

PETROBRAS - PETROLEO BRASILEIRO SA  
Form 6-K  
March 22, 2017

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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 March, 2017

Commission File Number 1-15106

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)

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, 2016 and 2015 with  
auditor's report

(A free translation of the original in  
Portuguese)



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(Expressed in millions of reais, unless otherwise indicated)

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(A free translation of the original in Portuguese)

Independent auditor's report on the financial statements

To the Board of Directors and Stockholders

Petróleo Brasileiro S.A. - Petrobras

Opinion

We have audited the accompanying parent company financial statements of Petróleo Brasileiro S.A. - Petrobras (the "Company"), which comprise the balance sheet as at December 31, 2016 and the statements of income, comprehensive income, changes in equity and cash flows for the year then ended, as well as the accompanying consolidated financial statements of Petróleo Brasileiro S.A. - Petrobras and its subsidiaries ("Consolidated"), which comprise the consolidated balance sheet as at December 31, 2016 and the consolidated statements of income, comprehensive income, changes in equity and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Petróleo Brasileiro S.A. - Petrobras and of Petróleo Brasileiro S.A. - Petrobras and its subsidiaries as at December 31, 2016, and the financial performance and cash flows for the year then ended, as well as the consolidated financial performance and the cash flows for the year then ended, in accordance with accounting practices adopted in Brazil and with the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

Basis for opinion

We conducted our audit in accordance with Brazilian and International Standards on Auditing. Our responsibilities under those standards are further described in the "Auditor's responsibilities for the audit of the financial statements" section of our report. We are independent of the Company and its subsidiaries in accordance with the ethical requirements established in the Code of Professional Ethics and Professional Standards issued by the Brazilian Federal Accounting Council, and we have fulfilled our other 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.

#### 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 financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Why it is a Key Audit Matter

How the matter was addressed in the audit

1 - "Car Wash Operation" and its effects on the Company (Note 3)

In 2009, the Brazilian Federal Police initiated an investigation called "Car Wash Operation", aiming to investigate money laundering practices by criminal organizations in several Brazilian states. As from 2014, the Federal Public Prosecution Office focused some of its investigations on irregularities committed by Petrobras suppliers and discovered an extensive scheme of undue payments, involving several participants, including former employees of Petrobras. This scheme consisted of a group of companies that, between 2004 and April 2012, were organized in cartel to obtain contracts with Petrobras and impose additional expenditures linked to these contracts, using these amounts to make undue payments.

The amounts paid by the Company under the contracts with the suppliers involved in the scheme were included in the historical costs of the respective property, plant and equipment items. The Company's management understood that the undue payments represent additional expenditures and, consequently, recorded a write-off of R\$ 6,194 million (R\$ 4,788 million in the Parent Company) in prior years.

The "Car Wash Operation" and its effects on the Company were considered as one of the key audit matters due to: (i) the potential effects and inherent limitations that are particularly significant in cases like this; (ii) necessity of monitoring the information related to the investigations in progress conducted by the authorities to confirm the reasonableness of the effects already consigned in the financial statements; and (iii) the need to improve the governance structure and internal controls related to the processes for contracting suppliers of goods and services, which constituted a significant deficiency identified by the Company in its internal control environment in 2015.

Significant aspects of our audit response involved, among others, those described below.

We have enhanced our understanding of the governance structure and how the parties responsible for management perform the general oversight to identify and respond to risks related to the process of contracting suppliers of goods and services, considering the changes introduced by management in its processes and controls in order to address the identified fraud.

We also obtained an understanding of the new internal policies introduced and tested the significant internal controls implemented and transactions related to the process for contracting suppliers of goods and services and corresponding payments. Our objective was to identify and test the transactions selected and the corresponding payments made during the year and evaluate the compliance with the internal policies and applicable laws and regulations. In addition, we analyzed Petrobras Program for Prevention of Corruption ("PPPC"), tested the key controls related to the complaints channel established within the Ombudsman structure, evaluating the integrity of the information, handling of complaints and reporting of the results to the applicable governance bodies.

We followed up the Company's main investigative actions conducted by the Internal Assessment Commissions and independent law firms, which are led by a Special Committee composed of two independent members and the Governance, Risk and Compliance Officer. We discussed the investigations with the Audit Committee, the Board of Directors and the Company's legal advisors and evaluated whether the disclosures in the notes are consistent with the results of those investigations.

According to the Management Report, that significant deficiency was considered as remedied for the year ended December 31, 2016. We consider that the disclosures in the explanatory notes are consistent with the information and representation obtained.

2 - Class action and related proceedings (Note 30.4)

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Why it is a Key Audit Matter

How the matter was addressed in the audit

During 2015, a class action was filed against the Company before the Federal Court for the Southern District of New York, alleging that the Company, through material facts, communications and other information filed at the U.S. Securities and Exchange Commission (SEC), would allegedly have reported materially false information and made omissions capable of artificially raising the price of the Company's securities and misleading investors.

Significant aspects of our audit response involved the following main procedures:

- understanding of the procedural stage of the class action and individual actions;

In June 2016, the Federal Court of Appeals accepted the Company's request to appeal against the decision on the "class" certification. As a result, the request was accepted by the Federal Court of Appeals and the proceeding is currently suspended up to the judgment of the appeal.

- interviews with the Company's external legal advisors in order to understand the impossibility of producing a reliable estimate of the loss arising from the class action and individual actions not yet provided for;

In addition to the class action, thirty actions (three of them suspended) were filed by individual investors before the same Federal Court for the Southern District of New York with similar claims as those filed in the class action. In addition, a similar action was filed by individual investors in the Eastern District of Pennsylvania.

- confirmation, in writing, of the Company's external legal advisors on: (i) the procedural stage of the class action and individual actions; and (ii) impossibility of producing a reliable estimate of the potential loss and classification of probability of loss between probable, possible and remote;

In 2016, the Company reached agreements to close some of these individual actions. The Company is also negotiating agreements with other authors of individual actions and, based on the agreements already entered into and on the stage of the negotiations in progress with other authors of individual actions, the Company recognized a provision of R\$ 1,215 million in the result for 2016.

- evaluation of the technical ability of the internal and external legal advisors used by the Company; and

- evaluation of the accounting policy adopted for the provision of individual actions and review of the assumptions on which the estimates of the provisioned amounts are based.

As described in Note 30.4, due to the uncertainties inherent to the proceeding, the Company's management is not capable of producing a reliable estimate of the potential loss arising from the class action and individual actions not yet provided for.

We consider that the criteria and assumptions adopted by the Management to determine the provision for the individual actions, as well as the disclosures in the notes in relation to the class action and individual actions are reasonable, in all material respects, within the context of the financial statements.

This matter has been considered one of the key audit matters due to the significant judgments and substantial uncertainties related to the class action and individual actions that affect the amount and timing estimated for a final decision for those actions.

### 3 - Impairment of property, plant and equipment (Notes 12 and 14)

At December 31, 2016, the assets classified in the property, plant and equipment group amounted to R\$ 571,876 million.

Potential impairment losses on property, plant and equipment are determined based on estimates of the value in use of these assets.

The calculation of value in use requires the exercise of significant judgments on certain assumptions, such as: (i) estimation of the volume of oil and natural gas reserves; (ii) estimation of future oil and natural gas prices; (iii) average foreign exchange rate (Brazilian reais/U.S. dollars); and iv) definition of the discount rate.

In addition, the definition of Cash-Generating Units (CGUs) also requires significant judgments by management, as well as the establishment of controls to review changes in these CGUs. Changes in the aggregation or breakdown of assets that comprise the CGUs may result in reversals or additional impairment losses.

This matter was considered as one of the key audit matters due to: (i) the significance of the Company's property, plant and equipment; (ii) the significant judgments and estimates involved in the calculation of the value in use of the assets; and (iii) the deficiencies in the controls for the review of changes in certain CGUs that constituted a significant deficiency identified by the Company in its internal control environment in 2015.

According to the Management Report, that significant deficiency was considered as remedied for the year ended December 31, 2016.

Significant aspects of our audit response involved, among others, the understanding of the controls related to the processes of impairment and tests of the effectiveness of the controls considered key in these processes. Regarding the testing of detail in operations or transactions, our approach considered the following main procedures:

(i) The evaluation of the definition of CGU by management, based on tests of changes of CGU, and review of the composition of CGU vis-à-vis the criteria established by Technical Pronouncement CPC 01 - Impairment of Assets.

(ii) Support from our team of asset valuation experts in implementing the following key audit procedures:

- comparison of key assumptions with the 2017-2021 Business and Management Plan and sensitivity analysis of these assumptions;

- evaluation of the reasonableness of the key assumptions, including comparisons with benchmarks, understanding of the main variations of the period and retrospective review of the projections;

- evaluation of the criteria used to determine the discount rate and inflation and foreign exchange rate projections;

- review of the internal estimates of oil and gas reserves compared to estimates prepared by independent experts; and

- assessment of the technical ability of the experts responsible for the independent estimate of proven oil and natural gas reserves.

We consider that the criteria and assumptions adopted by the Management to determine the impairment losses, as well as the disclosures in the notes, are reasonable, in all material respects, within the context of the financial statements.

Why it is a Key Audit Matter

How the matter was addressed in the audit

4 - Judicial Proceedings and Contingencies (Note 30)

At December 31, 2016, the Company had provisions of R\$ 11,052 million in connection with judicial provisions whose loss expectation was classified as probable. Additionally, the Company is a party to litigations whose losses are classified as possible, in the amount of R\$ 216,003 million.

Our audit approach considered the understanding of controls related to judicial proceedings and contingencies, and tests on the effectiveness of controls considered as key. Additionally, in our audit strategy, we involved our team of experts in the labor and tax areas, as appropriate, to read and discuss the judicial proceedings, including the classification of the prognosis of loss attributed by the Company's internal and external legal advisors.

Provisions and contingent liabilities have inherent uncertainties regarding their term and settlement value. Also, the recognition and measurement of contingent provisions and liabilities require the Company to exercise significant judgments to estimate the amounts of the obligations and the likelihood of outflow of resources of the judicial and administrative proceedings to which the Company is a party. This evaluation is based on the opinions of internal and external legal advisors and on management's own judgments.

Other significant aspects of our audit approach included evaluating the technical ability of the Company's legal counsel, testing the recalculation of the amount of exposure of judicial and administrative proceedings, testing for financial update in accordance with applicable legislation, obtaining confirmations from external legal advisors and testing of unrecognized contingent liabilities, based on searches on the websites of the relevant courts of law.

This matter was considered as one of the key audit matters due to (i) the significance of the amounts of the litigations provided for (contingent liabilities disclosed) in a Note; (ii) the significant judgments on different doctrinal and jurisprudential interpretations used to estimate the amounts and likelihood of outflow of resources arising from these proceedings; and (iii) deficiencies in the controls on completeness and the evaluation of the probability of loss of contingencies, which constituted a significant deficiency identified by the Company in its internal control environment in 2015.

We consider that the criteria and assumptions adopted by the Management to determine the provision for lawsuits and contingencies, as well as the disclosures on contingent liabilities, are reasonable, in all material respects, within the context of the financial statements.

According to the Management Report, that significant deficiency was maintained for the year ended December 31, 2016.

Why it is a Key Audit Matter

How the matter was addressed in the audit

5 - Benefits granted to employees (Note 22)

At December 31, 2016, the amounts provided for in the balance sheet totaled R\$ 72,668 million.

The amount of the actuarial liability is determined through actuarial calculations prepared by an independent actuary hired by the Company's management, net of guaranteeing assets. The calculation is made based on actuarial assumptions and information recorded of participants of the pension plans and health care.

This matter was considered as one of the key audit matters due to (i) the significance of the balance provided for in the balance sheet referring to benefits granted to employees; (ii) significant judgments regarding the assumptions of the benefit plans; and (iii) the deficiencies in controls over the data generation process to calculate the actuarial liability, which constituted a significant deficiency identified by the Company in its internal control environment in 2015.

According to the Management Report, the internal control deficiencies over the data generation process and assumptions for the calculation of the actuarial liability and valuation of certain guaranteeing assets constituted a significant deficiency for the year ended December 31, 2016.

Our audit approach considered the understanding of key controls related to the process of measuring the actuarial liability and tests on the effectiveness of controls considered as key. In addition, our audit response considered testing of details on the individual information recorded in the databases used to calculate the actuarial liability. The audit evidence deemed necessary was obtained by testing the databases of active and assisted participants in pension and medical care plans.

Other significant aspects of our audit approach included evaluating key assumptions that support the calculation of actuarial liabilities, such as salary growth projections, mortality and disability tables, medical costs and discount rate estimates. These procedures were performed with the support of our team of actuarial calculation experts and included the following key procedures:

- Review of the logical consistency and arithmetic consistency of the model used to estimate the value of the actuarial liability.
- Evaluation of the technical ability of the independent external actuary responsible for preparing the actuarial calculation.
- Review of the reconciliation of the actuarial report with the balances of the Company's financial statements.

In addition, we obtained confirmations from third parties regarding the custody of the plans' guaranteeing assets and tested the fair value of these assets with the support of our team of specialists in the valuation of financial instruments.

We consider that the criteria and assumptions adopted by the Management to determine the value of the actuarial liability, as well as the disclosures in the notes are reasonable, in all material respects, within the context of

the financial statements.

6 - Trade receivables - Electricity sector  
(Note 8.4)

At December 31, 2016, the net balance of trade receivables related to the electricity sector totaled R\$ 10,062 million.

A significant portion of the funds used to settle the trade receivables comes from the Fuel Consumption Account (Conta de Consumo de Combustível (CCC). However, amendments to the legislation imposed restrictions that reduced the amounts reimbursed by the CCC, increasing the risk of default of the distributors that operate in this sector and purchase fuel to be used in their thermal plants.

This matter was considered as one of the key audit matters due to those circumstances and the consequent significant judgments in relation to the assumptions used in the determination of the losses on impairment of trade receivables and the significance of the balance of trade receivables.

Our audit approach considered the understanding of the key controls related to the process of measuring impairment losses on trade receivables related to the electricity sector trade receivables and tests of the effectiveness of controls considered as key. As regards the testing of details in operations and transactions, our approach considered the review of the debt acknowledgment agreements entered into between the Company and the companies of the Eletrobras System, understanding of the current stage of the negotiations with the Federal Government and Eletrobras, reading of the official letters and ordinances of the National Electric Energy Agency (ANEEL) and the Ministry of Mines and Energy (MME), as well as the payments received and the reconciliation of the provision for impairment of trade receivables recorded for the total trade receivables of the Electricity sector overdue or without actual guarantees.

We consider that the criteria and assumptions adopted by the Management to determine the impairment losses on trade receivables related to the trade receivables of the electricity sector, as well as the disclosures in the notes, are reasonable, in all material respects, within the context of the financial statements.

Why it is a Key Audit Matter

How the matter was addressed in the audit

7 - Mutual rescissions and advances to suppliers - Shipbuilders (Note 14.4)

In 2016, the Company recognized provisions and write-offs totaling R\$ 5,263 million, as follows: (i) provision for impairment of R\$ 1,925 million, due to uncertainties on the continuity of the construction of the hulls of platforms P 71, P 72 and P 73; (ii) provision for losses of R\$ 2,353 million, referring to the remaining balance of the advances to the suppliers Ecovix and Enseada; (iii) write-off of investments made in the Rio Grande shipbuilder, in the amount of R\$505 million, and (iv) write-offs of other investments related to the construction of the hulls of platforms P-71, P72 and P73, in the amount of R\$480 million.

Due to the strategic importance of certain assets and the financial difficulties faced by the suppliers contracted for their construction, the Company implemented, in 2015, a blocked account system to make feasible the development of the execution of the work. In the third quarter of 2016, the Company revalued whether the blocked accounts should be kept, which resulted in the recognition of those provisions and write-offs.

This matter was considered as one of the key audit matters due to the significance of the amounts involved and of the deficiencies in the controls related to the necessity of writing off the advances to suppliers that would not result in future economic benefits and recognizing expenses related to the mutual rescission of related agreements, which constituted a significant deficiency identified by the Company in its internal control environment in 2015.

According to the Management Report, that significant deficiency was maintained for the year ended December 31, 2016.

Our audit approach considered the understanding of the main controls related to the process of advances to suppliers and mutual rescissions, as well as tests on the effectiveness of controls considered as key. Additionally, our audit response considered tests on details of transfers made to the blocked accounts, provision for losses referring to advances to the suppliers Ecovix and Enseada and write-offs of investments related to the shipbuilder Rio Grande and the construction of the hulls of platforms P-71, P72 and P73.

Other significant aspects of our audit approach included review of the main contracts and mutual rescissions related to the subject-matter, inspection of subrogation of debt agreements and testing of details in relation to the subsequent financial settlement of the liabilities recorded, as well as the impairment test for the remaining assets.

We consider that the criteria and assumptions adopted by the Management to determine the provisions and write-offs related to the construction of platforms hulls by the suppliers Ecovix and Enseada, as well as the disclosures in the notes, are reasonable, in all material respects, within the context of the financial statements.

Why it is a Key Audit Matter

How the matter was addressed in the audit

8 - Cash flow hedge accounting (Notes 4.3.6 and 33.2)

At December 31, 2016, the Company presented R\$ 25,119 million, net of the tax effects, recognized in other comprehensive income, in equity.

The Company designates hedging relationships, in which highly probable future exports are defined as hedged items, and liabilities denominated in foreign currency are used as hedging instruments. The purpose of this accounting practice is to recognize the foreign exchange effects of both the hedged item and the hedging instrument at the same time in the statement of income.

The estimate of highly probable future exports requires the use of significant judgments by the Company's management. Such an estimate can be significantly influenced by changes in the price projections for oil and its byproducts and the future production curve.

This matter was considered as one of the key audit matters in view of the critical estimates and significant judgments used by management to estimate the "highly probable" future exports and the significance of the accumulated balance of foreign exchange variation recognized in Equity arising from the application of the cash flow hedge accounting.

Our audit approach considered the understanding of key controls related to the process of hedge accounting and tests on the effectiveness of controls considered as key. Regarding the testing of detail in operations or transactions, our approach involved evaluating the reasonableness of the main assumptions used by management to estimate future exports. This work was carried out with the support of our team of asset valuation experts.

The audit procedures also included reviewing the criteria used by management to define the portion of future exports deemed "highly probable", in accordance with the criteria established by Technical Pronouncement CPC 38 - Financial Instruments: Recognition and Measurement (CPC 38). In this regard, we reviewed historical export data used by Management to define the highly probable portion, as well as sensitivity analysis of key assumptions and evaluation of potential impacts within a range of possible outcomes.

