

# **Financial Statements 2021**

December 31, 2021, 2020 and 2019 with report of independent auditors



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# Independent auditors' report on the consolidated financial statements

To the Board of Directors and Shareholders of Petróleo Brasileiro S.A. - Petrobras.

Rio de Janeiro - RJ

#### **Opinion**

We have audited the consolidated financial statements of Petróleo Brasileiro S.A. - Petrobras S.A. ("Company") which comprise the consolidated statement of financial position as at December 31, 2021, the consolidated statements of income, comprehensive income, changes in shareholders' equity and cash flows for the year then ended, and notes to the consolidated financial statements, including significant accounting policies and other explanatory information.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of Petróleo Brasileiro S.A. - Petrobras S.A., as at December 31, 2021, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board - IASB.

#### **Basis for Opinion**

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the "Auditors Responsibilities for the Audit of the Consolidated Financial Statements" section of our report. We are independent from the Company and its subsidiaries in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements and are set forth on the Professional Code of Ethics for Accountants and on the professional standards issued by the Regional Association of Accountants, and we have fulfilled our ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.



#### **Key Audit Matters**

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not express a separate opinion on these matters.

#### 1 - Assessment of the measurement of the defined benefit obligations for pension and health care plans

According to note 17.3 of the consolidated financial statements.

#### Key audit matter

The Company sponsors defined benefit pension plans and health care plans that provide supplementary retirement benefits and medical care to its employees.

The measurement of the actuarial obligation of the pension and health plans is dependent, in part, on the selection of certain actuarial assumptions. These assumptions include the discount rate and projected medical costs. The Company hires external actuaries to assist in the process of assessing the actuarial assumptions and valuing the obligations under its pension and health care plans.

We considered the measurement of the defined benefit obligations for the pension and health care plans as a key audit matter due to the level of judgment inherent to the actuarial assumptions determination, as well as for the significant impact that minor changes on these assumptions could have on the actuarial obligations of the pension and health care plans.

#### How the matter was addressed in our audit

Our audit procedures included, but were not limited to:

- Tests of design and effectiveness of certain internal controls related to the process of measuring the actuarial liability, including controls related to the development, review and approval of the discount rates and projected medical costs assumptions;
- Assessment of the scope, competency, and objectivity of the external actuaries hired to assist in estimating the actuarial obligations for the pension and health care plans, including the nature and scope of the work performed, their professional qualifications and experiences; and
- Assessment, with the support of our specialists on actuarial calculation, of the assumptions such as discount rates and projected medical costs, including comparing them to external sources.

According to the evidence obtained from performing the procedures described above, we considered that the measurement of the actuarial liability is acceptable in the context of the consolidated financial statements taken as a whole, for the year ended December 31, 2021.



#### 2 - Evaluation of the impairment testing of exploration and production cash generating units ("CGUs")

According to note 25 of the consolidated financial statements.

#### **Key audit matter**

For the impairment of PP&E and intangible, the Company identifies its cash generating units ("CGUs"), estimates the recoverable amount of each CGUs based on a projected cash flow for each CGU, and compares to their carrying amount. The cash flow projections used to determine the recoverable amount depend on certain future assumptions such as: Brent oil price, exchange rate (Real/Dollar), capitalizing expenditures ("CAPEX"), operating expenditure ("OPEX"), and volume and timing of recovery of the oil and gas reserves. The recoverable amount is also sensitive to minor changes in the discount rate used in the cash flow.

The definition of exploration and production CGUs considers operational factors that impact the interdependencies between oil and gas assets, and, consequently, alter the aggregation or segregation of the exploration and production areas into CGUs.

Due to the level of complexity and subjectivity on the definition of exploration and production's CGUs, and on the estimate of the recoverable amount, we considered this as a key audit matter.

#### How the matter was addressed in our audit

Our audit procedures included, but were not limited to:

- Tests of design and effectiveness of certain internal controls related to the process of determining the recoverable amount of exploration and production's CGU assets, including controls related to the review and approval of the determination of the CGUs, and of the key assumptions used to estimate the recoverable amount;
- For changes in exploration and production CGUs during the year, we assessed the operational factors considered by the Company for these changes, and compared them to information obtained from internal and external sources;
- Assessment of the determination of recovery of oil and gas reserves estimates, by comparing it with volumes certified by external reservoirs specialists hired by the Company, and, for a selection of CGUs, with historical data on production;
- Assessment of the scope, competency, and objectivity of the external reservoir specialists hired by the Company that certified the estimated reserve volumes. This included assessing the nature and scope of the work they were engaged to perform and their professional qualifications and experience;
- Assessment, for a selection of CGUs, of the CAPEX and OPEX used on the cash flow projection by comparing to the latest business plan approved by the Company, and its long-term budgets; and



 Assessment of Company's ability to project cash flows by comparing the prior years' estimated cash flows with actual Company's cash flows for the year ended December 31, 2021 for a selection of CGUs.

With the support of our corporate finance specialists, assessment of the key assumptions used in the impairment testing such as the discount rates, future oil and gas prices and the exchange rates by comparing them against external market data.

According to the evidence obtained from performing the procedures described above, we considered that the recoverable amounts for the exploration and production CGUs are acceptable in the context of the consolidated financial statements taken as a whole, for the year ended December 31, 2021.

#### 3 - Evaluation of provisions and disclosures for certain specific labor, civil and tax lawsuits

According to note 18 of the consolidated financial statements.

#### Key audit matter

The Company is involved in tax, civil and labor lawsuits during the normal course of its activities.

The Company records provisions for these lawsuits when it is probable that an outflow of cash will be required to settle a present obligation, and when the outflow can be reasonably estimated. The Company discloses a contingency whenever the likelihood of loss of the lawsuit is considered possible, or when the likelihood of loss is considered probable but it is not possible to reasonably estimate the amount of the outflow.

We considered this subject to be a key audit matter due to the level of judgment embedded on estimating the related amounts, and the likelihood of an outflow of resources, coming from the most

#### How the matter was addressed in our audit

Our audit procedures included, but were not limited to:

- Tests of design and effectiveness of certain internal controls related to the process of evaluating the lawsuits, including controls related to the review and approval of the determination of the likelihood of an outflow of resources, and the estimate of the amount, as well as controls over the consolidated financial statements disclosures;
- Assessment of the scope, competency, and objectivity of the internal and external legal counsel that support the Company on the definition of the estimated amounts, and the likelihood of an outflow of resources, as well as their professional qualifications and experience;



significant labor, civil and tax lawsuits.

- Assessment of confirmations, received directly from the external legal counsels, that included an assessment of the likelihood of loss and the estimate of the amounts.
   We compared these assessments and estimates to those used by the Company, and evaluated the sufficiency of the legal contingency disclosures; and
- Assessment of Company's ability to prepare these estimates by comparing the amounts paid upon resolution of legal proceedings during the year to the amounts previously provided for.

According to the evidence obtained from performing the procedures described above, we considered acceptable the level of provision for the lawsuits referred above, as well as to the respective disclosures in the consolidated financial statements taken as a whole, for the year ended December 31, 2021.

#### 4 - Evaluation of the estimate of the provision for decommissioning costs

According to note 19 of the consolidated financial statements.

#### Key audit matter

As a consequence of its operations, the Company incurs on costs related to the obligation to restore the area environment upon abandonment.

The Company's estimate of the provision for decommissioning costs includes assumptions in relation to the extent of the obligations assumed for environmental restoration and the dismantlement and removal of oil and gas production facilities, as well as the timing and estimated costs of the abandonment.

We identified the evaluation of the estimate as a key audit matter due to the level of judgment involved on determining the respective assumptions, especially on the extent of the obligations assumed

#### How the matter was addressed in our audit

Our audit procedures included, but were not limited to:

- Tests of design and effectiveness of certain internal controls related to the process of defining the provision for decommissioning areas estimate, including controls related to the development, review and approval of the key assumptions such as timing of area abandonment and estimated costs of decommissioning;
- Assessment of the assumption of abandonment timing used by the Company, by comparing the production curves and useful life of the oil and gas reserves used in the estimate, with oil reserve volumes certified by external reservoirs specialists hired by the Company;



for the environmental repair, which is the criteria to be met when the restoration actually occurs, the timing and estimated costs of abandonment.

- Assessment of the estimated costs of decommissioning by comparing with external industry reports;
- Assessment of the scope, competency, and objectivity of the Company's internal engineers responsible for the production curves and useful life of the oil and gas reserves, as well as the external reservoir specialists hired by the Company to certify the reserve volumes.
   This included assessing the nature and scope of the work performed, and their professional qualifications and experience;
- Assessment of Company's ability to prepare this
   estimate by comparing a selection of actual expenditure
   incurred with the decommissioning of oil and gas
   production facilities already under abandonment, to the
   provision for decommissioning previously registered.

According to the evidence obtained from performing the procedures described above, we considered that the amount of provision for decommissioning costs is acceptable in the context of the consolidated financial statements taken as a whole, for the year ended December 31, 2021.

#### **Other Information**

The Company's management is responsible for the other information. The other information comprises the Financial Performance Report.

Our opinion on the consolidated financial statements does not cover the Financial Performance Report and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the Financial Performance Report and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work performed, we conclude that there is material misstatement in the Financial Performance Report, we are required to report on that fact. We have nothing to report in this regard.



# Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards (IFRS), and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company 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.

#### Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

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

As part of our audit in accordance with 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 consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve the act of 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 Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based
  on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may



cast significant doubt on the Company's and its subsidiaries' ability to continue as a going concern. If we conclude that a material uncertainty exists, then we are required to draw attention in our auditors' report to the related disclosures in the consolidated 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 and its subsidiaries to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the
  disclosures, and whether the consolidated 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 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 consolidated financial statements of the current year and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Rio de Janeiro, February 23, 2022

KPMG Auditores Independentes Ltda. CRC SP-014428/O-6 F-RJ

Marcelo Gavioli Contador CRC 1SP201409/O-1

#### CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

PETROBRAS

As of December 31, 2021 and December 31, 2020 (Expressed in millions of US Dollars, unless otherwise indicated)

Assets	Note	12.31.2021	12.31.2020	Liabilities	Note	12.31.2021	12.31.2020
Current assets				Current liabilities			
Cash and cash equivalents	7.1	10,467	11,711	Trade payables	15	5,483	6,859
Marketable securities	7.2	650	659	Finance debt	32.1	3,641	4,186
Trade and other receivables	13.1	6,368	4,731	Lease liability	33	5,432	5,698
Inventories	14	7,255	5,677	Income taxes payable	16.1	733	198
Recoverable income taxes	16.1	163	418	Other taxes payable	16.2	4,001	2,636
Other recoverable taxes	16.2	1,183	2,177	Dividends payable	34.5	_	858
Others	20	1,573	1,230	Employee benefits	17	2,144	3,502
		27,659	26,603	Others	20	1,875	1,603
Assets classified as held for sale	31	2,490	785			23,309	25,540
		30,149	27,388	Liabilities related to assets classified as held for sale	31	867	685
						24,176	26,225
Non-current assets							
Long-term receivables				Non-current liabilities			
Trade and other receivables	13.1	1,900	2,631	Finance debt	32.1	32,059	49,702
Marketable securities	7.2	44	44	Lease liability	33	17,611	15,952
Judicial deposits	18.2	8,038	7,281	Income taxes payable	16.1	300	357
Deferred income taxes	16.1	604	6,451	Deferred income taxes	16.1	1,229	195
Other recoverable taxes	16.2	3,261	3,158	Employee benefits	17	9,374	14,667
Others	20	487	635	Provisions for legal proceedings	18.1	2,018	2,199
		14,334	20,200	Provision for decommissioning costs	19	15,619	18,780
		,		Others	20	2,150	2,057
					-	80,360	103,909
				Total liabilities	_	104,536	130,134
				Equity			
Investments	29	1,510	3,273	Share capital (net of share issuance costs)	34.1	107,101	107,101
Property, plant and equipment	23	125,330	124,201	Capital reserve and capital transactions		1,143	1,064
Intangible assets	24	3,025	14,948	Profit reserves		72,811	65,917
		144,199	162,622	Accumulated other comprehensive (deficit)		(111,648)	(114,734)
				Attributable to the shareholders of Petrobras		69,407	59,348
				Non-controlling interests	29.5	405	528
						69,812	59,876
Total assets		174,348	190,010	Total liabilities and equity		174,348	190,010

PETROBRAS
Years ending December 31, 2021, 2020 and 2019 (Expressed in millions of US Dollars, unless otherwise indicated)

	Note	2021	2020	2019
Sales revenues	4	83,966	53,683	76,589
Cost of sales	5.1	(43,164)	(29,195)	(45,732)
Gross profit		40,802	24,488	30,857
Income (expenses)				
Selling expenses	5.2	(4,229)	(4,884)	(4,476)
General and administrative expenses	5.3	(1,176)	(1,090)	(2,124
Exploration costs	20	(687)	(803)	(799)
Research and development expenses		(563)	(355)	(576
Other taxes		(406)	(952)	(619
Impairment of assets	19	3,190	(7,339)	(2,848
Other income and expenses	6	653	998	1,199
		(3,218)	(14,425)	(10,243
Income before net finance expense, results of equity-accounted investments and income taxes		37,584	10,063	20,614
Finance income		821	551	1,330
Finance expenses		(5,150)	(6,004)	(7,086
Foreign exchange gains (losses) and inflation indexation charges		(6,637)	(4,177)	(3,008
Net finance expense	7	(10,966)	(9,630)	(8,764
Results of equity-accounted investments	22.2	1,607	(659)	153
Net income (loss) before income taxes		28,225	(226)	12,003
Income taxes	11.3	(8,239)	1,174	(4,200)
Net income from continuing operations for the year		19,986	948	7,803
Net income from discontinued operations for the year		-	-	2,560
Net income for the year		19,986	948	10,363
Net income attributable to shareholders of Petrobras		19,875	1,141	10,151
Net income from continuing operations		19,875	1,141	7,660
Net income from discontinued operations		-	-	2,49
Net income (loss) attributable to non-controlling interests		111	(193)	212
Net income (loss) from continuing operations		111	(193)	143
Net income from discontinued operations		_	-	69
Basic and diluted earnings per common and preferred share - in U.S. dollars	27.3	1.52	0.09	0.78
From continuing operations		1.52	0.09	0.59
From discontinued operations		_	_	0.19

The notes form an integral part of these financial statements.

Years ending December 31, 2021, 2020 and 2019 (Expressed in millions of US Dollars, unless otherwise indicated)

	2021	2020	2019
Net income for the year	19,986	948	10,363
Items that will not be reclassified to the statement of income:			
Actuarial gains (losses) on post-employment defined benefit plans			
Recognized in equity	5,169	2,415	(5,589)
Deferred income tax	(1,340)	(127)	1,491
	3,829	2,288	(4,098)
Unrealized gains (losses) on equity instruments measured at fair value through other comprehensive income			
Recognized in equity	-	(2)	-
Deferred income tax	_	1	_
	-	(1)	-
Share of other comprehensive income (losses) in equity-accounted investments	-	46	-
Items that may be reclassified subsequently to the statement of income:			
Unrealized gains (losses) on cash flow hedge - highly probable future exports			
Recognized in equity	(3,949)	(21,460)	(3,510)
Reclassified to the statement of income	4,585	4,720	3,136
Deferred income tax	(215)	5,690	126
	421	(11,050)	(248)
Cumulative translation adjustments (*)			
Recognized in equity	(1,314)	(5,211)	(1,465)
Reclassified to the statement of income	41	_	34
	(1,273)	(5,211)	(1,431)
Share of other comprehensive income in equity-accounted investments			
Recognized in equity	22	(378)	69
Reclassified to the statement of income	-	43	-
	22	(335)	69
Other comprehensive income (loss)	2,999	(14,263)	(5,708)
Total comprehensive income (loss)	22,985	(13,315)	4,655
Comprehensive income (loss) attributable to shareholders of Petrobras	22,961	(13,126)	4,469
Comprehensive income (loss) attributable to non-controlling interests	24	(189)	186
(*) It is all the control of the con			

 $<sup>(\</sup>mbox{\ensuremath{^{*}}})$  It includes cumulative translation adjustments in associates and joint ventures.

#### **CONSOLIDATED STATEMENTS OF CASH FLOWS**

**PETROBRAS** 

Years ending December 31, 2021, 2020 and 2019 (Expressed in millions of US Dollars, unless otherwise indicated)

	Note	2021	2020	2019
Cash flows from operating activities  Net income (loss) for the year		19,986	948	10,363
Adjustments for:		19,900	340	10,303
Net income from discontinued operations		_	_	(2,560)
Pension and medical benefits (actuarial expense)	17	2,098	(1,001)	2,086
Results of equity-accounted investments	29.3	(1,607)	659	(153)
Depreciation, depletion and amortization	20.0	11,695	11,445	14,836
Impairment of assets (reversal)	25	(3,190)	7,339	2,848
Inventory write-down (write-back) to net realizable value	14	(1)	375	15
Allowance (reversals) for credit loss on trade and other receivables	13.3	(30)	144	87
Exploratory expenditure write-offs	26	248	456	308
Disposal/write-offs of assets, remeasurement of investment retained with loss of control and	20	(1,900)	(456)	(6,012)
Foreign exchange, indexation and finance charges		10,795	11,094	8,460
Deferred income taxes, net	16.1	4,058	(1,743)	2,798
Revision and unwinding of discount on the provision for decommissioning costs	19	661	981	950
PIS and COFINS recovery - exclusion of ICMS (VAT tax) from the basis of calculation	16	(986)	(3,173)	-
Results from co-participation agreements in bid areas	24	(631)	-	_
Assumption of interest in concessions	24	(164)	_	_
Early termination and cash outflows revision of lease agreements		(545)	(276)	(60)
Decrease (Increase) in assets		( /	( -/	()
Trade and other receivables, net		(2,075)	1	2,233
Inventories		(2,334)	724	(281)
Judicial deposits		(1,032)	(859)	(2,144)
Escrow account - Class action agreement		-	-	1,819
Other assets		(289)	159	(219)
Increase (Decrease) in liabilities				
Trade payables		1,073	216	(989)
Other taxes payable		7,016	3,246	225
Pension and medical benefits		(2,239)	(1,048)	(1,882)
Provisions for legal proceedings		(12)	(261)	(3,767)
Short-term benefits		(312)	781	185
Provision for decommissioning costs		(730)	(482)	(512)
Agreement with US authorities		-	-	(768)
Other liabilities		376	(47)	(259)
Income taxes paid		(2,138)	(332)	(2,330)
Net cash provided by operating activities from continuing operations		37,791	28,890	25,277
Net cash provided by operating activities - discontinued operations		-		323
Net cash provided by operating activities		37,791	28,890	25,600
Cash flows from investing activities				
Acquisition of PP&E and intangible assets (*)		(6,325)	(5,874)	(8,556)
Bidding for oil surplus of Transfer of rights agreement		-	- (0.40)	(15,341)
Investments in investees		(24)	(942)	(7)
Proceeds from disposal of assets - Divestment		4,783	1,997	10,413
Reimbursement on the Transfer of rights agreement	0.4	-	-	8,361
Financial compensation for the Búzios Co-participation Agreement	24	2,938	-	400
Divestment (Investment) in marketable securities		4	66	198
Dividends received		781	243	1,436
Net cash provided by (used in) investing activities from continuing operations		2,157	(4,510)	(3,496)
Net cash provided by investing activities - discontinued operations		-	-	1,812
Net cash provided by (used in) investing activities		2,157	(4,510)	(1,684)
Cash flows from financing activities				
Changes in non-controlling interest		(24)	(67)	(29)
Proceeds from financing	32.2	1,885	17,023	7,464
Repayment of principal - finance debt	32.2	(21,413)	(25,727)	(27,273)
Repayment of interest - finance debt	32.2	(2,229)	(3,157)	(4,501)
Repayment of lease liability	33	(5,827)	(5,880)	(5,207)
Dividends paid to Shareholders of Petrobras	34	(13,078)	(1,367)	(1,877)
Dividends paid to non-controlling interests		(105)	(84)	(138)
Net cash used in financing activities from continuing operations		(40,791)	(19,259)	(31,561)
Net cash used in financing activities - discontinued operations		_		(508)
Net cash used in financing activities		(40,791)	(19,259)	(32,069)
Effect of exchange rate changes on cash and cash equivalents		(402)	(773)	1,631
Net change in cash and cash equivalents		(1,245)	4,348	(6,522)
Cash and cash equivalents at the beginning of the period		11,725	7,377	13,899
Cash and cash equivalents at the end of the period		10,480	11,725	7,377

 $<sup>(^\</sup>star)$  In 2019, it does not include bidding for oil surplus of Transfer of rights agreement

#### CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

PFTROBRAS

Years ending December 31, 2021, 2020 and 2019 (Expressed in millions of US Dollars, unless otherwise indicated)

	Share ca share issua	pital (net of ance costs)		Accumu	lated other co	mprehensive in	come (deficit) and deemed cost				Pro	fit Reserves				
	Share Capital	Share issuance costs	Capital reserve, Capital Transactions and Treasury shares	Cumulative translation adjustment	Cash flow hedge - highly probable future exports	Actuarial gains (losses) on defined benefit pension plans	Other comprehensive income (loss) and deemed cost	Legal	Statutory	Tax incentives	Profit retention	Additional dividends proposed	Retained earnings (losses)	Equity attributable to shareholders of Petrobras	Non- controlling interests	Total consolidated equity
Balance at January 1, 2019	107,380	(279)	1,067	(67,316)	(13,292)	(13,224)	(953)	8,257	2,452	923	46,529	-	-	71,544	1,631	73,175
		107,101	1,067				(94,785)				<u> </u>	58,161	_	71,544	1,631	73,175
Realization of deemed cost	-	_	-	-	-	-	(2)	-	-	-	-	_	2	_	_	-
Treasury shares	-	-	-	-	-	-	_	-	-	-	-	_	_	_	-	-
Capital transactions	-	-	(3)	-	-	-	-	-	-	-	-	_	_	(3)	(658)	(661)
Net income	-	-	_	-	-	-	-	-	-	-	-	_	10,151	10,151	212	10,363
Other comprehensive income (loss)	-	_	-	(1,405)	(248)	(4,098)	69	_	-	-	_	_	_	(5,682)	(26)	(5,708)
Appropriations:					, ,	,								,	, ,	, , ,
Transfer to reserves	_	_	_	-	-	-	_	488	250	179	6,549	_	(7,466)	_	_	-
Dividends	_	_	_	-	-	-	_	_	_	-	_	_	(2,687)	(2,687)	(267)	(2,954)
Balance at December 31, 2019	107,380	(279)	1,064	(68,721)	(13,540)	(17,322)	(886)	8,745	2,702	1,102	53,078	_	_	73,323	892	74,215
		107,101	1,064				(100,469)					65,627	-	73,323	892	74,215
Capital increase with reserves	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(13)	(13)
Realization of deemed cost	-	-	-	-	-	-	2	-	-	-	-	-	(2)	-	-	-
Capital transactions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(81)	(81)
Net income	-	-	-	-	-	-	-	-	-	-	-	-	1,141	1,141	(193)	948
Other comprehensive income (loss)	-	-	-	(5,215)	(11,050)	2,288	(290)	-	-	-	-	-	-	(14,267)	4	(14,263)
Appropriations:				-	-	-	-	-	-	-	-	-	-	-	-	-
Transfer to reserves	-	-	-	-	-	-	-	68	198	_	(226)	_	(40)			_
Dividends	-	_				-	_			-	(878)	1,128	(1,099)	(849)	(81)	(930)
Balance at December 31, 2020	107,380	(279)	1,064	(73,936)	(24,590)	(15,034)	(1,174)	8,813	2,900	1,102	51,974	1,128		59,348	528	59,876
Capital increase with reserves	_	107,101	1,064	_			(114,734)				_	65,917		59,348	<b>528</b>	<b>59,876</b>
	_	_	79	_	_	_	_	_	_	_	_	_	_	79	(40)	39
Capital transactions	_	-	19	_	_	_	_	_	_	_	-	_	40.075		, ,	19,986
Net income	_	-	_	(4.400)	404	2.000	_	_	-	_	-	_	19,875	19,875	111	
Other comprehensive income (loss) Appropriations:	-	-	-	(1,186)	421	3,829	22	-	-	_	-	-	_	3,086	(87)	2,999
Additional dividends proposed last year approved this year	_	_	_	_	_	_	_	-	_	_	_	(1,128)	_	(1,128)	_	(1,128)
Transfer to reserves	-	-	-	-	-		-	956	184	118	388	-	(1,646)	-		-
Dividends	-	-	_	_	-	_	_	-	-	-	(312)	6,688	(18,229)	(11,853)	(109)	(11,962)
Balance at December 31, 2021	107,380	(279)	1,143	(75,122)	(24,169)	(11,205)	(1,152)	9,769	3,084	1,220	52,050	6,688	-	69,407	405	69,812
		107,101	1,143				(111,648)					72,811	-	69,407	405	69,812

#### 1. The Company and its operations

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

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

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

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

The economic activities linked to its business purpose shall be undertaken by the Company in free competition with other companies according to market conditions, in compliance with the other principles and guidelines of Laws no. 9,478/97 and 14,134/21 (oil and gas regulations, respectively). However, Petrobras may have its activities, provided they are in compliance with its corporate purpose, guided by the Brazilian Federal Government to contribute to the public interest that justified its creation, aiming to meet national energy policy objectives when:

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

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

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

#### 2. Basis of preparation

#### 2.1. Statement of compliance and authorization of consolidated financial statements

These consolidated financial statements have been prepared and are being presented in accordance with the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

The consolidated financial statements have been prepared under the historical cost convention, except when otherwise indicated. The significant accounting policies used in the preparation of these financial statements are set out in their respective explanatory notes.

