oil and gas, net of production cost	(74,716)	(192)	(1,798)	(1,990)	(76,706)	(832)
Development cost incurred	36,898	75	734	809	37,707	939
Net change due to purchases and sales of minerals in place	–	–	–	–	–	–
Net change due to extensions, discoveries and improved recovery related costs	13,360	221	–	221	13,581	–
Revisions of previous quantity estimates	26,369	119	1,413	1,533	27,902	161
Net change in prices, transfer prices and in production costs	160,586	9	2,345	2,354	162,940	1,575
Changes in estimated future development costs	(50,665)	(98)	(461)	(559)	(51,224)	(80)
Accretion of discount	12,145	45	242	287	12,433	186
Net change in income taxes	(29,474)	(58)	(6)	(64)	(29,538)	(293)
Other - unspecified	–	(29)	79	50	50	608
Cumulative translation adjustments	(12,738)	(33)	(280)	(313)	(13,051)	(197)
Balance at December 31, 2017	203,220	404	5,196	5,599	208,819	4,127
Balance at January 1, 2016	140,990	3,973	2,877	6,850	147,840	1,685

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Sales and transfers of oil and gas, net of production cost	(63,242)	(1,238)	(1,524)	(2,762)	(66,004)	(733)
Development cost incurred	42,342	622	523	1,145	43,487	1,374
Net change due to purchases and sales of minerals in place	–	(3,860)	–	(3,860)	(3,860)	(189)
Net change due to extensions, discoveries and improved recovery related costs	4,353	–	1,709	1,709	6,062	236
Revisions of previous quantity estimates	4,225	–	785	785	5,010	854
Net change in prices, transfer prices and in production costs	(95,372)	–	(2,681)	(2,681)	(98,053)	(1,682)
Changes in estimated future development costs	32,372	–	814	814	33,186	(65)
Accretion of discount	14,099	572	290	862	14,961	184
Net change in income taxes	31,044	–	(4)	(4)	31,040	217
Other - unspecified	–	(2)	(66)	(68)	(68)	59
Cumulative translation adjustments	10,644	279	202	481	11,125	118
Balance at December 31, 2016	121,455	346	2,925	3,271	124,726	2,058

(1) Includes the amount of R\$5,649 million related to assets classified as held for sale in 2017.

(2) Includes the amount of R\$ 6,090 million related to PO&G assets classified as held for sale in 2018.

(3) Amounts transferred from consolidated entities to equity method investees, as the Company concluded the operation that has resulted in the formation of a joint venture company ("JV"), of which Murphy Exploration & Production Company ("Murphy" ) has 80% stake and Petrobras America Inc ("PAI") 20% stake.

Apparent differences in the sum of the numbers are due to rounding off.



BOARD OF DIRECTORS AND EXECUTIVE OFFICERS

PETROBRAS

Financial Statements as of December 31, 2018

BOARD OF DIRECTORS

EDUARDO BACELLAR LEAL FERREIRA  
CHAIRMAN

ROBERTO CASTELLO BRANCO	JERÔNIMO SEGEN FARID ESTEFEN
	ANTUNES
MEMBER	MEMBER MEMBER

ANA LÚCIA POÇAS ZAMBELLI	JOÃO COX	SÔNIA JÚLIA SULZBECK VILLALOBOS
	NETO	
MEMBER	MEMBER	MEMBER

DANILO FERREIRA DA SILVA	MARCELO CLARISSA DE ARAÚJO LINS
	MESQUITA
	DE
	SIQUEIRA
	FILHO
MEMBER	MEMBER MEMBER

DIRETORIA EXECUTIVA

ROBERTO CASTELLO BRANCO  
CHIEF EXECUTIVE OFFICER (President)

RAFAEL SALVADOR GRISOLIA CHIEF FINANCIAL AND INVESTOR RELATIONS / CHIEF STRATEGY,  ORGANIZATION AND MANAGEMENT SYSTEM EXECUTIVE OFFICER	EBERALDO DE ALMEIDA NETO CHIEF CORPORATE AFFAIRS EXECUTIVE OFFICER /  CHIEF REFINING AND NATURAL GAS EXECUTIVE OFFICER	RAFAEL MENDES GOMES CHIEF GOVERNANCE AND COMPLIANCE EXECUTIVE OFFICER
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CARLOS ALBERTO PEREIRA DE OLIVEIRA	RUDIMAR ANDREIS LORENZATTO
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CHIEF EXPLORATION AND  
PRODUCTION EXECUTIVE  
OFFICER

CHIEF TECHNOLOGY AND  
PRODUCTION

DEVELOPMENT EXECUTIVE  
OFFICER

RODRIGO ARAUJO ALVES  
CHIEF ACCOUNTING OFFICER  
(CAO)

CHIEF ACCOUNTING OFFICER -  
CRC-RJ-115.881/O-3

STATEMENT OF DIRECTORS ON FINANCIAL STATEMENTS AND AUDITORS' REPORT

PETROBRAS

In compliance with the regulation Instruction of Brazilian Securities and Exchange Commission (CVM), the Chief Executive Officer and the Board of Executive Officers of Petróleo Brasileiro S.A. – Petrobras, publicly traded company, with its headquarters at Avenida República do Chile, 65, Rio de Janeiro, RJ, registered with CNPJ 33.000.167/0001-01, declare that the financial statements have been prepared in accordance with the law or the bylaws and that:

- (i) reviewed, discussed and agreed with the Financial statements of Petrobras for the year ended December 31, 2018;
- (ii) reviewed, discussed and agreed with the opinions expressed in the report of KPMG Auditores Independentes regarding the financial statements of Petrobras for the year ended December 31, 2018.

Rio de Janeiro, February 27, 2019.