Other significant aspects of our audit approach included: (i) analysis of the application of hedge accounting by the Company vis a vis the requirements established by CPC 38; (ii) review of the documentation of hedge designations; (iii) test for the recalculation of the foreign exchange variation; and (iv) recalculation of prospective and retrospective effectiveness tests.

We consider that the application of the hedge accounting by the Company, which can be made by the management under the terms of CPC 38, meets the requirements established by that technical pronouncement. Additionally, we consider that the assumptions adopted by the Management to determine the highly probable future exports and foreign exchange losses and gains recorded in other comprehensive income are reasonable, and the disclosures in the notes are appropriate.

Supplementary information

Statements of Value Added

The parent company and consolidated Statement of Value Added for the year ended December 31, 2016, prepared under the responsibility of the Company's management and presented as supplementary information for IFRS purposes, was submitted to the same audit procedures performed in conjunction with the audit of the Company's financial statements. For the purposes of forming our opinion, we evaluated whether these statements are reconciled with the financial statements and accounting records, as applicable, and if their form and content are in accordance with the criteria defined in Technical Pronouncement CPC 09 - "Statement of Value Added". In our opinion, these Statements of Value Added are prepared in all material respects, in accordance with the criteria established in the Technical Pronouncement and are consistent with the parent company and consolidated financial statements taken as a whole.

Other information accompanying the financial statements and the independent auditor's report

The Company's management is responsible for the other information that comprises the Management Report and the Financial Market Report ("RMF").

Our opinion on the financial statements does not cover the Management Report and the Financial Market Report, and we do not express any form of audit conclusion thereon.

In connection with the audit of the financial statements, our responsibility is to read the Management Report and the Financial Market Report and, in doing so, consider whether these reports are materially inconsistent with the financial statements or with our knowledge obtained in the audit or otherwise appear to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement in the Management Report and the Financial Market Report, we are required to communicate the matter to those charged with governance. We have nothing to report in this regard.

Responsibilities of management and those charged with governance for the financial statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting practices adopted in Brazil and with the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB), 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 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 or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Brazilian and International Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Brazilian and International Standards on Auditing, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

Identify and assess the risks of material misstatement of the parent 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 a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

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 internal control of the Company and its subsidiaries.

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 ability of the Company to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.

Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves 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 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 to 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 period and are therefore the key audit matters. We describe these matters in our auditor's 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, March 21, 2017

PricewaterhouseCoopers

Auditores Independentes

CRC 2SP000160/O-5 "F" RJ

Marcos Donizete Panassol

Contador CRC 1SP155975/O-8 "S" RJ

## Statement of Financial Position

December 31, 2016 and 2015 (In millions of reais, unless otherwise indicated)

Assets	Consolidated		Parent Company		Liabilities	Consolidated		Parent Company			
	Note	2016	2015	2016		2015	Note	2016	2015	2016	2015
Current assets					Current liabilities						
Cash and cash equivalents	7	69,108	97,845	6,267	16,553	Trade payables	16	18,781	24,888	24,384	28,172
Marketable securities	7	2,556	3,047	2,487	2,982	Finance debt	17	31,796	57,334	62,058	52,913
Trade and other receivables, net	8	15,543	21,685	31,073	27,701	Finance lease obligations	18.1	59	73	1,091	1,568
Inventories	9	27,622	29,057	23,500	24,015	Income taxes payable	21.1	412	410	–	–
Recoverable income taxes	21.1	1,961	3,839	786	1,520	Other taxes payable	21.1	11,826	13,139	11,219	11,762
Other recoverable taxes	21.1	6,192	6,893	5,064	4,986	Payroll and related charges		7,159	5,085	6,158	4,212
Advances to suppliers		540	421	361	208	Pension and medical benefits	22	2,672	2,556	2,533	2,436
Others		3,716	5,225	3,466	2,979	Others		6,857	7,599	5,818	3,696
		127,238	168,012	73,004	80,944			79,562	111,084	113,261	104,759
Assets classified as held for sale	10.3	18,669	595	8,260	535	Liabilities on assets classified as held for sale	10.3	1,605	488	170	488
		145,907	168,607	81,264	81,479			81,167	111,572	113,431	105,247
Non-current assets						Non-current liabilities					
Long-term receivables						Finance debt	17	353,193	435,313	206,421	245,439
Trade and other receivables, net	8	14,832	15,301	10,262	7,335	Finance lease obligations	18.1	736	303	4,975	5,426
Marketable securities	7	293	342	286	260	Deferred income taxes	21.6	856	906	–	–
Judicial deposits	30.2	13,032	9,758	11,735	8,590	Pension and medical benefits	22	69,996	47,618	64,903	44,546
Deferred income taxes	21.6	14,038	23,490	4,873	15,156	Provisions for legal proceedings	30.1	11,052	8,776	8,391	7,282
Other tax assets	21.1	10,236	11,017	9,326	9,485	Provision for decommissioning costs	20	33,412	35,728	32,615	34,641

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Advances to suppliers		3,742	6,395	510	1,017	Others		1,790	1,989	1,122	1,334
Others		10,378	9,550	9,106	8,216			471,035	530,633	318,427	338,668
		66,551	75,853	46,098	50,059	Total liabilities		552,202	642,205	431,858	443,915
						Shareholders' equity					
						Share capital (net of share issuance costs)	23.1	205,432	205,432	205,432	205,432
Investments	11	9,948	13,772	121,191	115,536	Capital transactions	23.2	1,035	21	1,251	237
Property, plant and equipment	12	571,876	629,831	424,771	442,439	Profit reserves	23.3	77,800	92,612	77,584	92,396
Intangible assets	13	10,663	12,072	8,764	9,133	Accumulated other comprehensive (deficit) attributable to the shareholders of Petrobras	23.4	(34,037)	(43,334)	(34,037)	(43,334)
		659,038	731,528	600,824	617,167	Non-controlling interests	11.5	2,513	3,199	-	-
						Total equity		252,743	257,930	250,230	254,731
Total assets		804,945	900,135	682,088	698,646	Total liabilities and shareholder's equity		804,945	900,135	682,088	698,646

The Notes form an integral part of these Financial Statements.

## Statement of Income

December 31, 2016 and 2015 (In millions of reais, unless otherwise indicated)

	Consolidated		Parent Company		
	Note	2016	2015	2016	2015
Sales revenues	24	282,589	321,638	223,067	251,023
Cost of sales		(192,611)	(223,062)	(153,725)	(174,717)
Gross profit		89,978	98,576	69,342	76,306
Income (expenses)					
Selling expenses		(13,825)	(15,893)	(17,023)	(15,130)
General and administrative expenses		(11,482)	(11,031)	(8,242)	(7,561)
Exploration costs	15	(6,056)	(6,467)	(5,533)	(5,261)
Research and development expenses		(1,826)	(2,024)	(1,823)	(2,011)
Other taxes		(2,456)	(9,238)	(1,305)	(7,730)
Impairment of assets	14	(20,297)	(47,676)	(11,119)	(33,468)
Other expenses, net	25	(16,925)	(18,638)	(9,707)	(17,547)
		(72,867)	(110,967)	(54,752)	(88,708)
Income (loss) before finance income (expense), results in equity-accounted investments and income taxes		17,111	(12,391)	14,590	(12,402)
Net finance income (expenses):	27	(27,185)	(28,041)	(25,704)	(26,187)
Finance income		3,638	4,867	2,418	3,303
Finance expense		(24,176)	(21,545)	(18,967)	(18,951)
Foreign exchange gains (losses) and inflation indexation charges		(6,647)	(11,363)	(9,155)	(10,539)
Results in equity-accounted investments	11	(629)	(797)	(4,576)	(4,294)
Loss before income taxes		(10,703)	(41,229)	(15,690)	(42,883)
Income taxes	21.7	(2,342)	6,058	866	8,047
Loss		(13,045)	(35,171)	(14,824)	(34,836)
Net income (loss) attributable to:					
Shareholders of Petrobras		(14,824)	(34,836)	(14,824)	(34,836)
Non-controlling interests		1,779	(335)	—	—
Loss		(13,045)	(35,171)	(14,824)	(34,836)
Basic and diluted loss per common and preferred share (in R\$)	23.6	(1.14)	(2.67)	(1.14)	(2.67)

The Notes form an integral part of these Financial Statements.

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## Statement of Comprehensive Income

December 31, 2016 and 2015 (in millions of reais, unless otherwise indicated)

	Consolidated		Parent Company	
	2016	2015	2016	2015
Loss for the period	(13,045)	(35,171)	(14,824)	(34,836)
Other comprehensive income				
Items that will not be reclassified to the statement of income:				
Actuarial losses on defined benefit pension plans	(17,449)	(202)	(15,510)	(208)
Deferred Income tax and social contribution	3,485	(53)	3,219	(2)
	(13,964)	(255)	(12,291)	(210)
Share of other comprehensive income in equity-accounted investments	(12)	(1)	(1,679)	45
Items that may be reclassified subsequently to the statement of income:				
Unrealized gains / (losses) on cash flow hedge - exports				
Recognized in shareholders' equity	40,327	(68,739)	36,607	(60,712)
Reclassified to the statement of income	9,935	7,088	8,994	6,200
Deferred Income tax and social contribution	(17,089)	20,961	(15,504)	18,534
	33,173	(40,690)	30,097	(35,978)
Unrealized gains / (losses) on cash flow hedge - others				
Recognized in shareholders' equity	30	35		–
Cumulative translation adjustments in investees (*)				
Recognized in shareholders' equity	(15,585)	24,545	(11,209)	23,826
Reclassified to the statement of income	3,693		–	
	(11,892)	24,545	(11,209)	23,826
Share of other comprehensive income in equity-accounted investments	1,285	(2,863)	4,391	(7,631)
Total other comprehensive income (loss)	8,620	(19,229)	9,309	(19,948)
Total comprehensive income (loss)	(4,425)	(54,400)	(5,515)	(54,784)
Comprehensive income (loss) attributable to:				
Shareholders of Petrobras	(5,520)	(54,785)	(5,515)	(54,784)
Non-controlling interests	1,095	385		
Total comprehensive income (loss)	(4,425)	(54,400)	(5,515)	(54,784)

(\*) Includes, in the consolidated, a debit of R\$ 1,063 (a credit of R\$ 2,825 in 2015) relating to 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, 2016 and 2015 (in millions of reais, unless otherwise indicated)

	Consolidated		Parent Company	
	2016	2015	2016	2015
Cash flows from Operating activities				
Loss	(13,045)	(35,171)	(14,824)	(34,836)
Adjustments for:				
Pension and medical benefits (actuarial expense)	8,001	6,388	7,409	5,872
Results in equity-accounted investments	629	797	4,576	4,294
Depreciation, depletion and amortization	48,543	38,574	37,150	28,039
Impairment assets	20,297	47,676	11,119	33,468
Inventory write-down to net realizable value	1,320	1,547	–	14
Allowance for impairment of trade receivables	3,843	3,641	1,072	669
Exploratory expenditures written off	4,364	4,921	3,940	3,784
(Gains) losses on disposal / write-offs of assets	(951)	2,893	(1,399)	3,075
Foreign exchange, indexation and finance charges	27,854	30,752	25,604	26,094
Deferred income taxes, net	(3,280)	(8,911)	(1,010)	(8,047)
Reclassification of cumulative translation adjustment - CTA	3,693	–	–	–
Review and unwinding of discount on the provision for decommissioning costs	(2,591)	1,307	(2,601)	1,274
Decrease (Increase) in assets				
Trade and other receivables, net	397	(1,496)	(22,470)	1,485
Inventories	(2,010)	1,730	515	546
Judicial deposits	(3,357)	(2,526)	(3,145)	(2,640)
Other assets	(1,214)	(2,474)	(2,961)	(3,191)
Increase (Decrease) in liabilities				
Trade payables	(4,154)	(3,890)	(3,302)	(11,896)
Other taxes payable	3,216	4,510	539	3,740
Income taxes paid	(1,284)	(1,794)	–	–
Pension and medical benefits	(2,634)	(2,367)	(2,465)	(2,232)
Other liabilities	2,072	563	(486)	528
Net cash provided by operating activities	89,709	86,670	37,261	50,040
Cash flows from Investing activities				
Capital expenditures	(49,289)	(71,311)	(33,512)	(50,589)
Increase in investments in investees	(455)	(344)	(26,782)	(29,229)
Proceeds from disposal of assets - Divestment	7,231	658	4,304	223
Divestment (Investment) in marketable securities (*)	842	25,971	(1,652)	6,054

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Dividends received	1,607	874	3,859	4,699
Net cash used in investing activities	(40,064)	(44,152)	(53,783)	(68,842)
Cash flows from Financing activities				
Investments by non-controlling interest	122	243	–	–
Proceeds from financing	64,786	56,158	105,886	117,844
Repayment of principal	(105,832)	(49,741)	(91,877)	(82,544)
Repayment of interest	(25,563)	(20,851)	(7,773)	(6,973)
Dividends paid to non-controlling interests	(239)	(263)	–	–
Proceeds from sale of interest without loss of control (**)	–	1,934	–	1,934
Net cash used in financing activities	(66,726)	(12,520)	6,236	30,261
Effect of exchange rate changes on cash and cash equivalents	(11,656)	23,608	–	–
Net increase / (decrease) in cash and cash equivalents	(28,737)	53,606	(10,286)	11,459
Cash and cash equivalents at the beginning of the year	97,845	44,239	16,553	5,094
Cash and cash equivalents at the end of the period	69,108	97,845	6,267	16,553

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

(\*\*) Reclassified from Investing activities.

The Notes form an integral part of these Financial Statements.

## Statement of Changes in Shareholders' Equity

December 31, 2016 and 2015 (in millions of reais, unless otherwise indicated)

	Share capital (net of share issuance costs)	Capital transactions	Accumulated other comprehensive income				Profit reserves			Profit retention	Retained earnings
			Cumulative translation adjustment	Losses on pension plans	Cash flow hedge - highly probable future exports	Other comprehensive income (loss) and deemed cost	Legal	Statutory	Tax incentives		
Balance at January 1, 2015	205,432	(430)	9,959	(14,545)	(17,601)	(1,189)	16,524	4,503	1,393	104,802	–
Realization of deemed cost of associates						(10)					10
Change in interest in subsidiaries		667									
Loss Other comprehensive income (loss)			23,826	(255)	(40,690)	(2,829)					(34,826)
Distributions: Offsetting of loss against reserves										(34,826)	34,826
Dividends											
Balance at December 31, 2015	205,432	237	33,785	(14,800)	(58,291)	(4,028)	16,524	4,503	1,393	69,976	–
	205,432	237				(43,334)				92,396	
Realization of deemed cost of associates						(12)					12
Capital transactions		1,014									
Loss Other comprehensive income (loss)			(11,209)	(13,958)	33,173	1,303					(14,812)
Distributions: Offsetting of loss against reserves										(14,812)	14,812

reserves

Dividends

Balance at

December 31,

2016	205,432	1,251	22,576	(28,758)	(25,118)	(2,737)	16,524	4,503	1,393	55,164	–
	205,432	1,251				(34,037)				77,584	–

The Notes form an integral part of these Financial Statements.

## Statement of Added Value

December 31, 2016 and 2015 (in millions of reais, unless otherwise indicated)

	Consolidated		Parent Company	
	2016	2015	2016	2015
Income				
Sales of products, services provided and other revenues	373,081	414,859	307,808	338,059
Gains and losses on impairment of trade receivables	(3,843)	(3,641)	(1,072)	(669)
Revenues related to construction of assets for own use	49,476	68,703	36,710	53,634
	418,714	479,921	343,446	391,024
Inputs acquired from third parties				
Materials consumed and products for resale	(65,864)	(94,453)	(42,210)	(67,401)
Materials, power, third-party services and other operating expenses	(72,846)	(109,876)	(56,412)	(88,143)
Tax credits on inputs acquired from third parties	(19,766)	(22,311)	(17,880)	(19,753)
Impairment of property, plant and equipment, intangible and other assets	(20,297)	(47,676)	(11,119)	(33,468)
Inventory write-down to net realizable value (market value)	(1,320)	(1,547)	–	(14)
	(180,093)	(275,863)	(127,621)	(208,779)
Gross added value	238,621	204,058	215,825	182,245
Depreciation, depletion and amortization	(48,543)	(38,574)	(37,150)	(28,039)
Net added value produced by the Company	190,078	165,484	178,675	154,206
Transferred added value				
Share of profit of equity-accounted investments	(629)	(797)	(4,576)	(4,294)
Finance income	3,638	4,867	2,418	6,208
Rents, royalties and others	358	377	860	420
	3,367	4,447	(1,298)	2,334
<b>Total added value to be distributed</b>	<b>193,445</b>	<b>169,931</b>	<b>177,377</b>	<b>156,540</b>
Distribution of added value				
Personnel and officers				
Direct compensation				
Salaries	18,685	19,068	14,445	14,219
	18,685	19,068	14,445	14,219
Benefits (**)				
Short-term benefits	4,629	1,452	4,313	1,110
Pension plan	5,069	4,133	4,304	3,705

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Medical plan	4,821	3,778	4,359	3,433
	14,519	9,363	12,976	8,248
FGTS	1,273	1,301	1,118	1,151
	34,477	29,732	28,539	23,618
Taxes				
Federal (*)	50,141	50,297	44,449	45,198
State	49,565	51,888	31,352	33,074
Municipal	690	725	301	377
Abroad (*)	5,351	6,879	–	–
	105,747	109,789	76,102	78,649
Financial institutions and suppliers				
Interest, and exchange and indexation charges	36,819	38,768	32,605	37,180
Rental and affreightment expenses	29,447	26,813	54,955	51,929
	66,266	65,581	87,560	89,109
Shareholders				
Non-controlling interests	1,779	(335)	–	–
Absorbed losses	(14,824)	(34,836)	(14,824)	(34,836)
	(13,045)	(35,171)	(14,824)	(34,836)
Added value distributed	193,445	169,931	177,377	156,540

(\*) Includes government holdings.

(\*\*) In 2016, include R\$ 4,082 in the Consolidated (R\$ 418 in 2015), relating to spending on Voluntary Separation Incentive Plan - PIDV (R\$ 3,647 in 2016 and R\$ 326 in 2015 in the Parent Company).

The Notes form an integral part of these Financial Statements.