The preparation of the financial statements requires the use of estimates based on assumptions and judgements, which may affect the application of accounting policies and reported amounts of assets, liabilities, revenues and expenses. Although our management periodically reviews these assumptions and judgments, the actual results could differ from these estimates. For further information on accounting estimates, see note 4.

These consolidated financial statements were approved and authorized for issue by the Company's Board of Directors in a meeting held on February 23, 2022.

#### 2.2. Discontinued operation

After the conclusion of a secondary public offering in July 2019, the Company no longer controlled Petrobras Distribuidora S.A. – BR (later renamed to Vibra Energia).

As a result, this investment is classified as a discontinued operation for 2019, since it represented a separate major line of business. Thus, in the consolidated statement of income and cash flows, the net income, operating, investing and financing cash flows relating to BR are presented in separate line items, as a net amount for discontinued operations.

#### 2.3. Functional and presentation currency

The functional currency of Petrobras and all of its Brazilian subsidiaries is the Brazilian Real. The functional currency of the Petrobras direct subsidiaries that operate outside Brazil is the U.S. dollar.

Petrobras has selected the U.S. dollar as its presentation currency to facilitate a more direct comparison to other oil and gas companies. The financial statements have been translated from the functional currency (Brazilian real) into the presentation currency (U.S. dollar). All assets and liabilities are translated into U.S. dollars at the closing exchange rate at the date of the financial statements; income and expenses, as well as cash flows are translated into U.S. dollars using the average exchange rates prevailing during the period. All exchange differences arising from the translation of the consolidated financial statements from the functional currency into the presentation currency are recognized as cumulative translation adjustments (CTA) within accumulated other comprehensive income in the consolidated statements of changes in shareholders' equity.

Brazilian Real x U.S. Dollar	Dec/21	Sep/21	Jun/21	Mar/21	Dec/20	Sep/20	Jun/20	Mar/20	Dec/19	Sep/19	Jun/19	Mar/19
Quarterly average exchange rate	5.59	5.23	5.29	5.48	5.39	5.38	5.39	4.47	4.12	3.97	3.92	3.77
Period-end exchange rate	5.58	5.44	5.00	5.70	5.20	5.64	5.48	5.20	4.03	4.16	3.83	3.90

#### 3. Significant accounting policies

To aid cohesion and comprehension, the significant accounting policies are set out at the end of each explanatory note to which they relate.

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

#### 4.1. Oil and gas reserves

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

Reserves estimates are revised at least annually, based on updated geological and production data of reservoirs, as well as on changes in prices and costs used in these estimates. 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 these criteria relate to the use of different economic premises and to the possibility, under the ANP/SPE criteria, to include volumes expected to be produced after the expiration of contracts related to the Brazilian fields, according to the ANP criteria.

According to the definitions prescribed by the SEC, proved oil and gas reserves are those quantities of oil and gas which, by analysis of geoscientific and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs and under existing economic conditions, operating methods and government regulation. Proved reserves are subdivided into developed and undeveloped reserves.

Proved developed oil and gas reserves are those that can be expected to be recovered through: (i) existing wells with existing equipment and operating methods, where the cost of the required equipment is relatively minor compared to the cost of a new well; (ii) installed extraction equipment and infrastructure operational at the time of the reserves estimate, if the extraction is by means not involving wells.

(Expressed in millions of US Dollars, unless otherwise indicated)

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

Detailed information on reserves is presented as unaudited supplementary information.

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

Estimates of proved reserves volumes used in the calculation of depreciation, depletion and amortization rates, under the unit-of-production method, are prepared by the Company's technicians according to SEC definitions. Revisions to the Company's proved developed and undeveloped reserves impact prospectively the amounts of depreciation, depletion and amortization recognized in the statement of income and the carrying amounts of oil and gas properties assets.

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

Note 23 provides more detailed information on depreciation, amortization and depletion.

#### b) Impacts of oil and gas reserves on impairment testing

The measurement of the value in use of oil and gas exploration and development assets is based on proved and probable reserves pursuant to the ANP/SPE definitions. Note 25 provides further information on impairment testing.

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

The timing of abandonment and dismantling areas is based on the length of reserves depletion, in accordance with ANP/SPE definitions. Therefore, the review of the timing of reserves depletion may impact the provision for decommissioning cost estimates. Note 4.6 provides further information on other assumptions used in estimating the provision for decommissioning costs.

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

The Company estimates highly probable future exports in accordance with future exports forecasted in the current Strategic Plan projections and based on short-term estimates on a monthly basis. Changes in the expected oil and gas production may affect future exports forecasts and, consequently, hedge relationship designations may also be impacted.

#### 4.2. Main assumptions for impairment testing

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

The markets for crude oil and natural gas have a history of significant price volatility and although prices can drop or increase 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 Strategic Plan and are consistent with market evidence, such as independent macro-economic forecasts, industry analysts 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 the effects of OPEC decisions on the oil market, industry costs, idle capacity, the oil and gas production forecasted by specialized firms, the relationship between the oil price and the U.S. dollar exchange rate.

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

Changes in the economic environment may result in changing assumptions and, consequently, the recognition of impairment charges or reversals on certain assets or CGUs. For example, the Company's sales revenue and refining margins are directly impacted by Brent price variations, as well as Brazilian Real/U.S. dollar exchange rate variations, which also impacts our capital and operating expenditures.

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

Reductions in future oil and natural gas price scenarios resulting from structural changes, adverse effects arising from significant changes in reserve volumes, production curve expectations, lifting costs or discount rates, as well as capital expenditure decisions that result in the postponement or termination of projects, could trigger the need for impairment assessment.

The recoverable amount of certain assets may not substantially exceed their carrying amounts and, therefore, it is reasonably possible that outcomes in future periods that are different from the current assumptions may result in the recognition of additional impairment charges on these assets, as described in note 25.

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

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

#### a) Exploration and Production CGUs:

- i) Crude oil and natural gas producing properties CGUs: comprises exploration and development assets related to crude oil and natural gas fields and groups of fields in Brazil and abroad. At December 31, 2021, Exploration and Production CGUs in Brazil had 90 fields and 25 groups of fields. Changes in the aggregation of CGUs are presented in note 25.
- ii) Drilling rigs are not part of any CGU and are assessed for impairment separately.

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

i) Downstream CGU: comprises refineries and associated assets, terminals and pipelines, as well as logistics assets operated by Transpetro, with a combined and centralized operation of such 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 sale 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 for Petrobras and not for 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 Petrobras as a whole. The model that supports the entire planning, 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.

In 2021, management approved the sale of the Landulpho Alves (RLAM) and Isaac Sabbá (REMAN) refineries, whose assets were excluded from the CGU. The sale of RLAM was closed on November 30, 2021. The sale of REMAN is not yet closed, and its assets are classified as held for sale as of December 31, 2021 (see note 31.1).

- ii) CGU Comperj: with the cancellation of the first refining unit of Comperj, the remaining assets were allocated into 2 CGUs: the CGU Itaboraí Utilities, composed of assets that will support the natural gas processing plant (UPGN) of the route 3 integrated project; and the CGU GasLub, a set of assets that remain in hibernation and are being evaluated for use in other projects.
- iii) CGU Second Refining Unit of RNEST: comprises assets of the second refining unit of Abreu e Lima refinery;
- iv) Transportation CGU: comprises assets relating to Transpetro's fleet of vessels;

- v) Hidrovia CGU: comprises the fleet of vessels under construction of the Hidrovia project (transportation of ethanol along the Tietê River);
- vi) SIX CGU: shale processing plant (classified as held for sale, as described in note 31.1); and
- vii) Other operations abroad defined as the smallest group of assets that generates independent cash flows.

#### c) Gas & Power CGUs:

In 2021, the New Legal Framework for Gas (Law 14,134/21 and Decree no 10,712/21) established significant regulatory changes applicable to the natural gas market in Brazil, allowing private companies to access certain assets that constituted the CGU Natural Gas. As a result, the assets that composed this CGU were reorganized as follows:

- i) CGU Integrated Processing System: set of assets formed by natural gas processing plants in Itaboraí, Cabiúnas and Caraguatatuba, grouped together due to the contractual characteristics of the Integrated Processing System and the Integrated Transportation System; and
- ii) CGUs of Natural Gas Processing Plants: remaining natural gas processing plants each of which represents a separate CGU.

The gas pipelines Route 2 and Route 3, which were also part of the Natural Gas CGU, are now tested with E&P assets that benefit from this infrastructure. In relation to the LNG terminals and the Brazil-Bolivia Gas Pipeline, impairment testing are made in conjunction with the Company's natural gas processing plants.

Other Gas & Power CGUs are:

- iii) CGU nitrogen fertilizer plants: formed by nitrogen fertilizer plants;
- iv) CGU Power: comprises the thermoelectric power generation plants (UTEs). In December 2021, occurred the closing of the sale of plants Arembepe, Muryci and Bahia 1 (see note 31), at which point these assets were excluded from the CGU.
- v) CGU Termocamaçari: comprises the assets from the Termocamaçari thermoelectric plant;
- vi) Other CGUs: operations abroad defined as the smallest group of assets that generates largely independent cash flows.

#### d) Biofuels business CGUs:

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

Further information on impairment testing is set out in note 25.

#### 4.4. 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 discounted interest rate that matches the duration of the pension and health care obligations with the future yield curve of long-term Brazilian Government Bonds; and
- Medical costs: comprise the projected growth rates based on per capita health care benefits paid over the last five years, which are used as a basis for projections, converged to the general price inflation index within 30 years.

These and other estimates are reviewed at least annually and may differ materially from actual results due to changing market and financial conditions, as well as actual results of actuarial assumptions.

The sensitivity analysis of discount rates and changes in medical costs as well as additional information about actuarial assumptions are set out in note 17.

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

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

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

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

Note 18 provides further detailed information about contingencies and legal proceedings.

#### 4.6. Decommissioning costs estimates

The Company has legal and constructive obligations to remove equipment and restore onshore and offshore areas at the end of operations. Its most significant asset removal obligations relate to offshore areas. Estimates of costs for future environmental cleanup and remediation activities are based on current information about costs and expected plans for remediation. These obligations are recognized at present value, using a risk-free discount rate, adjusted to the Company's credit risk. Due to the long term until the abandonment, changes in the discount rate can cause significant variations in the recognized amount.

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

Note 19 provides further detailed information about the decommissioning provisions.

#### 4.7. Deferred income taxes

The recognition of deferred taxes involves significant estimates and judgments by the Company. Deferred tax assets are recognized to the extent that it is probable that taxable profit will be available against which a deductible temporary difference can be utilized or it is probable that the entity will have sufficient taxable profit in future periods. In evaluating whether it will have sufficient taxable profit in future periods to support the recognition of deferred tax assets, the Company uses future projections and estimates based on its Strategic Plan, which is approved by the Board of Directors annually. Future taxable profits projections are mainly based on the following assumptions: i) Brent crude oil prices; ii) foreign exchange rates; and iii) the Company's projected net finance expenses (income).

Changes in deferred tax assets and liabilities are presented in note 16.1.

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

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

See note 36 for more detailed information about cash flow hedge accounting and a sensitivity analysis of the cash flow hedge involving future exports.

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

As described in note 21, in the third quarter of 2014, the Company developed an estimation methodology and wrote off US\$2,527 of capitalized costs representing the estimated amounts that Petrobras had overpaid for the acquisition of property, plant and equipment.

The Company has continuously monitored the results of the Lava Jato investigation and the availability of other information related to the scheme of improper payments. In preparing the financial statements for the year ended December 31, 2021, the Company has not identified any additional information that would affect the adopted calculation methodology and consequently require additional write-offs.

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

Expected credit losses on financial assets are based on assumptions relating to risk of default, the determination of whether or not there has been a significant increase in credit risk and expectation of recovery, among others. The Company uses judgment for such assumptions in addition to information from credit rating agencies and inputs based on collection delays.

#### 4.11. Leases

The Company uses incremental borrowing rates to determine the present value of the lease payments, when the interest rate implicit in the lease cannot be readily determined. These incremental borrowing rates are determined mainly based on the Company's cost of funding based on yields of bonds issued by the Company, adjusted by currency and duration of cash outflows of the lease arrangements, economic environment of the country where the lessee operates and similar collateral.

#### 4.12. Uncertainty over Income Tax Treatments

Uncertainties over income tax treatments represent the risks that the tax authority does not accept a certain tax treatment applied by the Company, mainly related to different interpretations of deductions and additions to the IRPJ and CSLL calculation basis. The Company evaluates each uncertain tax treatment separately or in a group where there is interdependence in relation to the expected result.

The Company estimates the probability of acceptance of an uncertain tax treatment by the tax authority based on technical assessments by its legal advisors, considering precedent jurisprudence applicable to current tax legislation, which may be impacted mainly by changes in tax rules or court decisions which may affect the analysis of the fundamentals of uncertainty. The tax risks identified are evaluated following a predetermined tax risk management methodology.

If it is probable that the tax authorities will accept an uncertain tax treatment, the amounts recorded in the financial statements are consistent with the tax records and, therefore, no uncertainty is reflected in the measurement of current or deferred income taxes. If it is not probable that the tax authorities will accept an uncertain tax treatment, the uncertainty is reflected in the measurement of income taxes in the financial statements.

Information on uncertainty over income tax treatments is disclosed in Note 16.1.

#### 5. New standards and interpretations

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

Standard	Description	Effective on
Annual Improvements to IFRS Standards 2018–2020.	The amendments change requirements related to: (i) simplifying the application of IFRS 1 by a subsidiary that becomes a first-time adopter of IFRS after its parent company has already adopted IFRS; (ii) clarifying the fees a company includes in assessing the terms of a new or modified financial liability in order to determine whether to derecognize a financial liability (IFRS 9); and (iii) aligning the fair value measurement requirements in IAS 41 with those in other IFRS Standards. Additionally, the amendments change an illustrative example accompanying IFRS 16 regarding lease incentives.	January 1, 2022, prospective application.
Reference to the Conceptual Framework - Amendments to IFRS 3	The amendments (i) update a certain reference in IFRS 3 to the most recent conceptual framework and (ii) include additional requirements related to obligations under the scope of IAS 37 - Provisions, Contingent Liabilities and Contingent Assets and IFRIC 21 - Levies. In addition, the amendments provide that the buyer should not recognize contingent assets acquired in a business combination.	January 1, 2022, prospective application.
Onerous Contracts - Cost of Fulfilling a Contract - Amendments to IAS 37	The amendments specify which costs an entity includes in determining the cost of fulfilling a contract in assessing whether the contract is onerous.	January 1, 2022, retrospective application with specific rules.
Property, Plant and Equipment: Proceeds before Intended Use Amendments to IAS 16	The amendments prohibit a company from deducting plant and equipment amounts received from selling items produced while the company is preparing the asset for its intended use from the cost of property. Instead, a company will recognize such sales proceeds and related cost in profit or loss.	January 1, 2022, retrospective application with specific rules.
Classification of Liabilities as Current or Non-current - Amendments to IAS 1	The amendments establish requirements for the classification of a liability as current or non-current.	January 1, 2023, retrospective application.
IFRS 17 – Insurance Contracts (and Amendments)	IFRS 4 – Insurance Contracts will be superseded by IFRS 17, which establishes, among other things, the requirements to be applied in the recognition, measurement, presentation and disclosure of insurance and reinsurance contracts.	January 1, 2023, retrospective application with specific rules.
Disclosure of Accounting Policies – Amendments to IAS 1 and Practice Statement 2	In place of the requirement to disclose significant accounting policies, the amendments to IAS 1 - Presentation of Financial Statements establish that accounting policies must be disclosed when they are material. Among other things, the amendment provides guidance for determining such materiality.	January 1, 2023, prospective application to amendments to IAS 1.
Definition of Accounting Estimates – Amendments to IAS 8	According to the amendments to IAS 8, the definition of "change in accounting estimate" no longer exists. Instead, a definition was established for the term "accounting estimates": monetary values in the financial statements that are subject to measurement uncertainty.	January 1, 2023, prospective application.
Deferred Tax related to Assets and Liabilities arising from a Single Transaction – Amendments to IAS 12	The amendments have reduced the scope of the exemption from recognition of deferred tax assets and deferred tax liabilities described in paragraphs 15 and 24 of IAS 12 - Income Taxes, so that it no longer applies to transactions that, among other things, on initial recognition, give rise to equal taxable and deductible temporary differences.	January 1, 2023, retrospective application with specific rules.

Regarding the amendments effective as of January 1, 2022, according to the assessment made, the Company estimates that there will be no significant impact with the initial application on its consolidated financial statements.

As for the amendments that will be effective as of January 1, 2023, the Company is assessing the impacts that they will have on the financial statements and is unable to make a reasonable estimation of these impacts at this stage.

#### 6. Capital Management

The Company's objectives in its capital management is to achieve an adequate level of return on its capital structure in order to safeguard its ability to continue as a going concern, adding value to its shareholders and investors. Its main sources of funding have been cash provided by its operating activities and divestments.

The financial strategy of the 2022-2026 Strategic Plan is based on maintaining an optimal capital structure, maximizing value creation, mitigating risks through litigation management and improving capital allocation.

The Company's goal of reducing gross debt (composed of current and non-current finance debt and lease liability) to US\$ 60 billion by 2022 was met in September 2021, which, in accordance with the Shareholders Dividends Policy, allows the distribution to its shareholders of 60% of the difference between net cash provided by operating activities and acquisition of PP&E and intangibles assets.

As of December 31, 2021, gross debt decreased to US\$ 58,743, from US\$ 75,538 as of December 31, 2020, and the weighted average maturity of outstanding debt increased to 13.39 years as of December 31, 2021 (from 11.71 years as of December 31, 2020).

#### 7. Cash and cash equivalents and Marketable securities

#### 7.1. Cash and cash equivalents

	12.31.2021	12.31.2020
Cash at bank and in hand	299	552
Short-term financial investments		
- In Brazil		
Brazilian interbank deposit rate investment funds and other short-term deposits	1,951	2,592
Other investment funds	163	28
	2,114	2,620
- Abroad		
Time deposits	4,310	2,574
Automatic investing accounts and interest checking accounts	3,732	5,633
Other financial investments	12	332
	8,054	8,539
Total short-term financial investments	10,168	11,159
Total cash and cash equivalents	10,467	11,711

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

#### 7.1.1. Accounting policy for cash and cash equivalents

Cash and cash equivalents comprise cash on 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.

#### 7.2. Marketable securities

			12.31.2021			12.31.2020
	In Brazil	Abroad	Total	In Brazil	Abroad	Total
Fair value through profit or loss	650	-	650	652	-	652
Amortized cost	44	-	44	44	7	51
Total	694	-	694	696	7	703
Current	650	-	650	652	7	659
Non-current	44	_	44	44	_	44

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

#### **Accounting policy**

Marketable securities are initially measured at fair value and their subsequent measurement depends on their classification:

- Amortized cost: when the contractual terms of the security give rise on specified dates to cash flows arising only from payments of
  principal and interest on the principal amount outstanding, and the business model's objective is to hold the security in order to collect
  contractual cash flows. The interest income is based on the effective interest method.
- Fair value through profit or loss: all other marketable securities.

#### 8. Sales revenues

#### 8.1. Revenues from contracts with customers

As an integrated energy company, revenues from contracts with customers derive from different products sold by the Company's operating segments, taking into consideration specific characteristics of the markets where they operate. For additional information about the operating segments of the Company, its activities and its respective products sold, see note 13.

The determination of transaction prices derives from methodologies and policies based on the parameters of these markets, reflecting operating risks, level of market share, changes in exchange rates and international commodity prices, including Brent oil prices, oil products such as diesel and gasoline, and the Henry Hub Index.

Revenues from sales are recognized at the moment the control is transferred to the client, which occurs upon delivery at the contractually agreed place or when the service is provided. Generally, prices for products and services are fixed prior to or shortly after delivery. Therefore, no significant changes in transactions prices are expected to be recognized in periods after the satisfaction of the performance obligations, except for some exports in which final prices are linked to changes in commodity price after their transfer of control. Sales proceeds are generally collected in the short-term, thus there are no significant financing components.

In addition, the Company acts as an agent in the biofuel business, where there is no control of the biodiesel purchased from the producers and sold to distributors at any time during the sale operation. Those revenues totaled US\$ 38 (US\$ 37 in 2020).