Roberto Castello Branco  
Chief Executive Officer

Rafael Salvador Grisolia  
Chief Financial Investor Relations Officer / Chief Strategy,  
Organization and Management System Executive Officer

Eberaldo de Almeida Neto  
Chief Corporate Affairs Executive Officer / Chief  
Refining and Natural Gas Executive Officer

Rafael Mendes Gomes  
Chief Governance and Compliance Executive Officer

Carlos Alberto Pereira de Oliveira  
Chief Exploration and Production Executive Officer

Rudimar Andreis Lorenzatto  
Chief Technology and Production Development  
Executive Officer



KPMG Auditores Independentes

Rua do Passeio, 38 - Setor 2 - 17º andar - Centro

20021-290 - Rio de Janeiro/RJ - Brasil

Caixa Postal 2888 - CEP 20001-970 - Rio de Janeiro/RJ - Brasil

Telefone +55 (21) 2207-9400, Fax +55 (21) 2207-9000

www.kpmg.com.br

(A free translation of the original report in Portuguese, as filed with the Brazilian Securities and Exchange Commission (CVM), prepared in accordance with the accounting practices adopted in Brazil, rules of the CVM and of the International Financial Reporting Standards - IFRS)

To the Board of Directors and Shareholders of

Petróleo Brasileiro S.A. - Petrobras

Rio de Janeiro – RJ

#### Opinion

We have audited the individual and consolidated financial statements financial statements of Petróleo Brasileiro S.A. - Petrobras S.A. ("Company"), referred to as parent company and consolidated financial statements, respectively, which comprise the statement of Financial Position as of December 31, 2018, and the statement of income, the statement of Comprehensive Income, Statement of Changes in Shareholders' equity and Statement of Cash Flows for the year then ended, and notes to the financial statements, including significant accounting policies and other explanatory information.

In our opinion, the accompanying financial statements present fairly, in all material respects, the individual and consolidated financial position of Petróleo Brasileiro S.A. - Petrobras, as at December 31, 2018, and its individual and consolidated financial performance and its individual and consolidated cash flows for the year then ended in accordance with Brazilian accounting policies and the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board - IASB.

#### Basis for opinion

We conducted our audit in accordance with International and Brazilian Standards on Auditing. Our responsibilities under those standards are further described in the "Auditors' responsibilities for the audit of the individual and consolidated financial statements" section of our report. We are independent from the Company and its subsidiaries in

accordance with the ethical requirements that are relevant to our audit of the financial statements and are set forth on the Professional Code of Ethics for Accountants and on the professional standards issued by the Regional Association of Accountants, and we have fulfilled our ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

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## Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the individual and consolidated financial statements as a whole, and in forming our opinion thereon, and we do not express a separate opinion on these matters.

KPMG Auditores Independentes, uma sociedade simples brasileira e firma-membro da rede KPMG de firmas-membro independentes e afiliadas à KPMG International Cooperative (“KPMG International”), uma entidade suíça.

KPMG Auditores Independentes, a Brazilian entity and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative (“KPMG International”), a Swiss entity.

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## 1 - Legal proceedings and contingencies

According to note 31 of the individual and consolidated financial statements.

### Key audit matter

The Company is involved in labor, civil and tax lawsuits over the normal course of its activities.

The Company's evaluation of the likelihood of loss is supported by criteria and assumptions that involve a high level of complexity and that are influenced by theses and/or judgments resulting from interpretations of complex legal matters that are sometimes polemical at several judicial courts.

We considered this to be a key audit matter due to the fact that the recognition and measurement of provisions and contingent liabilities requires the Company to exercise significant judgment to determine the existence of a present obligation, the likelihood of an outflow of funds and the estimation of the amount of the obligation resulting from the legal proceedings in which the Company is involved, as well as impacting the amounts of those liabilities in the individual and consolidated financial statements.

### How the matter was addressed in our audit

Our audit procedures included, among others, the evaluation of the design, implementation and effectiveness of key internal controls adopted by the Company and associated with the capture of processes, risk assessment, measurement, accounting recognition and disclosure of provisions for contingencies and contingent liabilities.

We evaluated the significant estimates and judgments made by the Company by analyzing the criteria and assumptions used for measuring the accrued and/or disclosed amounts that considering the assessment prepared by the Company's internal and external legal counselors, including the tax amnesty programs.

We evaluated the information about the main proceedings and claims involving the Company according to the confirmation received from internal and external legal counselors and other documents produced by the Company.

According to the evidence obtained by applying the procedures described above, we considered that the criteria and assumptions used for estimating the legal proceedings and contingencies, as well as related disclosures, are acceptable in the context of the financial statements taken as a whole, for the year ended December 31, 2018.

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## 2 - Impairment

According to note 14 of the individual and consolidated financial statements.

### Key audit matter

The impairment assessment on property, plant and equipment and intangible assets, and the definition of the cash generating units (CGUs) requires the exercise of significant judgment about assumptions, such as: (i) average Brent oil price and average exchange rate (Real/US dollar) whose estimates are relevant for all the company's business segments; (ii) estimates about the recovery of the volume of oil and gas reserves; (iii) definition of discount rates and exchange rates; (iv) amounts considered in the cash flow as CAPEX and OPEX.

Due to the high level of complexity involved in evaluating the determination and reviewing of the cash generating units for testing assets for impairment and the level of uncertainties inherent in cash flow projections and the estimates made to determine the recoverability of assets, as well as the collection and data processing of information, which requires a significant level of judgment by the Company for the determination of the accounting estimate, that may impact the amount of those assets in the individual and consolidated financial statements and the amount of the investment recorded through the equity pick-up method in the individual financial statements, we considered this to be a key audit matter.

### How the matter was addressed in our audit

Our audit procedures included, among others, an evaluation of the design, implementation and effectiveness of key internal controls adopted by the Company and associated with the capture of processes, risk assessment, measurement, accounting recognition and disclosure of the impairment loss on and estimates of oil and gas reserves.

Significant aspects of our audit approach included an understanding of the preparation and review of the business plan, budgets and impairment tests made available by the Company. We evaluated the reasonableness of the estimate prepared by the Company, the determination of the CGUs and the methodology used to test the assets for impairment.

We involved a valuation specialist to assist us in evaluating the assumptions and methodologies used by the Company to prepare the asset valuation model and compared the assumptions with the data obtained from external sources, when available, such as the future price of oil and gas, estimated economic growth, the forecast inflation rate and the discount rates, as well as a sensitivity analysis for these assumptions. We also assess the underlying documentation related to the amounts considered in the cash flow projections as CAPEX and OPEX of the projects.