## Notes to the financial statements

(Expressed in millions of Reais, unless otherwise indicated)

### 1. The Company and its operations

Petróleo Brasileiro S.A. - Petrobras is a company controlled by the Brazilian government dedicated, directly or through its subsidiaries (referred to jointly as “Petrobras”, “the Company”, or “Petrobras Group”), either independently or through joint ventures or similar arrangements with third parties, 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. The Company’s head office is located in Rio de Janeiro – RJ, Brazil.

### 2. Basis of preparation of financial statements

The financial statements include:

#### Consolidated financial statements

The consolidated financial statements are being presented in accordance with accounting practices adopted in Brazil, including the pronouncements issued by the Accounting Pronouncements Committee (Comitê de Pronunciamentos Contábeis - CPC) and with the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) and present all relevant information related to financial statements, and only them, corresponding to the information used by the Company’s management.

#### Individual financial statements

The individual financial statements had been prepared in accordance with accounting practices adopted in Brazil, issued by the CPC. These accounting practices do not differ from IFRS standard to separate financial statement, since 2014, when it permitted investments in associates, subsidiaries and joint ventures to be accounted for by the equity method. Therefore, the individual financial statements are in accordance with the IFRS issued by the IASB. Both individual and consolidated financial statements are disclosed together.

The standards, interpretations and orientations of CPC converge with the International Accounting Standards issued by IASB.

The financial statements have been prepared under the historical cost convention, except for available-for-sale financial assets, financial assets and liabilities measured at fair value and certain current and non-current assets and liabilities, as set out in the summary of significant accounting policies.

The annual financial statements were approved and authorized for issue by the Company's Board of Directors in a meeting held on March 21, 2017.

#### 2.1. Statement of added value

The statement of added value present information related to the value added by the Company (wealth created) and how it has been distributed. This statement is presented as supplementary information under IFRS and was prepared in accordance with CPC 09 – Statement of Added Value, approved by CVM Deliberation 557/08.

#### 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 or valuation where items are remeasured.

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 when the disposal of the investments affects profit or loss.

### 2.3. Corrections

For the preparation of the financial statements for the year ended December 31, 2016, the Company has corrected certain amounts from prior periods to conform to current period presentations. The Company concluded that these corrections are not material and they did not affect the income statement and the shareholders' equity, as described below:

- Receivables from the electricity sector, in the Parent Company and Consolidated, in the amount of R\$ 974, previously accounted for as current assets, were reclassified to trade and other receivables, net within non-current assets;
- Finance lease installments, in the Consolidated, amounting to R\$ 25 were reclassified from trade payables to finance lease obligations within current liabilities, as well as finance lease installments amounting to R\$ 149 were reclassified from other non-current liabilities to finance lease obligations within non-current liabilities;
- Proceeds from disposal of interests in subsidiaries without loss of control, in the Parent Company and Consolidated, in the amount of R\$ 1,934, previously presented in the Statement of Cash Flows as investing activities, were reclassified to financing activities;
- The investment, in the Parent Company, in the receivables investment fund (FIDC-NP), in the amount of R\$ 7,812, was reclassified from Marketable Securities – Held-to-maturity to Trade receivables;
- Fair value of finance debt changed from R\$ 385,017 to R\$ 426,282 due to changes in the finance debts fair value approach based on inputs other than quoted prices (level 2), as set out in note 17.1.

### 3. The “Lava Jato (Car Wash) Operation” and its effects on the Company

In 2009, the Brazilian Federal Police (Polícia Federal) began an investigation called “Lava Jato” (Car Wash) aimed at criminal organizations engaged in money laundering in several Brazilian states. The Lava Jato investigation is extremely broad and involves numerous investigations into several criminal practices focusing on crimes committed by individuals in different parts of the country and sectors of the Brazilian economy.

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 personnel, 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 “cartel members”. The Company did not make any improper payment.

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.”

Certain former executives of Petrobras were arrested and/or charged for certain crimes such as money-laundering and passive corruption. Other former executives of the Company as well as executives of Petrobras contractors and suppliers were or may be charged as a result of the investigation.

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.

The Company has continuously monitored the investigations for additional information and to assess any potential impact on the adjustments made. No additional information has been identified that impacted the adopted calculation methodology and the recorded adjustment in 2014 for the preparation of the financial statements for the year ended December 31, 2016.

Notes to the financial statements

(Expressed in millions of reais, unless otherwise indicated)

Petrobras will continue to monitor the results of the investigations and the availability of other information concerning the payment scheme. If information becomes available that indicates with sufficient precision that the estimate described above should be adjusted, Petrobras will evaluate whether the adjustment is material and, if so, recognize it.

3.1. 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 (Policia Federal), the Brazilian Public Prosecutor's Office (Ministério Público Federal), Federal Auditor's Office (Tribunal de Contas da União – TCU), and the Ministry of Transparency, Supervision and Control (Ministério da Transparência, Fiscalização e Controle) in the investigation of all crimes and irregularities. We have responded to numerous requests for documents and information from these authorities.

The Company has also cooperated with the U.S. Securities and Exchange Commission (SEC) and the United States Department of Justice (DOJ), which, since November 2014, have been investigating potential violations of U.S. law based on information disclosed as a result of the Lava Jato investigation.

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 29 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, in 2016, the Company continued to implement several measures as a response to the facts uncovered in the "Lava Jato" investigation and to improve its corporate governance and compliance systems as described below.

As part of the process of strengthening the internal control structure, among the measures taken in 2016, the Company approved its new Corporate Compliance Policy, performed training programs with personnel and executives focused on the prevention of corruption, reviewed the "Compliance Agents" initiative and adapted its findings to the new organization structure, conducted nearly 12,000 integrity due diligence procedures, and performed background checks as part of the decision making for appointing personnel to key positions.

Internal investigations are still in progress and are being carried out by two independent firms hired in October 2014, which report directly to a Special Committee that serves as a reporting line to the Board of Directors. The Special Committee is composed of our Governance and Compliance Officer, João Adalberto Elek Junior and two other independent and recognized experts: Ellen Gracie Northfleet, former Chief Justice of the Brazilian Supreme Court, who is recognized internationally as a jurist with great experience in analyzing complex legal issues; and Andreas Pohlmann from Germany, former Chief Compliance Officer of Siemens AG (2007-2010), who has broad experience in compliance and corporate governance matters.

We established Internal Investigative Committees (Comissões Internas de Apuração) to investigate instances of non-compliance with corporate rules, procedures or regulations. The Committees' investigation results are shared with the Brazilian authorities as they progress.

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.

Accordingly, the Company joined 12 public civil suits addressing acts of administrative misconduct filed by the Brazilian Public Prosecutor's Office and the Federal Government, including demands for compensation for reputation damages.

In order to secure future compensation to Petrobras for each civil action related to misconduct, the courts granted cautionary orders in certain actions to impound defendants' property.

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.

So far, the Company recognized the accumulated amount of R\$ 661 as compensations for damages relating to the "Lava Jato" Operation (R\$ 432 in 2016) pursuant to leniency and cooperation agreements.

Notes to the financial statements

(Expressed in millions of reais, unless otherwise indicated)

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

As it is not possible to specifically identify the amounts of each overpayment to contractors and suppliers, or periods over which such payments occurred, Petrobras developed a methodology to estimate the aggregate amount that it overpaid under the payment scheme, in order to determine the amount of the write off representing the overstatement of its assets resulting from overpayments used to fund improper payments.

As it is 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 consortia including entities so identified.

(2) Identify the period: the Company concluded from the 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 has 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 the 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.

For more information on the approach adopted by the Company to estimate the write-off for overpayments incorrectly capitalized, see note 3 to the Company's audited consolidated financial statements for 2014.

The Company considered all available information for purposes of the preparation of the financial statements for the year ended December 31, 2016 and did not identify any additional information that would impact the adopted calculation methodology and consequently require additional write-offs. Information available to the Company included:

Petrobras has closely monitored the progress of both the investigation by Brazilian authorities and the independent law firms and no new facts that could impact the Company's previously recorded adjustments or change the methodology adopted were discovered. The Company will continuously monitor the investigations for additional information and will review its potential impact on the adjustment made.

3.3. Investigation involving the Company

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. The Company has been complying with the subpoena and intends to continue to do so, working with the independent Brazilian and U.S. law firms that were hired to conduct an independent internal investigation.

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 stock market. The Company has provided all relevant information required by the authorities.

#### 3.4. Legal proceedings involving the Company

Note 30 provides information about class actions and other material legal proceedings.

Notes to the financial statements

(Expressed in millions of reais, unless otherwise indicated)

4. Summary of significant accounting policies

The accounting policies set out below have been consistently applied to all periods presented in these consolidated financial statements.

4.1. Basis of consolidation

The consolidated financial statements include the financial information of Petrobras and the entities it controls (its 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. Accounting policies of subsidiaries have been changed, where necessary, to ensure consistency with the policies adopted by Petrobras.

Note 11 sets out the consolidated entities and other direct investees.

Petrobras has no equity interest in certain structured entities and control is not determined by voting rights, but by the power the Company has over the relevant activities of such entities. Consolidated structured entities are set out below:

Consolidated structured entities	Country	Main segment
Charter Development LLC – CDC	U.S.A	E&P
Companhia de Desenvolvimento e Modernização de Plantas Industriais – CDMPI	Brazil	RT&M
PDET Offshore S.A.	Brazil	E&P
Fundo de Investimento em Direitos Creditórios Não-padronizados do Sistema Petrobras	Brazil	Corporate
Fundo de Investimento em Direitos Creditórios 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. Business segment reporting

The information related to the Company's operating segments (business areas) is prepared based on items directly attributable to each segment, as well as items that can be allocated to each segment on a reasonable basis. This information reflects the views of the Company's Board of Executive Officers (Chief Operating Decision Maker – CODM).

The measurement of segment results includes transactions carried out with third parties and transactions between business areas, which are charged at internal transfer prices defined by the relevant areas using methods based on market parameters.

The information of operating segments comprises the following business areas:

a) 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 and the sale of surplus crude oil and oil products produced in the natural gas processing plants to the domestic and foreign markets. The E&P segment also operates through partnerships with other companies.

b) 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, exports of ethanol, extraction and processing of shale, as well as holding interests in petrochemical companies in Brazil;

c) Gas and Power: this segment covers the activities of transportation and trading of natural gas produced in Brazil and abroad, imported natural gas, transportation and trading of LNG (liquid natural gas), generation and trading of electricity, as well as holding interests in transporters and distributors of natural gas and in thermoelectric power plants in Brazil, in addition to being responsible for the fertilizer business;

d) Biofuels: this segment covers the activities of production of biodiesel and its co-products, as well as the ethanol-related activities: equity investments, production and trading of ethanol, sugar and the surplus electric power generated from sugarcane bagasse; and

Notes to the financial statements

(Expressed in millions of reais, unless otherwise indicated)

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

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.

Assets and the statement of income by business area are presented in note 29.

#### 4.3. Financial instruments

##### 4.3.1. 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.

##### 4.3.2. Marketable securities

Marketable securities comprise investments in debt or equity securities. These instruments are initially measured at fair value, classified and subsequently measured as set out below:

- Fair value through profit or loss – includes financial instruments purchased and held for trading in the short term. These instruments are measured at fair value with changes recognized in the statement of income in finance income (expenses).
- Held-to-maturity – includes non-derivative financial instruments with fixed or determinable payments and fixed maturity, for which Management has the clear intention and ability to hold to maturity. These instruments are measured at amortized cost using the effective interest rate method.
- Available-for-sale – includes non-derivative financial instruments that are designated as available for sale or are not classified as financial assets at fair value through profit or loss or held-to-maturity investments. These instruments are measured at fair value and changes are recognized in other comprehensive income, in the shareholders' equity and recycled to the statement of income when the instruments are derecognized or realized.

Subsequent changes attributable to interest income or changes in foreign exchange rates or inflation indexation (price indexes) are recognized in the statement of income for all categories, when applicable.

##### 4.3.3. Trade receivables

Trade receivables are initially measured at the fair value of the consideration to be received and, subsequently, at amortized cost using the effective interest rate method and adjusted for allowances for impairment or uncollectible receivables.

The Company recognizes an allowance for impairment of trade receivables when there is objective evidence that a loss event occurred after the initial recognition of the receivable and has an impact on the estimated future cash flows, which can be reliably estimated. Impairment losses on trade receivables are recognized in the statement of income in selling expenses.

##### 4.3.4. Loans and financing (Debt)

Loans and financing are initially recognized at fair value less transaction costs incurred and subsequently measured at amortized cost using the effective interest rate method.

4.3.5. Derivative financial instruments

Derivative financial instruments are recognized in the statement of financial position as assets or liabilities and are initially and subsequently measured at fair value.

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(Expressed in millions of reais, unless otherwise indicated)

Gains or losses arising from changes in fair value are recognized in the statement of income in finance income (finance expense), unless the derivative is qualified and designated for hedge accounting.

4.3.6. Cash flow hedge accounting

The Company qualifies certain transactions for cash flow hedge accounting.

Hedging relationships qualify for cash flow hedges when they involve the hedging of the 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 the hedge are recognized in other comprehensive income, in the shareholders' equity and recycled 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 the statement of income.

When the hedging instrument expires or settled in advance, no longer meets the criteria for hedge accounting or the Company revokes the designation, the cumulative gain or loss on the hedging instrument that has been recognized in other comprehensive income from the period when the hedge was effective 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.

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, stated at the lower of the average cost, and their net realizable value.

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.

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.

The amounts presented in the categories above include imports in transit, which are stated at their cost of purchase.

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 polices. 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.

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.

In the parent company's financial statements, investments in associates, subsidiaries and joint ventures are accounted for by the equity method from the date on which they become an associate, a joint venture or a subsidiary. In the parent company's financial statements, only joint operations structured through separate vehicles are accounted for by the equity method. For other joint operations the Company recognizes the amount of its share of assets, liabilities and related income and expenses.

Notes to the financial statements

(Expressed in millions of reais, unless otherwise indicated)

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

Acquisitions of businesses are accounted for using the acquisition method when control is obtained. Combinations of entities under common control are not accounted for as business combinations.

The acquisition method requires that the identifiable assets acquired and the liabilities assumed be measured at the acquisition-date fair value. Amounts paid in excess of the fair value are recognized as goodwill. In the case of a bargain purchase, a gain is recognized in the statement of income when the acquisition cost is lower than the acquisition-date fair value of the net assets acquired.

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 over the carrying value of the ownership interest acquired/disposed 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:

- Costs related to geological and geophysical activities are expensed when incurred.
- 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 upon the declaration of commerciality.
- Costs directly attributable to exploratory wells pending determination of proved reserves are capitalized within property, plant and equipment. Exploratory wells that have discovered oil and gas reserves, which cannot be classified as proved when drilling is completed, 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 Petrobras reviews these conditions monthly for each well, by analysis of geoscience and engineering data, existing economic conditions, operating methods and government regulations.
- Costs related to exploratory wells drilled in areas of unproved reserves are charged to expense when determined to be dry or uneconomic by an expert commission of the Company.
- 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.

#### 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 of 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 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.

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(Expressed in millions of reais, unless otherwise indicated)

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 of the cost of borrowings outstanding applied over the balance of assets under construction. Borrowing costs are amortized during the useful lives of the assets or by applying the unit-of-production method to the related assets. 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.

Whenever an asset is directly associated to oil and gas production and its estimated lifecycle is equal or greater than the estimated length of reserves depletion, the depreciation of this asset will be accounted for pursuant to the unit-of-production method.

Assets depreciated based on the straight line method include: (i) assets related to oil and gas production with useful lives shorter than the life of the field; (ii) floating platforms; and (iii) assets that are unrelated to oil and gas production.

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, applied on a field-by-field basis.

Amortization of amounts paid for obtaining concessions for exploration of oil and natural gas of producing properties, such as signature bonuses (capitalized acquisition costs) is recognized using the unit-of-production method, computed based on the units of monthly production over the total proved oil and gas reserves, applied on a field-by-field basis.

Except for land, which is not depreciated, other property, plant and equipment are depreciated on a straight-line basis over its useful life. Note 12.2 provides further information on the estimated useful life by class of assets.

#### 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 obtaining concessions for exploration of oil and natural gas (capitalized acquisition costs), public service concessions, trademarks, patents, software and goodwill. In the individual financial statements, this goodwill is presented in investments.

Signature bonuses paid for obtaining concessions for exploration of oil and natural gas are initially capitalized within intangible assets and are transferred to property, plant and equipment upon the declaration of commerciality. 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.

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

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).

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

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, except when specifically indicated.

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(Expressed in millions of reais, unless otherwise indicated)

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: 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.

By performing impairment testing of an equity-accounted investment, goodwill, if 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 the 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 leased property 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.

#### 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.

The Company has an effective divestment program and is considering opportunities of divestments in several areas where it operates. The divestment portfolio is dynamic because changes in market conditions and/or in the Company's evaluation of its different businesses may affect any ongoing negotiation or potential transaction.

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 occurs within 12 months after the classification as held for sale. In addition, the sale should be expected to qualify for recognition as a completed sale within one year from the date of classification as held for sale. However, 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 it 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.

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4.14. Decommissioning costs

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

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 risk-adjusted rate when a future legal obligation exists and can be reliably measured.

Decommissioning costs estimates for oil and natural gas producing properties are initially recognized after a field is declared to be commercially viable.

The part of the cost of an asset relating to decommissioning costs estimates is depreciated on the same basis of its corresponding property, plant and equipment. 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, but contingent liabilities are disclosed whenever the likelihood of loss is considered possible, including those for which the amount outflow of resources are not reasonably estimable.

4.16. Income taxes

Income tax expense for the period includes current and deferred tax.

a) Current income taxes

Since 2015, the Company has adopted the provisions of law 12.973/14 in order to determine its taxable profit for the year. This law superseded the Transition Tax Regime (Regime Tributário de Transição-RTT).

Current tax expense is computed based on taxable profit for the year, calculated 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 tax authority, when a legally right and intention to set off current tax assets and current tax liabilities exists.

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. Deferred income tax liabilities are generally recognized for all taxable temporary differences. 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 measured at the tax rates that have been enacted or substantively enacted by the end of the reporting period, and they are offset when 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.

Actuarial assumptions include demographic assumptions, financial assumptions, medical costs estimates, historical data related to benefits paid and employee contributions.

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.

Changes in the net defined benefit liability (asset) are recognized when they occur, as follows: i) service cost and net interest cost in the statement of income; and ii) remeasurements in other comprehensive income.

Service cost 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.

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, less interest income earned on these assets.