#### 8.2. Net sales revenues

	2021	2020	2019
Diesel	24,236	13,924	23,007
Gasoline	11,910	6,313	9,810
Liquefied petroleum gas	4,491	3,383	4,159
Jet fuel	2,271	1,455	3,832
Naphtha	1,699	1,694	1,669
Fuel oil (including bunker fuel)	1,775	795	1,026
Other oil products	4,261	2,712	3,410
Subtotal oil products	50,643	30,276	46,913
Natural gas	5,884	3,649	5,929
Oil	671	48	-
Renewables and nitrogen products	40	59	245
Breakage	243	438	645
Electricity	2,902	1,109	1,322
Services, agency and others	808	755	940
Domestic market	61,191	36,334	55,994
Exports	21,491	15,945	18,085
Oil	14,942	11,720	13,180
Fuel oil (including bunker fuel)	5,480	3,525	3,321
Other oil products	1,069	700	1,584
Sales abroad (*)	1,284	1,404	2,510
Foreign market	22,775	17,349	20,595
Sales revenues (**)	83,966	53,683	76,589

<sup>(\*)</sup> Sales revenues from operations outside of Brazil, including trading and excluding exports.

In 2021, sales to Vibra Energia (formerly BR Distribuidora) represent more than 10% of the Company's sales revenues, mainly associated with the refining, transportation and marketing segment.

## 8.3. Remaining performance obligations

The Company is party to sales contracts with original expected duration of more than 1 year, which define the volume and timing of goods or services to be delivered during the term of the contract, and the payment terms for these future sales.

The estimated remaining values of these contracts at December 31, 2021 presented below are based on the contractually agreed future sales volumes, as well as prices prevailing at December 31, 2021 or practiced in recent sales reflecting more directly observable information:

<sup>(\*\*)</sup> Sales revenues by business segment are set out in note 8.

	Expected	Expected	
	recognition within 1 year	recognition after 1 year	Total
Domestic market	, your	you	10101
Gasoline	9,964	-	9,964
Diesel	20,531	-	20,531
Natural gas	11,809	11,768	23,577
Services and others	6,173	8,743	14,916
Naphtha	1,751	5,254	7,005
Electricity	624	2,163	2,787
Other oil products	25	-	25
Jet fuel	910	-	910
Foreign market		-	
Exports	2,930	11,592	14,522
Total	54,717	39,520	94,237

Revenues will be recognized once goods are transferred and services are provided to the customers and their measurement and timing of recognition will be subject to future demands, changes in commodities prices, exchange rates and other market factors.

The table above does not include information on contracts with original expected duration of less than one year, such as spot-market contracts, variable considerations which are constrained, and information on contracts only establishing general terms and conditions (Master Agreements), for which volumes and prices will only be defined in subsequent contracts.

In addition, electricity sales are mainly driven by demands to generate electricity from thermoelectric power plants, as and when requested by the Brazilian National Electric System Operator (ONS). These requests are substantially affected by Brazilian hydrological conditions. Thus, the table above presents mainly fixed amounts for the electricity to be available to customers in these operations.

#### 8.4. Contract liabilities

The balance of contract liabilities carried on the statement of financial position at December 31, 2021 amounted to US\$ 19 (US\$ 69 as of December 31, 2020). This amount is classified as other current liabilities and primarily comprises advances from customers in ship and take or pay contracts to be recognized as revenue based on future sales of natural gas or following the non-exercise of the right by the customer.

#### 8.5. Accounting policy for revenues

The Company evaluates contracts with customers that will be subject to revenue recognition and identifies the distinct goods and services promised in each of them.

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

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

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

# 9. Costs and expenses by nature

#### 9.1. Cost of sales

	2021	2020	2019
Raw material, products for resale, materials and third-party services (*)	(20,869)	(12,699)	(20,694)
Depreciation, depletion and amortization	(9,277)	(8,847)	(12,036)
Production taxes	(11,136)	(5,920)	(9,741)
Employee compensation	(1,882)	(1,729)	(3,261)
Total	(43,164)	(29,195)	(45,732)

<sup>(\*)</sup> It Includes short-term leases and inventory turnover.

## 9.2. Selling expenses

	2021	2020	2019
Materials, third-party services, freight, rent and other related costs	(3,542)	(4,163)	(3,664)
Depreciation, depletion and amortization	(610)	(564)	(549)
Allowance for expected credit losses	12	2	(49)
Employee compensation	(89)	(159)	(214)
Total	(4,229)	(4,884)	(4,476)

# 9.3. General and administrative expenses

	2021	2020	2019
Employee compensation	(834)	(749)	(1,427)
Materials, third-party services, rent and other related costs	(256)	(252)	(539)
Depreciation, depletion and amortization	(86)	(89)	(158)
Total	(1,176)	(1,090)	(2,124)

# 10. Other income and expenses

	2021	2020	2019
Pension and medical benefits - retirees	(1,467)	889	(1,371)
Unscheduled stoppages and pre-operating expenses	(1,362)	(1,441)	(1,321)
Losses with legal, administrative and arbitration proceedings	(740)	(493)	(1,520)
Performance award program	(469)	(439)	(643)
Profit sharing	(125)	(7)	(43)
Gains/(losses) with commodities derivatives	(79)	(308)	(370)
Equalization of expenses - Production Individualization Agreements	(74)	701	2
Reclassification of comprehensive income (loss) due to the disposal of equity-accounted investments	(41)	(43)	(34)
Results on disposal/write-offs of assets and on remeasurement of investment retained with loss of control	1,941	499	6,046
Results from co-participation agreements in bid areas (*)	631	-	-
Recovery of taxes (**)	561	1,580	99
Early termination and changes to cash flow estimates of leases	545	276	60
Reimbursements from E&P partnership operations	485	912	480
Transfer of rights on concession agreements (*)	363	84	-
Amounts recovered from Lava Jato investigation	235	155	220
Fines imposed on suppliers	163	95	260
Gains / (losses) on decommissioning of returned/abandoned areas	99	(342)	(155)
Voluntary severance programs - PDV	11	(1,017)	(198)
Others	(24)	(103)	(313)
Total	653	998	1,199

<sup>(\*)</sup> Further information in note 24.

# 11. Net finance income (expense)

	2021	2020	2019
Finance income	821	551	1,330
Income from investments and marketable securities (Government Bonds)	315	202	558
Other income, net	506	349	772
Finance expenses	(5,150)	(6,004)	(7,086)
Interest on finance debt	(2,870)	(3,595)	(4,847)
Unwinding of discount on lease liabilities	(1,220)	(1,322)	(1,514)
Discount and premium on repurchase of debt securities	(1,102)	(1,157)	(860)
Capitalized borrowing costs	976	941	1,332
Unwinding of discount on the provision for decommissioning costs	(761)	(638)	(795)
Other finance expenses and income, net	(173)	(233)	(402)
Foreign exchange gains (losses) and indexation charges	(6,637)	(4,177)	(3,008)
Foreign exchange gains (losses) (*)	(2,737)	(1,363)	(72)
Reclassification of hedge accounting to the Statement of Income (*)	(4,585)	(4,720)	(3,136)
Recoverable taxes inflation indexation income (**)	518	1,807	125
Other foreign exchange gains (losses) and indexation charges, net	167	99	75
Total	(10,966)	(9,630)	(8,764)

<sup>(\*)</sup> For more information, see notes 36.3c and 36.3a.

<sup>(\*\*)</sup> It Includes the effects of the exclusion of ICMS (VAT tax) from the basis of calculation of sales taxes PIS and COFINS, except for the effects of inflation indexation, as set out in note 16.

<sup>(\*\*)</sup> Includes PIS and Cofins inflation indexation income - exclusion of ICMS (VAT tax) from the basis of calculation. See note 16.

# 12. Net income by operating segment

#### Consolidated Statement of Income by operating segment

						2021
	Exploration and Production	Refining, Transportation & Marketing	Gas & Power	Corporate and other business	Eliminations	Total
Sales revenues	55,584	74,524	12,051	504	(58,697)	83,966
Intersegments	54,479	1,416	2,564	238	(58,697)	-
Third parties	1,105	73,108	9,487	266	-	83,966
Cost of sales	(23,673)	(65,620)	(9,494)	(503)	56,126	(43,164)
Gross profit (loss)	31,911	8,904	2,557	1	(2,571)	40,802
Income (expenses)	3,283	(1,621)	(2,871)	(1,987)	(22)	(3,218)
Selling	-	(1,543)	(2,653)	(11)	(22)	(4,229)
General and administrative	(152)	(148)	(73)	(803)	-	(1,176)
Exploration costs	(687)	-	-	-	-	(687)
Research and development	(415)	(11)	(25)	(112)	-	(563)
Other taxes	(192)	(122)	(38)	(54)	-	(406)
Impairment of assets	3,107	289	(208)	2	-	3,190
Other income and expenses	1,622	(86)	126	(1,009)	-	653
Income (loss) before net finance income (expense), results of equity-accounted investments and income taxes  Net finance income (expense)  Results in equity-accounted investments	35,194 - 119	7,283 - 941	(314) - 98	(1,986) (10,966) 449	(2,593)	37,584 (10,966) 1,607
Net income / (loss) before income taxes	35,313	8,224	(216)	(12,503)	(2,593)	28,225
Income taxes	(11,963)	(2,478)	107	5,212	883	(8,239)
Net income (loss) for the year	23,350	5,746	(109)	(7,291)	(1,710)	19,986
Attributable to:						
Shareholders of Petrobras	23,353	5,746	(206)	(7,308)	(1,710)	19,875
Non-controlling interests	(3)	-	97	17	-	111

Sales revenues

Cost of sales

Gross profit (loss)

Income (expenses)

General and administrative

Research and development

Non-controlling interests

Exploration costs

Other taxes

Selling

Intersegments

Third parties

Eliminations	Total
(37,095)	53,683
(37,095)	-
-	53,683
37,731	(29,195)
636	24,488
(24)	(14,425)
(24)	(4,884)
-	(1,090)
-	(803)
-	(355)

(952)

(193)

2020

Impairment of assets	(7,364)	164	36	(175)	-	(7,339)
Other income and expenses	(215)	(327)	(171)	1,711	-	998
Income (loss) before net finance income (expense), results of						
equity-accounted investments and income taxes	7,050	779	1,159	463	612	10,063
Net finance income (expense)	-	-	-	(9,630)	-	(9,630)
Results in equity-accounted investments	(181)	(437)	128	(169)	-	(659)
Net income / (loss) before income taxes	6,869	342	1,287	(9,336)	612	(226)
Income taxes	(2,398)	(265)	(393)	4,438	(208)	1,174
Net income (loss) for the year	4,471	77	894	(4,898)	404	948
Attributable to:						
Shareholders of Petrobras	4 475	111	821	(4 670)	404	1 141

(4)

**Exploration** 

Production

and

34,395

33,524

(18,098)

16,297

(9,247)

(155)

(803)

(232)

(478)

871

Refining,

47,782

(44,011)

3,771

(2,992)

(2,520)

(161)

(11)

(137)

(34)

865 46,917

Transportation

& Marketing

Gas

Power

7,725

2,455

5,270

(3,985)

3,740

(2,581)

(2,320)

(85)

(10)

(31)

73

&

Corporate

and other

business

876

251

625

(832)

44

419

(20)

(689)

(102)

(306)

(228)

						2019
	Exploration and Production	Refining, Transportation & Marketing	Gas & Power	Corporate and other business	Eliminations	Total
	50.400	07.500	44.400	4 004	(54.405)	70.500
Sales revenues	50,462	67,538	11,493	1,221	(54,125)	76,589
Intersegments	49,400	9,432	3,308	226	(54,125)	8,241
Third parties	1,062	58,106	8,185	995	-	68,348
Cost of sales	(27,304)	(61,578)	(7,713)	(1,167)	52,030	(45,732)
Gross profit (loss)	23,158	5,960	3,780	54	(2,095)	30,857
Income (expenses)	(4,181)	(4,334)	2,580	(4,282)	(26)	(10,243)
Selling	-	(2,164)	(2,260)	(31)	(21)	(4,476)
General and administrative	(254)	(336)	(134)	(1,401)	1	(2,124)
Exploration costs	(799)	-	-	-	-	(799)
Research and development	(394)	(11)	(15)	(156)	-	(576)
Other taxes	(127)	(151)	(152)	(189)	-	(619)
Impairment of assets	(1,956)	(697)	(194)	1	(2)	(2,848)
Other income and expenses	(651)	(975)	5,335	(2,506)	(4)	1,199
Income (loss) before net finance income (expense), results of equity-accounted investments and income taxes	18,977	1,626	6,360	(4,228)	(2,121)	20,614
Net finance income (expenses)	-	-	-	(8,764)	-	(8,764)
Results in equity-accounted investments	86	(151)	103	115	-	153
Net income / (loss) before income taxes	19,063	1,475	6,463	(12,877)	(2,121)	12,003
Income taxes	(6,451)	(552)	(2,162)	4,245	720	(4,200)
Net income from continuing operations for the year	12,612	923	4,301	(8,632)	(1,401)	7,803
Net income from discontinued operations for the year	-	-	3	2,557	-	2,560
Net income for the year	12,612	923	4,304	(6,075)	(1,401)	10,363
Net income attributable to shareholders of Petrobras	12,624	1,021	4,180	(6,273)	(1,401)	10,151
Net income from continuing operations	12,624	1,021	4,179	(8,763)	(1,401)	7,660
Net income from discontinued operations	-	-	1	2,490	-	2,491
Non-controlling interests	(12)	(98)	124	198		212
Net income from continuing operations	(12)	(98)	121	132	_	143
Net income from discontinued operations	-	-	3	66	-	69
·						

In the year ended December 31, 2019, the consolidated amounts of intersegment sales (remaining after eliminations) relate to sales from the Refining, Transportation & Marketing to BR, which is presented as discontinued operation, in 2019, within Corporate and other business.

#### 12.1. Accounting policy for operating segments

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

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

The Company's business segments disclosed separately are:

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

#### **NOTES TO THE FINANCIAL STATEMENTS**

**PETROBRAS** 

(Expressed in millions of US Dollars, unless otherwise indicated)

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

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

Revenue from sales to third parties mainly reflects services rendered relating to E&P activities, sales of the E&P's natural gas processing plants, as well as the oil and natural gas operations carried out by subsidiaries abroad.

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

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

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

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

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

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

This segment purchases national natural gas from the E&P segment, from partners and third parties, imports natural gas from Bolivia and LNG to meet national demand.

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

Corporate and other businesses comprise items that cannot be attributed to the other segments, as well as the distribution and biofuels businesses. Corporate items comprise 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. The distribution businesses reflect the equity interest in the associate Vibra Energia, formerly Petrobras Distribuidora, until July 2021, when the Company sold its remaining interest in this associate, and oil products distribution businesses abroad (South America). The biofuels business reflects the activities of producing biodiesel, and its co-products and ethanol.

#### 13. Trade and other receivables

#### 13.1. Trade and other receivables

	12.31.2021	12.31.2020
Receivables from contracts with customers		
Third parties	4,839	3,081
Related parties		
Investees (note 30.5)	385	664
Receivables from the electricity sector	-	205
Subtotal	5,224	3,950
Other trade receivables		
Third parties		
Receivables from divestments (*)	2,679	1,523
Lease receivables	435	467
Other receivables (**)	872	2,536
Related parties		
Petroleum and alcohol accounts - receivables from Brazilian Government	506	482
Subtotal	4,492	5,008
Total trade and other receivables, before ECL	9,716	8,958
Expected credit losses (ECL) - Third parties	(1,428)	(1,528)
Expected credit losses (ECL) - Related parties	(20)	(68)
Total trade and other receivables	8,268	7,362
Current	6,368	4,731
Non-current Non-current	1,900	2,631

<sup>(\*)</sup> It mainly refers to receivables (including interest, exchange rate variation and inflation indexation) from the divestment in Nova Transportadora do Sudeste (NTS), of Block BM-S-8 in the Bacalhau field (former Carcará group), in addition to the values referring to Rio Ventura, Roncador, Pampo Enchova, Baúna and Miranga fields.

Trade and other receivables are generally classified as measured at amortized cost, except for receivables with final prices linked to changes in commodity price after their transfer of control, which are classified as measured at fair value through profit or loss, amounting to US\$ 1,155 as of December 31, 2021 (US\$ 507 as of December 31, 2020).

In 2021, constitutional amendments changed the form of payment of judicialized debts by the Brazilian Federal Government (*precatórios*), establishing that there will be a limit for yearly payments until the end of 2026, including budgetary limitations. For that reason, the Company expects to receive the amounts of Petroleum and Alcohol Accounts between 2022 and 2027, depending on the yearly budgetary limitations of the Brazilian Federal Government.

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

		12.31.2021		
	Trade and other receivables	Expected credit losses	Trade and other receivables	Expected credit losses
Current	7,059	(77)	5,850	(130)
Overdue:				
1-90 days	218	(26)	205	(8)
91-180 days	40	(6)	15	(9)
181-365 days	51	(29)	42	(28)
More than 365 days	1,457	(1,290)	1,495	(1,353)
Total	8,825	(1,428)	7,607	(1,528)

<sup>(\*\*)</sup> As of December 31, 2020, it mainly includes amounts related to the purchase and sale of production platforms and equipment from our partners in E&P consortia, with financial settlement in the first quarter of 2021.

#### 13.3. Changes in provision for expected credit losses

	31.12.2021	31.12.2020
Opening balance	1,596	2,331
Additions	69	209
Write-offs	(40)	(667)
Reversals	(112)	(31)
Transfer of assets held for sale	(8)	(3)
Cumulative translation adjustment	(57)	(243)
Closing balance	1,448	1,596
Current	158	218
Non-current	1,290	1,378

In 2020, the write-offs are primarily related to the write-off of receivables from suppliers, relating to the construction and renovation of platforms.

#### Agreement with Companhia de Eletricidade do Amapá

On May 11, 2021, Petrobras signed with Companhia de Eletricidade do Amapá (CEA) a legal agreement for the termination of litigation and credit recovery in the amount of US\$ 58 (R\$ 314 million). The agreement establishes the payment of US\$ 24 (R\$ 133 million) to Petrobras, to be settled in 24 monthly installments. A discount will be granted on the remaining US\$ 34 (R\$ 181 million), provided that the payments occur on time. In case of default, as provided for in the agreement, Petrobras may demand the outstanding debt without discount.

The suspensive conditions of the contract were fulfilled in November 2021 with the transfer of control to Equatorial Energia. Thus, the Company recognized this receivable, with a gain in the statement of income of US\$ 24, before taxes.

#### 13.4. Accounting policy for trade and other receivables

Trade and other receivables are generally classified at amortized cost, except for certain receivables classified at fair value through profit or loss, whose cash flows are distinct from the receipt of principal and interest, including receivables with final prices linked to changes in commodity price after their transfer of control.

When the Company is the lessor in a finance lease, a receivable is recognized at the amount of the net investment in the lease, consisting of the lease payments receivable and any unguaranteed residual value accruing to the Company, discounted at the interest rate implicit in the lease.

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

The Company measures the allowance for ECL of other trade receivables based on their 12-month expected credit losses unless their credit risk increases significantly since their initial recognition, in which case the allowance is based on their lifetime ECL.

When determining whether there has been a significant increase in credit risk, the Company compares the risk of default on initial recognition and at the reporting date.

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

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

In the absence of controversy or other issues that may result in the suspension of collection, the Company assumes that a default occurs whenever the counterparty does not comply with the legal obligation to pay its debts when due or, depending on the instrument, when it is at least 90 days past due.

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

#### 14. Inventories

	12.31.2021	12.31.2020
Crude oil	3,048	2,242
Oil products	2,495	1,925
Intermediate products	532	396
Natural gas and Liquefied Natural Gas (LNG)	349	122
Biofuels	19	30
Fertilizers	8	8
Total products	6,451	4,723
Materials, supplies and others	804	954
Total	7,255	5,677

Crude oil and LNG inventories can be traded or used for production of oil products.

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.

In the year ended December 31, 2021, the Company recognized a US\$ 1 gain within cost of sales, adjusting inventories to net realizable value (a US\$ 375 loss within cost of sales in the year ended December 31, 2020) primarily due to changes in international prices of crude oil and oil products.

At December 31, 2021, the Company had pledged crude oil and oil products volumes as collateral for the Terms of Financial Commitment (TFC) signed by Petrobras and Petros in 2008, amounting to US\$ 2,384, considering the prepayments made in January 2021.

#### 14.1. Accounting policy for inventories

Inventories are determined by the weighted average cost method adjusted to the net realizable value when it is lower than its carrying amount.

Net realizable value is the estimated selling price of inventory in the ordinary course of business, less estimated cost of completion and estimated expenses to complete its sale. Changes in sales prices after the reporting date of the financial statements are considered in the calculation of the net realizable value if they confirm the conditions existing on that reporting date.

#### 15. Trade payables

	12.31.2021	12.31.2020
Third parties in Brazil	3,556	2,828
Third parties abroad	1,861	3,603
Related parties	66	428
Total in current liabilities	5,483	6,859

#### 16. Taxes

#### 16.1. Income taxes

#### Income taxes

		Current assets	Cu	rrent liabilities	Non-cu	rrent liabilities
	12.31.2021	12.31.2020	12.31.2021	12.31.2020	12.31.2021	12.31.2020
Taxes in Brazil						
Income taxes	133	391	682	111	-	-
Income taxes - Tax settlement programs	-	-	43	45	300	357
	133	391	725	156	300	357
Taxes abroad	30	27	8	42	-	-
Total	163	418	733	198	300	357

<sup>(\*)</sup> See note 20.2 for detailed information.

Income taxes credits refer mainly to tax credits resulting from the monthly process for estimation and payment of income taxes, in addition to the negative balance of IRPJ and CSLL related to 2017, 2018, 2019 and 2021. Income taxes within current liabilities refer to the current portion of IRPJ and CSLL to be paid.

Tax settlement programs amounts relate mainly to a notice of deficiency issued by the Brazilian Federal Revenue Service due to the treatment of expenses arising from the Terms of Financial Commitment (TFC) as deductible in determining taxable profit for the calculation of income taxes. The payment term is 145 monthly installments, indexed by the Selic interest rate, as of January 2018.

#### 16.1.1. Reconciliation between statutory income tax rate and effective income tax rate

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

	2021	2020	2019
Net income before income taxes	28,225	(226)	12,003
Nominal income taxes computed based on Brazilian statutory corporate tax rates (34%)	(9,597)	77	(4,081)
Tax benefits from the deduction of interest on capital distribution	843	(16)	728
Different jurisdictional tax rates for companies abroad	296	1,874	1,056
Brazilian income taxes on income of companies incorporated outside Brazil (*)	(546)	(743)	(175)
Tax incentives	50	(9)	443
Tax loss carryforwards (unrecognized tax losses)	59	(428)	(682)
Non-taxable income (non-deductible expenses), net (**)	234	(280)	(1,556)
Post-employment benefits (***)	(802)	559	(417)
Results of equity-accounted investments in Brazil and abroad	318	49	53
Non-incidence of income taxes on indexation charges (SELIC interest rate) over undue paid taxes	903	-	-
Others	3	91	431
Income taxes	(8,239)	1,174	(4,200)
Deferred income taxes	(4,058)	1,743	(2,798)
Current income taxes	(4,181)	(569)	(1,402)
Effective tax rate of income taxes	(29)%	(519)%	(35)%

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

#### 16.1.2. Deferred income taxes - non-current

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

<sup>(\*\*)</sup> It includes provisions for legal proceedings.

<sup>(\*\*\*\*)</sup> It is impacted by non-deductible expenses for health care and pension plans in 2021, compared to the non-taxable gain from the health care plan revision occurred in 2020.