In order to estimate the recoverability of the volumes of oil and gas reserves, we compared a study conducted by an external expert hired by the Company with the total amount of Reserves used, and we evaluated the movements in the reserves during the year according to internal and external information regarding production.

We assessed the recoverable value of assets against the book values of the Company's property, plant and equipment and intangible assets to determine the impairment loss on the Company's assets for each CGU. We also assessed the adequacy of the disclosures to the financial statements.

According to the evidence obtained from performing the procedures described above, we considered that the assumptions and methods used for estimating the

impairment loss on intangible assets and on property, plant and equipment are acceptable in the context of the financial statements taken as a whole, for the year ended December 31, 2018.

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3 – Assumptions used in and calculation of the actuarial obligation of pension and health plans

According to note 23 of the individual and consolidated financial statements.

Key audit matter

The Company sponsors pension and health care plans that provide supplementary retirement benefits and medical care to its employees.

Actuarial obligation of pension and health plans are determined by the Company annually with the support of an independent actuary, according to the projected unit credit method, by reference to actuarial assumptions that comprise demographic and economic estimates, estimates of medical costs, historical data about expenses and employee contributions.

Due to the high level of judgment exercised by the Company to make estimations and the extent of historical data about the employees' expenses and contributions used, that may impact the amount of these liabilities in the individual and consolidated financial statements, and in the equity-accounted of the individual financial statements, we considered this a key audit matter.

How the matter was addressed in our audit

Our audit procedures included, among others, an evaluation of the design, implementation and effectiveness of key internal controls adopted by the Company and associated with the measurement and disclosure of actuarial liabilities.

We performed sample techniques to assess the information used to calculate the liabilities, and we obtained information about the technical expertise and experience of the independent actuary in charge of the actuarial calculation.

We involved an actuarial specialist to assist us on evaluated the assumptions and methods used by the Company to calculate the actuarial liabilities. Besides, we compared the figures used with data obtained from external sources, when available, such as discount rate, salary growth, turnover of the pension and health care plans, mortality and disability table and medical costs.

Moreover, we assessed the respective disclosures of these assumptions and the actuarial obligation in the financial statements.

During the course of our audit procedures, we identified unrecorded adjustments that affect the measurement and disclosure of the actuarial liability, which were not corrected by management, since they were considered to be immaterial.

According the evidence obtained from performing the procedures described above, we considered that the policy adopted for recognizing the actuarial obligation of pension and health plans are acceptable to support the judgments, estimates and information included in the financial statements taken as a whole, for the year ended December 31, 2018.

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#### 4 - Trade receivables from the electricity sector

According to note 8.4 of the individual and consolidated financial statements.

Key audit matter

The Company provides fuel oil and natural gas, among other products, to thermoelectric power plants (subsidiaries of Centrais Elétricas Brasileiras S.A – “Eletrobras”), state concessionaires and independent energy producers that are part of the isolated energy system of Brazil's Northern region.

A significant portion of the amount used for settling the Company's trade receivables arises from the electricity industry fund called Fuel Consumption Account. Recent legal restrictions have reduced the amounts reimbursed by the fund, causing an increase in the default of the companies that operate in that segment.

During the year, a number of measure were taken to reestablish the corporate and finance guarantees related to those receivable, resulting in a remeasurement of the trade receivables from the electricity sector.

Due to the circumstances mentioned above, the materiality of the balance of trade receivables, and the significant level of judgment exercised by the Company to prepare the accounting estimate of the expected credit loss on this trade receivables, that may impact the amount of those assets in the individual and consolidated financial statements, and in the equity-accounted of the individual financial statements, we considered this a key audit matter.

How the matter was addressed in our audit

Our audit procedures included, among others, an evaluation of the design, implementation and effectiveness of key internal controls adopted by the Company and associated with the capture of processes, risk assessment, measurement and accounting recognition of the balance of trade receivables from the electricity industry.

We performed procedures to assess the expected credit loss on trade receivables from the electricity industry, we analysed all analyzed debt acknowledgment agreements and the related composition of guarantees based on the current stage of the negotiations between the Company, Eletrobrás and the federal government as well as the associated risk of default.

Finally, we assess the disclosures made in the individual and consolidated financial statements.

During the course of our audit procedures, we identified unrecorded adjustments that affect the measurement and disclosure of the trade receivable from electricity sector, which were not corrected by management, since they were considered to be immaterial.

According the evidence obtained from performing the procedures described above, we considered that the expected credit loss on trade receivables from the electricity industry is acceptable in the context of the financial statements taken as a whole, for the year ended December 31, 2018.

**5 - Provisions for decommissioning costs**

According to note 20 of the individual and consolidated financial statements.

**Key audit matter**

Because of the business in which the Company operation have the obligation to dismantle and restore the environment of the areas that will be abandoned.

Estimating the costs associated with the decommissioning involves significant judgment given that: (i) obligations will be incurred in the short, medium and long terms; (ii) contracts and regulations have subjective descriptions regarding removal and restoration practices and about the criteria to be met when removal and restoration actually occurs; and (iii) asset removal technologies and costs are rapidly changing, together with environmental and security regulations.

Due to the materiality of the provision recognized for decommissioning costs and the level of uncertainty involved in making an estimate that may have an impact on the amount of this provision in the financial statements, that may impact the amount of these liabilities in the individual and consolidated financial statements, we considered this a key audit matter.

**How the matter was addressed in our audit**

Our audit procedures included, among others, an evaluation of the design, implementation and effectiveness of key internal controls adopted by the Company and associated with the capture of processes, risk assessment, measurement and accounting recognition of the provision for decommissioning areas.

We have involved our valuation specialists, to assist us evaluating the assumptions used to calculate this estimate, particularly the nature and breakdown of future expenses expected to be incurred for decommissioning, inflation rates, discount rates, risk rates, and the market information that supports the applied rates. We also assess the adequacy of the disclosures made by the Company.