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 available-for-sale financial instruments; 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. Recognition of revenue, costs and expenses

Revenue is recognized when it is probable that the economic benefits associated with the transaction will flow to the Company and the amount of revenue and the costs incurred or to be incurred in the transaction can be measured reliably. Revenue is measured at the fair value of the consideration received or receivable for products sold and services provided in the normal course of business, net of returns, discounts and sales taxes.

Notes to the financial statements

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Revenues from the sale of crude oil and oil products, petrochemical products, natural gas, biofuels and other related products are recognized when the Company retains neither continuing managerial involvement nor effective control over the products sold and the significant risks and rewards of ownership have been transferred to the customer, which is usually when legal title passes to the customer, pursuant to the terms of the sales contract. Sales revenues from freight and other services provided are recognized based on the stage of completion of the transaction.

Finance income and expense mainly comprise interest income on financial investments and government bonds, interest expense on debt, gains or losses on marketable securities measured at fair value, as well as net foreign exchange and inflation indexation charges. Finance expense does not include borrowing costs which are capitalized as part of the costs of these assets.

Revenue, costs and expenses are recognized on the accrual basis.

#### 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 the most judgment or involve a higher degree of complexity in the application of the accounting practices 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 the 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 the estimated quantities which geological and engineering data demonstrate with reasonable certainty to be recoverable in future years from known reservoirs under existing economic and operating conditions (i.e., prices and costs as of the date the estimate is made). Proved reserves are subdivided into developed and undeveloped reserves.

Proved developed oil and gas reserves are reserves that can be expected to be recovered through existing wells with existing equipment and operating methods.

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 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.

Notes to the financial statements

(Expressed in millions of reais, unless otherwise indicated)

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.

Notes 4.8 and 12 provide more detailed information about 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 based on their value in use, as defined in note 4.10. In general, analyses are based on proved reserves 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 of on shore and offshore 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

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. Reviews in such reserves 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 recycled 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 Real/U.S. dollar average exchange rate. These assumptions are relevant to virtually all of the Company's business 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 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.

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 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 and then discount rates for impairment testing would be increased.

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.

The recoverable amount of certain assets was not substantially in excess of 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 14.1.1.

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(Expressed in millions of reais, unless otherwise indicated)

Further information on impairment testing is set out in notes 4.10, 5.3 and 14.

### 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 Cash-Generating units (CGUs) could result in additional impairment charges or reversals. Such changes may occur when investment, strategic or operational factors result in changes in the interdependencies between those assets and, consequently, alter the aggregation of assets into CGUs.

The assumptions set out below have been consistently applied by the Company:

#### 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 September 2016, the aggregations of assets for Fazenda Cedro and Lagoa Suruaca groups, both located in Espírito Santo, were reviewed and impairment tests were run separately for those individual fields due to the discontinuation of a relevant shared infrastructure in the production process, as approved in 2017-2021 BMP; and

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

#### 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) Petrochemical CGU: This CGU was composed of the PetroquímicaSuape and Citepe petrochemical plants until November 2016. In December 2016, the Company's Board of Directors approved the sale of these plants and, consequently, these assets were not aggregated as a CGU as of December 31, 2016, pursuant to their reclassification to assets held for sale;

v) Transportation CGU: comprises assets relating to Transpetro's fleet of vessels. Recurrent delays in the construction of support vessels for transporting ethanol over the Tietê River led the management of the wholly-owned subsidiary Transpetro, in September 2016, to terminate the construction contracts for a new group of support vessels in the scope of Hidrovias project. As a result, this project was postponed and its completed assets were reviewed and tested for impairment separately;

vi) SIX CGU: shale processing plant; and

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

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(Expressed in millions of reais, unless otherwise indicated)

Gas & Power CGUs:

- i) Natural gas CGU: comprises natural gas pipelines, natural gas processing plants and fertilizers and nitrogen products plants other than the Fertilizer Plant UFN III, which is assessed for impairment separately. In September 2016, the Board of Directors approved the disposal of interest in the subsidiary NTS and, as a consequence, its pipelines were removed from this CGU;
- ii) CGU UFN III: comprises assets under construction of the fertilizer plant Unidade de Fertilizantes e Nitrogenados III (UFN III). The Company decided to postpone this project for an extended period of time;
- iii) Power CGU: comprises the thermoelectric power generation plants. In December 2016, the Company's Board of Directors approved the strategic alliance with Total that, among other matters, outlines the share of 50% interests in the power plants Celso Furtado and Rômulo Almeida. Accordingly, these assets were removed from this CGU; and
- iv) Other CGUs: operations abroad defined as the smallest group of assets that generates largely independent cash flows.

Distribution CGU:

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

Biofuels CGUs:

An integrated unit of biodiesel plants defined based on the production planning and operation process, considering domestic market conditions, the production capacity of each plant, as well as the results of biofuels auctions and raw materials supply. Due to the decision to discontinue operations of Quixadá Biofuel Plant, as approved by the Board of Directors of the subsidiary Petrobras Biocombustível in September 2016, impairment test for this Biofuel Plant was run separately.

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

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, converge 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.

5.5. Estimates related to contingencies and legal proceedings

The Company is a defendant in numerous legal proceedings involving tax, civil, labor, corporate and environmental issues arising from the normal course of its business for which it estimates the amounts of the obligations and the probability that an outflow of resources will be required. Those estimates are based on legal counsel and Management's best estimates.

Note 30 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 at production sites. 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.

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(Expressed in millions of reais, unless otherwise indicated)

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 operations 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 tax liabilities and deferred tax assets 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), 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 21.6.

#### 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 account the Company's operational and capital expenditure optimization model which considers future uncertainties, such as oil price and production, as well as products demand. 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.

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

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

To account for these overpayments, the Company developed an estimation methodology, as set out in note 3. Petrobras 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. Allowance for impairment of trade  
receivables

Management continuously assesses whether there is objective evidence that trade receivables are impaired and recognizes allowances for impairment of trade receivables to cover losses. Such evidence includes insolvency, defaults, judicial recovery claims, a significant probability of a debtor filing for bankruptcy and others.

See note 8 for more detailed information about allowance for impairment of trade receivables.

## Notes to the financial statements

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## 6. New standards and interpretations

## a) IASB - International Accounting Standards Board

The main standards issued by the IASB and not effective as of December 31, 2016 are set out below. The Company did not adopt those standards early.

Standards	Brief Description	Effective Date
IFRS 15 – “Revenue from Contracts with Customers”	<p>Sets out requirements for recognition, measurement and disclosure of revenue from contracts with customers</p> <p>According to IFRS 15, revenue is recognized when a customer obtains control of a good or service sold. It changes the current model, based on which revenue is recognized when significant risks and rewards of ownership are transferred. In addition IFRS 15 provides guidance for revenue recognition in more complex cases. Upon adoption of the standard, certain freight services may be identified as a distinct performance obligation from the related products which may change its timing of revenue recognition. The company continues to evaluate the effect of the standard on its financial statements.</p> <p>Establishes a new model of financial assets classification, based on their cash flow characteristics and entity's business model objective for them. This standard also changes the assumptions of financial assets impairment recognition based on expected losses and adds new requirements regarding hedge accounting.</p> <p>The Company continues to evaluate the effect of the standard on its financial statements, such as possible changes when classifying and measuring its financial assets based on their contractual cash flows and the business model in which they are held. The Company is also assessing effects on the recoverable amount of its financial assets that may arise from the expected losses approach.</p>	January 1, 2018
IFRS 9 - "Financial Instruments"	<p>The Company also qualifies certain transaction for cash flow hedge accounting and the evaluation of effects on this accounting policy is ongoing.</p>	January 1, 2018
IFRIC 22 – “Foreign Currency Transactions and Advance Consideration”	<p>Establishes that the date of the transaction, for the purpose of determining the foreign exchange rate in foreign currency transactions, is the date of initial recognition of the non-monetary prepayment asset or deferred income liability.</p> <p>The company continues to evaluate the effect of the standard on its financial statements.</p>	January 1, 2018
IFRS 16 – “Leases”		

On January 13, 2016, the IASB issued IFRS 16 "Leases", which will become effective for the financial report period beginning on or after January 1, 2019, superseding IAS 17 "Leases" and related interpretations.

IFRS 16 provides requirements for leases identification, recognition, measurement, presentation and disclosure according to the lessee and lessor perspectives.

Among the changes for lessees, IFRS 16 eliminates classification between financial and operating leases, required by IAS 17. Therefore, it will be a single model in which all leases will result in the recognition of assets related to the use of rights of assets leased. If the payments provided for in the commercial lease are due over time, financial liabilities should be recognized as well.

For lessors, IFRS 16 will maintain the classification as either financial or operating leases as required by IAS 17. IFRS 16 will not substantially change the way leases will be accounted for lessors when compared to IAS 17.

The Company is assessing the impacts of this new standard and believes that the adoption of IFRS 16 may cause a significant increase in assets and liabilities presented in its consolidated statement of financial position. Accordingly, the Company may also need to negotiate some covenants in its loan agreements with BNDES – (Brazilian Development Bank) when a reliable estimate of these impacts can be made.

## Notes to the financial statements

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## 7. Cash and cash equivalents and Marketable securities

## Cash and cash equivalents

	Consolidated		Parent Company	
	12.31.2016	12.31.2015	12.31.2016	12.31.2015
Cash at bank and in hand	1,926	3,157	17	4
Short-term financial investments				
- In Brazil				
Single-member funds (Interbank Deposit) and other short-term deposits	3,845	3,599	849	1,100
Other investment funds	427	42	1	2
	4,272	3,641	850	1,102
- Abroad				
Time deposits	10,053	51,842	–	–
Automatic investing accounts and interest checking accounts	31,875	34,471	5,400	15,447
Treasury bills	17,004	–	–	–
Other financial investments	3,978	4,734	–	–
	62,910	91,047	5,400	15,447
Total short-term financial investments	67,182	94,688	6,250	16,549
Total cash and cash equivalents	69,108	97,845	6,267	16,553

Short-term financial investments in Brazil comprise investment in funds, with maturities of three months or less, holding Brazilian Federal Government Bonds. Short-term financial investments abroad comprise time deposits with maturities of three months or less, highly-liquid automatic investing accounts, interest checking accounts and other short-term fixed income instruments, including U.S. Treasury bills.

## Marketable securities

	Consolidated			Parent Company		
	12.31.2016	12.31.2015		12.31.2016	12.31.2015	
	In Brazil	Abroad	Total	In Brazil	Abroad	Total
Trading securities	2,556	–	2,556	3,042	–	3,042
Available-for-sale securities	1	–	1	21	5	26
Held-to-maturity securities	292	–	292	271	50	321
Total	2,849	–	2,849	3,334	55	3,389
Current	2,556	–	2,556	3,042	5	3,047
Non-current	293	–	293	292	50	342

Trading securities 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.

## Notes to the financial statements

(Expressed in millions of reais, unless otherwise indicated)

## 8. Trade and other receivables

## 8.1. Trade and other receivables, net

	Consolidated		Parent Company	
	12.31.2016	12.31.2015	12.31.2016	12.31.2015
Trade receivables				
Third parties	21,182	28,358	7,585	10,975
Related parties				
Investees (note 19.7)	1,809	2,085	20,304	15,176
Investments in the Receivables Investment Fund - FIDC-NP (note 19.4)(*)	–	–	11,301	7,812
Receivables from the electricity sector (note 8.4)	16,042	13,335	5,995	3,940
Petroleum and alcohol accounts - receivables from Brazilian Government (note 19.8)	875	857	875	857
Other receivables	8,149	6,625	2,951	2,790
	48,057	51,260	49,011	41,550
Allowance for impairment of trade receivables	(17,682)	(14,274)	(7,676)	(6,514)
<b>Total</b>	<b>30,375</b>	<b>36,986</b>	<b>41,335</b>	<b>35,036</b>
Current	15,543	21,685	31,073	27,701
Non-current	14,832	15,301	10,262	7,335

(\*) In 2015, reclassified from Marketable securities.

## 8.2. Trade receivables overdue - Third parties

	Consolidated		Parent Company	
	12.31.2016	12.31.2015	12.31.2016	12.31.2015
Up to 3 months	1,313	1,229	609	328
From 3 to 6 months	218	701	90	412
From 6 to 12 months	1,339	3,135	412	2,775
More than 12 months	8,637	6,775	4,332	2,498
<b>Total</b>	<b>11,507</b>	<b>11,840</b>	<b>5,443</b>	<b>6,013</b>

## 8.3. Changes in the allowance for impairment of trade receivables

	Consolidated		Parent Company	
	12.31.2016	12.31.2015	12.31.2016	12.31.2015
Opening balance	14,274	8,956	6,514	4,873
Additions (*)	4,532	7,133	1,400	3,830
Write-offs	(28)	(41)	–	–
Reversals	(595)	(2,476)	(238)	(2,189)
Cumulative translation adjustment (501)	702	–	–	–
<b>Closing balance</b>	<b>17,682</b>	<b>14,274</b>	<b>7,676</b>	<b>6,514</b>

Current	6,551	6,727	4,414	4,150
Non-current	11,131	7,547	3,262	2,364

(\*) In 2016, includes additions mainly relating to: R\$ 1,242 from electricity sector and R\$ 2,045 from losses on advances to suppliers, debts assumptions and termination costs relating to agreement with Ecovix shipyard. In 2015, includes additions mainly relating to: R\$ 4,056 from electricity sector and R\$ 1,206 from losses on fines executed.

## Notes to the financial statements

(Expressed in millions of reais, unless otherwise indicated)

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

		Consolidated		Allowance for impairment			
	As of 12.31.2015	Amounts Sales received	Transfers (* )	Recognition, net of reversals	Transfers (* )	Inflation indexation	As of 12.31.2016
<b>Related parties (Eletrobras Group)</b>							
AME(**)	7,793	1,707(2,513)	2,445	(1,070)	(1,255)	958	8,065
Ceron(***)	1,111	175 (237)	–	–	–	152	1,201
Others	302	319 (347)	–	(9)	–	48	313
Subtotal	9,206	2,201(3,097)	2,445	(1,079)	(1,255)	1,158	9,579
<b>Third parties</b>							
Cigás	558	2,321(1,069)	(2,445)	(153)	1,255	1	468
Others	168	1,123(1,274)	–	(10)	–	8	15
Subtotal	726	3,444(2,343)	(2,445)	(163)	1,255	9	483
<b>Trade receivables, net</b>	<b>9,932</b>	<b>5,645(5,440)</b>	<b>–</b>	<b>(1,242)</b>	<b>–</b>	<b>1,167</b>	<b>10,062</b>
<b>Trade receivables - Eletrobras Group</b>							
	13,335	2,201(3,097)	2,445	–	–	1,158	16,042
(-) Allowance for impairment	(4,129)	– –	–	(1,079)	(1,255)	–	(6,463)
Subtotal	9,206	2,201(3,097)	2,445	(1,079)	(1,255)	1,158	9,579
<b>Trade receivables - Third parties</b>							
	3,018	3,444(2,343)	(2,445)	–	–	9	1,683
(-) Allowance for impairment	(2,292)	– –	–	(163)	1,255	–	(1,200)
Subtotal	726	3,444(2,343)	(2,445)	(163)	1,255	9	483
<b>Trade receivables - Total</b>							
	16,353	5,645(5,440)	–	–	–	1,167	17,725
(-) Allowance for impairment	(6,421)	– –	–	(1,242)	–	–	(7,663)
<b>Trade receivables, net</b>	<b>9,932</b>	<b>5,645(5,440)</b>	<b>–</b>	<b>(1,242)</b>	<b>–</b>	<b>1,167</b>	<b>10,062</b>

(\*) Transfer of overdue receivables from Cigás to AME, pursuant to the purchase and sale agreement of natural gas (upstream and downstream) entered into by Petrobras, Cigás and AME.

(\*\*) Amazonas Distribuidora de Energia

(\*\*\*) Centrais Elétricas do Norte

The Company supplies fuel oil, natural gas, and other products to entities that operate in the isolated electricity system in the northern region of Brazil, such as thermoelectric power plants controlled by Eletrobras, state-owned natural gas distribution companies and independent electricity producers (Produtores Independentes de Energia – PIE). The isolated electricity system provides the public service of electricity distribution in the northern region of Brazil as the

Brazilian National Interconnected Power Grid (Sistema Interligado Nacional) has not yet met the demand for electricity due to technical or economic reasons.

A significant portion of the funds used by those companies to pay for products supplied by the Company came from the Fuel Consumption Account (Conta de Consumo de Combustível – CCC), which provides funds to cover a portion of the costs related to the supply of fuel to thermoelectric power plants located in the northern region of Brazil (operating in the isolated electricity system). However, as a result of changes in the CCC regulations over time, principally relating to the Provisional Measure 579/2012 which significantly changed the sources of funds that were used to cover the cost of electricity generated in the Isolated Electricity System, funds transferred from the CCC to these electricity companies have not been sufficient for them to meet their financial obligations and, as a result, some have not been able to pay the total amount for the products supplied by the Company, increasing the default rate of those customers to the Company.

The Company intensified the negotiations with the state-owned natural gas distribution companies, the independent electricity producers (PIEs), other private companies and entities controlled by Eletrobras. As a result, on December 31, 2014, the Company entered into a debt acknowledgement agreement with subsidiaries of Eletrobras with respect to the balance of its receivables as of November 30, 2014. Eletrobras acknowledged it owed R\$ 8,601 to the Company, of which R\$ 7,380 were collateralized. This amount has been adjusted by the Selic interest rate (Brazilian short-term interest rate) on a monthly basis. Under this agreement, the first of 120 monthly installments was paid in February 2015 and these payments have continued.

In order to mitigate an increase in default rates, on September 1, 2015 the Brazilian National Electricity Agency (Agência Nacional de Energia Elétrica - ANEEL) enacted the Normative Instruction 679 enabling the Company to receive funds directly from the CCC, as these funds would be paid directly from the CCC for products supplied in the prior month with a limit of 75% of the average payments made by the CCC in the previous three months.

The Company had expected that the abovementioned rule would have strengthened the financial situation of the companies in the electricity sector. However, this has not occurred and the level of these defaults increased. Accordingly, in 2015 the Company recognized R\$ 1,876 as allowance for impairment of trade receivables (net of reversals) with respect to uncollateralized receivables outstanding since December 1, 2014.