	2021	2020
Balance at January 1	6,256	(372)
Recognized in the statement of income for the period	(4,058)	1,743
Recognized in shareholders' equity	(1,555)	5,564
Cumulative translation adjustment	(124)	(623)
Use of tax loss carryforwards	(1,172)	(60)
Others	37	4
Balance at December 31,	(625)	6,256
Deferred tax assets	604	6,451
Deferred tax liabilities	(1,229)	(195)

The composition of deferred tax assets and liabilities is set out in the following table:

Nature	Realization basis	12.31.2021	12.31.2020
PP&E - Exploration and decommissioning costs	Depreciation, amortization and write-offs of assets	(1,362)	(3,205)
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PP&E - Impairment	Amortization, impairment reversals and write-offs of assets	4,382	6,626
PP&E - Others (*)	Depreciation, amortization and write-offs of assets	(12,924)	(8,690)
Loans, trade and other receivables / payables and financing	Payments, receipts and considerations	3,490	3,913
Finance leases	Appropriation of the considerations	1,244	1,190
Provision for legal proceedings	Payments and use of provisions	605	664
Tax loss carryforwards	30% of taxable income compensation	1,827	2,501
Inventories	Sales, write-downs and losses	228	158
Employee Benefits	Payments and use of provisions	1,250	2,882
Others		635	217
Total		(625)	6,256

<sup>(\*)</sup> It includes accelerated depreciation, difference between units of production method and straight line method, as well as capitalized borrowing costs.

## Non-incidence of income taxes on indexation (SELIC interest rate) of undue paid taxes

On September 24, 2021, the Supreme Federal Court (*Supremo Tribunal Federal* – STF), in a judgment of extraordinary appeal with general repercussion, without final decision, decided that the incidence of income taxes (IRPJ and CSLL) on the indexation income from applying SELIC interest rate (indexation charges and default interest) over undue paid taxes is unconstitutional.

The Company has a writ of mandamus in which it claims the right to recover the amounts of IRPJ and CSLL charged on the income arising from the indexation of undue paid taxes and judicial deposits by the SELIC rate since March 2015, as well as the definitive removal of this income from the IRPJ and CSLL tax base.

On October 20, 2021, a judicial decision was published in the writ of mandamus recognizing the right of the Company to the non-incidence of income taxes on indexation by the SELIC rate of undue paid taxes.

Based on the STF's decision, as well as on the legal grounds presented, Petrobras reassessed the expectation for this matter, considering that it is probable that this tax treatment will be accepted.

Thus, in 2021, a US\$ 903 gain was recognized in the income statement, within income taxes, arising from:

- (i) a US\$ 266 increase in recoverable income taxes, within non-current assets, relating to periods when the Company recorded taxable income:
- (ii) a US\$ 611 decrease in deferred income taxes, within non-current liabilities, relating to periods when the Company recorded tax losses; and
- (iii) a US\$ 26 loss within cumulative translation adjustments.

## 16.1.3. Timing of reversal of deferred income taxes

Deferred tax assets were recognized based on projections of taxable profit in future periods supported by the Company's 2022-2026 Strategic Plan, aiming at the maximization of returns on capital employed, reduction of cost of capital and search for low costs and efficiencies.

Management considers that the deferred tax assets will be realized to the extent the deferred tax liabilities are reversed and expected taxable events occur based on its 2022-2026 Strategic Plan.

The estimated schedule of recovery/reversal of net deferred tax assets (liabilities) as of December 31, 2021 is set out in the following table:

	Assets	Liabilities
2022	59	(2,403)
2023	177	(881)
2024	19	92
2025	18	265
2026	16	(4,513)
2027 and thereafter	315	8,669
Recognized deferred tax assets	604	1,229

In addition, at December 31, 2021, the Company has tax loss carryforwards arising from offshore subsidiaries, for which no deferred taxes were recognized.

	Assets	Liabilities
Brazil	1	-
Abroad	1,351	-
Unrecognized deferred tax assets	1,352	
Total	1,956	1,229

These tax losses arise mainly from oil and gas exploration and production and refining activities in the United States.

An aging of the unrecognized deferred tax assets from companies abroad is set out below:

	2027 - 2029	2030 - 2032	2033 - 2035	2036 -2038	Undefined expiration	Total
Unrecognized deferred tax assets	410	571	303	-	67	1,351

## **Uncertain tax treatments**

As of December 31, 2021, the Company had US\$ 4,983 (US\$ 4,900 as of December 31, 2020) of uncertain tax treatments for IRPJ and CSLL related to judicial and administrative proceedings (see note 18.3). Additionally, as of December 31, 2021, the Company has other positions that can be considered as uncertain tax treatments for IRPJ and CSLL amounting to US\$ 10,712 (US\$ 7,908 as of December 31, 2020), given the possibility of different interpretation by the tax authority. These uncertain tax treatments are supported by technical assessments and tax risk assessment methodology. Therefore, Petrobras understands that such positions will be accepted by the tax authorities.

## 16.1.4. Accounting policy for income taxes

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

The calculations of these taxes are based on the rates of 25% for income tax (IRPJ) and 9% for social contribution on net income (CSLL), and the offsetting of the carryforward of credit losses and negative basis of CSLL, limited to 30% of taxable income for the year.

Income taxes expenses on profits arising from subsidiaries abroad are accounted for in the statement of income using the same income tax rates as used in Brazil, adjusted by dividends and results of equity-accounted investments.

#### a) Current income taxes

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

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

#### b) Deferred income taxes

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

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

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

## 16.2. Other taxes

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Other taxes								
	Cı	urrent assets	Non-cı	urrent assets	Curr	ent liabilities	Non-curren	t liabilities (*)
	12.31.2021	12.31.2020	12.31.2021	12.31.2020	12.31.2021	12.31.2020	12.31.2021	12.31.2020
Taxes in Brazil								
Current / Non-current ICMS (VAT)	665	507	379	293	995	642	-	-
Current / Non-current PIS and COFINS (**)	418	1,570	2,030	2,055	499	544	45	37
Claim to recover PIS and COFINS	-	-	594	681	-	-	-	-
CIDE	6	4	-	-	42	41	-	-
Production taxes	-	-	-	-	2,147	1,173	21	94
Withholding income taxes	-	-	-	-	86	106	-	-
Tax Settlement Program	-	-	-	-	67	-	6	-
Others	48	87	249	119	142	117	70	275
Total in Brazil	1,137	2,168	3,252	3,148	3,978	2,623	142	406
Taxes abroad	46	9	9	10	23	13	-	-
Total	1,183	2,177	3,261	3,158	4,001	2,636	142	406

<sup>(\*)</sup> Other non-current taxes are classified as other non-current liabilities.

Current and non-current ICMS (VAT) credits arise from requests for extemporaneous and overpaid tax, offset in accordance with the legislation of each state. They also arise on the acquisition of assets for property, plant and equipment, which are offset in a straight line over 4 years.

Current and non-current PIS/COFINS credits mainly refer to the acquisition of goods and services for assets under construction, since their use is permitted only after these assets enter into production, as well as to extemporaneous tax credits.

Production taxes are financial compensation due to the Brazilian Federal Government by companies that explore and produce oil and natural gas in Brazilian territory. They are composed of royalties, special participations, signature bonuses and payment for retention or occupation of area.

#### Exclusion of ICMS (VAT tax) from the basis of calculation of PIS and COFINS

In 2020, the Company obtained a favorable and definitive court decision regarding the exclusion of ICMS (VAT tax) in the basis of calculation of sales taxes PIS and COFINS. Following this decision, the amounts overpaid in the period from October 2001 to August 2020 were calculated by excluding the ICMS effectively paid from the basis of calculation of PIS and COFINS, and the Company recognized US\$ 3,226 as other recoverable taxes.

The Company recognized this asset since the economic benefits for Petrobras was virtually certain, given that: (i) the final and unappealable decision in 2020 constitutes a right that ceased to be contingent on the date of that decision; and (ii) the measurement methodology adopted is uncontroversial as it is the one accepted by the Brazilian Federal Revenue Service

<sup>(\*\*)</sup> It includes US\$ 104 (US\$ 1,230 as of December 31, 2020) related to exclusion of ICMS (VAT tax) in the basis of calculation of sales taxes PIS and COFINS (contributions for the social security).

(Expressed in millions of US Dollars, unless otherwise indicated)

On May 14, 2021, the Supreme Federal Court (STF) determined that the ICMS amount to be excluded from the calculation basis of PIS and COFINS are the amounts reported in the invoices, which were higher than the amounts effectively collected. Thus, an additional credit of US\$ 890 was recognized as other recoverable taxes.

The net gain in income in 2021 was US\$ 542 (US\$ 2,050 in 2020).

At December 31, 2021, the Company had already used US\$ 910 (US\$ 1,857 in 2020) in lieu of payment of other federal taxes.

As of December 31, 2021, the remaining balance for compensation relating to the exclusion of ICMS from the basis of calculation of PIS and COFINS, indexed to the SELIC rate, is US\$ 104 classified as other recoverable taxes.

Nature	Effects in the Financial Statements	2021	2020
Recovery of taxes	Other income and expenses	507	1,516
Inflation indexation	Foreign exchange gains (losses) and inflation indexation charges	479	1,709
Translation effects	Cumulative translation adjustments	(96)	_
Exclusion of ICMS from basis of calculation of PIS/COFINS	Credit in other recoverable taxes	890	3,226
Pis and Cofins	Other taxes	(20)	(78)
Tax effects (*)	Income taxes	(328)	(1,097)
Net effects	Statement of income	542	2,050

<sup>(\*)</sup> A portion of the inflation indexation credit was recovered with the decision of the STF, as described in note 16.1.2.

## **Recovery of PIS and COFINS**

The Company filed civil lawsuits, in the Regional Federal Court of the Second Region, against the Brazilian Federal Government, claiming to recover PIS and COFINS paid over finance income and foreign exchange variation gains, from February 1999 to January 2004.

The court granted to the Company, in all the lawsuits, the definitive right to recover those taxes. These proceedings are in settlement phase, and until this moment solely the undisputed portion of one of the lawsuits has been effectively received.

As of December 31, 2021, the Company had non-current receivables of US\$ 594 (US\$ 681 as of December 31, 2020) related to PIS and COFINS, which are indexed to inflation.

# 16.3. Tax amnesty programs – State Tax

As part of its on-going process of litigation management, in 2021, Petrobras adhered to tax amnesty programs of the states of Rio de Janeiro, Bahia Rio Grande do Sul, generating a US\$ 187 gain (a US\$ 209 gain, a US\$ 21 loss and a US\$ 1 loss for each state, respectively), arising from the reversal of part of the related provisions, of which a US\$ 147 gain as other income and expenses, and a US\$ 40 gain as finance income.

The main state amnesty programs to which the Company has adhered are the following:

#### State of Rio de Janeiro

The State of Rio de Janeiro created a tax debt settlement program called PEP-ICMS, under the terms of state law 189/2020 (extended through state law 191/2021) which allowed a 90% reduction of amounts due as a fine and interest.

By adhering to the program, the Company settled US\$ 322 of ICMS disputes disbursing US\$ 125 during 2021, of which US\$ 97 relates to disputes involving tax credits due to the cancellation of a plant of Gaslub (former Comperj) and US\$ 27 relates to payment of tax notices regarding ancillary obligations, misapplication of ICMS credit, as well as self-denunciation related to the ICMS calculation process.

As a result, the Company recognized a US\$ 209 gain due to the reversal of the provisions.

## State of Bahia

The adhesion to the amnesty program with the state of Bahia, entered into under the terms of state law 14,286/2020, allowed a 50% reduction of the debt and a 90% reduction of fines and interest. The tax debts, arisen from the disallowance of tax credits, were settled in the amount of US\$ 21, in 2021.

## 17. Employee benefits

Employee benefits are all forms of consideration given by an entity in exchange for service rendered by employees or for the termination of employment. It also includes expenses with directors and management. Such benefits include salaries, post-employment benefits, termination benefits and other benefits.

	12.31.2021	12.31.2020
Liabilities		
Short-term employee benefits	1,290	1,200
Termination benefits	348	900
Post-retirement benefits	9,880	16,069
Total	11,518	18,169
Current	2,144	3,502
Non-current	9,374	14,667

#### 17.1. Short-term benefits

Short-term benefits are expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related service.

	12.31.2021	12.31.2020
Variable compensation program - PPP	461	522
Accrued vacation	440	470
Salaries and related charges and other provisions	270	204
Profit sharing	118	5
Total	1,289	1,201
Current	1,286	1,199
Non-current (*)	3	2

<sup>(\*)</sup> Remaining balance relating to the four-year deferral of 40% of the PPP portion of executive managers.

In 2021, 2020 and 2019, the Company recognized the following amounts in the statement of income:

	2021	2020	2019
Salaries, accrued vacations and related charges	(2,665)	(3,064)	(4,313)
Variable compensation program - PPP	(469)	(439)	(643)
Profit sharing	(125)	(7)	(43)
Management fees and charges	(15)	(14)	(21)
Total	(3,274)	(3,524)	(5,020)

## 17.1.1. Variable compensation programs

## Performance award program (PPP)

On September 17, 2021, the Company's Board of Directors approved changes in the criteria for granting PPP 2021 to employees (in relation to the criteria previously approved by the Company's Board of Directors on December 16, 2020). The criteria for this variable compensation program establish that, in order to trigger this payment, it is necessary to have net income for the year and declaration and payment of distribution to shareholders, associated with the achievement of the Company's performance metrics and the individual performance of employees.

#### **Profit Sharing (PLR)**

At December 29, 2020, the 17 unions representing onshore employees of the Parent Company had signed the agreement for the PLR for 2021 and 2022, before the deadline determined by the Collective Labor Agreement (ACT). Among the offshore employees, only one union had signed the agreement within the period defined by the ACT.

The current agreement for the PLR provides that only employees without managerial functions will be entitled to receive profit sharing with individual limits according to their remuneration.

In order for the PLR to be paid in 2021 and 2022, the following requirements must be met: (i) dividend distribution to shareholders approved at the Annual General Shareholders Meeting, (ii) net income for the year, and iii) achievement of the weighted average percentage of at least 80% of a set of indicators.

The maximum amount of PLR to be distributed is limited to 5% of Adjusted EBITDA (a non-GAAP measure defined as net income plus net finance income (expense), income taxes, depreciation, depletion and amortization, results in equity-accounted investments, impairment, cumulative foreign exchange adjustments reclassified to the income statement, results from disposal and write-offs of assets, foreign exchange gains and losses resulting from provisions for legal proceedings denominated in foreign currencies and results from the compensation of investments in bid areas), to 6.25% of net income and to 25% of dividends distributed to shareholders, in each year, whichever is lower.

## Accounting policy for variable compensation programs (PPP and PLR)

The provision for variable compensation programs is recognized on an accrual basis and represents the estimate of future disbursements arising from past events, based on the criteria and metrics of the PPP and PLR, provided that the requirements for activating these programs are met.

## 17.2. Termination benefits

Termination benefits are employee benefits provided in exchange for the termination of labor contract as a result of either: i) an entity's decision to terminate the labor contract before the employee's normal retirement date; or ii) an employee's decision to accept an offer of benefits in exchange for the termination of their employment.

The Company has voluntary severance programs (PDV), specific for employees of the corporate segment and of divestment assets, which provide for the same legal and indemnity advantages, whose enrollment deadlines have already closed, totaling 11,418 adhesions accumulated until December 31, 2021 (11,117 until December 31, 2020).

Recognition of the provision for expenses occur as employees enroll to the programs.

During January 2021, the Company reopened the voluntary termination program for retired employees under the Brazilian Social Security Institute (INSS) before the enactment of the pension reform, for employees not yet enrolled or who have canceled enrollment for any reason until December 29, 2020, when 195 employees enrolled in this program.

The Company will disburse the severance payments in two installments, one at the time of termination and the remainder one year after the termination.

Changes in the provision for expenses relating to voluntary severance programs are set out as follows:

Opening Balance	12.31.2021 900	12.31.2020 140
Effects in the statement of income	(11)	1,017
Enrollments	30	1,076
Revision of provisions	(41)	(59)
Effects in cash and cash equivalents	(497)	(245)
Separations in the period	(497)	(245)
Cumulative translation adjustment	(43)	(12)
Closing Balance	349	900
Current	207	754
Non-current Non-current	142	146

As of December 31, 2021, from the balance of US\$ 349, US\$ 156 refers to the second installment of 2,607 retired employees and US\$ 193 refers to 1,961 employees enrolled in voluntary severance programs with expected termination by December 2024.

## 17.3. Employee benefits (post-employment)

The Company maintains a health care plan for its employees in Brazil (active and retiree) and their dependents (Saúde Petrobras), and five other major types of post-retirement pension benefits (collectively referred to as "pension plans").

	12.31.2021	12.31.2020
Liabilities		
Health Care Plan	4,485	5,356
Petros Pension Plan - Renegotiated (PPSP-R) (*)	3,233	6,016
Petros Pension Plan - Non-renegotiated (PPSP-NR) (*)	658	1,621
Petros Pension Plan - Renegotiated - Pre-70 (PPSP-R Pré 70)	817	1,508
Petros Pension Plan - Non-renegotiated - Pre-70 (PPSP-NR Pré 70)	511	1,075
Petros 2 Pension Plan (PP-2)	165	477
Other plans	11	16
Total	9,880	16,069
Current	651	1,549
Non-current Non-current	9,229	14,520

<sup>(\*)</sup> In 2020, it includes obligations with contribution for the revision of the lump sum death benefit.

## 17.3.1. Nature and risks associated with defined benefit plans

#### **Health Care Plan**

The health care plan is managed by Petrobras Health Association (Associação Petrobras de Saúde – APS), a nonprofit civil association, and includes prevention and health care programs. The plan covers all employees and retirees, and is open to future employees.

Currently sponsored by Petrobras, Transpetro, PBIO, TBG and Termobahia, this plan is primarily exposed to the risk of an increase in medical costs due to inflation, new technologies, new types of coverage and an increase in the utilization of medical benefits. The Company continuously improves the quality of its technical and administrative processes, as well as the health programs offered to beneficiaries in order to mitigate such risks.

Employees and retirees make monthly fixed contributions to cover high-risk procedures and variable contributions for a portion of the cost of other procedures, both based on the contribution tables of the plan, which are determined based on certain parameters, such as salary and age levels. The plan also includes assistance towards the purchase of certain medicines through reimbursement, with co-participation of employees and retirees.

Benefits are paid by the Company based on the costs incurred by the participants. The financial participation of the Company and the beneficiaries on the expenses are provided for in the Collective Bargaining Agreement (ACT), as follows:

- Until 2020, this benefit was covered 70% by the Company and 30% by the participants;
- As from January 2021, this benefit is covered 60% by the Company and 40% by participants.

#### Intermediate revision of the health care plan

On September 30, 2021, the Brazilian Federal Senate approved the Legislative Decree No. 26/2021, suspending the effects of CGPAR Resolution No. 23/2018, which had established parity contribution (50%-50%) for the coverage of costs between state-owned companies and employees.

On December 31, 2020, the Company had carried out a remeasurement of the actuarial liabilities of this plan to reflect the provisions of the CGPAR Resolution, in force at that time. However, with the suspension of this resolution, in September 2021, the Company carried out an intermediate remeasurement of the actuarial liabilities of this plan, to reflect the costing ratio for 2022 onwards, to be covered 60% by the Company and 40% by the participants, as provided for in the Collective Labor Agreement (ACT) for 2020-2022, which resulted in a US\$ 852 expense recognized within other income and expenses, due to the change in the benefit costing (past service cost), and a US\$ 1,176 gain within other comprehensive income, due to the revision of actuarial assumptions.

#### Annual revision of the health care plan

At December 31, 2021, this obligation was revised using the actuarial assumptions in force, which results are shown in note 17.5.2.

## Pension plans

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

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(Expressed in millions of US Dollars, unless otherwise indicated)

Pension plans in Brazil are regulated by the National Council for Supplementary Pension (*Conselho Nacional de Previdência Complementar* – CNPC), which establishes all guidelines and procedures to be adopted by the plans for their management and relationship with stakeholders.

Petros Foundation periodically carries out revisions of the plans and, when applicable, establishes measures aiming at maintaining the financial sustainability of the plans.

The major post-retirement pension benefits sponsored by the Company are:

- . Petros Plan Renegotiated (PPSP-R)
- . Petros Plan Renegotiated Pre-70 (PPSP-R Pre-70)
- . Petros Plan Non-renegotiated (PPSP-NR)
- . Petros Plan Non-renegotiated Pre-70 (PPSP-NR Pre-70)
- . Petros 2 Plan (PP-2)
- . Petros 3 Plan (PP-3)

Currently, PPSP-R, PPSP-NR, PPSP-R Pre-70, PPSP-NR Pre-70 and PP-3 are sponsored by Petrobras, and PP-2 by Petrobras, Transpetro, PBIO, TBG, Termobahia, Termomacaé and Araucária Nitrogenados (the latter in process of withdrawing sponsorship).

The PPSP-R and PPSP-NR are splits derived from Petros Plan (PPSP) originally established by the Company in July 1970. On January 1, 2020, PPSP-R Pre-70 and PPSP-NR Pre-70 were created as a split of PPSP-R and PPSP-NR, respectively.

Pension plans supplement the income of their participants during retirement, in addition to guaranteeing a pension for the beneficiaries in case of the death of a participant. The benefit consists of a monthly income supplementing the benefit granted by the Brazilian Social Security Institute.