According to the evidence obtained by applying the procedures described above, we considered that the assumptions and methods used for recognizing the provision for decommissioning costs is acceptable in the context of the financial statements taken as a whole, for the year ended December 31, 2018.

## Other matters

### Statements of value added

The individual and consolidated statements of value added for the year ended December 31, 2018, prepared under the responsibility of the Company's management, and presented as supplementary information for IFRS purposes, were submitted to the same audit procedures followed together with the audit of the Company's financial statements. In order to form our opinion, we evaluated whether these statements are reconciled to the financial statements and to the accounting records, as applicable, and whether their form and content are in accordance with the criteria set on Technical Pronouncement CPC 09 - Statement of Value Added. In our opinion, these statements of value added have been adequately prepared, in all material respects, according to the criteria set on this Technical Pronouncement and are consistent with the individual company and consolidated financial statements taken as a whole.

### Other information that accompanies the individual company and consolidated financial statements and the independent auditors' report

The Company's management is responsible for the other information. The other information comprises the Annual Report and the Financial Report.

Our opinion on the individual company and consolidated financial statements does not cover the Annual Report and the Financial Report and we do not express any form of assurance conclusion thereon.

In connection with our audit of the individual company and consolidated financial statements, our responsibility is to read the Annual Report and the Financial Report and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work performed, we conclude that there is material misstatement in the Annual Report and in the Financial Report, we are required to report on such fact. We have nothing to report on this respect.

### Responsibilities of Management and Those Charged with Governance for the Individual Company and Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these individual company and consolidated financial statements in accordance with accounting policies adopted in Brazil and with International Financial Reporting Standards (IFRS), and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the individual company and consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company and its subsidiaries, or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's and its subsidiaries' financial reporting process.



#### Auditors' Responsibilities for the Audit of the Individual Company and Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the individual company and consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but it is not a guarantee that the examination performed in accordance with Brazilian and international standards on auditing will always detect possible existing material misstatements. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of the examination performed in accordance with Brazilian and international standards on auditing, we exercised professional judgment and maintained professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the individual company and consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting material misstatement resulting from fraud is greater than the one deriving from error, as fraud may involve the act of circumventing internal control, collusion, forgery, omission or deliberate false representations.
  
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's and its subsidiaries' internal controls.
  
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
  
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's and its subsidiaries' ability to continue as a going concern. If we conclude that a material uncertainty exists, then we are required to draw attention in our auditors' report to the related disclosures in the individual company and consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are substantiated by the audit evidence obtained up to the date of our report. However, future events or conditions may cause the Company and its subsidiaries to cease to continue as a going concern.
  
- Evaluate the overall presentation, structure and contents of the financial statements, including the disclosures, and whether the individual company and consolidated financial statements represent the corresponding transactions and events in a compatible manner with the objective of a true and fair presentation.

-Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the individual company and consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current year and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Rio de Janeiro, February 27, 2019.

KPMG Auditores Independentes

CRC SP-014428/O-6 F-RJ

Marcelo Gavioli

Accountant CRC 1SP201409/O-1

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REPORT OF THE FISCAL COUNCIL - 2018

PETROBRAS

The Fiscal Council of Petróleo Brasileiro S.A. - PETROBRAS, in the exercise of its legal and statutory functions, at a meeting held on this date, examined the following documents issued by Petrobras:

I - 2018 Management Report; and

II- The Statement of financial position and other financial statements for the year ended December 31, 2018; Capital Budget proposal for 2019 Distribution to shareholders for 2018.

Based on these examinations, considering the accounting policies adopted by the Company, and in the information provided by the Management, as well as the independent auditors' report on the individual and consolidated financial statements issued by KPMG Auditores Independentes, dated February 22, 2019, Audit Committee, with the contrary vote of the Fiscal Councilor Reginaldo Ferreira Alexandre, believes that the documents presented are capable of being appraised by the Shareholders' Meeting of Petrobras.

Rio de Janeiro, February 27, 2019.

Marisete Fátima Dadald Pereira

President

Adriano Pereira de Paula

Councilor

Eduardo Cesar Pasa

Councilor

Daniel Alves Ferreira

Councilor

Reginaldo Ferreira Alexandre

Councilor

Antonio Roberto da Silva

Technical Assessor

CRC/RJ- 055019/0-5

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REPORT OF THE PETROBRAS STATUTORY AUDIT COMMITTEE – 2018

PETROBRAS

The Board of Directors of

Petróleo Brasileiro S.A. – Petrobras

1. Introduction

The Statutory Audit Committee ("CAE" or "Committee") is a permanent body directly under the Board of Directors of Petróleo Brasileiro S.A. – Petrobras ("Company"), with its own Internal Regiment ("Regiment"), being governed by the rules set forth in Brazilian legislation and other regulations - especially by Law 13303 of June 30, 2016, Decree No. 8.945, of December 27, 2016 and by CVM Instruction No. 308, dated of May 14, 1999, as amended by CVM Instruction No. 509, dated of November 16, 2011, and other applicable regulations, including the Sarbanes-Oxley Act ("SOx") and rules issued by the Securities and Exchange Commission ("SEC") and the New York Stock Exchange ("NYSE").

The purpose of the Statutory Audit Committee is to advise the Board of Directors in the exercise of their duties, working primarily on (i) the quality, transparency, and integrity of individual and consolidated financial statements (hereinafter the "financial statements"); (ii) the effectiveness of internal control processes for the production of financial reports; (iii) the performance, independence, and quality of the work by Independent Auditors and Internal Auditors; and (iv) risk management; (v) transactions with related-parties; (vi) calculations and actuarial results of plans and benefits maintained by Fundação Petrobras de Seguridade Social (Petros); and (vii) the due actions to prevent and combat fraud and corruption.

In fulfilling its responsibilities, the CAE is not responsible for planning or conducting audits or any assertion on the completeness and accuracy of the Company's financial statements, or are presented in accordance with the accounting practices adopted in Brazil issued by the Committee on Accounting Standards (Comitê de Pronunciamentos Contábeis - CPC) and with the International Financial Reporting Standards - IFRS issued by the International Accounting Standards Board (IASB). This is the responsibility of Management and the independent auditors. In fulfilling its responsibilities as described in its Internal Rules, the CAE members are not performing the duties of auditors or accountants.