In 2016, the Company recognized an allowance for impairment of trade receivables (net of reversals) in the amount of R\$ 1,242 mainly relating to new supplies of: (i) fuel oil by legal enforcement (injunction) in the first quarter of 2016; and (ii) natural gas. Accordingly, the Company has adopted the following measures:

judicial collection of overdue receivables with respect to natural gas supplied to Amazonas Distribuidora de Energia (AME), Eletrobras and Cigás;

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Notes to the financial statements

(Expressed in millions of reais, unless otherwise indicated)

- judicial collection of overdue receivables with respect to fuel oil supplied by the wholly-owned subsidiary BR Distribuidora to companies of Eletrobras Group (Amazonas, Acre, Rondônia and Roraima);
- partial suspension of gas supply;
- suspension of fuel oil supply on credit, except when legally enforced; and
- registration of entities controlled by Eletrobras as delinquent companies in the Brazilian Central Bank files and registration of AME as a delinquent company in ANEEL files.

Excluding the effects of foreign exchange translation, the amount of trade receivables from the electricity sector remained relatively flat mainly due to contractual clauses of amortization established in the debt acknowledgement agreement, which determine the payment of 15% of the amount of renegotiated debt within 36 months and the remaining 85% to be paid in 84 installments beginning in January 2018. Therefore, the Company expects the balance of trade receivables from the electricity sector will decrease from 2018 onwards as the amounts to be received will be higher than sales and inflation indexation on debt acknowledgement agreements.

## Notes to the financial statements

(Expressed in millions of reais, unless otherwise indicated)

## 9. Inventories

	Consolidated		Parent Company	
	12.31.2016	12.31.2015	12.31.2016	12.31.2015
Crude oil	11,485	11,305	9,961	10,425
Oil products	8,634	8,613	7,091	6,612
Intermediate products	2,281	2,390	2,281	2,390
Natural gas and LNG (*)	435	989	310	436
Biofuels	686	616	74	65
Fertilizers	85	239	66	190
Total products	23,606	24,152	19,783	20,118
Materials, supplies and others	4,053	4,967	3,755	3,935
<b>Total</b>	<b>27,659</b>	<b>29,119</b>	<b>23,538</b>	<b>24,053</b>
Current	27,622	29,057	23,500	24,015
Non-current	37	62	38	38

(\*) LNG - Liquid Natural Gas

Inventories are presented net of a R\$ 92 allowance reducing inventories to net realizable value (R\$ 607 as of December 31, 2015), mainly due to changes in international prices of crude oil and oil products. In 2016, the Company recognized as cost of sales a R\$ 1,320 allowance charge (net of reversals) reducing inventories to net realizable value (R\$ 1,547 in the same period of 2015).

A portion of the crude oil and/or oil products inventories have been pledged as security for the Terms of Financial Commitment (TFC) signed by Petrobras and Petros in the amount of R\$ 6,449 (R\$ 6,711 as of December 31, 2015), as set out in note 22.1.

Notes to the financial statements

(Expressed in millions of reais, unless otherwise indicated)

10. Disposal of Assets and other changes in organizational structure

10.1. Disposal of Assets

Termination of the contract for the sale of Bijupirá and Salema fields (BJS)

On February 26, 2016, Petro Rio S.A. terminated the contracts signed with the Company on July 1, 2015, for the sale of 20% interest in Bijupirá and Salema concessions (BJS) and in the Dutch joint operation BJS Oil Operations B.V. (BJSOO BV). Accordingly, the amounts relating to these fields were reclassified from assets and liabilities held for sale back to property, plant and equipment (R\$ 527) and to provision for decommissioning costs (R\$ 493), respectively.

Due to the aforementioned reclassification, the respective assets were depreciated based on their historical data and their recoverable amounts were reassessed. As a result, the Company recognized, in the first quarter of 2016, an impairment loss as set out in note 14.1.

Sale of Petrobras Argentina

On May 12, 2016, the Board of Directors approved the disposal of the Company's entire 67.19% interest in Petrobras Argentina - PESA, owned through the subsidiary Petrobras Participaciones S.L. ("PPSL"), to Pampa Energía.

On July 27, 2016, the amount of US\$ 897 million was disbursed by Pampa Energia and, on December 14, 2016, additional US\$ 3 was paid due to contractual clauses. Accordingly, the Company recognized a gain of R\$ 684 on this sale, as other expenses, net. In addition, the amount of R\$ 3,627 was reclassified from shareholders' equity to other expenses within the income statement, reflecting the reclassification of cumulative translation adjustment resulting from the depreciation of Argentinian Peso against the U.S Dollar from the acquisition of this investment to its disposal (see note 23.4).

On October 28, 2016, as expected, the Company concluded this transaction with the acquisition of 33.6% of the concession of Rio Neuquén in Argentina and 100% of Colpa Caranda asset in Bolivia for the amount of US\$ 56 million, after adjustments relating to Colpa Caranda asset.

Disposal of distribution assets in Chile

On July 22, 2016, the Company signed a sale and purchase agreement with the Southern Cross Group for the sale of 100% of Petrobras Chile Distribución Ltda (PCD), held through Petrobras Caribe Ltda.

Pursuant to this disposal approval by the Board of Directors, the respective assets were classified as held for sale and measured at their estimated exit price and, as a result, the Company recognized impairment charges as set out in note 14.2.

This transaction was concluded on January 4, 2017 and the net proceeds from this deal were US\$ 470 million, of which US\$ 90 million were received via distribution of dividends after taxes on December 9, 2016 and the remaining US\$ 380 million were paid by Southern Cross in the transaction closing.

Disposal of interest in exploratory block BM-S-8

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

The Brazilian Antitrust Regulator (Conselho Administrativo de Defesa Econômica – CADE) and the Brazilian Agency of Petroleum, Natural Gas and Biofuels (Agência Nacional de Petróleo, Gás Natural e Biocombustíveis) – ANP approved this transaction on September 8, 2016 and November 10, 2016, respectively.

After performing all conditions precedent established in the agreement, on November 22, 2016 the Company received the first installment in the amount of US\$ 1.25 billion, corresponding to 50% of the transaction and, as a result of the transaction closing, the Company recognized a gain in the amount of R\$ 2.9 billion as other expenses, net. The remaining amount will be recognized based on two contingent payments relating to future events: the bid for an extended adjacent area of the Carcará reservoir (US\$ 300 million) and the signing of the unitization agreement (US\$ 950 million).

Notes to the financial statements

(Expressed in millions of reais, unless otherwise indicated)

Disposal of interest in Nova Transportadora do Sudeste (NTS) and related changes in organizational structure

After a corporate restructuring intended to concentrate the transportation assets of the southeastern region in NTS (Rio de Janeiro, Minas Gerais and São Paulo), the Company's Board of Directors approved on September 22, 2016 the sale of 90% interest in Nova Transportadora do Sudeste (NTS) to Brookfield Infrastructure Partners (BIP) and its affiliates, through a Private Equity Investment Fund (FIP) whose other shareholders are British Columbia Investment Management Corporation (BCIMC), CIC Capital Corporation (wholly-owned subsidiary of China Investment Corporation - CIC) and GIC Private Limited (GIC).

The following changes in organizational structure occurred as part of this process:

- The Extraordinary General Meeting of NTS, held on October 21, 2016, approved an increase to its share capital in the amount of R\$ 2.31 billion, based on independent expert report dated on October 14, 2016, through net assets of the Company's subsidiary TAG. This capital increase approval depended on ANP permission through the issuance of Permissions of Provisional Operation (Autorizações de Operação Provisórias), as occurred on October 24, 2016.
- The Extraordinary General Meeting of the TAG, held on October 21, 2016, approved a reduction to its share capital, via capital surplus, in the amount of its investment in NTS (R\$ 2.6 billion) and transfer of all its interest in NTS to Petrobras, as occurred on October 24, 2016 pursuant to Permissions of Provisional Operation (Autorizações de Operação Provisórias), as occurred on October 24, 2016.

The Shareholder's General Meeting held on November 30, 2016 approved this transaction in the amount of US\$ 5.19 billion, of which US\$ 3.55 billion correspond to 90% interest in NTS and US\$ 1.64 billion correspond to the NTS debt settlement with the Company's wholly-owned subsidiary PGT. FIP will subscribe convertible debentures issued by NTS for the replacement of this debt. The first installment, in the amount of US\$ 4.34 billion will be paid at the closing of the transaction, and the remaining amount (US\$ 850 million) will be paid in the fifth year, bearing annual interests at a fixed rate, as established in the purchase and sale agreement.

This transaction prescribes the maintenance of charge capacity and also the same terms of five Firm Gas Transportation Agreements including 100% ship-or-pay clauses. These agreements have terms of 20 years from 2016 and their rates are indexed to the Brazilian General Market Price Index (IGP-M) and regulated by Brazilian Petroleum, Natural Gas and Biofuels Agency (ANP).

The completion of the transaction is subject to certain customary conditions precedent, including approval by relevant regulators. Thus, the related assets and liabilities were classified as held for sale as of December 31, 2016.

On February 10, 2017, the federal court in the state of Sergipe determined the interruption of this disposal by ordering an injunction based on a civil action. However, on March 9, 2017, this injunction was dismissed, enabling the progress of this transaction.

Disposal of Nansei Sekiyu (NSS)

On October 17, 2016 the Company's Board of Directors approved the disposal of the Company's interests in Nansei Sekiyu Kabushiki Kaisha (NSS) to Taiyo Oil Company ("Taiyo").

On December 28, 2016, this disposal was closed after the fulfillment of all conditions precedent in the sales and purchase agreement. Accordingly, Taiyo disbursed US\$ 165 to the Company and, as a result, the Company recognized as other expenses, net a gain on this transaction amounting to R\$ 436. This transaction is still subject to price

adjustments.

In addition, a loss of R\$ 66 was reclassified from shareholders equity to other expenses within the income statement, reflecting the reclassification of cumulative translation adjustment resulting from the depreciation of Japanese Yen against the U.S Dollar from the acquisition of this investment to its disposal (see note 23.4).

#### 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. to Companhia Ultragaz S.A., a subsidiary of Ultrapar Participações S.A.

At December 31, 2016, the related assets and liabilities were classified as held for sale as conditions precedent were not yet performed, such as the transaction approval at Shareholders' Meetings of Ultrapar and Petrobras, as well as the approval of the Brazilian Antitrust Regulator (CADE).

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Notes to the financial statements

(Expressed in millions of reais, unless otherwise indicated)

On January 31, 2017, the sale of Petrobras's entire interests in Liquigás in the amount of R\$ 2.7 billion was approved at Petrobras' Shareholders' Meeting.

Disposal of Guarani

On December 28, 2016, the Company's wholly-owned subsidiary Petrobras Biocombustível S.A. (PBIO) disposed of its interests in the associate Guarani S.A. (45,97% of share capital) to Tereos Participations SAS, an entity of the French group Tereos.

As of December 31, 2016, this investment was classified as held for sale as this transaction was still subject to certain conditions precedent. As a result, the Company recognized an impairment charge in the amount of R\$ 219 accounted for within results in equity-accounted investments.

On February 3, 2017 this transaction was concluded pursuant to the payment of US\$ 203 million, after all conditions precedent were performed by Tereos Participations SAS.

Disposal of Petroquímica Suape and Citepe petrochemical plants

On December 28, 2016, the Company's Board of Directors approved the disposal of its interests in the wholly-owned subsidiaries Companhia Petroquímica de Pernambuco (PetroquímicaSuape) and Companhia Integrada Têxtil de Pernambuco (Citepe) to Grupo Petrotex S.A. de C.V. and 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), in the amount of US\$ 385 million, which will be totally disbursed pursuant to the transaction closing. This amount is still subject to adjustments relating to working capital, net debt and recoverable taxes.

This transaction closing is subject to the approval at Petrobras Shareholder's General Meeting, Grupo Alfa's Board of Directors and Brazilian Antitrust Regulator (CADE), as well as to certain other customary conditions precedent.

As the conditions precedent to this transaction were not performed at December 31, 2016, the respective assets were reclassified as held for sale and measured at their estimated exit price. As a result, the Company recognized impairment losses as described in notes 14.1 and 14.2.

On January 31, 2017, the federal court in the state of Sergipe determined the interruption of this disposal by ordering an injunction based on in a civil action. However, on February 22, 2017, this injunction was dismissed, enabling the progress of this transaction.

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 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% interests and is located in the Block BM-S-11);

• 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 remain holding 10% interests in this area; and

• Transfer of the Company's 50% interests in the power plants Celso Furtado and Rômulo Almeida. The Company recognized an impairment loss on this transaction as described in note 14.2.

On February 28, 2017, the Company and Total signed the purchase and sale agreements with respect to the aforementioned assets. Total will pay to the Company the total amount of US\$ 2,225 million with respect to these transactions, comprising US\$ 1,675 million in cash for assets and services, a line of credit in the amount of US\$ 400 million that can be used by the Company for investments in the Iara fields, as well as US\$ 150 million relating to contingent payments.

These transactions are still subject to the relevant authorities' approvals, to the potential exercise of preemptive rights by current Iara partners, as well as other customary conditions precedent.

## Notes to the financial statements

(Expressed in millions of reais, unless otherwise indicated)

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

## 10.2. Other changes in organizational structure

## Merger of Nova Fronteira Bioenergia

On December 15, 2016, the Company's wholly-owned subsidiary Petrobras Biocombustível S.A. (PBIO) entered into an agreement with São Martinho group which establishes the merger of PBIO interests in Nova Fronteira Bioenergia S.A. (49%) into São Martinho.

As of December 31, 2016, the related assets were classified as held for sale due to certain conditions precedent and the Company recognized a loss on this transaction in the amount of US\$ 30 within results in equity-accounted investments.

On February 23, 2017, this transaction was concluded as São Martinho granted to PBIO an additional 24 million of its common shares, corresponding to 6.593% of its voting and total paid in capital, in exchange and in proportion to the shares that PBIOs held in Nova Fronteira. These shares will not be subject to any kind of lock-up and their sale will occur in 4 years through a structured process.

## 10.3. Assets classified as held for sale

	Consolidated 12.31.2016		Gas & E&P Distribution RT&M Power Biofuel Total				12.31.2015 Total
Assets classified as held for sale (*)							
Cash and Cash Equivalents	–	328	27	–	–	355	11
Trade receivables	–	247	420	–	–	667	43
Inventories	–	170	390	–	–	560	–
Investments	–	87	20	–	1,126	1,233	–
Property, plant and equipment	3,381	640	921	9,467	–	14,409	541
Others	–	114	999	332	–	1,445	–
<b>Total</b>	<b>3,381</b>	<b>1,586</b>	<b>2,777</b>	<b>9,799</b>	<b>1,126</b>	<b>18,669</b>	<b>595</b>
Liabilities on assets classified as held for sale (*)							
Trade Payables	–	245	166	29	–	440	–
Finance debt	–	–	45	–	–	45	488
Provision for decommissioning costs	170	–	–	–	–	170	–
Others	32	96	256	566	–	950	–
<b>Total</b>	<b>202</b>	<b>341</b>	<b>467</b>	<b>595</b>	<b>–</b>	<b>1,605</b>	<b>488</b>

(\* As of December 31, 2016, the amounts mainly refer to assets and liabilities transferred by the disposal of Petrobras Chile Distribución LTDA (PCD), Nova Transportadora do Sudeste, Liquigás, Petroquímica Suape and Citepe, Guarani S.A, Nova Fronteira, transfer of interest in the concession areas named as Iara and Lapa, as well as the share of interest in the thermoelectric power generation plants Rômulo Almeida and Celso Furtado.

#### 10.4. Civil action filed by the Brazilian Federal Audit Court (TCU)

On December 8, 2016, the Brazilian Federal Audit Court (Tribunal de Contas da União – TCU) filed a civil action prohibiting Petrobras from commencing additional divestment projects and entering into sales agreements relating to the ongoing disposal projects while it assesses the Company’s divestments decision-making methodology. This action does not impact five deals which were under their final stages of negotiation when this civil action was filed, including the sale of Guarani, sale of Suape and Citepe petrochemical plants, as well as the merger of Nova Fronteira Bioenergia, as described in note 10.1.

The Company reviewed its divestments decision-making methodology and, on March 15, 2017, this civil action was dismissed, which enabled the Company to progress with two ongoing deals (sale of interests in Baúna and Tartaruga Verde fields and Saint Malo field located in U.S. Gulf of Mexico) and also to commence new divestment projects based on the reviewed methodology.