# The table below provides other characteristics of these plans:

	PPSP-R	PPSP-R Pre-70	PPSP-NR	PPSP-NR Pre-70	PP-2	PP-3
Modality	Defined Benefit	Defined Benefit	Defined Benefit	Defined Benefit	Variable Contribution (defined benefit and defined contribution portions)	Defined Contribution
Participants of the plan	Generally covers employees and former employees who joined the company after 1970 that agreed with changes proposed by the Company in its original pension plan (P0) and amendments.	Generally covers employees and former employees hired prior to July 1, 1970, who enrolled in the P0 until January 1, 1996 and remained continuously linked to the original sponsor obtaining the condition of assisted.	Generally covers employees and former employees who joined the company after 1970 that did not agree with changes proposed by the Company in its original pension plan (P0) and amendments	Generally covers employees and former employees hired prior to July 1, 1970, who enrolled in the P0 until January 1, 1996 and remained continuously linked to the original sponsor obtaining the condition of assisted and did not agreed with changes in in its original pension plan (P0) and amendments.	This Plan was established in 2007, also covering employees and former employees that moved from other existing plans.	This plan was implemented in 2021, exclusive option for voluntary migration of employees and retirees from the PPSP-R and PPSP-NR plans.
New enrollments	Closed	Closed	Closed	Closed	Open	Closed
Retirement payments	Lifetime monthly payme	nts supplementing the benefit g	ranted by the Brazilian Nationa	Closed Closed O  Li  mit  dep  panted by the Brazilian National Institute of Social Security.		Undefined benefit with monthly payments, in accordance with the participant election.
Other general benefits	Lump sum death benefit (insu	red capital) and monthly payme	ents related to the following eve	ents: death, disability, sickness, an	d seclusion.	Lump sum death benefit (insured capital) and monthly payments related to the following events: death, disability, sickness, and seclusion.
Indexation of Retirement payments by the plan	Based on the Nationwid	e Consumer Price Index.	employees' salaries and the	ex levels applicable to active indexes set out by the Brazilian e of Social Security.	Lifetime monthly payments: based on the Nationwide Consumer Price Index	Undefined benefit monthly payments: based on the variation of individual account quota.  Undefined benefit monthly payments: based on the variation of individual account quota.
Parity contributions made by participants and the Company to the plans	It is comprised of:  i) normal contributions that covers expected cost of the plans in the long term; and  ii) extraordinary contributions that covers additional costs that are generally derived from actuarial deficits.	It is comprised of: normal contributions that covers expected cost of the plans in the long term.  Participants are exempt from paying any extraordinary contributions in case of deficit.	It is comprised of: i) normal contributions that covers expected cost of the plans in the long term; and ii) extraordinary contributions that covers additional costs that are generally derived from actuarial deficits.	i) normal contributions that covers expected cost of the plans in the long term; and ii) extraordinary contributions that covers appeared to set of the plans in the long term.  Participants are exempt from paying any extraordinary contributions that covers additional costs that are generally derived from		Regular contributions during the employment relationship, saving for the undefined benefit, accumulated in individual accounts
Terms of Financial Commitment - TFC (debt agreements) assumed by the Company to settle the deficits. Amounts to be paid to Petros Foundation. This obligation is recorded in these financial statements, within actuarial liabilities.	Financial obligations with a principal amounting to US\$508 at 12/31/2021.	Financial obligations with a principal amounting to US\$893 at 12/31/2021.	Financial obligations settled early in 2021.	Financial obligations with a principal amounting to US\$519 at 12/31/2021.	being made but may occur in the future).  N/A	N/A
	Annually remeasured in acco		ons, with semi-annual payment aturing in 20 years.	of interest based on the updated		

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#### **New Deficit Settlement Plan (New PED)**

On April 28, 2020, the New Deficit Settlement Plan for the PPSP-R and PPSP-NR (New PED) was approved by the Secretariat of Management and Governance of the State-owned Companies (SEST) and by the Superintendency of Post-retirement Benefits (PREVIC), also approving changes in regulation regarding the reduction of the lump sum death benefit.

The New PED covers 2015 and 2018 deficits and incorporates 2019 results. Total settlement amounts to US\$ 6,485 (R\$ 33.7 billion). Of the total amount, US\$ 3,006 (R\$ 15,620 million) will be paid by Petrobras, in compliance with contributory parity provided for by relevant legislation, of which US\$ 2,611 (R\$ 13,566 million) will be paid through lifelong additional contributions and US\$ 395 (R\$ 2,054 million) as a counterpart contribution for the reduction of the lump sum death benefit. On June 30, 2021, the Company prepaid the remaining balance of this contribution, in the amount of US\$ 447.

The rest of the deficit will be paid by other sponsors and participants of the PPSP-R and PPSP-NR plans.

The current model differs from that applied in PED-2015, aiming at reducing the additional contributions of most of the participants by: (i) extending the collection time from 18 years to a lifetime; (ii) specific fixed contribution rates for active and assisted employees; (iii) the implementation of an annual contribution of 30% on the 13th salary; and (iv) the reduction in the amount of the lump sum death benefit.

The New PED sets forth changes in some rights and regulation of the PPSP-R and PPSP-NR, in accordance with Resolution No. 25 of CGPAR, which establishes guidelines and parameters for federal state companies regarding the sponsorship of pension plans.

#### Migration to PP-3 and intermediate revision of PPSP-R and PPSP-NR

On January 27, 2021, the Secretariat of Management and Governance of the State-owned Companies (SEST) and the Superintendency of Post-retirement benefits (PREVIC), approved the establishment of Petros Plan 3 (PP-3), as well as changes in regulations of Petros Plan - Renegotiated and Petros Plan Non-renegotiated (PPSP-R and PPSP-NR), not including pre-70 plans, determining the process of migration of participants to PP-3.

The PP-3 is a new pension plan with defined contribution characteristics, implemented as an exclusive option for voluntary migration of participants from the PPSP-R and PPSP-NR plans, not including pre-70 plans, whose deadline for enrollment was on April 30, 2021. The choice for migration is irreversible and irrevocable, in addition to terminating any link with the plan of origin.

On June 15, 2021, the validation of the PP-3 enrollments was completed, totaling 2,176 registrations, as well as technical and administrative feasibility studies were performed, allowing its implementation as of August 2021.

Thus, in the second quarter of 2021, the Company carried out an intermediate revision of the PPSP-R and PPSP-NR plans, which resulted in a US\$ 1,731 reduction in liabilities, comprising: (i) a US\$ 1 gain in the statement of income for the past service cost of the 2,176 participants who opted for the migration (as detailed in table "Changes in the net actuarial liability"); (ii) a US\$ 1,721 gain in shareholders' equity within other comprehensive income, mainly due to the increase in the discount rate applied to actuarial liabilities; and the remaining US\$ 9 as cumulative translation adjustments.

On September 9, 2021, Petrobras made a contribution in the amount of US\$ 241 (of which US\$ 231 relates to participants originally from the PPSP-R, and US\$ 10 from the PPSP-NR), in addition to US\$ 18 paid in June 2021 for the revision of the lump sum death benefit, as set forth in the deficit settlement plan for PPSP-R and PPSP-NR.

#### Annual revision of the pension plans

At December 31, 2021, this obligation was revised using the actuarial assumptions in force, which results are shown in note 17.5.2.

# 17.3.2. Net actuarial liabilities and expenses, and fair value of plans assets

# a) Changes in the actuarial liabilities recognized in the statement of financial position

•	^	•
Z	U	Z

						2021
			Pension Plans	Health Care Plan	Other plans	Total
	PPSP-R (*)	PPSP-NR (*)	Petros 2			
Amounts recognized in the Statement of Financial Position						
Present value of obligations	11,481	3,485	987	4,485	9	20,447
( -) Fair value of plan assets	(7,431)	(2,316)	(822)	-	2	(10,567)
Net actuarial liability as of December 31, 2021	4,050	1,169	165	4,485	11	9,880
Changes in the net actuarial liability						
Balance as of January 1, 2021 (**)	7,524	2,696	477	5,356	16	16,069
Recognized in the Statement of Income	469	178	72	1,388	(9)	2,098
Past service cost	(1)	_	_	845	-	844
Present value of obligation	(730)	(33)	_	845	-	82
Plan assets transferred to PP-3	496	22	_	-	-	518
Sponsor contribution for PP-3	233	11	-	-	-	244
Current service cost	13	1	37	158	(10)	199
Net interest	438	172	35	385	1	1,031
Interest on the obligations with contribution for the revision of the lump sum death benefit	19	5	; –	_	_	24
Recognized in Equity - other comprehensive income	(2,223)	(989)	(362)	(1,601)	6	(5,169)
Remeasurement effects recognized in other comprehensive income	(2,223)	(989)	(362)	(1,601)	6	(5,169)
Cash effects	(1,339)	(591)	_	(309)	-	(2,239)
Contributions paid (***)	(475)	(86)	_	(309)	_	(870)
Payments of obligations with contribution for the revision of the lump sum death benefit	(340)	(101)	_	_	_	(441)
Payments related to Term of financial commitment (TFC)	(524)	(404)	_	-	-	(928)
Other changes	(381)	(125)	(22)	(349)	(2)	(879)
Cumulative Translation Adjustment	(381)	(125)	(22)	(349)	(2)	(879)
Balance of actuarial liability as of December 31, 2021	4,050	1,169	165	4,485	11	9,880
(4) 11: 11: 11: 11: 11: 11: 11: 11: 11: 11			•			

<sup>(\*)</sup> It includes the balance of PPSP-R pre-70 and PPSP-NR pre-70.

 $<sup>(\</sup>ensuremath{^{\star\star}})$  It includes obligations with contribution for the revision of the lump sum death benefit

<sup>(\*\*\*)</sup> It includes the contribution for the migration to PP-3 (US\$ 241).

						2020
		P	ension Plans	Health Care Plan	Other plans	Total
	PPSP-R (*)	PPSP-NR (*)	Petros 2			
Amounts recognized in the Statement of Financial Position						
Present value of obligations	15,847	4,811	1,177	5,356	26	27,217
( -) Fair value of plan assets	(8,650)	(2,213)	(700)	_	(12)	(11,575)
Net actuarial liability as of December 31, 2020	7,197	2,598	477	5,356	14	15,642
Changes in the net actuarial liability						
Balance as of January 1, 2020	10,231	3,264	989	11,986	24	26,494
Recognized in the Statement of Income	84	40	131	(1,672)	2	(1,415)
Service cost (**)	(298)	(93)	64	(2,348)	-	(2,675)
Costs incurred in the period	382	133	67	676	2	1,260
Recognized in Equity - other comprehensive income	(344)	285	(391)	(1,957)	(8)	(2,415)
Remeasurement effects recognized in other comprehensive income	(344)	285	(391)	(1,957)	(8)	(2,415)
Cash effects	(474)	(265)	-	(308)	(1)	(1,048)
Contributions paid	(255)	(80)	-	(308)	(1)	(644)
Payments related to Term of financial commitment (TFC)	(219)	(185)	-	-	-	(404)
Other changes	(2,300)	(726)	(252)	(2,693)	(3)	(5,974)
Others	-	_	-	-	2	2
Cumulative Translation Adjustment	(2,300)	(726)	(252)	(2,693)	(5)	(5,976)
Balance of actuarial liability as of December 31, 2020	7,197	2,598	477	5,356	14	15,642
Obligations with contribution for the revision of the lump sum death	315	99	-	-	-	414
Cumulative Translation Adjustment	12	(1)	-	-	2	13
Total obligation for pension and medical benefits as of December 31, 2020	7,524	2,696	477	5,356	16	16,069

<sup>(\*)</sup> It includes the balance of PPSP-R pre-70 and PPSP-NR pre-70.

# b) Changes in the present value of the obligation

2021

						2021
		P	Pension Plans	Health Care Plan	Other plans	Total
	PPSP-R (*)	PPSP-NR (*)	Petros 2			
Present value of obligations at the beginning of the year	15,847	4,811	1,177	5,356	26	27,217
Recognized in the Statement of Income	1,179	355	122	543	(8)	2,191
Interest expense	1,166	354	85	385	2	1,992
Service cost	13	1	37	158	(10)	199
Past service cost	(1)	_	_	845	-	844
Recognized in Equity - other comprehensive income	(2,969)	(1,041)	(168)	(1,601)	(7)	(5,786)
Remeasurement: Experience (gains) / losses (**)	(313)	(301)	315	(239)	(8)	(546)
Remeasurement: (gains) / losses - demographic assumptions	-	_	(5)	96	-	91
Remeasurement: (gains) / losses - financial assumptions	(2,656)	(740)	(478)	(1,458)	1	(5,331)
Others	(2,576)	(640)	(144)	187	(2)	(3,175)
Benefits paid, net of assisted contributions	(952)	(319)	(65)	(309)	-	(1,645)
Contributions paid by participants	26	7	-	_	-	33
Transfer and contribution for PP-3	(680)	(31)	-	_	-	(711)
Others	_	_	-	_	-	-
Cumulative Translation Adjustment	(970)	(297)	(79)	496	(2)	(852)
Present value of obligations at the end of the year	11,481	3,485	987	4,485	9	20,447

 $<sup>(\</sup>mbox{\ensuremath{^{*}}})$  It includes the balance of PPSP-R pre-70 and PPSP-NR pre-70.

<sup>(\*\*)</sup> It includes the gain from past service cost, in the amount of US\$ 374, due to the change in the Renegotiated and Non-renegotiated Petros Plans, and US\$ 2,538 due to the change in the AMS Medical Plan.

 $<sup>(\</sup>ensuremath{^{\star\star}}\xspace)$  It includes additional contributions - New PED.

						2020
		P	Other plans	Total		
	PPSP-R (*)	PPSP-NR (*)	Petros 2			
Present value of obligations at the beginning of the year	20,919	5,955	1,672	11,986	37	40,569
Recognized in the Statement of Income	589	190	176	(1,672)	3	(714)
Interest expense	887	283	112	676	3	1,961
Service cost	(298)	(93)	64	(2,348)	-	(2,675)
Recognized in Equity - other comprehensive income	(148)	211	(228)	(1,957)	(7)	(2,129)
Remeasurement: Experience (gains) / losses (**)	(436)	231	55	(671)	-	(821)
Remeasurement: (gains) / losses - demographic assumptions	-	-	(20)	1	1	(18)
Remeasurement: (gains) / losses - financial assumptions	288	(20)	(263)	(1,287)	(8)	(1,290)
Others	(5,513)	(1,545)	(443)	(3,001)	(7)	(10,509)
Benefits paid, net of assisted contributions	(920)	(228)	(35)	(310)	(2)	(1,495)
Contributions paid by participants	75	15	_	-	-	90
Others	-	-	_	_	2	2
Cumulative Translation Adjustment	(4,668)	(1,332)	(408)	(2,691)	(7)	(9,106)
Present value of obligations at the end of the year	15,847	4,811	1,177	5,356	26	27,217

 $<sup>(\</sup>mbox{\ensuremath{^{'}}})$  It includes the balance of PPSP-R pre-70 and PPSP-NR pre-70.

## c) Changes in the fair value of plan assets

2021 **Health Care** Other **Pension Plans** Plan plans Total PPSP-NR (\*) PPSP-R (\*) Petros 2 12 11,575 Fair value of plan assets at the beginning of the year 8,650 2,213 Recognized in the Statement of Income 728 182 50 961 1 Interest income 728 182 50 961 Recognized in Equity - other comprehensive income (746)(52)194 (13)(617)Remeasurement: Return on plan assets due to lower interest income (746)(52)194 (13) (617)Cash effects 999 490 309 1,798 Contributions paid by the sponsor (Company) (\*) 475 86 309 870 Term of financial commitment (TFC) paid by the Company 524 404 928 (309) Other Changes (2,200)(517)(122) (3,150)(2) Contributions paid by participants 26 33 (319)(309)Benefits paid, net of assisted contributions (952)(65)(1,645)Transfer and contribution for PP-3 (680)(31)(711)Cumulative Translation Adjustment (174)(57) (2) (594)(827)Fair value of plan assets at the end of the year 10,567 2,316 822 (2) 7,431

<sup>(\*\*)</sup> It includes additional contributions - PED 2015.

 $<sup>(\</sup>sp{*})$  It includes the balance of PPSP-R pre-70 and PPSP-NR pre-70.

						2020
		P	ension Plans	Health Care Plan	Other plans	Total
	PPSP-R (*)	PPSP-NR (*)	Petros 2			
Fair value of plan assets at the beginning of the year	10,688	2,691	683	-	13	14,075
Recognized in the Statement of Income	505	150	45	-	1	701
Interest income	505	150	45	-	1	701
Recognized in Equity - other comprehensive income	196	(74)	163	-	1	286
Remeasurement: Return on plan assets due to lower interest income	196	(74)	163	-	1	286
Cash effects	474	265	-	308	1	1,048
Contributions paid by the sponsor (Company) (*)	255	80	-	308	1	644
Term of financial commitment (TFC) paid by the Company	219	185	-	-	-	404
Other Changes	(3,213)	(819)	(191)	(308)	(4)	(4,535)
Contributions paid by participants	75	15	-	-	-	90
Benefits paid, net of assisted contributions	(920)	(228)	(35)	(310)	(2)	(1,495)
Cumulative Translation Adjustment	(2,368)	(606)	(156)	2	(2)	(3,130)
Fair value of plan assets at the end of the year	8,650	2,213	700	_	12	11,575

<sup>(\*)</sup> It includes the balance of PPSP-R pre-70 and PPSP-NR pre-70.

#### **Pension Plan assets**

Seeking to maintain an appropriate investment performance, Petros Foundation annually prepares Investment Policies (PI) specific to each plan, following two models:

- (i) for Petros 2, the achievement of the actuarial goal with the lowest value at risk; and
- (ii) for defined benefit plans, the minimal mismatch in net cash flows, conditioned to the achievement of the actuarial target.

Pension plans assets follow a long-term investment strategy based on the risks assessed for each different class of assets and provide for diversification, in order to lower portfolio risk. The portfolio profile must comply with the Brazilian National Monetary Council (Conselho Monetário Nacional – CMN) regulations.

Petros Foundation establishes investment policies for 5-year periods, reviewed annually. Petros uses an asset liability management model (ALM) to address net cash flow mismatches of the benefit plans, based on liquidity and solvency parameters, simulating a 30-year period.

The pension plan assets by type of asset are set out as follows:

				2021		2020
Type of asset	Quoted prices in active markets	Unquoted prices	Total fair value	%	Total fair value	%
Receivables	-	846	846	8%	847	8%
Fixed income	3,820	3,044	6,864	67%	7,186	62%
Government bonds	3,771	751	4,522	-	4,824	-
Fixed income funds	-	860	860	-	1,500	-
Other investments	49	1,433	1,482	-	862	-
Variable income	1,686	232	1,918	16%	2,514	21%
Common and preferred shares	1,686	-	1,686	-	2,377	-
Other investments	-	232	232	-	137	-
Structured investments	33	151	184	2%	113	1%
Real estate properties	-	475	475	4%	563	5%
	5,539	4,748	10,287	97%	11,223	97%
Loans to participants	-	280	280	3%	352	3%
Total	5,539	5,028	10,567	100%	11,575	100%

(Expressed in millions of US Dollars, unless otherwise indicated)

There is no plan asset for the health care plan. Loans to participants are measured at amortized cost, which is considered an appropriate estimate of fair value.

As of December 31, 2021, the investment portfolio included debentures of US\$ 6 (US\$ 9 in 2020), Company's common shares in the amount of US\$ 1 (US\$ 1 in 2020) and real estate properties leased by the Company in the amount of US\$ 243 (US\$ 254 in 2010).

#### d) Net expenses relating to benefit plans

		Pe	ension Plans	Health Care	Other	
	PPSP-R (*)	PPSP-NR (*)	Petros 2	Plan	Plans	Total
Related to active employees (cost of sales and expenses)	54	10	58	519	(9)	632
Related to retirees (other income and expenses)	397	163	14	869	-	1,443
Obligations with contribution for the revision of the lump sum death benefit	18	5	_	_	_	23
Net expenses for the year - 2021	469	178	72	1,388	(9)	2,098
Net expenses for the year - 2020 (**)	399	139	131	(1,672)	2	(1,001)
Net expenses for the year - 2019	561	211	75	1,232	7	2,086

<sup>(\*)</sup> It includes amounts of PPSP-R pre-70 and PPSP-NR pre-70

#### 17.3.3. Contributions

In 2021, the Company contributed with US\$ 2,239 to the defined benefit plans (reducing the balance of obligations of these plans, as presented in note 17.5.2), and with US\$ 117 and US\$ 1, respectively, to the defined contribution portions of PP-2 and PP-3 plans (US\$ 128 for PP-2 in 2020).

For 2022, the expected contributions for the PPSP-R, PPSP-NR, PPSP-R pre-70 and PPSP-NR pre-70 plans, amounts to US\$ 396, and for PP-2 amounts to US\$ 172, relating to the defined contribution portion.

The contribution to the defined benefit portion of the PP-2 is suspended between July 1, 2012 and June 30, 2022, according to the decision of the Petros Foundation's Deliberative Council, based on the recommendation of actuarial specialists of the Petros Foundation, since there is sufficient reserve to cover the value at risk. Thus, all contributions made during this period are being allocated to the participant's individual account.

## 17.3.4. Expected future cash flow

The estimate below reflects only the expected future cash flows to meet the defined benefit obligation recognized at the end of the reporting period.

						2021	2020
			Pension Plan	Health Care Plan	Other Plans	Total	Total
	PPSP-R (*)	PPSP-NR (*)	Petros 2				
Up to 1 Year	904	303	57	247	9	1,520	1,484
1 to 5 Years	3,780	1,231	245	894	-	6,150	5,444
6 to 10 Years	2,659	837	189	930	-	4,615	5,755
11 To 15 Years	1,780	530	145	738	_	3,193	5,077
Over 15 Years	2,358	584	351	1,676	_	4,969	9,457
Total	11,481	3,485	987	4,485	9	20,447	27,217

<sup>(\*)</sup> It includes the balance of PPSP-R pre-70 and PPSP-NR pre-70.

## 17.3.5. Future payments to participants of defined benefit plans that are closed to new members

The following table provides the period during which the defined benefit obligation associated with these plans are expected to continue to affect the Company's financial statements.

<sup>(\*\*)</sup> It includes US\$ 1,415 related to the actuarial remeasurement and US\$ 414 to the update of the obligation with the contribution for the reduction of the lump sum death benefit.

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	PPSP-R	PPSP-R Pré-70	PPSP-NR	PPSP-NR Pré-70
Number of years during which benefits must be paid to participants of defined benefit plans.	10.72	6.95	11.51	7.57

# 17.3.6. Measurement uncertainties associated with the defined benefit obligation

The significant financial and demographic actuarial assumptions used to determine the defined benefit obligation are presented in the following table:

Assumptions	PPSP-R	PPSP-NR	PPSP-R	PPSP-NR	Pension Plans PP2	2021 Health Care Plan
Nominal discount rate (including inflation)(1)	8.11% (05/2021) 10.64% (12/2021)	8.07% (05/2021) 10.62% (12/2021)	10.55%	10.54%	10.73%	8.92% (09/2021) 10.68% (12/2021)
Nominal expected salary growth (including inflation) (2)	5.83%	5.63%	5.83%	5.63%	7.20%	n/a
Expected changes in medical and hospital costs (3)	n/a	n/a	n/a	n/a	n/a	5.24% a 3.25% p.a.
Mortality table	Petros Experience (Bidecrem 2013)	Petros Experiences (Bidecrem 2020)	Petros Experiences (Bidecrem 2016)	Petros Experiences (Bidecrem 2020)	AT-2012 IAM basic fem 10% smoothed	Employees: according to pension plan Assisted: Ex Petros (Bidecr 2013)
Disability table	American group	American group	n/a	n/a	Álvaro Vindas 50% smoothed	Assets: Alvaro Vindas 50% smoothed
Mortality table for disabled participants	AT-49 male	AT-49 male	MI 2006, by gender, 20% smoothed	Petros Experience 2014	IAPB-57 strong, 10% smoothed	AT-49 male
Age of retirement	Male, 56 years / Female, 55 years	Male, 58 years / Female, 56 years	Male, 56 years / Female, 55 years	Male, 58 years / Female, 56 years	1st eligibility	Male, 56 years / Female, 55 years

<sup>(1)</sup> Inflation reflects market projections: 3.61% for 2020 and converging to 3.5% in 2035 onwards.

<sup>(3)</sup> Decreasing rate, converging in 30 years to the long-term expected inflation. Refers only to Petrobras (sponsor) rate.