The CAE is currently composed of the following independent Board of Directors members: Jerônimo Antunes (Chair and financial and corporate accounting expert, as provided for in Brazilian and American law), and Sonia Julia Sulzbeck Villalobos.

On January 1, 2018, the CAE was composed of the following Board of Directors members: Jerônimo Antunes (Chair), Marcelo Mesquita de Siqueira Filho and Durval José Soledade Santos.

On April 26, 2018, the Board of Directors of Petrobras approved the nomination of the Board member Sonia Julia Sulzbeck Villalobos and the counselor Francisco Petros Oliveira Lima Papathanasiadis to be members of the Statutory Audit Committee for the mandate 2018/2020, both taking office on May 25, 2018, replacing the Board members Durval José Soledade Santos and Marcelo Mesquita de Siqueira Filho, who were no longer members of the Committee on May 21, 2018 and May 25, 2018, respectively. On January 1, 2019 the Counselor Francisco Petros Oliveira Lima Papathanasiadis resigned to the positions as Board and Committee member.

It should be noted that all current CAE members meet the independence criteria set forth in Law No. 13,303/16, article 22, paragraph 1, and CVM Instruction n° 308/99, article 31-C, paragraph 2, as amended by CVM Instruction No. 509/11, as well as the independence criteria required by American law as applicable to Petrobras and by the Brazilian Institute of Corporate Governance (Instituto Brasileiro de Governança Corporativa – IBGC).

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## REPORT OF THE PETROBRAS STATUTORY AUDIT COMMITTEE – 2018

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## 2. Duties and Responsibilities

### 2.1 Company Management

Company Management is responsible for: (i) defining and implementing processes and procedures whose purpose is to collect data in the preparation of the financial statements, in compliance with corporate law, the accounting practices adopted in Brazil plus the practices issued by the IASB, the relevant regulatory acts of the CVM, of the CNV (Comisión Nacional de Valores) due to its registering on the BCBA (Bolsa de Comercio de Buenos Aires) and the standards issued by the SEC and the SOx, due to its registering on the New York Stock Exchange,; (ii) preparing and ensuring the integrity of financial statements, managing risks, maintaining an effective system of internal controls, and enforcing compliance of activities to meet legal and regulatory standards, and (iii) internal control processes, policies, and procedures that ensure the safeguard of assets, the timely recognition of liabilities, and the elimination or reduction to acceptable levels of risk factors.

### 2.2 Internal Audit

Internal Audit, which is directly subordinated to the Board of Directors, is technically supervised by the Statutory Audit Committee, and is responsible for carrying out periodic works focused on major risks, broadly and independently evaluating the actions to manage those risks and the adequacy of governance and internal controls, covering the areas and activities that present the most sensitive risks to Petrobras' operations and strategy.

### 2.3 Independent Audit

Since May 2017, KPMG is responsible for the independent audit of the annual financial statements published and for the review of quarterly information (ITRs) filed with CVM, SEC and CNV, issuing reports that reflect the result of its findings and present its independent opinion on the reliability of financial statements in relation to the accounting practices adopted in Brazil issued by the Committee on Accounting Standards (Comitê de Pronunciamentos Contábeis) – CPC, as well as the IFRS, in addition to compliance to CVM rules, the provisions in Brazilian corporate law, and American regulations applicable to Petrobras.



## 2.4 Governance, Compliance and Examination of Complaints

The Executive Office of Governance and Compliance ("DGC") started in 2015 its mission to ensure compliance with processes and mitigate risks, among which the risk of fraud and corruption, enforcing compliance to laws, norms, standards, and internal and external and rules. The DGC's structure is currently composed of the following departments: Executive Management of Governance, Executive Management of Compliance and General Management of Examination of Complaints.

The Executive Management of Governance aims to ensure compliance with the Company's corporate governance models, as well as to ensure the management of Petrobras' decision-making process and the planning, performance evaluation and corporate optimization of its subsidiaries.

The Executive Management of Compliance is tasked with planning, steering, coordinating and assessing control and compliance activities, and reduction of fraud and corruption risks, reporting to Senior Management on compliance actions and results throughout the Petrobras System.

The investigation of complaints is attributed by the General Management of Examination of Complaints.

## 2.5 Risk Management and Monitoring

The Executive Management of Corporate Risk, subordinated to the Executive Office for Strategy, Organization and Management System, is responsible for strengthening the integrated outlook of the business risks within the Petrobras System by identifying, assessing, monitoring and managing relevant risks, together with the different departments and subsidiaries.

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## REPORT OF THE PETROBRAS STATUTORY AUDIT COMMITTEE – 2018

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#### 2.6 Ombudsman and Whistleblowing Channel

The General Ombudsman Office of Petrobras is responsible for ensuring that the public interest, internal or external, has a permanent and independent channel for the reception and treatment of complaints, including those of anonymous nature, complaints, requests for information, suggestions, praises and opinions.

The General Ombudsman Office is subordinated to the Board of Directors, reporting on its activities by means of the CAE, safeguarding the confidentiality necessary to protect its claimants.

#### 2.7 Related-party transactions

The Statutory Audit Committee is in charge of assessing and monitoring together with Management and Internal Audit, the appropriateness of transactions with related parties carried out by the Company, as well as reviewing quarterly the summary of transactions with related parties by Petrobras involving the latter's Executive Officers, Board members, as well as the spouse or direct or collateral relatives up to the third degree and, by affinity, up to the second degree, of said administrators, plus companies that employ any of its Executive Officers or Board members, in addition to any other related party relationship that is relevant, as defined by CVM and the SEC.

Since December 15, 2016, upon the Board of Directors' approval of the revision of Petrobras' Policy on Related Party Transactions, the CAE Internal Rules were changed so the Committee, besides assessing and monitoring transactions with related parties, prior assess those transactions that meet the materiality criteria set out in CVM Instruction 480/09, pursuant to the revision of the Policy on Related Party Transactions.