## Notes to the financial statements

(Expressed in millions of reais, unless otherwise indicated)

## 11. Investments

## 11.1. Information about direct subsidiaries, joint arrangements and associates (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	70,631	477	Netherlands
Petrobras International Braspetro - PIB BV (i) (ii)	Several segments (iii)	99.99	99.99	21,800	(4,764)	Netherlands
Transportadora Associada de Gás S.A. - TAG	Gas & Power	100.00	100.00	8,887	7,396	Brazil
Petrobras Distribuidora S.A. - BR	Distribution	100.00	100.00	7,410	(314)	Brazil
Petrobras Logística de Exploração e Produção S.A. - PB-LOG	E&P	100.00	100.00	4,205	1,224	Brazil
Nova Transportadora do Sudeste S.A. - NTS	Gas & Power	100.00	100.00	4,101	473	Brazil
Petrobras Transporte S.A. - Transpetro	RT&M	100.00	100.00	4,008	286	Brazil
Petrobras Gás S.A. - Gaspetro	Gas & Power	51.00	51.00	1,871	315	Brazil
Petrobras Biocombustível S.A.	Biofuels	100.00	100.00	1,347	(886)	Brazil
Petrobras Logística de Gás - Logigás	Gas & Power	100.00	100.00	1,191	453	Brazil
Liquigás Distribuidora S.A.	RT&M	100.00	100.00	967	200	Brazil
Termomacaé Ltda.	Gas & Power	99.99	99.99	705	28	Brazil
Breitener Energética S.A.	Gas & Power	93.66	93.66	676	17	Brazil
Termobahia S.A.	Gas & Power	98.85	98.85	573	92	Brazil
Braspetro Oil Services Company - Brasoil (i)	Corporate	100.00	100.00	543	22	Cayman Islands
Baixada Santista Energia S.A.	Gas & Power	100.00	100.00	228	(63)	Brazil
Araucária Nitrogenados S.A.	Gas & Power	100.00	100.00	194	(620)	Brazil
Fundo de Investimento						
Imobiliário RB Logística - FII	E&P	99.20	99.20	111	45	Brazil
Petrobras Comercializadora de Energia Ltda. - PBEN	Gas & Power	99.91	99.91	96	15	Brazil
Petrobras Negócios Eletrônicos S.A. - E-Petro	Corporate	99.95	99.95	34	1	Brazil
Termomacaé Comercializadora de Energia Ltda	Gas & Power	99.99	99.99	15	6	Brazil
Downstream Participações Ltda.	Corporate	99.99	99.99	3	-	Brazil
5283 Participações Ltda.	Corporate	100.00	100.00	1	(1)	Brazil
Companhia Integrada Têxtil de Pernambuco S.A. - CITEPE	RT&M	100.00	100.00	(124)	(1,244)	Brazil

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Companhia Petroquímica de Pernambuco S.A. - PetroquímicaSuape						
RT&M	100.00	100.00	(479)	(1,315)	Brazil	
Joint operations						
Ibitermo S.A.						
RT&M	50.00	50.00	234	48	Brazil	
Fábrica Carioca de Catalizadores S.A. - FCC						
RT&M	50.00	50.00	229	71	Brazil	
Nonconsolidated entities						
Joint ventures						
Logum Logística S.A.						
RT&M	15.10	15.10	615	(183)	Brazil	
Cia Energética Manauara S.A. Refinaria de Petróleo						
Gas & Power	40.00	40.00	160	44	Brazil	
Riograndense S.A.						
RT&M	33.20	33.33	151	87	Brazil	
Petrocoque S.A. Indústria e Comércio						
RT&M	50.00	50.00	144	42	Brazil	
Brentech Energia S.A.						
Gas & Power	30.00	30.00	85	4	Brazil	
Brasympe Energia S.A.						
Gas & Power	20.00	20.00	79	4	Brazil	
Eólica Mangue Seco 4 - Geradora e Comercializadora de Energia Elétrica S.A.						
Gas & Power	49.00	49.00	44	5	Brazil	
Eólica Mangue Seco 3 - Geradora e Comercializadora de Energia Elétrica S.A.						
Gas & Power	49.00	49.00	42	5	Brazil	
Metanol do Nordeste S.A. - Metanor						
RT&M	34.54	34.54	40	(10)	Brazil	
Eólica Mangue Seco 1 - Geradora e Comercializadora de Energia Elétrica S.A.						
Gas & Power	49.00	49.00	38	5	Brazil	
Eólica Mangue Seco 2 - Geradora e Comercializadora de Energia Elétrica S.A.						
Gas & Power	51.00	51.00	38	5	Brazil	
Companhia de Coque Calcinado de Petróleo S.A. - Coquepar						
RT&M	45.00	45.00	4	(2)	Brazil	
Participações em Complexos Bioenergéticos S.A. - PCBIOS Associates						
Biofuels	50.00	50.00	–	–	Brazil	
Braskem S.A.						
RT&M	36.20	47.03	2,728	(452)	Brazil	
UEG Araucária Ltda.						
Gas & Power	20.00	20.00	571	(171)	Brazil	
Deten Química S.A.						
RT&M	27.88	27.88	347	108	Brazil	
Energética SUAPE II						
Gas & Power	20.00	20.00	266	87	Brazil	
Termoelétrica Potiguar S.A. - TEP						
Gas & Power	20.00	20.00	99	9	Brazil	
Fundo de Investimento em Participações de Sondas - FIP Sondas						
E&P	4.59	4.59	1	(3,388)	Brazil	
Nitroclor Ltda.						
RT&M	38.80	38.80	1	–	Brazil	
Bioenergética Britarumã S.A.						
Gas & Power	30.00	30.00	–	–	Brazil	
Sete Brasil Participações S.A.						
E&P	5.00	5.00	(21,777)	(393)	Brazil	

(i) Companies abroad with financial statements prepared in foreign currency.

(ii) 5283 Participações Ltda holds a 0.0050% interest.

(iii) Cover activities abroad in E&P, RTM, Gas & Power and Distribution segments.

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## Notes to the financial statements

(Expressed in millions of reais, unless otherwise indicated)

## 11.2. Changes in investments (Parent Company)

	Balance at 12.31.2015	Investments	Capital transactions	Restructuring, capital decrease and others (*)	Share of results of investments (**)	Cumulative translation adjustments (CTA)	Other comprehensive results	Dividends for	Trans
Subsidiaries									
PNBV	76,324	5,150	224	–	(80)	(13,451)	–	–	–
PIB BV	6,491	16,646	–	–	(5,322)	2,238	23	–	–
TAG (***)	2,832	538	1,556	(2,632)	4,346	–	3,076	(1,222)	–
BR Distribuidora	9,703	–	–	–	(209)	–	(1,453)	(747)	–
Transpetro	5,095	–	–	–	367	(241)	(156)	(1,186)	–
PB-LOG	3,093	–	–	–	760	–	–	(505)	–
PBIO	1,124	772	–	–	(980)	141	293	–	–
Logigás	1,100	–	–	–	460	–	(7)	(363)	–
Gaspetro	950	–	–	31	106	–	–	(135)	–
Termomacaé Ltda	717	–	–	–	32	–	(2)	(42)	–
Breitener	609	–	–	–	16	–	–	8	–
Araucária									
Nitrogenados	842	–	–	–	(620)	–	(28)	–	–
Liquigás	1,051	–	–	–	191	–	(12)	(161)	(1,0
NTS (***)	–	2,632	1,360	–	473	–	–	(364)	(4,1
Citepe	562	554	–	1,014	(1,220)	–	–	–	(910
Petroquímica Suape	378	433	–	1,576	(1,310)	–	–	–	(1,0
Other subsidiaries	675	6	–	(34)	124	72	(2)	(33)	–
Joint operations	223	–	–	–	59	–	–	(49)	–
Joint ventures	280	–	–	–	92	–	(4)	(54)	–
Associates									
Braskem	3,142	–	–	–	(338)	32	984	(452)	–
Other associates	325	–	–	–	(90)	–	–	(68)	–
Subsidiaries, joint operations/joint ventures and associates									
Other investments	20	–	–	(1)	–	–	–	–	–
Total investments	115,536	26,731	3,140	(46)	(3,143)	(11,209)	2,712	(5,373)	(7,1
Result of companies classified as held for sale - provision for losses with Citepe and Suape disposal									
Earnings in equity-accounted investments					(1,433)	–	–		
					(4,576)	(11,209)	2,712		

(\*) Debts of Citepe and Petroquímica Suape reclassified to other current liabilities, as they are not connected to the disposal of

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

(\*\*\*) TAG transferred all its interest in NTS to Petrobras, as disclosed in note 10.1.

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

	Balance at 12.31.2015	Investments	Restructuring, capital decrease and others	Share of results in investments (* )	Cumulative translation adjustments (CTA)	Other comprehensive income	Dividends	Transfers to held for sale	Balance at 12.31.2016
<b>Joint Ventures</b>									
Petrobras Oil & Gas B.V. - PO&G	6,031	–	–	97	(970)	–	(504)		4,654
State-controlled natural gas distributors	980	–	–	236	–	–	(140)		1,076
Nova Fronteira Bionergia S.A.	465	–	–	103	–	–	–	(568)	–
Compañía Mega S.A. - MEGA	174	–	–	91	(41)	–	(109)		115
Compañía de Inversiones de Energía S.A. - CIESA	170	–	–	9	(25)	–	(5)	(149)	–
Other petrochemical joint ventures	81			18			(16)		83
Other joint ventures	381	90	–	(94)	(1)	–	(39)	–	337
<b>Associates</b>									
Braskem S.A.	3,142	–	–	(338)	32	984	(452)		3,368
Associates in Venezuela	851	–	–	(6)	(80)	–	–	(765)	–
Guarani S.A.	759	268	(92)	(487)	140	289	–	(877)	–
Other petrochemical associates	95	–	–	30	–	–	(29)		96
UEG Araucária Ltda.	169	–	–	(149)	–	–	(20)	–	–
Other associates	429	–	–	146	(132)	–	(89)	(185)	169
Other investments	45	–	(9)	–	14	–	–		50
<b>Total</b>	<b>13,772</b>	<b>358</b>	<b>(101)</b>	<b>(344)</b>	<b>(1,063)</b>	<b>1,273</b>	<b>(1,403)</b>	<b>(2,544)</b>	<b>9,948</b>

(\*) Does not include results in investees transferred to assets held for sale, in the amount of R\$ 285 (credit).



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## 11.4. Investments in listed companies

Company	Thousand-share lot		Type	Quoted stock exchange prices (R\$ per share)		Market value	
	12.31.2016	12.31.2015		12.31.2016	12.31.2015	12.31.2016	12.31.2015
Indirect subsidiary							
Petrobras Argentina S.A. (*)	–	1,356,792	Common	–	2,38	–	3,229
						–	3,229
Associate							
Braskem S.A.	212,427	212,427	Common	29.99	15.91	6,371	3,380
Braskem S.A.	75,762	75,762	Preferred A	34.25	27.62	2,595	2,093
						8,966	5,473

(\*) Investment disposed of as set out in note 10.1.

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

## 11.5. Non-controlling interest

The total amount of non-controlling interest at December 31, 2016 is R\$ 2,513 (R\$ 3,199 in 2015), of which R\$ 917 and R\$ 323 relate to non-controlling interest of the subsidiaries Gaspetro and Transportadora Brasileira Gasoduto Brasil-Bolívia (TBG), respectively (R\$ 916, R\$ 213 and R\$ 1,432 relating to Gaspetro, TBG and Petrobras Argentina, respectively, at December 31, 2015), and R\$ 570 refer to Consolidated Structured Entities (debt of R\$ 153 at December 31, 2015).

Condensed financial information is set out as follows:

	Gaspetro		Structured entities		TBG		Petrobras Argentina	
	2016	2015	2016	2015	2016	2015	2016	2015
Current assets	269	317	2,429	2,119	1,073	743	3,106	
Long-term receivables	275	230	5,452	7,473	2	3	281	
Investments	1,279	1,183	–	–	–	–	1,078	
Property, plant and equipment, net	3	4	277	286	2,087	2,205	4,234	
Other noncurrent assets	304	310	–	–	9	9	6	
	2,130	2,044	8,158	9,878	3,171	2,960	8,705	
Current liabilities	150	69	1,657	1,777	1,284	551	2,111	
Non-current liabilities	109	106	5,931	8,254	1,228	1,973	2,229	
Shareholders' equity	1,871	1,869	570	(153)	659	436	4,365	
	2,130	2,044	8,158	9,878	3,171	2,960	8,705	
Sales revenues	334	693	–	–	1,476	1,472	810	
Net Income for the year	252	490	1,002	(708)	847	267	395	
Net change in cash and cash equivalents	3	(549)	40	(312)	652	–	237	

(\*) Comprises Charter Development LLC - CDC, Companhia de Desenvolvimento e Modernização de Plantas Industriais - CDMPI and PDET Offshore.

Gaspetro, a Petrobras' subsidiary, holds interests in several state distributors of natural gas in Brazil. Petrobras concluded the sale of 49% of its interest in Gaspetro on December 28, 2015.

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.

#### 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:

	2016			2015				Associates	
	Joint ventures		Other companies abroad	Joint ventures		Other companies abroad	In		
	In Brazil	PO&G (*)		In Brazil	Brazil		PO&G (*)	Brazil	Abroad
Current assets	3,311	2,722	497	16,992	4,317	3,648	1,278	20,921	8,748
Non-current assets	1,818	115	67	5,369	1,339	196	81	10,531	777
Property, plant and equipment, net	2,826	10,767	60	30,452	4,711	10,896	1,905	37,482	7,087
Other non-current assets	2,346	4	–	3,121	2,164	17	14	11,055	304
	10,301	13,608	624	55,934	12,531	14,757	3,278	79,989	16,916
Current liabilities	3,997	1,273	273	14,002	5,198	891	832	19,057	14,083
Non-current liabilities	1,627	5,928	3	60,663	2,498	5,183	1,185	48,896	4,129
Shareholders' equity	4,677	6,407	348	(15,609)	4,327	8,683	697	12,762	(1,296)

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(Expressed in millions of reais, unless otherwise indicated)

Non-controlling interest	–	–	–	(3,122)	508	–	564	(726)	–
	10,301	13,608	624	55,934	12,531	14,757	3,278	79,989	16,916
Sales revenues	9,411	2,688	1,156	49,407	12,742	7,527	947	52,654	652
Net Income (loss) for the year	647	219	237	(4,510)	517	816	155	3,452	(5,460)

11 a

Ownership interest - % 20 a 83% 50% 34 a 50% 5 a 49% 20 a 83% 50% 34 a 50% 5 a 49% 49%

(\* Petrobras Oil & Gas (PO&G) is a joint venture located in the Netherlands, with 50% share of Petrobras International BV (PIBBV), for exploration and oil and gas production in Africa.

12. Property, plant and equipment

12.1. By class of assets

	Consolidated				Parent Company	
	Land, buildings and improvement assets	Equipment and other assets	Assets under construction (*)	Exploration and development costs (oil and gas producing properties)	Total	Total
Balance at January 1, 2015	21,341	260,297	140,627	158,725	580,990	437,150
Additions	657	4,396	60,263	1,745	67,061	50,464
Additions to / review of estimates of decommissioning costs	–	–	–	15,932	15,932	16,511
Capitalized borrowing costs	–	–	5,842	–	5,842	4,767
Write-offs	(27)	(192)	(6,184)	(1,455)	(7,858)	(5,994)
Transfers	4,006	28,814	(54,132)	27,668	6,356	664
Depreciation, amortization and depletion	(1,528)	(21,241)	–	(15,296)	(38,065)	(27,642)
Impairment recognition	(928)	(14,981)	(11,489)	(20,324)	(47,722)	(33,597)
Impairment reversal	1	42	21	90	154	116
Cumulative translation adjustment	299	31,404	11,913	3,525	47,141	–
Balance at December 31, 2015	23,821	288,539	146,861	170,610	629,831	442,439
Cost	33,561	438,533	146,861	262,480	881,435	617,596
Accumulated depreciation, amortization and depletion	(9,740)	(149,994)	–	(91,870)	(251,604)	(175,157)
Balance at December 31, 2015	23,821	288,539	146,861	170,610	629,831	442,439
Additions	361	3,223	41,337	720	45,641	33,657
Additions to / review of estimates of	–	–	–	3,113	3,113	2,868

decommissioning costs						
Capitalized borrowing costs	–	–	5,982	–	5,982	4,470
Write-offs	(210)	(465)	(4,689)	(153)	(5,517)	(5,210)
Transfers (***)	1,479	16,645	(55,069)	20,570	(16,375)	(5,516)
Depreciation, amortization and depletion	(1,479)	(26,102)	–	(20,422)	(48,003)	(36,742)
Impairment recognition	(1,036)	(12,652)	(1,510)	(6,357)	(21,555)	(13,709)
Impairment reversal	–	2,511	–	584	3,095	2,514
Cumulative translation adjustment	(180)	(15,128)	(7,210)	(1,818)	(24,336)	–
Balance at December 31, 2016	22,756	256,571	125,702	166,847	571,876	424,771
Cost	32,589	415,663	125,702	262,886	836,840	624,946
Accumulated depreciation, amortization and depletion	(9,833)	(159,092)	–	(96,039)	(264,964)	(200,175)
Balance at December 31, 2016	22,756	256,571	125,702	166,847	571,876	424,771
	40	20				
	(25 to 50)	(3 to 31)				
Weighted average of useful life in years	(except land)	(**)		Units of production method		

(\*) See note 29 for assets under construction by business area.

(\*\*) Includes exploration and production assets depreciated based on the units of production method.

(\*\*\*) Includes amounts transferred to assets held for sale.

At December 31, 2016, consolidated and Parent Company property, plant and equipment includes assets under finance leases of R\$ 407 and R\$ 6,004, respectively (R\$ 189 and R\$ 9,248 at December 31, 2015).

## 12.2. Estimated useful life – Consolidated

Estimated useful life	Buildings and improvements, equipment and other assets		
	Cost	Accumulated depreciation	Balance at 12.31.2016
5 years or less	13,246	(9,833)	3,413
6 - 10 years	51,465	(31,469)	19,996
11 - 15 years	6,716	(3,630)	3,086
16 - 20 years	129,391	(43,153)	86,238
21 - 25 years	66,209	(21,396)	44,813
25 - 30 years	47,781	(12,007)	35,774
30 years or more	78,831	(20,420)	58,411
Units of production method	53,467	(27,017)	26,450
	447,106	(168,925)	278,181
Buildings and improvements	31,443	(9,833)	21,610

Equipment and other assets 415,663(159,092)

256,571

Notes to the financial statements

(Expressed in millions of reais, unless otherwise indicated)

12.3. 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 prospection and drilling activities for oil, natural gas and other liquid hydrocarbons located in the pre-salt area limited to the production of five billion barrels of oil equivalent in up to 40 years and renewable for a further five years subject to certain conditions. As of December 31, 2016, 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 in the scope of this agreement: Franco (Búzios), Florim (Itapu), Nordeste de Tupi (Sépie), 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).

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

If the review of the Assignment Agreement determines that the value of acquired rights is greater than 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 under the agreement. 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 changes in: (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.

Currently, the settlement form and the final amount to be established for this agreement are not defined. The beginning of negotiation with the Brazilian Federal Government still depends on the conclusion of the appraisals by independent experts engaged by both parties, and the issuance of the respective reports.

With respect to the negotiation with the Brazilian Federal Government, on October 21, 2016 the Company’s Board of Directors approved the creation of the minority shareholders committee responsible for monitoring the agreement review process and providing support to the board decisions through opinions about related matters. This committee will be composed of two members nominated by the minority shareholders and an independent member with recognized expertise in technical-financial analysis of investment projects.

12.4. Oil and Gas fields operated by Petrobras returned to ANP

During 2016 the following oil and gas fields were returned to ANP: Tiziu, Japuaçu, Rio Joanes, part of Golfinho and part of Tambuatá. These fields were returned to ANP mainly due to their uneconomic feasibility and, as a consequence, the Company wrote off an amount of R\$ 12 as other expenses, net.

In 2015, the oil and gas fields Itaparica, Camaçari, Carapicú, Baúna Sul, Salema Branca, Nordeste Namorado, part of Rio Preto, Pirapitanga, Piracucá, Catuá and part of Mangangá were returned to ANP and the Company wrote-off the amount of R\$ 1,032 as other expenses, net.