					Pension Plans	2020 Health Care Plan
Assumptions	PPSP-R	PPSP-NR	PPSP-R Pre-70	PPSP-NR Pre-70	PP2	
Nominal discount rate (including inflation)(1)	5.83% (05/2020) 7.03% (12/2020)	5.77% (05/2020) 6.97% (12/2020)	6.55%	6.55%	7.44%	7.20%
Nominal expected salary growth (including inflation) (2)	4.75%	4.54%	4.75%	4.54%	6.20%	n/a
Expected changes in medical and hospital costs (3)	n/a	n/a	n/a	n/a	n/a	6.17% a 3.90% p.a.
Mortality table	EX-PETROS 2013 (bidecremental)	EX-PETROS 2020 (bidecremental)	EX-PETROS 2016 (bidecremental)	EX-PETROS 2020 (bidecremental)	AT-2012 IAM basic fem 10% smoothed	EX-PETROS 2013 (bidecremental)
Disability table	American group	American group	n/a	n/a	Álvaro Vindas 40% smoothed	Álvaro Vindas 40% smoothed
Mortality table for disabled participants	AT-49 male	AT-49 male	MI 2006, by gender, 20% smoothed	Petros Experience 2014	IAPB 1957 strong, 20% smoothed	AT-49 male
Age of retirement	Male, 56 years / Female, 55 years	Male, 58 years / Female, 56 years	Male, 56 years / Female, 55 years	Male, 58 years / Female, 56 years	1st eligibility	Male, 56 years / Female, 55 years

<sup>(1)</sup> Inflation reflects market projections: 3.61% for 2020 and converging to 3.5% in 2035 onwards.

The most significant assumptions are described in Note 4.4.

<sup>(2)</sup> Expected salary growth only of Petrobras, the sponsor, based on the Salaries and Benefits Plan.

<sup>(2)</sup> Expected salary growth only of Petrobras, the sponsor, based on the Salaries and Benefits Plan.

<sup>(3)</sup> Decreasing rate, converging in 30 years to the long-term expected inflation. Refers only to Petrobras (sponsor) rate.

## 17.3.7. Sensitivity analysis of the defined benefit plans

The effect of a 100 basis points (bps) change in the discount rate and in the estimated future medical costs is set out below:

Expected changes in medical and hospital costs

			U	iscount Rate		
	Pension Benefits Medical Benefits		Medical Benefits		Med	lical Benefits
	+100 bps	-100 bps	+100 bps	-100 bps	+100 bps	-100 bps
Pension Obligation	(1,341)	1,704	(480)	593	628	(511)
Current Service cost and interest cost	(20)	27	(31)	37	96	(77)

## Accounting policy for post-employment defined benefits

Actuarial commitments related to post-employment defined benefit plans and health-care plans are recognized as liabilities in the statement of financial position based on actuarial calculations which are revised annually by an independent qualified actuary (updating for material changes in actuarial assumptions and estimates of expected future benefits), using the projected unit credit method, net of the fair value of plan assets, when applicable, from which the obligations are to be directly settled.

Under the projected credit unit method, each period of service gives rise to an additional unit of benefit entitlement and each unit is measured separately to determine the final obligation. Actuarial assumptions include demographic and financial assumptions, medical costs estimates, historical data related to benefits paid and employee contributions, as set out in note 4 - Critical accounting policies: key estimates and judgments.

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

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

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

The Company also contributes amounts to defined contribution plans, on a parity basis in relation to the employee's contribution, that are expensed when incurred.

## 18. Provisions for legal proceedings

## 18.1. Provisions for legal proceedings, judicial deposits and contingent liabilities

The Company recognizes provisions based on the best estimate of the costs of proceedings for which it is probable that an outflow of resources embodying economic benefits will be required and that can be reliably estimated. These proceedings mainly include:

- Labor claims, in particular: (i) opt-out claims related to a review of the methodology by which the minimum compensation based on an employee's position and work schedule (*Remuneração Mínima por Nível e Regime* RMNR) is calculated; and (ii) actions of outsourced employees;
- Tax claims including: (i) claims relating to Brazilian federal tax credits applied that were disallowed; and (ii) lack of payment of Social Security Contribution levied on bonuses paid to employees;
- Civil claims, in particular: (i) lawsuits related to contracts; (ii) royalties and special participation charges, including royalties over shale extraction; and (iii) penalties applied by ANP relating to measurement systems.

• Environmental claims mainly regarding: (i) fines relating to an environmental accident in the State of Paraná in 2000; (ii) fines relating to the Company's offshore operation; and (iii) public civil action for oil spill in 2004 in Serra do Mar State Park in the state of Sao Paulo.

Provisions for legal proceedings are set out as follows:

Current and Non-current liabilities	12.31.2021	12.31.2020
Labor claims	716	706
Tax claims	306	488
Civil claims	820	713
Environmental claims	176	292
Total	2,018	2,199
	2021	2020
Opening Balance	2,199	3,113
Additions, net of reversals	540	464
Use of provision	(715)	(744)
Revaluation of existing proceedings and interest charges	150	28
Transfer to assets held for sale	(3)	-
Others	11	20
Cumulative translation adjustment	(164)	(682)
Closing Balance	2,018	2,199

In preparing its consolidated financial statements for the year ended December 31, 2021, the Company considered all available information concerning legal proceedings in which the Company is a defendant, in order to estimate the amounts of obligations and probability that outflows of resources will be required.

## 18.2. Judicial deposits

Judicial deposits made in connection with legal proceedings are set out in the table below according to the nature of the corresponding lawsuits:

Non-current assets	12.31.2021	12.31.2020
Tax	5,790	5,154
Labor	796	831
Civil	1,275	1,095
Environmental	101	113
Others	76	88
Total	8,038	7,281
Opening Delanes	<b>2021</b>	2020
Opening Balance	7,281	8,236
Additions	1,145	937
Use	(109)	(86)
Accruals and charges	263	90
Others	3	(4)
Cumulative translation adjustment	(545)	(1,892)
Closing Balance	8,038	7,281

In the year ended December 31, 2021, the Company made judicial deposits in the amount of US\$ 1,144, including: (i) US\$ 359 referring to IRPJ and CSLL for not adding profits of subsidiaries and affiliates domiciled abroad to the IRPJ and CSLL calculation basis; (ii) US\$ 339 relating to the unification of Fields (Cernambi, Tupi, Tartaruga Verde and Tartaruga Mestiça); (iii) US\$ 224 related to CIDE and PIS/COFINS on the chartering of platforms; (iv) US\$ 116 referring to IRPJ and CSLL in the deduction of expenses with Petros; (v) US\$ 66 referring to several judicial deposits of a tax nature; and (vi) US\$ 57 relating to the lack of payment of Social Security Contribution levied on bonuses paid to employees, mainly offset by (vii) US\$ 132 referring to indemnity action due to the unilateral termination of contract for the securitization of IPI credits.

## 18.3. Contingent liabilities

Contingent liabilities for which either the Company is unable to make a reliable estimate of the expected financial effect that might result from resolution of the proceeding, or a cash outflow is not probable, are not recognized as liabilities in the financial statements but are disclosed in the notes to the financial statements, unless the likelihood of any outflow of resources embodying economic benefits is considered remote.

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The estimates of contingent liabilities for legal, administrative and arbitrations proceedings are indexed to inflation and updated by applicable interest rates. As of December 31, 2021, estimated contingent liabilities for which the possibility of loss is not considered remote are set out in the following table:

Nature	12.31.2021	12.31.2020
Tax	24,785	24,511
Labor	7,172	8,179
Civil - General	5,720	4,621
Civil - Environmental	1,192	1,465
Total	38,869	38,776

The tables below detail the main causes of tax, civil, environmental and labor nature, whose expectations of losses are classified as possible:

(Expressed in millions of US Dollars, unless otherwise indicated)

		Estimate
Description of tax matters	12.31.2021	12.31.2020
Plaintiff: Secretariat of the Federal Revenue of Brazil		
1) Withholding income tax (IRRF), Contribution of Intervention in the Economic Domain (CIDE), Social Integration Program (PIS) and Contribution to Social Security Financing (COFINS) on remittances for payments of vessel charters.		
Current status: The claim about the incidence of withholding income tax (Imposto de Renda Retido na Fonte- IRRF) on remittances for payments of vessel charters, occurred from 1999 to 2002, involves the legality of the normative rule issued by the Federal Revenue of Brazil, which ensured no taxation over those remittances. The Company considers the likelihood of loss as possible, since there are decisions from Superior Courts favorable to the understanding of the Company, and will continue to defend its opinion.  The other claims, concerning CIDE and PIS/COFINS, involve lawsuits in different administrative and judicial stages, for which the Company understands there is a possible likelihood of loss, since there are legal predictions in line with the position of the Company.		
	9,092	9,532
2) Income from foreign subsidiaries and associates located outside Brazil not included in the computation of taxable income (IRPJ and CSLL).		
Current status: This claim involves lawsuits in different administrative and judicial stages. The Company considers the likelihood of loss as possible, since there are decisions from Superior Courts favorable to the understanding of the Company.	3,890	4,106
3) Requests to compensate federal taxes disallowed by the Brazilian Federal Tax Authority.		
Current status: This claim involves lawsuits in different administrative and judicial stages. In 2019, the Company obtained a final decision at CARF, canceling part of the debts. In 2021, new tax notices were issued against the Company.	827	781
4) Incidence of social security contributions over contingent bonuses paid to employees.		
Current status: Awaiting defense judgment and appeals at the administrative and judicial levels. In 2021, there was a reduction in the value due to a decision favorable to the Company.	706	812
5) Collection of Contribution of Intervention in the Economic Domain (CIDE) on transactions with fuel retailers and service stations protected by judicial injunctions determining that fuel sales were made without gross-up of such tax.		
Current status: This claim involves lawsuits in different judicial stages.	428	454
6) Deduction from the basis of calculation of taxable income (income tax - IRPJ and social contribution - CSLL) of several expenses related to employee benefits.		
Current status: The claim involves lawsuits in different administrative and judicial stages. The expected loss in one lawsuit is now deemed possible (formerly remote), due to an unfavorable decision by the Regional Court of the 2nd Region in a similar case.	570	468
7) Income taxes (IRPJ and CSLL) - Amortization of goodwill on the acquisition of equity interests.		
Current status: This claim involves lawsuits in different administrative and judicial stages.	234	326
8) Deduction of the PIS and COFINS tax base on ship or pay contracts and charters of aircraft and vessels.		
Current status: New notice issued in 2021. The claims involve lawsuit in administrative stage. An appeal was filed. A decision of the first administrative instance is awaited.	330	_
9) Collection of IRPJ and CSLL - Transfer price - Charter contracts		
Current status: New notice issued in 2021. An appeal was filed. A decision of the first administrative instance is awaited.	287	_
10) Import tax, PIS/COFINS and customs fines - import of vessels through Repetro's Special Customs Regime.		
Current status: This claim involves lawsuits in different administrative and judicial stages. In 2021, new notices were issued.	0.40	
Plaintiff: States of SP, RJ, BA, PA, AL, MA, PB, PE, AM and SE Finance Departments	249	86
11) VAT (ICMS) and VAT credits on internal consumption of bunker fuel and marine diesel, destined to chartered vessels.		
Current status: This claim involves several tax notices from the states which are in different administrative and judicial stages.	367	384
Plaintiff: States of RJ, AL and BA Finance Departments		
12) VAT (ICMS) on dispatch of liquid natural gas (LNG) and C5+ (tax document not accepted by the tax authority), as well as challenges on the rights to this VAT tax credit.		
Current status: This claim involves lawsuits in different administrative and judicial stages.	746	788
Plaintiff: States of RJ, AL, AM, PA, BA, GO, MA, SP and PE Finance Departments		
13) Alleged failure to write-down VAT (ICMS) credits related to zero tax rated or non-taxable sales made by the Company and its customers.		
Current status: This claim involves lawsuits in different administrative and judicial stages.	788	818
Plaintiff: States of RJ, BA, PE, SE and AM Finance Departments  14) The plaintiff alleges that the transfers between branches, especially in RJ, without segregating VAT (ICMS), under the special regime, reduced the total credits of the central department.		
Current status: This claim involves lawsuits in different administrative and judicial stages.	800	812
Plaintiff: States of GO, RJ, PA, BA, SE, SP, PR, AM, CE, MT, RN and PE Finance Departments	000	012

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15) Appropriation of ICMS credit on the acquisition of goods (products in general) that, in the understanding of the inspection, would fit into the		
concept of material for use and consumption, being the tax credit undue.		
Current status: This claim involves lawsuits in different administrative and judicial stages. In 2021, new notices were issued.	569	517
Plaintiff: States of RJ, PR, AM, BA, PA, PE, SP and AL Finance Departments		
16) Incidence of VAT (ICMS) over alleged differences in the control of physical and fiscal inventories.		
Current status: This claim involves lawsuits in different administrative and judicial stages. In 2021, new notices were issued.	446	392
Plaintiff: State of SP Finance Department		
17) Deferral of payment of VAT (ICMS) taxes on B100 Biodiesel sales and the charge of a 7% VAT rate on B100 on Biodiesel interstate sales, including states in the Midwest, North and Northeast regions of Brazil and the State of Espírito Santo.		
Current status: This claim involves lawsuits in different administrative and judicial stages. In 2021, there was a review of the expected loss of a case, from possible to remote, due to a favorable Court decision.	232	416
Plaintiff: States of RJ, SP, BA, PE, PR, SE and CE Finance Departments		
18) Misappropriation of VAT tax credit (ICMS) on the acquisitions of goods that, per the tax authorities, are not related to property, plant and equipment.		
Current status: New notices issued in 2021. This claim involves lawsuits still in administrative stages and other lawsuits in judicial stages.	417	331
Plaintiff: States of RJ, SP, BA, AL, PE, CE and AM Finance Departments		
19) Misappropriation of VAT tax credit (ICMS) on the acquisitions of drills and chemicals used in the formulation of drilling fluid, per the tax authorities.		
Current status: This claim involves lawsuits in different administrative and judicial stages.	421	418
Plaintiff: Municipal government of Angra dos Reis/RJ		
20) Added value of ICMS on oil import operations.		
Current status: This claim involves lawsuits in several judicial stages. The lawsuits are in different procedural stages, still without a decision on the merits in the first instance. In 2021, new lawsuits were filed.	289	99
Plaintiff: Municipal governments of the cities of Anchieta, Aracruz, Guarapari, Itapemirim, Marataízes, Linhares, Vila Velha and Vitória		
21) Alleged failure to withhold and pay tax on services provided offshore (ISSQN) in favor of some municipalities in the State of Espírito Santo, under the allegation that the service was performed in their "respective coastal waters".		
Current status: This claim involves lawsuits in different administrative and judicial stages.	1,071	1,056
Plaintiff: Several Municipalities		
21) Alleged failure to withhold and pay tax on services (ISSQN).		
Current status: There are lawsuits in different administrative and judicial stages.	201	190
23) Other tax matters	1,825	1,725
Total for tax matters	24,785	24,511
		Estimate
Description of labor matters	12.31.2021	12.31.2020
Plaintiff: Employees and Sindipetro Union of ES, RJ, BA, MG, SP, PE, PB, RN, CE, PI, PR and SC.	1210 11202 1	1210112020
1) Actions requiring a review of the methodology by which the minimum compensation based on an employee's position and work schedule (Remuneração Mínima por Nível e Regime - RMNR) is calculated.		
Current status: The dispute is in the Federal Supreme Court (STF). Petrobras filed an appeal and, On 07/28/2021, the Minister Rapporteur decided favorably to the Company, reforming the decision of the Plenary of the Superior Labor Court (TST) which was contrary to Petrobras. Currently, the judgment of the appeals filed by the plaintiff and by several amicus curiae is in progress, with 3 votes in favor of the Company, recognizing the merit of the collective bargaining agreement signed between Petrobras and the unions. Considering that the last minister to vote requested additional information, the trial was suspended, and is pending the presentation of the vote by this last minister.		
	5,916	6,679
2) Other labor matters	1,256	1,500
Total for labor matters	7,172	8,179

(Expressed in millions of US Dollars, unless otherwise indicated)

		Estimate
Description of civil matters Plaintiff: Agência Nacional de Petróleo, Gás Natural e Biocombustíveis - ANP and other agencies	12.31.2021	12.31.2020
1) Administrative and legal proceedings that discuss: a) Difference in special participation and royalties in different fields; b) Fines imposed by ANP due to alleged failure to comply with the minimum exploration activities program, as well as alleged irregularities relating to compliance with oil and gas industry regulation. It also includes fines imposed by other agencies.		
Current status: The claims involve lawsuits in different administrative and judicial stages.	1,197	1,319
Plaintiff: Agência Nacional de Petróleo, Gás Natural e Biocombustíveis - ANP		
2) Proceedings challenging an ANP order requiring Petrobras to unite Tupi and Cernambi fields on the BM-S-11 joint venture; to unite Baúna and Piracicaba fields; and to unite Tartaruga Verde and Mestiça fields, which would cause changes in the payment of special participation charges.		
Current status: This list involves claims that are disputed in court and in arbitration proceedings, as follows:  a) Tupi and Cernanbi: initially, the Company made judicial deposits for the alleged differences resulting from the special participation. However, with the reversal of the favorable injunction, the payment of these alleged differences were made directly to ANP, and such judicial deposits were resumed in the 2nd Quarter of 2019. Arbitration remains suspended by court decision;  b) Baúna and Piracicaba: the Court reassessed previous decision that disallowed judicial deposits, therefore the Company is currently depositing the controversial amounts. The arbitration is stayed.  c) Tartaruga Verde and Mestiça: The Company has authorization to make the judicial deposits relating to these fields. The Regional Federal Court of the Second Region has the opinion that the Chamber of Arbitration has jurisdiction on this claim and the arbitration is ongoing.		
	829	471
Plaintiff: Agência Estadual de Regulação de Serviços Públicos de Energia, Transportes e Comunicações da Bahia (AGERBA) and State Gas Companies	020	
3) Public Civil Action (ACP) to discuss the alleged illegality of the gas supply made by the company to its Nitrogenated Fertilizer Production Unit (FAFEN / BA).		
Current status: The claims involve lawsuits in different administrative and judicial stages.	318	308
Plaintiff: Several service providers		
4) Claims related to goods and services supply contracts, with emphasis on discussions about economic and financial imbalance, contractual breach, fines and early termination of contracts.		
Current status: The claims involve lawsuits in different administrative and judicial stages.	2,491	1,687
5) Several lawsuits of civil nature, with emphasis on those related to expropriation and easement of passage, corporate disputes and civil liability.	885	836
Total for civil matters	5,720	4,621
		Estimate
Description of environmental matters	12.31.2021	12.31.2020
Plaintiff: Ministério Público Federal, Ministério Público Estadual do Paraná, AMAR - Associação de Defesa do Meio Ambiente de Araucária, IAP - Instituto Ambiental do Paraná and IBAMA - Instituto Brasileiro de Meio Ambiente e Recursos Naturais Renováveis.		
1) Legal proceeding related to specific performance obligations, indemnification and compensation for damages related to an environmental accident that occurred in the State of Paraná on July 16, 2000.		
Current status: The parties entered into an agreement and resolved the issue of merit, pending only the discussion relating to the amount of attorney fees.	36	425
2) Several lawsuits of an environmental nature, with emphasis on fines related to the company's operations and public civil action for alleged	1,156	1,040
Total for environmental matters	1,192	1,465

# 18.4. Class action in Netherlands and Arbitrations in Brazil and in Argentina

## 18.4.1. Class action in Netherlands

On January 23, 2017, the Stichting Petrobras Compensation Foundation ("Foundation") filed a class action before the district court in Rotterdam, in the Netherlands, against Petrobras parent company and Petrobras International Braspetro B.V. (PIBBV), Petrobras Global Finance B.V. (PGF), Petrobras Oil & Gas B.V. (PO&G) and some former managers of Petrobras.

The Foundation allegedly represents the interests of an unidentified group of investors and alleges that based on the facts uncovered by the Lava Jato investigation the defendants acted unlawfully towards investors. Based on the allegations, the Foundation seeks a number of declaratory relieves from the Dutch court.

The Company filed their first response to the claim on May 3, 2017 (first docket date), presenting the law firms that will defend these companies and requesting a hearing to discuss some aspects of the case.

On August 23, 2017, a hearing was held at the District Court in Rotterdam ("Court") to establish the timeframe for proceedings. Petrobras (and other defendants) presented preliminary defenses on November 29, 2017 and the Foundation presented its response on March 28, 2018. On June 28, 2018, a hearing was held for the parties to present oral arguments. On September 19, 2018, the Court rendered its interim decision in the motion proceedings in which it accepted jurisdiction in most of 7 claims of the Foundation.

On January 29, 2020, the Court determined that shareholders who understand Portuguese and / or who bought shares through intermediaries or other agents who understand that language, among other shareholders, are subject to the arbitration clause provided for in the Company's Bylaws, remaining out of the collective action proposed by the Foundation. The Court also considered the binding effect of the agreement signed to close the United States' Class action. In this way, the Foundation needs to demonstrate that it represents a sufficient number of investors to justify pursuing collective action in the Netherlands. The Foundation and the Company presented the oral arguments at a hearing held on January 26, 2021.

On May 26, 2021, the Court ruled that the class action must proceed and that the arbitration clause in Petrobras' Bylaws does not prevent the company's shareholders from having access to the Dutch Judiciary and being represented by the Foundation. However, investors who have already initiated arbitration against Petrobras or who are parties to legal proceedings in which the applicability of the arbitration clause has been definitively recognized are excluded from the action. On the same date, the class action moved to the merits discussion phase.

This collective action involves complex issues that are subject to substantial uncertainties and depend on a number of factors such as the standing of the Foundation as the alleged representative of the investors' interests, the applicable rules to this complaint, the information produced the evidentiary phase of the proceedings, analysis by experts, the timing of court decisions and rulings by the court on key issues, and the Foundation only seeks declaratory reliefs in this collective action. Currently, it is not possible to determine if the Company will be found responsible for the payment of compensation in subsequent individual complaints after this action as this assessment depends on the outcome of these complex issues. Moreover, it is uncertain which investors will be able to file subsequent individual complaints related to this matter against the Company.

In addition, the allegations asserted are broad, span a multi-year period and involve a wide range of activities, and, at the current stage, the impacts of such allegations are highly uncertain. The uncertainties inherent in all such matters affect the amount and timing of the ultimate resolution of these actions. As a result, the Company is unable to make a reliable estimate of eventual loss arising from this action. The company reiterates its victim condition of the corruption scheme uncovered by the Lava Jato investigation and aims to present and prove this before the Dutch Court.

The uncertainties inherent in all such matters do not enable the company to identify possible risks related to this action. Compensation for the alleged damages will only be determined by court rulings on complaints to be filed by individual investors. The Foundation is not able to demand compensation for damages, since the final decision will be merely declaratory in nature.

The Company denies the allegations presented by the Foundation and intend to defend themselves vigorously.

## 18.4.2. Arbitrations in Brazil

Petrobras is also currently a party to seven arbitrations proceedings before the Market Arbitration Chamber (*Câmara de Arbitragem do Mercado* - CAM), linked to the Brazilian Stock Exchange (B3), brought by investors who purchased Petrobras' shares traded on B3. Six of these arbitrations were initiated by national and foreign investors. The other proceeding was brought by an association that is not a shareholder of the Company and intends to be a collective arbitration, through representation of all minority shareholders of Petrobras that acquired shares on B3 between January 22, 2010 and July 28, 2015. Investors claim alleged financial losses caused by facts uncovered in the Lava Jato investigation.