#### 3. Summary of Activities in 2018 and 2019

In the period from March 12, 2018 (first ordinary meeting of the CAE after review of the Financial Statements of 2017) to February 25, 2019 (ordinary meeting of the CAE with the Fiscal Council to examine the Financial Statements of 2018), Petrobras' Statutory Audit Committee held 57 meetings, which included 298 guidelines, involving Board Members, Fiscal Advisers, Members of the Special Investigation Committee, Executive Directors, Executive Managers, Ombudsman, Internal Auditors, Independent Auditors, Internal and External Lawyers and members of Audit Committees of companies of the Petrobras System, as follows:

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The Committee prepared the Annual Schedule for the fiscal year of 2018, including the guidelines and respective areas that comply with this Committee's regulatory obligations. This schedule allows, in advance, the planning and preparation of the matters to be assessed by the Committee, which must be sent by the areas with at least seven days in advance of the date of the meeting, unless specifically authorized by the Chairman of this Committee, as provided in item 6.3 of the Internal Regulation, approved by the Board of Directors on October 24, 2018. The Annual Schedule for 2018 including the guidelines was formally forwarded to the responsible areas on December 27, 2017.

### 3.1 Independent Audit

Eight meetings were held to examine eight guidelines that addressed, among other topics, (i) the planning and execution of audit work on the quarterly and annual financial statements for the 2017 fiscal year, (ii) learning the nature, time and extent of the main audit procedures of selected and the materiality adopted, (iii) the audit risk analysis conducted, (iv) the significant deficiencies identified in the risk assessment of internal controls, (v) the points of attention identified and (vi) the conclusions of their audit tests. Information confirming the independence of auditors and the absence of conflicts of interest in work other than the auditing of the financial statements was also gathered.

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Additionally, the so-called Main Audit Topics were discussed with the independent auditors, reported in the Independent Auditor's Report, namely: (i) Employee benefits; (ii) Accounts receivable – Electrical sector; (iii) Provision for decommissioning costs; (iv) Provision for legal proceedings; and (v) Impairment.

#### 3.2 Accounting and Tax

Twenty-four guidelines were assessed over eighteen meetings, whose object were the quarterly and annual financial statements for the 2018 fiscal period, addressing the main accounting practices adopted, accounting estimates made, plus the presentations of financial standing, financial results, cash flows and added value, and the explanatory notes to the financial statements. These items also involved the following areas in addition to Independent Audit: Legal, Compliance (Internal Controls) and Internal Audit.

The possible accounting effects in the financial statements as of 2018 and subsequent, regarding the changes resulting from the new pronouncements, particularly IFRS 16 - Leases (effective on January 1, 2019), were analyzed and discussed by the CAE with those responsible for Accounting and Tax.

#### 3.3 Internal Audit

Fifteen guidelines under Internal Audit's responsibility were addressed in eleven meetings, during which the Statutory Audit Committee was informed of the points of attention and recommendations arising from the work of Internal Audit, and followed up on the corrective actions adopted by Management. These items addressed the quarterly and annual reports of Internal Audit work (RAINT), the Internal Audit Activity Plan (PAINT), the actions which resulted in the certification for Quality Assessment of the Internal Audit, in accordance with the International Auditing Standards (IIA), as well as the improvement of testing of SOx controls at Petrobras and its main subsidiaries.

It is noteworthy that, since September 2016, the Executive Manager of Internal Audit participates as a permanent guest in all CAE meetings.

In order to allow effective and adequate follow-up of the activities carried out by the Internal Audit, the CAE determined that, after the closing of each of its work, the Internal Audit requests a formal compulsory evaluation of the Executive Manager or the General Manager, responsible for the audited area, according to the issues previously agreed with this Committee, as a way to maintain an independent channel of the Executive Management audited directly with the CAE, to report any criticism or praise on the work of the Internal Audit.

These evaluations are confidential and with exclusive access to the area that advises the Committee in its activities, by delegation of the CAE, and the results are periodically consolidated and forwarded to its members, with consolidated and periodic feedback to the Internal Audit, without identification of the opinions of the evaluators. For evaluations that, in the opinion of the CAE members, demand clarification or complements of information, or arbitration of possible conflicts of opinions, the evaluators are invited to participate in private meetings with the members of the CAE for further analysis and discussions with the Executive Manager of Internal Audit.

The CAE understands that the Company's Internal Audit has sufficient and adequate structure and budget to the good performance of its functions.

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#### 3.4 Compliance and Internal Controls Systems

Twenty guidelines were presented in fourteen meetings, whereas the following topics were subject to monitoring and recommendations, among others: (i) Implementation of the requirements of the agreement with the DoJ, with rigorous and periodic monitoring by the CAE; (ii) Requirements to comply with Law 13,303/16 and Decree 8,945/17 in the Parent Company and Companies of the Group; (iii) internal control system; (iv) Integrity Due Diligence Process; and (v) Quarterly Reports on Governance and Compliance Activities.

#### 3.5 Governance

During the course of fourteen meetings, 23 Governance Guidelines were discussed, involving other areas of the Company to assess topics such as: (i) evaluation of the level of control and governance of Petrobras System companies; (ii) Annual Charter of Public Policies and Corporate Governance 2017; (iii) changes in the table of limits of competency (TLC) and delegation of competences; (iv) review of the Corporate Reference Chart (TRS) for the managers indicated in the companies of the Petrobras System; (v) proposal for the creation of a CAE of the Petrobras Conglomerate and other requirements, in compliance with Law 13,303/16 and Decree 8,945 / 16; (vi) systematization of the process to meet the requirements of Official Circular 575/2017 Ministry of Planning, Development and Management; (vii) Report on the Brazilian Code of Corporate Governance; (viii) and revision of the Internal Regulations of the CAE.