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## 13. Intangible assets

## 13.1. By class of assets

	Consolidated			Parent Company		
	Rights and	Software Acquired	in-house Developed	Goodwill	Total	Total
Balance at January 1, 2015	9,542	315	1,148	971	11,976	9,108
Addition	59	73	259	–	391	299
Capitalized borrowing costs	–	–	18	–	18	18
Write-offs	(589)	–	(7)	–	(596)	(169)
Transfers	273	21	36	–	330	273
Amortization	(75)	(109)	(325)	–	(509)	(396)
Impairment recognition	(98)	–	–	–	(98)	–
Cumulative translation adjustment	404	8	2	146	560	–
Balance at December 31, 2015	9,516	308	1,131	1,117	12,072	9,133
Cost	10,526	1,699	3,762	1,117	17,104	12,442
Accumulated amortization	(1,010)	(1,391)	(2,631)	–	(5,032)	(3,309)
Balance at December 31, 2015	9,516	308	1,131	1,117	12,072	9,133
Addition	39	53	204	–	296	208
Capitalized borrowing costs	–	–	14	–	14	14
Write-offs	(523)	–	(4)	–	(527)	(177)
Transfers	(44)	(15)	(1)	(332)	(392)	(7)
Amortization	(78)	(120)	(342)	–	(540)	(407)
Impairment recognition	(7)	–	–	–	(7)	–
Cumulative translation adjustment	(178)	(4)	(4)	(67)	(253)	–
Balance at December 31, 2016	8,725	222	998	718	10,663	8,764
Cost	9,367	1,587	3,941	718	15,613	12,459
Accumulated amortization	(642)	(1,365)	(2,943)	–	(4,950)	(3,695)
Balance at December 31, 2016	8,725	222	998	718	10,663	8,764
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.

### 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 2016, totaling R\$ 27 (R\$ 82 in 2015) are set out below:

Area	Exploratory phase Exclusive Partnership
------	--

Campos Basin	1	–
Santos Basin	1	–
Potiguar Basin	1	–
Recôncavo Basin	–	2
Tucano Sul Basin	–	3
Foz do Amazonas Basin	2	–
Amazonas Basin	–	1
Parecis Basin	2	–

### 13.3. Exploration rights - production sharing contract

Following the first pre-salt public auction held in October, 2013, the Libra consortium, composed of Petrobras (40% interest), Shell (20% interest), Total (20% interest), CNPC (10% interest), CNOOC (10% interest) 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 contract granted rights and obligations to explore and operate oil and gas production in a strategic pre-salt area known as the Libra block, comprising an area of around 1,550 km<sup>2</sup>, located in ultra-deep waters in the Santos Basin. This was the first oil and gas production sharing contract signed in Brazil. The contract is for 35 years and cannot be renewed.

Libra reservoir was discovered in 2010 following the drilling of 2-ANP-2A-RJS well. The Libra consortium offered a 41.65% stake of profit oil to the Brazilian Government, according to the rules of the first pre-salt public auction. This stake refers to the profit oil on a baseline scenario of price ranging from 100.01 US\$/bbl to 120 US\$/bbl, and production per producing well from 10 thousand bbl/d to 12 thousand bbl/d. This stake may vary with the international oil price and the productivity of the wells, as established by the Brazilian Agency of Petroleum, Natural Gas and Biofuels (ANP).

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The signature bonus (acquisition cost) of R\$ 15,000 was paid by the consortium. The Company paid R\$ 6,000 relating to its share of the acquisition cost paid by the consortium, recognized in its intangible assets as Rights and Concessions.

Currently, the project is in its initial stage in the exploration phase (4 years), and its minimum work program have been partially performed and comprises a 3D seismic acquisition for the whole block, two exploratory wells and the extended well test (EWT) to be performed in 2017. The results confirmed oil reservoirs at depth of up to 410 meters with high porosity and permeability. The production tests confirmed the high productivity and oil quality of these reservoirs.

In September 2016, the Libra consortium commenced the process of hiring its second FPSO for the Northwest area (the FPSO of Libra Pilot Project), with expected start-up in 2020 and capacity of producing 180 thousands of barrels per day and processing 12 million cubic meters of gas.

A FPSO will be allocated to 3 parts in the Northwest area of this block in order to perform extended well tests and early production systems.

The start-up of Libra Pioneer is expected to occur in 2017 with capacity of processing 50 thousand barrels per day and compressing 4 million cubic meters per day of associated gas. The Company also intends to mitigate risks and optimize producing systems in Libra through this FPSO.

At the end of 2016, the first two wells completions of Libra Block were concluded. These wells have intelligent completion systems in two zones, enabling real time data monitoring and control and will commence operation in 2017 interconnected to Libra Pioneer.

In 2020, four definitive systems will be installed in Libra northwest. The pilot system is planned to be concluded in September 2020 and the remaining systems in the following 3 years. The size of wells and subsea systems to be concluded after the pilot project will be based on extended well test data.

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

As of December 31, 2016, intangible assets include service concession agreements related to piped natural gas distribution in Brazil, in the amount of R\$ 578 (R\$ 580 in 2015), 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 the Law No. 10,493/2016 under which the service concession agreements related to piped natural gas distribution are considered ineffective pursuant Brazilian Federal Law 8,987/1995. This concession is accounted for as intangible assets totaling R\$ 274 as of December 31, 2016 (R\$ 270 as of December 31, 2015) and the Company has not recognized any provision on this matter based on indemnity established by law.

#### 14. Impairment

The Company's assets are tested for impairment on December 31, annually, or when there is an indication that their carrying amount may not be recoverable. During September 2016 such indication was identified for certain assets and triggered their impairment assessment due to changes mainly driven by a slower recovery of oil prices, a decrease in future capital expenditures, reflecting the Company's plan to reduce current debt levels and optimize its investment portfolio, as well as changes in Brazilian political and economic scenario. These changes impacted the medium and long term assumptions used in our updated Business and Management Plan that was finalized and approved in the third quarter of 2016 and also impacted the key assumptions for impairment testing. Changes in the political and economic scenario in Brazil also resulted in increases in discount rates applied for impairment testing purposes in 2016.

At December 31, 2016, the company reassessed the existence of any new indication of impairment in assets previously tested in the third quarter of 2016. Accordingly, additional impairment charges were recognized in the last quarter of 2016 with respect to producing properties relating to oil and gas activities in Brazil, COMPERJ, Transpetro's fleet of vessels, as well as reversals of impairment previously recognized for the Thermoelectric power generation plants, mainly as a result of: (i) Company's annual review of oil and gas reserves; (ii) annual review of decommissioning cost estimates; (iii) the work in progress relating to the infrastructure shared by Comperj's first refining unit and the natural gas processing plant (UPGN); (iv) changes in the Power CGU as described in note 5.3; and (v) the commencement of 5 vessels constructions, as part of Transportation CGU, following the signing of funding contracts which have enabled these projects funding.

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In addition, the company also recognized in the last quarter of 2016 impairment charges relating to divestments and assets of certain subsidiaries that were tested for impairment based on their annual review at December 31, 2016.

For 2015, impairment losses were principally recognized in its fourth quarter pursuant to the annual tests in December, mainly due to changes in international crude oil prices, a downward review of proved and probable reserves estimates, a decrease in capex projections and an increase in Brazil's risk premium.

The table below shows the impairment losses, net of reversals, recognized within the statement of income in 2016 and 2015:

Assets or CGUs, by nature	Consolidated Carrying amount (**) 2016	Recoverable amount (**)	Impairment (*) (***)	Business segment	Comments
Producing properties relating to oil and gas activities in Brazil (several CGUs)	41,584	34,855	7,381	E&P - Brazil	item (a1)
Oil and gas production and drilling equipment in Brazil	2,980	208	2,772	E&P - Brazil	item (b1)
Second refining unit in RNEST	8,077	5,546	2,531	RTM - Brazil	item (c)
Suape Petrochemical Complex	3,569	1,558	2,011	RTM - Brazil	item (d1)
Comperj	1,315	–	1,315	RTM - Brazil	item (e1)
Fertilizer Plant - UFN III	1,699	1,202	497	Gas & Power - Brazil	item (f1)
Araucária (fertilizers plant)	638	185	453	Gas & Power - Brazil	item (g)
Transpetro's fleet of vessels	5,822	5,024	798	RTM - Brazil	item (h)
Quixadá Power plant	90	–	90	Biofuel, Brazil	
Others	2,009	1,390	619	Several Segments	
			18,467		
Assets classified as held for sale					Note 14.2
Suape Petrochemical Complex	2,689	1,255	1,434	RTM - Brazil	
Petrobras Chile Distribución	1,773	1,507	266	Distribution- Abroad	
Power Plants Celso Furtado and Rômulo Almeida	394	238	156	RTM - Brazil	
Others	315	341	(26)		

				Several Segments
Total			20,297	
	2015			
Producing properties relating to oil and gas activities in Brazil (several CGUs)	82,982	47,402	33,722	E&P - Brazil - RTM - item (a2)
Comperj	6,193	912	5,281	Brazil - E&P - item (e2)
Oil and gas producing properties abroad	6,045	3,583	2,462	Abroad - E&P - item (i)
Oil and gas production and drilling equipment in Brazil	2,927	949	1,978	Brazil - E&P - item (b2)
Fertilizer Plant - UFN III	3,651	1,696	1,955	Gas & Power - Brazil - item (f2)
Suape Petrochemical Complex	4,463	3,681	782	RTM - Brazil - item (d2)
Nitrogen Fertilizer Plant - UFN-V	585	–	585	Gas & Power - Biofuel - item (f2)
Biodiesel plants	524	343	181	Brazil - item (d2)
Others	1,331	611	720	Several segments
Total			47,666	

(\*) Impairment losses and reversals.

(\*\*) CGUs only tested for impairment at September 30, 2016 are presented based on information prevailing at this period.

(\*\*\*) In 2015, does not include impairment on assets classified as held for sale in the amount R\$ 10.

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

For impairment testing purposes, the Company uses the value in use of its property, plant and equipment and intangible assets (individually or grouped into cash-generating units - CGUs) as their recoverable amount. In measuring value in use 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, which is 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 2016 were mainly based on the following estimates of key assumptions for impairment testing:

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	2017	2018	2019	2020	2021	Long term average
Average Brent (US\$/bbl)	48	56	68	71	71	70
Average Brazilian Real (excluding inflation) - Real /U.S. dollar exchange rate	3.46	3.54	3.48	3.42	3.38	3.36

For comparative purposes, estimates of key assumptions for impairment testing in 2015 are shown below:

	2016	2017	2018	2019	2020	Long term average
Average Brent (US\$/bbl)	45	59	61	64	67	71
Average Brazilian Real (excluding inflation) - Real /U.S. dollar exchange rate	4.06	3.73	3.66	3.60	3.60	3.06

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

## a1) Producing properties in Brazil – 2016

Impairment losses of R\$ 7,381 were recognized for certain oil and gas fields in Brazil under E&P concessions. 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 9.1% p.a. at September 30, 2016, which decreased to 8.6% p.a. at December 31, 2016, mainly reflecting improvement in Brazil's risk premium. The impairment losses were related primarily to the following fields and groups of fields: North group (R\$ 3,823), Ceará Mar Group (R\$ 693), Guaricema (R\$ 415), Bijupirá and Salema (R\$ 317), Dourado (R\$ 284), Maromba (R\$ 281), Trilha (R\$ 228), Papa-Terra (R\$ 234), Pampo (R\$ 216), Frade (R\$ 213), Uruguá group (R\$ 196), Badejo (R\$ 183), Bicudo (R\$ 160), Riachuelo (R\$146), Fazenda Bálamo (R\$ 135) e Água Grande Group (R\$ 101). These impairment losses were mainly due to the appreciation of the Brazilian Real against the U.S. Dollar, price assumptions review, Company's annual reviews of oil and gas reserves and decommissioning cost estimates, as well a higher discount rate following the increase in Brazil's risk premium. In addition, an impairment reversal relating to Centro Sul group, amounting to R\$ 1,347, was recognized due to increased estimate of reserves and production, as well as lower operating expenses estimates based on a review of its fields operations, as set forth in 2017-2021 BMP, considering the decommissioning of a unit which had high operational costs and replacing another unit with an investment in a new processing plant which was committed to during the third quarter of 2016.

## a2) Producing properties in Brazil - 2015

Impairment losses of R\$ 33,722 were recognized for certain oil and gas fields in Brazil under E&P concessions. Cash flow projections were based on: financial budgets/forecasts approved by Management; and an 8.3% p.a. post-tax discount rate (excluding inflation) derived from the WACC for the E&P business. The impairment losses were related primarily to the following fields: Papa-Terra (R\$ 8,723), Centro Sul group (R\$ 4,605), Uruguá group (R\$ 3,849), Espadarte (R\$ 2,315), Linguado (R\$ 1,911), CVIT – Espírito Santo group (R\$ 1,463), Piranema (R\$ 1,333), Lapa (R\$ 1,238), Bicudo (R\$ 937), Frade (R\$ 773), Badejo (R\$ 740), Pampo (R\$ 355) and Trilha (R\$ 327). These impairment losses are mainly due to the impact of the decline in international crude oil prices on the Company's price assumptions, the use of a higher discount rate, as well as the geological revision of Papa-Terra reservoir.

b1) Oil and gas production and drilling equipment in Brazil – 2016

Impairment losses of R\$ 2,772 were recognized for oil and gas production and drilling equipment which were not directly related to oil and gas producing properties. Cash flow projections were based on: financial budgets/forecasts approved by Management; and an 9.9% p.a. post-tax discount rate (excluding inflation) derived from the WACC for the oil and gas services and equipment industry. These impairment losses were mainly related to uncertainties over the ongoing hulls construction of the FPSOs P-71, P-72 and P-73, amounting to R\$ 1,925 as set out in note 14.4.

b2) Oil and gas production and drilling equipment in Brazil - 2015

Impairment losses of R\$ 1,978 were recognized for oil and gas production and drilling equipment which were not directly related to oil and gas producing properties. Cash flow projections were based on: financial budgets/forecasts approved by Management; and a 9.2% p.a. post-tax discount rate (excluding inflation) derived from the WACC for the oil and gas services and equipment industry. The impairment losses were mainly related to the planned idle capacity of drilling rigs in the future and the use of a higher discount rate.

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c) Second refining unit in RNEST - 2016

An impairment loss of R\$ 2,531 was recognized for the second refining unit in RNEST. Cash flow projections were based on: financial budgets/forecasts approved by Management; and an 8.7% p.a. (8.1% p.a. in 2015) 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) the use of a higher discount rate and (ii) a delay in expected future cash inflows to 2023 resulting from postponing the project, considering the completion of this project with the Company's own capital resources as set forth in the 2017-2021 Business and Management Plan.

d1) Suape Petrochemical Complex - 2016

An impairment loss of R\$ 2,011 was recognized for Companhia Integrada Têxtil de Pernambuco S.A. - CITEPE and Companhia Petroquímica de Pernambuco S.A. – PetroquímicaSuape at September 31, 2016. Cash flow projections were based on: financial budgets/forecasts approved by Management; and a 7.5% p.a. post-tax discount rate (excluding inflation) derived from the WACC for the petrochemical business. The impairment loss was mainly attributable to lower market projections and the appreciation of Brazilian real against the U.S. dollar. Following the disposal of Suape Petrochemical Complex in December 2016, the Company recognized an additional impairment charge as set out in note 14.2.

d2) Suape Petrochemical Complex - 2015

An impairment loss of R\$ 782 was recognized for Companhia Integrada Têxtil de Pernambuco S.A. - CITEPE and Companhia Petroquímica de Pernambuco S.A. – PetroquímicaSuape. Cash flow projections were based on: financial budgets/forecasts approved by Management; and a 7.2% p.a. post-tax discount rate (excluding inflation) derived from the WACC for the petrochemical business. The impairment loss was mainly attributable to changes in market and price assumptions resulting from a decrease in economic activity in Brazil, a reduction in the spread for petrochemical products in the international market and the use of a higher discount rate.

e1) Comperj - 2016

Following a reassessment of COMPERJ project in the second quarter of 2016 confirming the postponement of its first refining unit until December 2020, with continuous efforts to seek new partnerships to resume the project, the Company recognized an impairment charge on the remaining balance of this project. However, the construction of Comperj's first refining unit facilities that will also support the natural gas processing plant (UPGN) are still in progress as the facilities are part of the infrastructure for transporting and processing natural gas from the pre-salt layer in Santos Basin. Nevertheless, due to the interdependence between such infrastructure and Comperj first refining unit, the Company recognized additional impairment charges, totaling R\$ 1,315 of impairment losses in 2016.

e2) Comperj - 2015

An impairment loss of R\$ 5,281 was recognized for refining assets of Comperj. Cash flow projections were based on: financial budgets/forecasts approved by Management, and; an 8.1% p.a. post-tax discount rate (excluding inflation) derived from the WACC for the refining business reflecting a specific risk premium for the postponed projects. This impairment loss was mainly attributable to: (i) the use of a higher discount rate; and (ii) the delay in expected future cash inflows resulting from postponing construction.

f1) Fertilizer Plant - UFN III - 2016

An impairment loss of R\$ 497 was recognized for the fertilizer plant UFN III (Unidade de Fertilizantes e Nitrogenados III). Cash flow projections were based on: financial budgets/forecasts approved by Management; and an 8.3% p.a. post-tax discount rate (excluding inflation) derived from the WACC for the fertilizer business, reflecting a specific risk premium for the postponed projects. This impairment loss mainly relates to: (i) the use of a higher discount rate, (ii) the appreciation of Brazilian Real against the US Dollar.

f2) Fertilizer Plant - UFN III - 2015

An impairment loss of R\$ 1,955 was recognized for the fertilizer plant UFN III (Unidade de Fertilizantes e Nitrogenados III). Cash flow projections were based on: financial budgets/forecasts approved by Management; and a 7.1% p.a. post-tax discount rate (excluding inflation) derived from the WACC for the Gas & Power business, reflecting a specific risk premium for the postponed projects. The impairment losses were mainly related to: (i) the use of a higher discount rate; and (ii) the delay in expected future cash inflows resulting from postponing the project.