These claims involve complex issues that are subject to substantial uncertainties and depend on a number of factors such as the novelty of the legal theories, the timing of the Chamber of Arbitration decisions, the information produced in discovery and analysis by retained experts.

Moreover, the claims asserted are broad and span a multi-year period. The uncertainties inherent in all such matters affect the amount and timing of their ultimate resolution. As a result, the Company is unable to make a reliable estimate of eventual loss arising from such arbitrations.

Depending on the outcome of these complaints, the Company may have to pay substantial amounts, which may have a significant effect on its consolidated financial position, financial performance and cash flows in a certain period. However, Petrobras does not recognize responsibility for the losses alleged by investors in these arbitrations.

Most of these arbitrations are still in the preliminary stages and a final decision is not expected in the near future. However, in relation to one of the arbitrations, proposed by two institutional investors, on May 26, 2020, a partial arbitral award was issued indicating the Company's responsibility, but not determining the payment of amounts by Petrobras, nor ending the procedure. This arbitration, as well as the other arbitrations in progress, are confidential and the partial arbitral award - which does not represent a CAM position, but only of the three arbitrators that make up this arbitration panel - does not extend to the other ongoing arbitrations.

On July 20, 2020, Petrobras filed a lawsuit for the annulment of this partial arbitral award, as the Company understands that the award contains serious flaws and improprieties. This lawsuit is still without any assessment on the merits of the case and its judgement is pending. On November 11, 2020, the 5th Business Court of Rio de Janeiro annulled the partial arbitration award, due to these serious flaws and improprieties pointed out by Petrobras. The appeals against this decision are still pending judgement. In compliance with CAM rules, the lawsuit is confidential and only available to those involved in the original arbitration proceeding. Petrobras will continue to defend itself in this and other arbitrations.

## 18.4.3. Arbitrations in Argentina

On September 11, 2018, Petrobras was served of an arbitral claim filed by *Consumidores Financieros Asociación Civil para su Defensa* ("Association") against the company and other individuals and legal entities, before the "Tribunal de Arbitraje General de la Bolsa de Comercio de Buenos Aires". Among other issues, the Association alleges Petrobras' liability for a supposed loss of market value of Petrobras' shares in Argentina, due to proceedings related to Lava Jato investigation.

On June 14, 2019, the Company informed that the Chamber of Arbitration recognized the withdrawal of the arbitration due to the fact that the Association had not paid the arbitration fee within the established period. The Association appealed to the Argentine Judiciary against this decision, which was rejected on November 20, 2019. The Association filed a new appeal addressed to the Argentine Supreme Court, pending a final decision.

Petrobras denies the allegations presented by the Association and intends to defend itself vigorously.

## 18.5. Other legal proceedings in Argentina

Petrobras was included as a defendant in criminal actions in Argentina:

- Criminal action for alleged non-compliance with the obligation to publish "press release" in Argentina about the existence of a class action filed by Consumidores Financieros Asociación Civil para su Defensa before the Commercial Court, according to the provisions of the Argentine capital market law. Petrobras was never mentioned in the scope of the referred collective action. Petrobras presented procedural defenses in the criminal action but some of them have not yet been judged by the court. On March 4, 2021, the Court (Room A of the Economic Criminal Chamber) decided that the jurisdiction for the trial of this criminal action should be transferred from the Criminal Economic Court No. 3 of the city of Buenos Aires to the Criminal Economic Court No. 2 from that same city;
- Criminal action related to an alleged fraudulent offer of securities, when Petrobras allegedly declared false data in its financial statements prior to 2015. Petrobras presented procedural defenses, currently the subject of appeals in Argentine courts. On October 21, 2021, after an appeal by the Association, the Court of Appeals revoked the lower court decision that had recognized Petrobras' immunity from jurisdiction and recommended that the lower court take some steps to certify whether the Company could be considered criminally immune in Argentina for further reassessment of the issue. Petrobras appealed against this decision, and its judgment is still pending. On the same occasion, the Court of Appeals recognized that the Association could not act as a representative of financial consumers, due to the loss of its registration with the competent Argentine bodies. This criminal action is pending before the Criminal Economic Court No. 2 of the city of Buenos Aires.

## 18.6. Tax recoveries under dispute

#### 18.6.1. Deduction of VAT tax (ICMS) from the basis of calculation of PIS and COFINS

The Company filed complaints against Brazilian Federal Government challenging the constitutionality of the inclusion, from 2001 to 2020, of ICMS within the calculation basis of PIS and COFINS. In 2020, the Company obtained a favorable and definitive court decision on this claim, and the Company recognized the corresponding credit. The tax credit relates to the exclusion of the ICMS effectively collected when included in the basis of calculation of PIS and COFINS, as deliberated by the Federal Revenue of Brazil, as set out in note 16.

(Expressed in millions of US Dollars, unless otherwise indicated)

In relation to the amounts corresponding to the difference between the criterion established in the regulation and the ICMS amount reported in the invoices, these were not recognized as tax credit, since it was pending final decision of the Federal Supreme Court (STF).

On May 14, 2021, the extract from the minutes of the judgment of the STF on the motion for clarification filed by the Brazilian Federal Government was published and made it clear that the criterion to be used for the purposes of calculating the ICMS in the calculation basis of the PIS and COFINS is the amount presented in the invoice. Based on the decision of the STF, Petrobras recognized the asset related to the difference between these criteria. This amount is being offset in the Company's tax calculation.

The recognized effects relating to the exclusion of ICMS on the PIS and COFINS basis, as well as the offset of these amounts, are presented in note 16.1.

## 18.6.2. Compulsory Loan - Eletrobrás

The Brazilian Federal Government, aiming to finance the expansion of the national electricity system, established the compulsory loan that lasted until 1993 in favor of Eletrobrás, which was the operator of this system. The loan was charged to consumers' electricity bills.

In 2010, the Company filed a lawsuit to recognize its right to receive the differences in monetary correction and interest on a compulsory loan from Eletrobrás, in relation to the third conversion of Eletrobrás shares, in the period from 1987 to 1993.

In 2021, the Company changed to probable the expectation of a gain on this lawsuit, based on recent judicial decisions on the subject. Considering that legal discussions are still pending regarding the methodology for calculating the credit, the Company is still unable to estimate the amount of the contingent asset.

Considering that legal discussions are still pending regarding the calculation methodology for calculating the credit, the value of the contingent asset will be determined in the course of the process

## 18.6.3. Lawsuits brought by natural gas distributors and others

Some natural gas distributors and other entities have filed lawsuits against Petrobras, in which they claim the extension of the effects of the natural gas supply contracts that expired in December 2021. As the prices of liquefied natural gas imported by Petrobras, necessary to meet to new commitments showed a great increase in the last months of 2021, Petrobras offered for new contracts with start of supply from January 1, 2022 proposals with prices in line with the current market situation. However, some natural gas distributors and other entities rejected the new prices, claiming that Petrobras allegedly abuses its economic power.

In these lawsuits, the judges granted injunctions to maintain the prices of the old contracts. Petrobras appealed these decisions and the appeals are awaiting judgment. At the same time, the Company proposed arbitration, given that this is the dispute settlement method defined in the contracts.

## 18.7. Accounting policy for provisions for legal proceedings, contingent liabilities and contingent assets

Provisions are recognized when: (i) the company has a present obligation as a result of a past event; (ii) it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and (iii) the amount of the obligation can be reliably estimated.

Contingent liabilities are not recognized but are disclosed in explanatory notes when the likelihood of outflows is possible, including those whose amounts cannot be estimated.

The methodology used to estimate the provisions is described in note 4.5.

Contingent assets are not recognized, but are disclosed in explanatory notes when the inflow of economic benefits is considered probable. However, if the inflow of economic benefits is virtually certain, the related asset is not a contingent asset and it is recognized.

## 19. Provision for decommissioning costs

The following table details the amount of the decommissioning provision by production area:

(Expressed in millions of US Dollars, unless otherwise indicated)

	12.31.2021	12.31.2020
Onshore	873	1,627
Shallow waters	3,732	4,309
Deep and ultra-deep post-salt	8,420	9,775
Pre-salt	2,594	3,069
	15,619	18,780

## Changes in the provision are presented below:

Non-current liabilities	2021	2020
Opening balance	18,780	17,460
Adjustment to provision	(1,186)	5,720
Transfers related to liabilities held for sale	(704)	(519)
Payments made	(730)	(446)
Interest accrued	723	571
Others	5	15
Cumulative translation adjustment	(1,269)	(4,021)
Closing balance	15,619	18,780

The reduction in the balance of the provision in 2021 mainly relates to the update of the 2022-2026 Strategic Plan premises; the review of technical assumptions and contractual renegotiations; the extension of the concessions' economic cut-off year, mainly due to the increase in the price of Brent; as well as the conclusion of sales of concessions.

## 19.1. Accounting policy for decommissioning costs

The initial recognition of legal obligations to remove equipment and restore land or sea areas at the end of operations occurs after the technical and commercial feasibility of producing oil and gas in a field has been demonstrated. The calculations of the cost estimates for future environmental removals and recoveries are complex and involve significant judgments (as set out in note 4.6).

The estimates of decommissioning costs are reviewed annually based on current information on expected costs and recovery plans. When the revision of the estimates results in an increase in the provision for decommissioning costs, there is a corresponding increase in assets. Otherwise, in the event that a decrease in the liability exceeds the carrying amount of the asset, the excess shall be recognized immediately in profit or loss.

In the classification of non-current assets as held for sale, provisions for decommissioning costs related to these assets are also included. Any commitments assumed with future environmental removals and recoveries resulting from the sale of assets are recognized after the closing of the sale operation, in accordance with the contractual terms.

## 20. Other Assets and Liabilities

Assets		12.31.2021	12.31.2020
Escrow account and/ or collateral	(a)	961	780
Prepaid expenses	(b)	308	394
Advances to suppliers	(c)	297	263
Derivatives Transactions	(d)	31	119
Agreements and covenants	(e)	262	71
Others		201	238
		2,060	1,865
Current		1,573	1,230
Non-Current		487	635
Liabilities		12.31.2021	12.31.2020
Obligations arising from divestments	(f)	1,106	936
Contractual retentions	(g)	521	536
Advances from customers and partners	(h)	606	433
Provisions for environmental expenses, R&D and fines	(i)	568	460
Other recoverable taxes	(j)	143	406
Derivatives Transactions	(d)	282	283
Various creditors		84	123
Others		715	483
		4,025	3,660
Current	-	1,875	1,603
Non-Current		2,150	2,057

- a) Amounts deposited for payment of obligations related to the finance agreement with China Development Bank, as well as margin in guarantee for futures and over-the-counter derivatives. In addition, there are amounts in investment funds from escrow accounts related to divestment of TAG and NTS.
- b) Amounts whose compensation must be made by supplying materials or providing services contracted with these suppliers.
- c) Spending on platform charters and equipment rentals to be appropriated in situations in which the start of operations has been postponed due to legal requirements or the need for technical adjustments.
- d) Fair value of open positions and transactions closed but not yet settled.
- e) Cash and amounts receivable from partners in E&P consortia operated by Petrobras.
- f) Provisions for financial reimbursements assumed by Petrobras to be made to the acquirer, referring to abandonment costs of divested assets. The settlement of these provisions follows decommissioning schedules, with payments beginning between two and three months after the date expected for the execution of operations, according to the contractual terms for reimbursement of abandonment of the respective concessions.
- g) Retained amounts from obligations with suppliers to guarantee the execution of the contract, accounted for when the obligations with suppliers are due. Contractual retentions will be paid to suppliers at the end of the contract, upon issuance of the contract termination term.
- h) Amounts related to the advanced or cash receipt from third parties, related to the sale of products or services in Brazil.
- i) Accrued amounts for environmental compensation assumed by the Company in the course of its operations and research projects.
- j) Non-current portion of other recoverable taxes (see note 16).

## 20.1. Accounting policy for obligations arising from divestments

Obligations arising from divestments are recognized at present value, using a risk-free discount rate, adjusted to the Company's credit risk, as the best estimate of disbursement required to settle the present obligation at the reporting date and may be subject to changes as activity execution schedules are updated and detailed by acquirers.

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

The Company has monitored the progress of investigations under the "Lava Jato" Operation and, in the preparation of these annual consolidated financial statements for the the year ended December 31, 2021, did not identify any additional information that would affect the adopted calculation methodology to write off, in the third quarter of 2014, amounts overpaid for the acquisition of property, plant and equipment. The Company will continue to monitor these investigations for additional information in order to assess their potential impact on the adjustment made.

In addition, the Company has fully cooperated with the Brazilian Federal Police (Polícia Federal), the Brazilian Public Prosecutor's Office (Ministério Público Federal), the Federal Auditor's Office (Tribunal de Contas da União – TCU) and the General Federal Inspector's Office (Controladoria Geral da União) in the investigation of all crimes and irregularities.

During 2021, new leniency and plea agreements entitled the Company to receive funds with respect to compensation for damages, in the amount of US\$ 235 (US\$ 155 in 2020), accounted for as other income and expenses. Thus, the total amount recovered from Lava Jato investigation through December 31, 2021 was US\$ 1,522.

## 21.1. Investigations involving the Company

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

On September 27, 2018, the Company entered into agreements to settle the open matters with the U.S. Department of Justice (DoJ) and the U.S. Securities and Exchange Commission (SEC) investigations, which encompassed the Company's internal controls, books and records, and financial statements from 2003 to 2012.

Subsequently, Petrobras has concluded the obligations set forth in the agreement with the DoJ, including continuing to enhance its integrity program and self-reporting during the agreement's three-year term.

## 21.1.2. U.S. Commodity Futures Trading Commission - CFTC

In May 2019, the U.S. Commodity Futures Trading Commission ("CFTC") contacted Petrobras with an inquiry regarding trading activities related to the Lava Jato Operation. Petrobras reiterates that it continues to cooperate with the regulatory authorities, including the CFTC, regarding any inquiry.

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

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

# 22. Commitment to purchase natural gas

The GSA agreement (Gas Supply Agreement) entered into with Petrobras and Yacimientos Petrolíferos Fiscales Bolivianos - YPFB was initially effective until December 31, 2019. In addition, according to agreement provision, after December 31, 2019, the GSA was automatically extended until the entire volume contracted is delivered by YPFB and withdrawn by Petrobras. On March 6, 2020, by means of a contractual amendment, the Parties changed the daily contracted quantity (QDC) from 30.08 million m³ per day to 20 million m³ per day, which became effective as from March 11, 2020.

Thus, as of December 31, 2021, the total amount of the GSA for 2022 is nearly 7.5 billion cubic meters of natural gas (equivalent to 20.5 million cubic meters per day) and corresponds to a total estimated value of US\$ 1.7 billion.

Based on the aforementioned extension clause, the Company expects purchases to continue through May 2024, on the same volume basis according to current indicators, representing an estimated additional amount of US\$ 1.86 billion, from January 2021 to May 2024.

# 23. Property, plant and equipment

Polonos et January 1, 2020	Land, buildings and improvement 4,450	Equipment and other assets (*) 70,378	Assets under construction (") 21,952	Exploration and development costs (oil and gas producing properties) (***) 40,897	Right-of-use assets 21,588	Total 159,265
Balance at January 1, 2020 Additions	4,430	4,587	3,090	365	4,338	12,380
Additions		7,007	0,000	300	4,000	12,000
Additions to / review of estimates of decommissioning costs	-	-	-	5,421	-	5,421
Capitalized borrowing costs	-	-	941	-	-	941
Write-offs	(4)	(438)	(461)	(187)	(1,271)	(2,361)
Transfers	(258)	2,676	(3,175)	1,336	(21)	558
Transfers to assets held for sale	(8)	(226)	27	(848)	(13)	(1,068)
Depreciation, amortization and depletion	(142)	(4,298)	-	(3,864)	(4,022)	(12,326)
Impairment recognition	(14)	(7,293)	(2,855)	(4,603)	(337)	(15,102)
Impairment reversal	-	5,542	482	1,612	124	7,760
Cumulative translation adjustment	(981)	(12,248)	(4,558)	(8,963)	(4,517)	(31,267)
Balance at December 31, 2020	3,043	58,680	15,443	31,166	15,869	124,201
Cost	5,450	107,199	27,544	60,902	23,780	224,875
Accumulated depreciation, amortization, depletion and impairment (****)	(2,407)	(48,519)	(12,101)	(29,736)	(7,911)	(100,674)
Balance at December 31, 2020	3,043	58,680	15,443	31,166	15,869	124,201
Additions	-	1,650	5,761	5	6,954	14,370
Additions to / review of estimates of decommissioning costs	-	_	_	(1,069)	-	(1,069)
Capitalized borrowing costs	-	-	971	-	-	971
Signature Bonuses Transfers (note 24)	-	-	-	11,629	-	11,629
Write-offs	(38)	(588)	(599)	(1,645)	(279)	(3,149)
Transfers	(295)	2,934	(3,160)	1,781	3	1,263
Transfers to assets held for sale	(53)	(2,776)	(575)	(822)	(14)	(4,240)
Depreciation, amortization and depletion	(97)	(4,235)	-	(4,342)	(4,281)	(12,955)
Impairment recognition (note 25)	-	(377)	(1)	(27)	(4)	(409)
Impairment reversal (note 25)	-	1,796	114	1,879	34	3,823
Cumulative translation adjustment	(177)	(3,958)	(1,032)	(2,708)	(1,230)	(9,105)
Balance at December 31, 2021	2,383	53,126	16,922	35,847	17,052	125,330
Cost	4,080	98,085	25,954	61,906	26,382	216,407
Accumulated depreciation, amortization, depletion and impairment (****)	(1,697)	(44,959)	(9,032)	(26,059)	(9,330)	(91,077)
Balance at December 31, 2021	2,383	53,126	16,922	35,847	17,052	125,330
Weighted average useful life in years	40 (25 to 50) (except land)	20 (3 to 31)	,•	Units of production method	8 (2 to 47)	,3

<sup>(\*)</sup> It is composed of production platforms, refineries, thermoelectric power plants, natural gas processing plants, pipelines, and other operating, storage and production plants, including subsea equipment for the production and flow of oil and gas, depreciated based on the units of production method.

The investments made by the company in 2021 were mainly in the development of production of oil and natural gas fields, primarily in the presalt complex (Búzios, unitized Atapu, Mero, unitized Sépia, among others), including the contracting of new leases. In 2021, the transfer of intangible assets to property, plant and equipment, in the amount of US\$ 11,629, relating to the value of the signature bonus paid in the auction of the Surplus of the Transfer of Rights in the Búzios field after the Co-participation Agreement from Búzios became effective.

<sup>(\*\*)</sup> See note 30 for assets under construction by operating segment.

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

<sup>(\*\*\*\*)</sup> In the case of land and assets under construction, it refers only to impairment losses.

Regarding the right-of-use assets, the readjustment clauses with possible effects on depreciation, amortization, depletion and accumulated impairment are presented as of December 31, 2021 as follows:

	Platforms	Vessels	Properties	Total
Balance at December 31, 2021	9,840	5,997	1,215	17,052
Cost	13,362	11,267	1,753	26,382
Accumulated depreciation, amortization and depletion	(3,522)	(5,270)	(538)	(9,330)
Balance at December 31, 2020	7,979	7,167	723	15,869
Cost	11,144	11,256	1,379	23,779
Accumulated depreciation, amortization and depletion	(3,165)	(4,089)	(656)	(7,910)

## 23.1. Estimated useful life

#### Buildings and improvements, equipment and other assets

Estimated useful life	Cost	Accumulated depreciation	Balance at December 31, 2021
5 years or less	3,931	(3,436)	495
6 - 10 years	7,997	(5,991)	2,006
11 - 15 years	4,982	(1,358)	3,624
16 - 20 years	27,614	(15,434)	12,180
21 - 25 years	26,847	(6,200)	20,647
25 - 30 years	10,271	(3,042)	7,229
30 years or more	4,478	(1,944)	2,534
Units of production method	15,931	(9,244)	6,687
Total	102,051	(46,649)	55,402
Buildings and improvements	3,966	(1,690)	2,276
Equipment and other assets	98,085	(44,959)	53,126

## 23.2. Accounting policy for Property, plant and equipment

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

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

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

Borrowing costs directly attributable to the acquisition or construction of qualifying assets are capitalized as part of the costs of these assets. General borrowing costs are capitalized based on the Company's weighted average cost of borrowings outstanding applied over the balance of assets under construction. Loans, directly attributable to the construction of qualifying assets are excluded from this calculation until the completion of all activities necessary to set the asset in conditions for use or sale intended by management. In general, the Company suspends capitalization of borrowing to the extent investments in a qualifying asset hibernates during a period greater than one year or whenever the asset is prepared for its intended use.

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

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

Assets related to oil and gas production with useful lives shorter than the life of the field; floating platforms and other assets unrelated to oil and gas production are depreciated on a straight-line basis over their useful lives, which are reviewed annually. Note 25.2 provides further information on the estimated useful life by class of assets. Lands are not depreciated.

Right-of-use assets are presented as property, plant and equipment and, according to the useful lives of their respective underlying assets and the characteristics of lease agreements (term, asset transfer or exercise of call option), are depreciated using the straight-line method based on contractual terms.

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

In 2021, the following oil and gas fields were returned to ANP: Bijupirá, Lagosta, Merluza e Salema. These fields were returned to ANP mainly due to their economic unfeasibility and, as a consequence, the Company wrote off the amount of US\$ 27 in addition to impairments recognized in prior years.

In 2020, the following oil and gas fields were returned to ANP: Agulha, Caioba, Camorim, Dourado, Guaricema, Piranema, Piranema Sul, Salgo e Tatuí. These fields were returned to ANP mainly due to their economic unfeasibility and, as a consequence, the Company wrote off the amount of US\$ 12 in addition to impairments recognized in prior years.

In 2019, the following oil and gas fields were returned to ANP: Juruá, Iraúna, Barra do Ipiranga, Lagoa Branca, Nativo Oeste, Jacupemba, Mariricu Oeste, Rio Barra Seca, Rio Itaúnas Leste, Rio São Mateus Oeste and Sul de Sapinhoá. These fields were returned to ANP mainly due to their economic unfeasibility and, as a consequence, the Company wrote off the amount of US\$ 74 in addition to impairments recognized in prior years.

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

The capitalization rate used to determine the amount of borrowing costs eligible for capitalization was the weighted average of the borrowing costs applicable to the borrowings that were outstanding during the period, other than borrowings made specifically for the purpose of obtaining a qualifying asset. For the year ended December 31,2021, the capitalization rate was 6.17% p.a. (6.12% p.a. for the year ended December 31, 2020).