#### 3.6 Risk Management and Monitoring

Sixteen Risk Management and Monitoring items were discussed over twelve meetings, with involvement of other company areas such as: Investor Relations, Governance, Compliance (Internal Controls) and Accounting and Tax. These items addressed the following subjects, among others: (i) governance for tax risks; (ii) fraud and corruption risk management matrix; (iii) review and update process for the risk factors included in the Reference Form and the 20-F Form; (iv) map of strategic risks, labor risks and risk appetite; (v) mitigating measures for each of the risk factors of the fraud risk management matrix, addressed in monthly guidelines in the Committee; and (vi) sensitivity analysis and mitigation plan for the risks identified with the adhesion of Petrobras to the Temporary Diesel Price Subsidy Program.



### 3.7 Ombudsman and Whistleblowing Channel

Four guidelines were addressed in three meetings, in which very high and high risk complaints and quarterly reports covering all activities, complaints, and actions taken were presented in detail, as well as the revision of the Petrobras Ombudsman Policy and Guidelines. It should be noted that the quarterly report of the General Ombudsman's Office to the CAE, of the whistleblowing received by Petrobras' direct channel, with a chapter dedicated to detailing the allegations of fraud and corruption, has the intention to comply with the provisions of article 24, paragraph 2 of the Law 13,303/2016.

### 3.8 Related-party transactions

Fourteen meetings were held, assessing nineteen guidelines on transactions with related parties, including the revision of the Policy on Related Parties and the prior analysis of transactions with related parties that meet the criteria established in the Related Party Transactions Policy. In compliance with this requirement, the CAE had eighteen guidelines (from a total of nineteen) for prior analysis of transactions with related parties, whose process has declarations related to arm's length and isonomy of the transaction, signed by Management (responsible for transaction) and by the Executive Management of Investor Relations, ensuring that the transactions followed the same procedures that govern the transactions with third parties that are not related parties and that were celebrated in compliance with market conditions.

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3.9 Other activities

The Statutory Audit Committee met with the main executives of the Company and its main subsidiaries, in order to learn of the key business strategies and monitor the operating and systemic improvements to strengthen the processing and security of transactions.

In compliance with Law 13,303/2016 and Decree No. 8,945 / 2016, during the months of July, August and September 2018, the Petrobras CAE acted as an Audit Committee of the companies of the Petrobras Conglomerate until the necessary measures were the implementation of the Audit Committees in some of these companies (Local CAEs) and also the Audit Committee of the Petrobras Conglomerate (CAECO), which happened with the General Shareholders' Meeting held on October 4, 2018.

The aforementioned legislation establishes that state-owned companies have a Statutory Audit Committee as an auxiliary body of the Board of Directors, if any, or of its parent company, in the event of non-existence of said body and provides for the possibility of sharing of costs and structures of the parent company by the subsidiaries.

In this regard, on June 26, 2018, the Board of Directors of Petrobras approved the creation of CAECO to serve the following Petrobras Conglomerate companies that do not have a Local CAE: (i) 5283 Participações S.A. ; (ii) Baixada Santista Energia S.A. - BSE; (iii) Breitener Energética S.A. ; (iv) Breitener Tambaqui S.A. ; (v) Breitener Jaraqui S.A. ; (vi) Petrobras Negócios Eletrônicos S.A. - E-PETRO; (vii) Liquigás Distribuidora S.A. - LIQUIGÁS; (viii) Petrobras Logística de Gás S.A. - LOGIGÁS; (ix) Eólica Mangue Seco 2 - Generator and Marketer of Electric Energy S.A. ; (x) Petrobras Biocombustível S.A. - PBIO; (xi) Petrobras Logistics of Exploration and Production S.A. - PB-LOG; (xii) Petrobras Comercializadora de Energia Ltda. - PBEN; (xiii) Termocae Comercializadora de Energia S.A. - TMC; (xiv) Termomacaé S.A. ; (xv) Araucaria Nitrogenados S.A. - ANSA; (xvi) PDET Offshore S.A. ; (xvii) Termobahia S.A., and (xviii) Associated Gas Carrier S.A. - TAG.

Petrobras Distribuidora S.A., Stratura Asfaltos S.A., Petrobras Gás S.A. - Gaspetro, GásBrasiliano Distribuidora S.A. - GásBrasiliano, the Brazilian Carrier Gas Pipeline Bolivia-Brazil S.A. - TBG and Petrobras Transporte S.A. - Transpetro started to have their own CAEs.

During the period in which CAE Holding, CAEs Local and CAECO accumulated the following companies of the Petrobras Conglomerate: TRANSPETRO, TBG, TAG, PB-LOG, GASPETRO, GBD and STRATURA presented significant issues with their financial statements, internal, dynamic and ongoing work of the Fiscal Council. The companies also presented the unfolding of the holding company's policies, highlighting the alignment with the Judicial and Administrative Litigation Classification Methodology and the Corporate Governance developments.

The CAE also assessed guidelines on: (i) a semiannual update on the activities of the Executive Management of Intelligence and Corporate Security, which is responsible for normative activities and execution of intelligence, investigation, corporate security, information security and patrimonial security; (ii) actuarial assumptions of Petrobras and Petros Foundation, with actuarial experts and independent auditors; (iii) appraisal of the financial statements, activities and improvements of the internal controls and governance in progress of the Petros Foundation; and (iv) monitoring the implementation by the responsible areas of Petrobras of the recommendations of the Special Investigation Committee (with bimonthly guidelines in the presence of EY - Ernst & Young and TRW - Trench, Rossi and Watanabe Lawyers and Gibson Dunn); (v) monitoring of the "Temporary Diesel Subsidy Program"; (vi) Follow-up of the liability (backlog) reduction plan for the examination of complaints, totaling 169 guidelines for other activities.

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Among other CAE activities, we mention meetings with the Finance Committee on the Financial Statements, and with the Audit Committee, where accounting issues were addressed such as impairment and internal controls; and meetings with the Safety, Environment and Health Committee, which addressed topics related to HSE indicators; integrated reporting, DJSI - Dow Jones Sustainability Index, ISE Bovespa, reports on HSE internal audits; and litigation situation of SMS in the Company.