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g) Araucaria - 2016

An impairment loss of R\$ 453 was recognized for Araucária Nitrogenados S.A. Cash flow projections were based on: financial budgets/forecasts approved by Management; and a 7.8% p.a. post-tax discount rate (excluding inflation) derived from the WACC for the fertilizer business (6.6% p.a. in 2015). The impairment loss was mainly attributable to (i) the use of a higher discount rate, (ii) the appreciation of Brazilian Real against the U.S. Dollar and (iii) an increase in estimated production costs.

h) Transpetro's fleet of vessels - 2016

An impairment loss of R\$ 798 was recognized for Transpetro's fleet of vessels. Cash flow projections were based on: financial budgets/forecasts approved by Management; and post-tax discount rates (excluding inflation) ranging from 4.53% p.a. to 9.97% p.a. (3.92% p.a. to 8.92% p.a. in 2015) derived from the WACC for the transportation industry, considering financial leverage and the respective tax benefits. The impairment loss recognized in the third quarter mainly relates to a group of support vessels of Hidrovias project that were removed from this CGU due to the postponements and suspension of constructions projects, as well as the use of a higher discount rate. In the last quarter of 2016, additional impairment charges were accounted for due to the commencement of construction on five vessels after securing the projects funding, which avoided the possibility of future claims by alleging breach of contracts, as well as a further increase in discount rate.

i) Producing properties abroad – 2015

Impairment losses of R\$ 2,462 were recognized in E&P assets abroad. Cash flow projections were based on: financial budgets/forecasts approved by Management; and 5.6% p.a. to 10.4% p.a. post-tax discount rates (excluding inflation) derived from the WACC for the E&P business in different countries. The impairment losses were mainly in producing properties located in the United States (R\$ 1,750) and Bolivia (R\$ 614), attributable to the decline in international crude oil prices.

14.1.1. Carrying amounts of assets not substantially lower than their recoverable amounts

In 2016, the recoverable amounts of certain mature producing fields in Brazil were not substantially in excess of their carrying amounts. The carrying amounts of these assets totaled R\$ 465 as of December 31, 2016. Changes in material assumptions for impairment testing may result in the recognition of additional impairment charges on such assets in future periods.

14.2. Assets classified as held for sale

In 2016, the Company recognized impairment losses amounting to R\$ 1,935 pursuant to certain sales of interests in investees approved by the Board of Directors, as described in note 10, mainly due to the following investments:

**Suape Petrochemical Complex** - Impairment losses amounting to R\$ 1,434 following the sale of Suape and Citepe petrochemical plants, which is aligned to the Company's Strategic Plan that foresees the entire withdrawal from petrochemical interests. These losses are attributable to the lower the exit price of these investments when compared to their carrying amount adjusted by the debt to be settled by the Company, as part of the transaction closing.

**Petrobras Chile Distribución** - impairment loss of R\$ 266 was recognized for distribution assets in Chile, as the sales price of this disposal was lower than the respective carrying amount.

**Power plants Romulo Almeida and Celso Furtado** - impairment losses amounting to R\$ 156 were accounted for due to the difference between the exit price and the respective carrying amounts. A portion of this impairment (R\$ 23) was

recognized in the third quarter of 2016 when these assets were part of the Power CGU.

For 2015, impairment losses were recognized in E&P assets classified as held for sale. The Board of Directors approved the disposal of the Bijupirá and Salema fields, PI, PIII and PIV drilling rigs and PXIV platform. As their fair values were below their carrying amount, impairment losses in the amount of R\$ 10 were recognized.

#### 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.

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(Expressed in millions of reais, unless otherwise indicated)

The carrying amount and the value in use of the investments in associates and joint ventures which include goodwill as of December 31, 2016 are set out below:

Investment	Segment	% Post-tax discount rate (excluding inflation) p.a.	Value in use	Carrying amount
Braskem S.A. (*)	RTM	11.6	12,660	3,368
Natural Gas Distributors	Gas & Power	6.0	1,433	1,076

(\*) The discount rate of Braskem is CAPM of petrochemical segment, as the value in use considers the cash flow projections via dividends.

## 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, 2016 the quoted market value of the Company's investment in Braskem was R\$ 8,966 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 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\$ 3.46 to U.S.\$1.00 in 2017 (converging to R\$ 3.36 in the long run);
- average Brent crude oil price at US\$ 48 in 2017, converging to US\$ 70 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; and
- increases in the EBITDA margin during the growth cycle of the petrochemical industry in the next years and declining in the long run.

## 14.3.2. Impairment losses on equity-method investments

In 2016, impairment losses on equity-method investments in the amount of R\$ 626 were recognized in the statement of income as results in equity-accounted investments, substantially attributable to investees of biofuels segment, mainly relating to:

• **Guarani S.A.** – At September 30, 2016, impairment losses in the amount of R\$ 359 were recognized mainly due to an increase in post-tax discount rate (real rate) from 9.3% p.a. in 2015 to 10.2% p.a. and lower sugar prices forecasts. In addition, the company also recognized an impairment charge amounting to R\$ 219 made up of the difference between the exit price and the carrying amount following the disposal of interests in this associate approved in the last quarter of 2016.

• **Nova Fronteira S.A.** – The company recognized an impairment charge in the amount of R\$ 100 made up of the difference between the exit price and the carrying amount following the disposal of interests in this joint venture

approved in the last quarter of 2016.

For 2015, impairment losses on equity-method investments in the amount of R\$ 2,072 were recognized in the statement of income as results in equity-accounted investments, mainly due to (i) losses in investees abroad reflecting the fall in international crude oil price (R\$ 1,077); (ii) higher discount rates and capital expenditure decisions relating to the biofuels segment (R\$ 543); (iii) the deteriorated economic and financial conditions of the associate Sete Brasil (R\$ 328); and (iv) losses relating to the associate Arpoador Drilling B.V, an entity indirectly controlled by Sete Brasil (R\$ 54).

#### 14.4. Construction of platform hulls by Ecovix and Enseada shipyards

The Company entered into contracts with the suppliers Ecovix-Engevix Construções Oceânicas S.A and Enseada Industria Naval S.A. for supplying eight hulls for the FPSOs P-66 to P-73 and for hulls conversion of four FPSOs (P-74 to P-77), respectively.

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Considering the relevance of these assets in the context of the Business and Management Plan and due to the financial difficulties faced by the suppliers, escrow accounts relating to these projects were created in the last quarter of 2015 in order to ensure the ongoing performance of the services hired.

These escrow accounts have comprised funds transferred in advance for payments to be made by the shipyards, restricted to the scope of the contracts and limited to their total balance. The deposits would be offset to the extent that services rendered or equipment delivered, with the remaining balance being reimbursed. This strategy was considered effective as the projects achieved significant progress up to September 2016, enabling the delivery of P-67 hull to shipyard in China for integration services, the recommence of the work in progress of P-69 hull also in China, the continuity of the work in progress of P-68 hull in Rio Grande shipyard, as well as the progress on priority activities for the conclusion of minimum scope of P-74 and P-76 hulls, delivering these units to shipyards in China for integration services and for setting up topsides.

During the third quarter of 2016, the Company reassessed the progress of the hulls project and the continuity of the escrow accounts related to the projects. Consequently, significant delays on projects progress were detected and the Company concluded that this strategy, which in its beginning avoided the work in progress discontinuation, was not as effective as it was previously.

Due to uncertainties regarding the FPSOs P-71, P-72 and P-73 hulls construction continuity after significant delays on projects progress, the Company recognized, in the third quarter of 2016, impairment charges amounting to R\$ 1,925 as set out in note 14.1. Impacts in the Company's production curve are not expected in case of the discontinuation of this work in progress, as the 2017-2021 Business and Management Plan includes other options and additional budget funds.

Based on management evaluation, the Company recognized allowances for impairment amounting to R\$ 2,353 within other expenses, net with respect to the remaining balance of advances to these suppliers in the context of the escrow accounts (R\$ 1,256) and debts assumption relating to Ecovix and Enseada (R\$ 1,097), in which legal procedures to recover them are being assessed.

In addition, the Company wrote-off capital expenditures related to the right of use the Rio Grande shipyard in the amount of R\$ 505, as well as other investments related to the P-71, P-72 and P-73 amounting to R\$ 480.

The effects of the negotiation with each shipyard are presented below.

#### 14.4.1. Negotiations with Ecovix

Pursuant the reassessment made by the Company in the third quarter of 2016 in order to verify the effectiveness of the escrow account approach implemented to ensure access to P-66 to P-73 hulls, a provision in the amount of R\$ 375 was recognized within other expenses, net.

On December 9, 2016, the Company, through its investees TUPI BV and Petrobras Netherlands BV, entered into agreements with Ecovix Construções Oceânicas S.A establishing the termination of EPC contracts signed in 2010 for the construction of eight FPSO hulls. Therefore, the Company has assumed certain liabilities from Ecovix as the most adequate solution for Petrobras Group: ensure the access to the hulls of platforms P-66 to P-70 and the achievement of the 2017-2021 Business and Management Plan production targets. These debts were recognized in 2016 within other expenses, net in the amount of R\$ 764.

Along with those agreements signed in the last quarter of 2016, the Company assessed investments carried out for the construction of the P-71, P-72 and P-73 hulls to determine the best option for their allocation. As a result, the amount of R\$ 480 were written-off and accounted for as other expenses, net.

The negotiations with Ecovix in the last quarter of 2016 also resulted in a transfer of the right of use of Rio Grande shipyard from Ecovix to the Company pursuant to a finance lease agreement. The Company reassessed the recoverable amount of this right of use and related improvements totaling R\$ 505 and, as a consequence, these assets were written-off.

#### 14.4.2. Negotiations with Enseada

With the escrow accounts, the Company eliminated any risk of non-delivery of the P-74 to P-77 hulls. In 2016, PNBV transferred funds in advance amounting to R\$ 881 for the payment in the name of Enseada of certain liabilities relating to the hull construction of these platforms. Due to financial difficulties faced by this supplier, the Company recognized a provision for impairment on this entire amount within other expenses, net.

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In addition, as part of the Company's strategy of ensuring the continuity of FPSOs P-75 and P-77 hulls construction, the Company approved the transfer of the contract entered into by Enseada and COSCO (Dalian) Shipyard Co., Ltd to its wholly-owned subsidiary Petrobras Netherlands B.V. (PNBV), resulting in the recognition of payables within the scope of this contract. As a result, the Company recognized a provision in the amount of R\$ 333 within other expenses in the third quarter of 2016.

In addition, the Company also assessed the recoverable amount of improvements made for the hulls conversion of FPSOs P-74 to P-77 in the Inhaúma Shipyard, as well as the right of use of this shipyard. Accordingly, the Company did not accounted for any additional write-off related to these assets at December 31, 2016 based on the use of this location as a logistic center mainly dedicated to Santos Basin operations.

## 15. Exploration for 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:

Capitalized Exploratory Well Costs / Capitalized Acquisition Costs (*)	Consolidated	
	12.31.2016	12.31.2015
Property, plant and equipment		
Opening Balance	20,310	18,594
Additions to capitalized costs pending determination of proved reserves	3,543	7,310
Capitalized exploratory costs charged to expense	(3,603)	(2,874)
Transfers upon recognition of proved reserves	(3,304)	(3,423)
Cumulative translation adjustment	(218)	703
Closing Balance	16,728	20,310
Intangible Assets	7,288	7,996
Capitalized Exploratory Well Costs / Capitalized Acquisition Costs	24,016	28,306

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

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:

Exploration costs recognized in the statement of income	Consolidated	
	Jan-Dec/2016	Jan-Dec/2015
Geological and geophysical expenses	1,292	1,360

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Exploration expenditures written off (includes dry wells and signature bonuses)	4,364	4,921
Other exploration expenses	400	186
<b>Total expenses</b>	<b>6,056</b>	<b>6,467</b>
Cash used in:		
Operating activities	1,529	1,546
Investment activities	3,778	8,897
<b>Total cash used</b>	<b>5,307</b>	<b>10,443</b>

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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	
	2016	2015
Exploratory well costs capitalized for a period of one year	2,628	5,417
Exploratory well costs capitalized for a period greater than one year	14,100	14,893
Ending balance	16,728	20,310
Number of projects relating to exploratory well costs capitalized for a period greater than one year	57	70
	Capitalized costs (2016)	Number of wells
2015	3,036	20
2014	3,669	23
2013	2,199	13
2012	2,338	12
2011 and previous years	2,858	20
Ending balance	14,100	88

(\*) 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\$ 14,100. Those costs relate to 57 projects comprising (i) R\$ 13,342 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\$ 758 relate to costs incurred to evaluate the reserves and their potential development.

## 16. Trade payables

	Consolidated		Parent Company	
	12.31.2016	12.31.2015	12.31.2016	12.31.2015
Third parties in Brazil	10,690	13,005	9,000	10,734
Third parties abroad	6,580	10,020	3,268	3,897
Related parties	1,511	1,863	12,116	13,541
Balance on current liabilities	18,781	24,888	24,384	28,172

17. Finance debt

The Company obtains funding through debt financing for capital expenditures to develop crude oil and natural gas producing properties, construct vessels and pipelines, construct and expand industrial plants, among other uses.

The Company has covenants that were not in default at December, 31 2016 in its loan agreements and notes issued in the capital markets requiring, among other obligations, the presentation of interim financial statements within 90 days of the end of each quarter (not reviewed by independent auditors) and audited financial statements within 120 days of the end of each fiscal year. Non-compliance with these obligations do not represent immediate events of default and the grace period in which the Company has to deliver these financial statements ranges from 30 to 60 days, depending on the agreement. The Company also has covenants with respect to debt level in some of its loan agreements with the Brazilian Development Bank (Banco Nacional de Desenvolvimento - BNDES).

A roll-forward schedule of non-current debt is set out as follows:

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	Consolidated	Banking	Capital	Others	Total	Parent Company Total
	Export Credit Agencies	Market	Market			
Non-current						
In Brazil						
Opening balance at January 1, 2015	–	77,795	3,456	74	81,325	58,453
Cumulative translation adjustment (CTA)	–	482	–	–	482	–
Additions (new funding obtained)	–	15,962	3,510	–	19,472	6,463
Interest incurred during the period	–	951	1	–	952	506
Foreign exchange/inflation indexation charges	–	9,662	257	7	9,926	6,175
Transfer from long-term to short-term	–	(8,416)	(490)	(13)	(8,919)	(6,138)
Balance as of December 31, 2015	–	96,436	6,734	68	103,238	65,459
Abroad						
Opening balance at January 1, 2015	13,930	79,414	142,930	1,723	237,997	92,946
Cumulative translation adjustment (CTA)	4,772	33,669	62,702	607	101,750	–
Additions (new funding obtained)	501	18,285	6,283	–	25,069	42,530
Interest incurred during the period	13	110	161	26	310	5,973
Foreign exchange/inflation indexation charges	1,439	4,112	(3,350)	181	2,382	52,077
Transfer from long-term to short-term	(2,517)	(14,671)	(18,098)	(147)	(35,433)	(13,545)
Balance as of December 31, 2015	18,138	120,919	190,628	2,390	332,075	179,981
Total Balance as of December 31, 2015	18,138	217,355	197,362	2,458	435,313	245,440
Non-current						
In Brazil						
Opening balance at January 1, 2016	–	96,436	6,734	68	103,238	65,459
Cumulative translation adjustment (CTA)	–	(342)	–	–	(342)	–
Additions (new funding obtained)	–	1,543	–	–	1,543	134
Interest incurred during the period	–	1,045	1	–	1,046	586
Foreign exchange/inflation indexation charges	–	(5,277)	194	5	(5,078)	(3,274)
Transfer from long-term to short-term	–	(24,394)	(471)	(8)	(24,873)	(13,313)
Transfer to liabilities associated with assets classified as held for sale	–	(21)	–	–	(21)	–
Balance as of December 31, 2016	–	68,990	6,458	65	75,513	49,592
Abroad						
Opening balance at January 1, 2016	18,138	120,919	190,628	2,390	332,075	179,981
Cumulative translation adjustment (CTA)	(2,210)	(17,565)	(30,304)	(303)	(50,382)	–
Additions (new funding obtained)	–	24,956	33,450	–	58,406	60,794
Interest incurred during the period	13	60	178	30	281	7,230
Foreign exchange/inflation indexation charges	(617)	(4,117)	(1,931)	(80)	(6,745)	(33,300)
Transfer from long-term to short-term	(3,373)	(14,472)	(36,659)	(390)	(54,894)	(57,876)
Transfer to liabilities associated with assets classified as held for sale	–	–	(1,061)	–	(1,061)	–
Balance as of December 31, 2016	11,951	109,781	154,301	1,647	277,680	156,829
Total Balance as of December 31, 2016	11,951	178,771	160,759	1,712	353,193	206,421

	Consolidated		Parent Company	
	12.31.2016	12.31.2015	12.31.2016	12.31.2015
Current				
Short-term debt	1,167	5,946	23,121	20,779
Current portion of long-term debt	25,352	44,907	37,979	31,043
Accrued interest	5,277	6,481	958	1,091
Total	31,796	57,334	62,058	52,913

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(Expressed in millions of reais, unless otherwise indicated)

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

Maturity in	Consolidated						Total (*)	Fair value
	up to 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	5 years and onwards		
Financing in Brazilian Reals (R\$):								
	8,032	7,948	14,172	19,570	10,835	18,231	78,788	68,112
Floating rate debt	6,064	6,470	12,733	18,196	9,477	12,270	65,210	
Fixed rate debt	1,968	1,478	1,439	1,374	1,358	5,961	13,578	
Average interest rate	10.2%	9.0%	8.6%	7.2%	6.3%	5.2%	7.9%	
Financing in U.S. Dollars (US\$):								
	21,666	23,889	48,882	32,356	47,235	97,200	271,228	286,276
Floating rate debt	15,758	20,595	37,810	19,363	8,064	40,240	141,830	
Fixed rate debt	5,908	3,294	11,072	12,993	39,171	56,960	129,398	
Average interest rate	5.1%	5.3%	5.3%	5.6%	5.2%	6.6%	6.0%	
Financing in R\$ indexed to US\$:								
	891	573	565	565	565	2,489	5,648	5,485
Floating rate debt	77	71	63	63	63	52	389	
Fixed rate debt	814	502	502	502	502	2,437	5,259	
Average interest rate	6.2%	6.4%	6.4%	6.5%	6.6%	6.9%	6.6%	
Financing in Pound Sterling (£):								
	186	–	–	–	–	6,908	7,094	5,191
Fixed rate debt	186	–	–	–	–	6,908	7,094	
Average interest rate	6.2%	–	–	–	–	6.3%	6.2%	
Financing in Japanese Yen (¥):								
	286	286	–	–	–	–	572	646
Floating rate debt	286	286	–	–	–	–	572	
Average interest rate	0.5%	0.4%	–	–	–	–	0.5%	
Financing in Euro (€):								
	713	3,861	4,493	674	2,563	9,333	21,637	21,345
Floating rate debt	3	–	–	521	–	–	524	
Fixed rate debt	710	3,861	4,493	153	2,563	9,333	21,113	
Average interest rate	3.7%	3.9%	4.2%	4.5%	4.6%	4.7%	4.3%	
Financing in other currencies:								
	22	–	–	–	–	–	22	22
Fixed rate debt	22	–	–	–	–	–	22	
Average interest rate	14.0%	–	–	–	–	–	14.0%	