The CAE held meetings with the Strategic Committee and the Finance Committee, in which the following guidelines were considered: Monitoring of the Portfolio of Divestment Projects, Agreement with Eletrobras relating to the debt acknowledgement agreements, and Plans of Action of the Executive Managements Marketing and Commercialization, Acquisitions and Divestments, Supply of Goods and Services, Strategy, Communication, Controllership and Finance.

The CAE established, from December 2018, quarterly meetings to present a report of the Statutory Audit Committees of the subsidiaries (BR (including Stratura), Transpetro, Gaspetro (including Gás Brasileiro) and TBG), and CAE of the Petrobras Conglomerate, considering the implementation of these Committees since October 2018.

Seeking continuous improvement and excellence in the processes, tools and activities of the CAE, for the third consecutive year, the Committee conducted a self-assessment of CAE maturity, which result will be presented to Petrobras' Board of Directors.

#### 4 Audit Committee Communications

##### 4.1 Board of Directors

The Statutory Audit Committee reports monthly to the Board of Directors meetings, the issues discussed in its meetings, its positions and requests made to the different areas of the Company, as well as monitoring results of the activities by Internal Auditors, Independent Auditors, Related-party transactions, the Executive Management of Compliance (Internal Controls), Corporate Governance, Corporate Risks and General Ombudsman', as well as the ones related to the whistleblower channel.

In addition, CAE issues specific recommendations to the Board of Directors on items submitted for resolution by this collegiate as part of its statutory duties, as well as presents summarized and detailed reports regarding its annual activities, of which the summarized report is incorporated to the financial statements.

#### 4.2 Senior Management - Executive Board and Executive Managers

In all meetings held by the Statutory Audit Committee, the Executive Offices involved in the topics to be discussed are invited and can indicate the participation of the Executive Managers or General Managers for the areas in charge of the items to be addressed.

In addition, the Executive Offices and Executive Departments submit items to the CAE, as relevant to the duties of this Committee, referring to issues to be submitted for assessment and final decision by the Board of Directors, so that the Committee can examine them and issue its recommendation to the Board.

#### 4.3 Executive and General Managements

Whenever necessary, during the meetings the Audit Committee members issue recommendations/requests to the Executive Managements or General Managements through emails copying their respective Officers. The average of recommendations/requests was 4.4 per meeting in 2018. Accordingly, the Committee implemented a procedure to control the recommendations and their respective status are reported to its member on a monthly basis. The recommendations that are not met in a timely fashion are addressed to the Internal Audit in order to control and monitor them until their closing.

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5. Recommendations to the Executive Officers

Among other recommendations, the Statutory Audit Committee recommended to the Executive Board to implement the following Action Plans and policies highlighted below:

- Master Plan structured to resolve the liability for the examination of complaints, as well as investing in training that guides the channels and requirements for the denunciations to be effective;

- Elaboration and implementation of a mitigation plan for the risks identified with the adhesion of Petrobras to the Temporary Diesel Subsidy Program, for monthly monitoring.

- Harmonization of corporate policies between the holding and wholly-owned subsidiaries and controlled companies, regarding policies, Ombudsman performance and assessment standards, Internal Audit, HSE, Human Resources, Compliance, Legal, and Information Technology;

- Implementation of recommendations from the Special Investigation Committee, with an effort to anticipate deadlines.

- Streamlining process (defining attributions, flow of information, calendar of meetings, review of the annual calendar of CAE guidelines and other necessary requirements) for full compliance with Circular Letter 575/2017 of the Ministry of Planning, Development and Management, which regulates the attributions of federal state-owned enterprises, as sponsors of pension plans, in the supervision and systematic supervision of the activities of their respective Closed Entities of Complementary Pension Plans (EFPC), addressing the responsibilities of the Board of Directors in relation to the performance of audits in the EFPC and the responsibilities of the Board of Executive Officers in relation to the action plan for correcting nonconformities identified in audits, among others.

The Statutory Audit Committee believes that the topics highlighted in "Recommendations" above, as well as all the dozens of other recommendations formulated during the period covered by this report of activities of the EBD - whose Plans of Action are concluded or are in progress - were surrounded by satisfactory mitigation procedures aimed at minimizing possible risks of internal controls that could impact the financial statements for the fiscal year ended December 31, 2018.

## 6. Conclusions and recommendation to the Board of Directors

The Statutory Audit Committee members, taking into account the attributions and limitations inherent to the scope of its action, considering all the assessment, studies and discussions carried out during the meetings and the monitoring and supervising work carried out by the CAE - aforementioned described in summarized form, concludes:

(i) internal control processes for the elaboration of financial reports are effective and actions to prevent and combat fraud and corruption are adequate;

(ii) the Internal Audit has a financial budget compatible with its organizational structure, allowing a satisfactory performance of its functions, acting independently.

(iii) the Independent Audit is effective and no occurrence was reported that could compromise its independence;

(iv) management and monitoring of the main risk factors are being managed by the Administration;

(v) related-party transactions evaluated and monitored in the period were in compliance with Petrobras' Related-Party Transactions Policy and provided evidence regarding existence of strictly arm's length conditions, transparency, fairness, interest of the Company and adequate and timely disclosure;

(vi) the parameters on which the actuarial calculations were based, as well as the result of the benefit plans maintained by the Petrobras Social Security Foundation, are reasonable and in line with the best market practices.

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In this context, after examining and analyzing the Financial Statements, together with the "2018 Annual Report" and the "Sustainability Report 2018", of the fiscal year ended December 31, 2018 ("Annual Financial Statements for 2018") and the Report of the Independent Auditors, issued with unqualified opinion by KPMG Auditores Independentes, the members of the CAE recommend their approval by the Board of Directors.

Rio de Janeiro, February 27, 2019.

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Jerônimo Antunes

Chair, Statutory Audit Committee

Financial and corporate accounting expert

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Sonia Julia Sulzbeck Villalobos

Member, Statutory Audit Committee

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: February 28, 2019.

PETRÓLEO BRASILEIRO S.A—PETROBRAS

By: /s/ Rafael Salvador Grisolia

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Rafael Salvador Grisolia

Chief Financial Officer and Investor Relations Officer