# 24. Intangible assets

	Rights and			
	Concessions (*)	Software	Goodwill	Total
Balance at January 1, 2020	19,168	242	63	19,473
Addition	31	88	-	119
Capitalized borrowing costs	-	1	-	1
Write-offs	(173)	(3)	-	(176)
Transfers	(2)	(1)	(26)	(29)
Amortization	(8)	(58)	-	(66)
Impairment recognition	-	(6)	(6)	(12)
Cumulative translation adjustment	(4,302)	(53)	(7)	(4,362)
Balance at December 31, 2020	14,714	210	24	14,948
Cost	14,803	1,245	24	16,072
Accumulated amortization and impairment	(89)	(1,035)	-	(1,124)
Balance at December 31, 2020	14,714	210	24	14,948
Addition	106	165	-	271
Capitalized borrowing costs	-	5	-	5
Write-offs	(12)	(3)	-	(15)
Transfers	(94)	3	-	(91)
Signature Bonuses Transfers	(11,629)	-	-	(11,629)
Amortization	(6)	(54)	-	(60)
Impairment reversal	-	1	-	1
Cumulative translation adjustment	(384)	(19)	(2)	(405)
Balance at December 31, 2021	2,695	308	22	3,025
Cost	2,744	1,321	22	4,087
Accumulated amortization and impairment	(49)	(1,013)	-	(1,062)
Balance at December 31, 2021	2,695	308	22	3,025
Estimated useful life in years	(**)	5	Indefinite	

<sup>(\*)</sup> It comprises mainly signature bonuses (amounts paid in concession contracts for oil or natural gas exploration and production sharing), in addition to public service concessions, trademarks and patents and others.

## 24.1. Surplus volumes of Transfer of Rights Agreement

#### **Búzios**

On November 6, 2019, the ANP held the Bidding Round for the Surplus Volume of the Transfer of Rights Agreement, when the Company acquired a 90% interest in the exploration and production rights of the surplus volume of Búzios field, in the pre-salt layer of Santos basin, in partnership with CNODC Brasil Petróleo e Gás Ltda. (5%) and CNOOC Petroleum Brasil Ltda. (5%).

The signature bonus corresponding to the Company's interest in the amount of US\$ 14,912 was paid in the last quarter of 2019 and Production Sharing Contract was signed with PPSA, MME and ANP in the first quarter of 2020.

## a) Búzios Co-participation Agreement

On June 11, 2021, the Company signed with Pré-sal Petróleo S.A. (PPSA) and its partners CNODC and CNOOC a Co-participation Agreement (Agreement) for Búzios field, to regulate the coexistence of the Transfer of Rights Agreement and the Production Sharing Contract for the surplus volume of the Búzios field. The total compensation due to the Transfer of Rights Agreement (100% Petrobras) by the Production Sharing Contract is US\$ 29 billion, which will be recovered in cost oil by the contractors.

The amount was calculated based on the Ordinance 213/2019 of MME guidelines and took into account current market parameters, as well as the deferral of the production of the volume contracted under the Transfer of Rights regime, in order to maximize the Net Present Value (NPV) of the Brazilian Government and maintain Petrobras' NPV calculated based on the effective date of the Co-participation Agreement.

According to the agreement for the formation of the consortium to participate in the bid which occurred in 2019, the amount of US\$ 2.9 billion was paid by the partners CNODC and CNOOC to Petrobras in August 2021, after conditions precedent were met, including the approval by the ANP. Thus, the contract became effective on September 1, 2021.

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

On this date, the partial disposition of the undivided economic interest of assets associated with Búzios field was carried out, including the part of the signature bonus paid by Petrobras for this field, in exchange for financial compensation, resulting in a transaction analogous to a sale.

The partners and PPSA defined the Development Plan for the field, which is expected to result in a recoverable volume of 10,346 million barrels of oil equivalent during the term of the Agreement, which expires in September 2050. This recoverable volume results in participations in the co-participated area of 26% for the Transfer of Rights Agreement and 74% for the Production Sharing Agreement. Considering the participation of each company in its respective contract and the participation of each contract in the co-participated area, the participation in the area is 92.6594% for Petrobras and 3.6703% for each of the partners.

## b) Reimbursement of expenses

Expenses incurred by Petrobras in the ordinary operations of the bidding area for the benefit of the consortium, made prior to the start of the Agreement and not included in the total compensation amount, in the estimated amount of US\$ 57 (R\$ 316 million), will be reimbursed to Petrobras by the partners CNODC and CNOOC.

#### c) Exercise of partners' call option

Within 30 days after the Agreement's effective date, Petrobras' partners in the consortium had the right to exercise a call option, provided for in the agreement that established the consortium for bidding in 2019, to acquire, each of them, an additional 5% interest.

On September 29, 2021, the partner CNOOC expressed its interest in exercising the call option. The estimated amount to be received by Petrobras at the closing of the operation for the portion of CNOOC is US\$ 2,080, as follows: (i) US\$ 1,450 for the compensation, subject to the adjustments provided for in the contract, which considers the same effective date of the Agreement on September 1, 2021, and; (ii) US\$ 630 for the reimbursement of the signature bonus referring to the additional participation of CNOOC. The values will be updated until the transaction closing, expected to occur in the first quarter of 2022.

The assets related to this transaction were reclassified to assets held for sale (note 31).

The effectiveness of this transaction is subject to approval by the Administrative Council for Economic Defense (CADE), ANP and MME.

The CNODC partner did not express interest in the exercise of the call option. Thus, after the completion of purchase of additional 5% interest by CNOOC, Petrobras will hold 85% of the exploration and production rights of the surplus volumes of the Transfer of Rights Agreement of Búzios field, while CNOOC will hold 10% and CNODC, 5%. Moreover, considering all contracts in Búzios field (Transfer of Rights, Production Sharing and Concession of Tambuatá), Petrobras will hold an 88.99% interest, while CNOOC will hold 7.34% and CNODC, 3.67%.

## d) Further information

The result of the operation is shown below:

Financial compensation received	2,938
Reimbursement of expenses	59
Disposition of other assets and liabilities – PP&E and Decommissioning	(976)
Disposition of signature bonuses	(1,390)
Total effect in the statement of income (within Other income and expenses)	631

Since this bidding relates to the surplus volume of fields with technical and commercial feasibility already defined, the signature bonus paid, in the amount of US\$ 11,625, was transferred from intangible assets to property, plant and equipment after the Co-Participation Agreement became effective.

The volumes of reserves, considering the beginning of the effectiveness of the Búzios Field Agreement, will be progressively incorporated according to the certification criteria and are partially reflected in the estimates of proved reserves for December 31, 2021.

## Atapu and Sépia

Petrobras acquired the rights for the exploration and production on these fields in the Second Bidding Round for the Surplus Volume of the Transfer of Rights Agreement in the Production Sharing Regime, carried out by the ANP,

The rights in Atapu field were acquired in partnership with Shell Brasil (25%) and TotalEnergies EP (22.50%). Petrobras will hold a 52.50% interest and will operate the field.

(Expressed in millions of US Dollars, unless otherwise indicated)

Regarding Sépia field, Petrobras will be the operator with a 30% interest, in partnership with TotalEnergies EP (28%), Petronas (21%), and QP Brasil (21%).

The amounts corresponding to the signature bonus to be paid, are US\$ 384 (R\$ 2,141 million) for Atapu and US\$ 376 (R\$ 2,101 million) for Sépia, expected to be paid in the first quarter of 2022, when it will be recognized within intangible assets.

The effective date of the Co-participation Agreement was defined in MME Ordinance No. 519/2021, as the first business day subsequent to the certification by PPSA of the settlement of the compensation to Petrobras. On that date, Petrobras will sign this agreement with PPSA and the partners, which will regulate the coexistence of the Transfer of Rights Agreement with the Production Sharing Agreement.

The compensation for Atapu and Sépia will be paid by the partner companies to Petrobras, in proportion to their participation in the consortia, and corresponds, respectively, to US\$ 1,545 and US\$ 2,240. Petrobras expect to receive the compensation for Atapu until April 15, 2022, while for Sépia it will be defined with the consortium members. These values may be complemented based on positive changes in future Brent prices (earn out), between 2022 and 2032, according to MME Normative Ordinance No. 08/2021.

On the effective date of the agreements, assets associated with these fields will be partially written off, including the portion of the signature bonus paid by Petrobras due to the Transfer of Rights Agreement applicable to this field, in exchange for financial compensation, resulting in a transaction analogous to a sale. Then, the result of this transaction will be presented as other income or expenses. Any adjustments to reserve estimates will be incorporated by Petrobras in due course.

#### **Itapu Co-participation Agreement**

On July 9, 2021, Petrobras signed with Pré-sal Petróleo SA (PPSA) a Co-participation Agreement of Itapu, which will regulate the coexistence of the Transfer of Rights Agreement and the Production Sharing Contract for the Surplus volume of the Itapu field, in the pre-salt layer of Santos Basin.

Negotiations began after the bidding, held on November 6, 2019, in which Petrobras acquired 100% of the exploration and production rights of the surplus volume of the Transfer of Rights Agreement of Itapu field.

Petrobras and PPSA defined the Development Plan for the field, including estimates for production and recoverable volume. As a result, the Company's share in the area is 51.708% for the Transfer of Rights Agreement, with a total recoverable volume of 350 million boe, and 48.292% for the Production Sharing Agreement, with a total recoverable volume of 319 million boe.

The assumptions for oil and gas prices, discount rate and cost metrics used for the purpose of calculating the compensation for the deferral of the cash flow of the transfer of rights and which will be recognized as cost in oil were established in MME Ordinance No. 213/2019.

According to ANP Board Resolution No. 811/2021 of December 22, 2021, the Agreement was approved, becoming effective on January 1, 2022

## 24.2. Assumption of interest in concessions

## Six blocks in the state of Amapá

In September 2020 and April 2021, respectively, the Company closed agreements with Total E&P Brasil Ltda (TotalEnergies), and BP Energy do Brasil Ltda (BP) regarding the participations of these companies in blocks located in ultra-deep waters in northern Brazil. TotalEnergies was the operator in 5 blocks with a 40% interest, while Petrobras and BP had 30% each one. BP also had a 70% interest in another block, also a partner of Petrobras (30%). With the closing of these agreements, Petrobras will hold 100% interest in these six blocks and become the sole operator.

As a result of these agreements, firmed between the parties and ANP in September 2021, Petrobras will receive US\$ 199 as a compensation for the total assumption of the minimum exploratory program, of which US\$ 139 was received at the closing of the operation, and the remaining balance to be received in June 2022.

The Company also registered an US\$ 88 addition within intangible assets, measured at fair value, for the assumption of participation in these concessions, without disbursement made by the Company.

Thus, the Company recognized a US\$ 287 gain (including the compensation and the addition of assets) recognized in other income and expenses.

#### Potiguar basin

In the last quarter of 2021, Petrobras and the ANP signed an amendment to the Concession Agreement relating to the deep waters in the Potiguar Basin, for the total assignment of the partners interest to Petrobras (BP 40% e Petrogal 20%), which will hold a 100% interest in this area.

Thus, the Company recorded an US\$ 1 addition in intangible assets and of US\$ 64 within property, plant and equipment, measured at fair value, due to the assumption of participation in the concession, and a US\$ 65 gain within other income and expenses, without cash effects.

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

In 2021, 3 exploration areas in Santos and Potiguar basins were returned to the ANP (49 in 2020 in Camamu-Almada, Espírito Santo, Jequitinhonha, Potiguar, Recôncavo, Pelotas, Pernambuco-Paraíba, Santos and Sergipe-Alagoas basins), totaling US\$ 3 (US\$ 172 in 2020).

## 24.3.1. Accounting policy for intangible assets

Intangible assets are measured at the acquisition cost, less accumulated amortization and impairment losses.

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

When the technical and commercial feasibility of oil and gas production is demonstrated for the first field in an area, the value of the signature bonus is reclassified to property, plant and equipment at their full value. While they are in intangible assets, they are not amortized. Other intangible assets with defined useful lives are amortized on a straight-line basis over their estimated useful lives.

If, when defining the first field of a block, there are exploratory activities being carried out in different locations in the block, so that oil and gas volumes can be estimated for other possible reservoirs in the area, then the value of the signature bonus is partially reclassified to PP&E, based on the ratio between the volume of oil and gas expected (oil in place - VOIP) of a specific reservoir and the total volume of oil and gas expected for all possible reservoirs in the area.

If exploratory activities in the remaining areas do not result in technical and commercial viability, the corresponding value of the signature bonus is not written off, but transferred to PP&E and added to the value of the signature bonus related to the location that was previously assessed as technically and commercially viable.

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

# 25. Impairment

(Losses) / reversals	2021	2020	2019
Property, plant and equipment	3,414	(7,342)	(2,882)
Intangible assets	1	(12)	(1)
Assets classified as held for sale	(225)	15	35
Impairment (losses) / reversals	3,190	(7,339)	(2,848)
Investments	383	(514)	(4)
Net effect within the statement of income	3,573	(7,853)	(2,852)
Losses	(654)	(15,680)	(3,662)
Reversals	4,227	7,827	810

The Company annually tests its assets for impairment or when there is an indication that their carrying amount may not be recoverable, or that there may be a reversal of impairment losses recognized in previous years.

During the third quarter of 2021, observing the oil and gas market scenario, the Company's management reassessed the Brent prices provided for in the 2021-2025 Strategic Plan (in force on that date) and updated the short-term assumptions established in that plan, recognizing US\$ 3,098 impairment reversals in that quarter.

On November 24, 2021, management concluded and approved its 2022-2026 Strategic Plan, considering a complete update of economic assumptions, as well as its project portfolio and estimates of reserve volumes, which support the impairment tests conducted in the last quarter of this year.

The oil and gas production estimated in the scope of this plan indicates a continuous growth focused on the development of projects that generate higher value, with an increase in the participation of assets in the pre-salt layer, which present lower lifting costs. During this period, 13 new production systems are expected to enter into operation, all of which to be allocated to deep and ultra-deep water projects.

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

Asset or CGU by nature (*)	Carrying amount	Recoverable amount (**)	Impairment (losses) / reversals	Business segment	Comments 2021
Property, plant and equipment and intangible assets					
Producing properties relating to oil and gas activities in Brazil (several CGUs)	23,734	36,396	3,373	E&P	item (a1)
Oil and gas production and drilling equipment in Brazil	250	-	(250)	E&P	item (b1)
Second refining unit in RNEST	404	767	359	RT&M	item (c1)
Others			(67)	Several	( )
			3,415		
					2020
Property, plant and equipment and intangible assets					
Producing properties relating to oil and gas activities in Brazil (several CGUs)	42.421	40.511	(7,316)	E&P	item (a2)
Oil and gas production and drilling equipment in Brazil	120		(119)	E&P	item (b2)
Second refining unit in RNEST	410	388	(22)	RT&M	item (c2)
Comperi	266	526	260	RT&M	item (d1)
Corporate facilities	152	-	(161)	Corporate, others	item (e)
Others	102		2	Several	nom (o)
Out.			(7,354)	3070.0.	
			( )		2019
Property, plant and equipment and intangible assets					
Producing properties relating to oil and gas activities in Brazil (several CGUs)	105,532	196,994	(1,859)	E&P	item (a3)
Oil and gas production and drilling equipment in Brazil	314	_	(307)	E&P	item (b3)
Second refining unit of RNEST	1,043	498	(534)	RT&M	item (c3)
Comperj	330	117	(209)	RT&M	item (d2)
Transpetro's fleet of vessels	1,347	1,453	103	RT&M	item (f)
Fertilizer plant - UFN III	204	_	(200)	RT&M	item (g)
Oil and gas production and drilling equipment abroad	343	15	(333)	E&P	item (h)
Others	33	-	(67)	Several	
			(3,406)		

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

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

- The estimated useful life of the asset or assets grouped into the CGU, based on the expected use of those assets, considering the Company's maintenance policy;
- Assumptions and financial budgets/forecasts approved by management for the period corresponding to the expected life cycle of each different business; and
- Pre-tax discount rates derived from the Company's post-tax weighted average cost of capital (WACC), adjusted by specific risk-premiums
  in case of projects postponed for an extended period, or specific country-risks, in case of assets abroad. The use of post-tax discount
  rates in determining value in use does not result in materially different recoverable amounts if pre-tax discount rates had been used.

## 25.1.1. Planning assumptions used in impairment testing

The cash flow projections used to measure the value in use of the CGUs at December 31, 2021, were mainly based on the following updated assumptions for average Brent prices and Brazilian real/U.S. dollar average exchange rates:

<sup>(\*\*)</sup> The recoverable amounts of assets for impairment computation were their value in use, except for assets held for sale, for which is used fair value.

(Expressed in millions of US Dollars, unless otherwise indicated)

2021-2025 Strategic Plan (*)	2022	2023	2024	2025	2026	Long term Average
Average Brent (US\$/barrel)	72	65	60	55	55	55
Average Brazilian Real (excluding inflation) - Real /U.S. dollar exchange rate	5.40	5.33	5.19	5.15	5.14	5.08

<sup>(\*)</sup> In the impairment testing in the third quarter, projected average Brent prices were US\$ 69.40 for 2021 and US\$ 69.20 for 2022, kept constant for the other years.

## At December 31, 2020, average Brent prices and Brazilian real/U.S. dollar average exchange rates used were:

	2021	2022	2023	2024	2025	Long term Average
Average Brent (US\$/barrel)	45	45	50	50	50	50
Average Brazilian Real (excluding inflation) - Real /U.S. dollar exchange rate	5.50	4.69	4.46	4.28	4.07	3.76

#### Post-tax discount rates, excluding inflation, applied in the tests were:

Activity	12.31.2021	12.31.2020
Producing properties relating to oil and gas activities in Brazil	6.4% p.a.	7.1% p.a.
RT&M in Brazil	5.5% p.a.	6.1% p.a.
RT&M in Brazil – postponed projects	6.2% p.a.	7.4% p.a.
Gas logistics	5.4% p.a.	6.4% p.a.
Transport in Brazil	4.9% p.a.	5.4% p.a.

## 25.1.2. Revision of Cash Generating Units

During 2021, management identified and assessed the following changes in CGUs:

## **E&P Segment**

- (i) Annexation of the following areas approved by the ANP: Guriatã, Guriatã Sul, Canário da Terra, Canário da Terra Sul, Riacho da Barra and Rio Sauípe fields to Fazenda Imbé concession; and of Jandaia and Rio da Serra fields to the Tangará concession. As a result, assets of these fields were incorporated by Imbé and Tangará CGUs;
- (ii) Closing of the divestment process of the following concessions (with their related assets written-off): São Mateus 8, Ventura and Miranga group of Fields, and of several other individual fields;
- (iii) Return of the following concessions to the ANP (with their related assets written-off): Bijupirá and Salema group of fields (CGU Bijupirá-Salema) and Merluza and Lagosta group of fields (CGU Merluza);
- (iv) North group of fields: exclusion of platforms P-26, P-32 and P-33 from this CGU, due to management's decision to sell and definitively cease the operations of the platforms in the Marlim field;
- (v) Creation of the CGU SEAP I, comprising Agulhinha, Agulhinha Oeste, Cavala and Palombeta fields and of the CGU SEAP II, comprising Budião, Budião Noroeste and Budião Sudeste fields, arising from the successful appraisal for discoveries in blocks BM-SEAL-4, BM-SEAL-10 and BM-SEAL-11.

#### **Gas & Power Segment**

- (i) Exclusion of Natural Gas CGU: Management reassessed the interdependence of the cash flows of assets in the natural gas business in view of the new regulatory framework for the sector, deciding to exclude the Natural Gas CGU and to create new CGUs: Integrated Processing System CGU; Cacimbas UGC UTG; Sul Capixaba CGU; Guamaré CGU; Urucu CGU and Catu CGU.
- (ii) Exclusion of the thermoelectric power plants Arembepe, Muryci and Bahia 1 from the CGU Power, due to the closing of the sale on December 6, 2021, with the consequent write-off of the related assets.

### **RT&M Segment**

(i) CGU Downstream: exclusion of refineries Landulpho Alves (RLAM) and Isaac Sabbá (REMAN) from this CGU, due to the divestment process. The sale of RLAM was closed in November 2021 and its assets were written-off, while the closing for the sale of REMAN is still pending at December 31, 2021, and its assets are held for sale (see note 31.1);

- (ii) CGU SIX: in November 2021, the Company signed an agreement for the sale of Shale Industrialization Unit (SIX), in the state of Paraná, when these assets were classified as held for sale (see note 31.1);
- (iii) CGU Comperj: exclusion of this CGU, comprising assets from the first refining unit of the of Petrochemical Complex of Rio de Janeiro, due to the cancellation of this project, with part of the remaining assets incorporated by the CGU Itaboraí Utilities, composed of assets destined to support the natural gas processing plant (UPGN) of the route 3 integrated project; and part incorporated by the CGU GasLub, referring to the set of assets that remain hibernated and that are under evaluation for use in other projects.

Information on key assumptions for impairment testing and on CGU definitions is presented in notes 4.2 and 4.3, respectively.

# 25.1.3. Information on the main impairment losses

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

## a1) Producing properties in Brazil - 2021

Impairment reversals on producing properties in Brazil amount to US\$ 3,373, most of it related to CGUs of producing properties, reflecting the revision on the key assumptions of the Strategic Plan, mainly the increase in average Brent prices.

The following table presents significant impairment reversals for 2021:

CGU	Basin	Area	Impairment	Carrying amount after impairment
Roncador	Campos basin	Post-Salt	860	7,075
North	Campos basin	Post-Salt	714	4,861
Carmópolis	Sergipe basin	Onshore and shallow-water	611	840
Berbigão-Sururu	Santos basin	Pre-Salt	388	3,072
Albacora Leste	Campos basin	Post-Salt	369	1,502
Marlim Leste	Campos basin	Post-Salt	48	2,435
Papa-Terra	Campos basin	Post-Salt	41	39
Uruguá	Santos basin	Post-Salt	35	82
Marlim Sul	Campos basin	Post-Salt	32	5,002
Others (*)	Several	Several	275	2,023
Total			3,373	26,931

<sup>(\*)</sup> It comprises 39 CGUs.

## a2) Producing properties in Brazil - 2020

Impairment losses on producing properties in Brazil amounted to US\$ 7,316, most of it related to CGUs that provided service in E&P fields, also reflecting the hibernation of producing assets on the first quarter of 2020, as well as the revision on the key assumptions of the Strategic Plan, mainly expected Brent prices, depreciation of Brazilian real against U.S. dollar, economic slowdown and reduction on demand for oil and oil products.

#### a3) Producing properties in Brazil - 2019

Impairment assessment for producing properties in Brazil resulted in US\$ 1,859 impairment losses, mainly comprising:

- Impairment losses in the amount of US\$ 2,092, mainly related to the CGUs of Papa-Terra (US\$ 369), Uruguá group (US\$ 344), CVIT group (US\$ 206), Corvina (US\$ 158), Piranema (US\$ 128), Camorim (US\$ 109), Pirambu (US\$ 102), Merluza group (US\$ 98), Miranga group (US\$ 76), Guaricema (US\$ 76) and Água Grande group (US\$ 72), mainly due to the decrease in estimates for the average Brent price on the projection horizon, to higher estimates for future decommissioning costs, due to the reduction in risk-free discount rates, and to changes in the schedule for removal and treatment of oil and gas production facilities;
- Impairment reversals totaling US\$ 53 primarily relating to Peroá group (US\$ 30) and Castanhal (US\$ 12), mainly due to gains in the production curve and accelerated depreciation tax benefit related the new tax model for oil and gas activities.

#### b1) Oil and gas production and drilling equipment in Brazil - 2021

Impairment losses of US\$ 250 relates to equipment and structures in the E&P segment, mainly due to the decision to cease the use of platforms P-26 and P-33 in the Marlim field, leading to the recognition of losses in the amount of US\$ 210.

#### b2) Oil and gas production and drilling equipment in Brazil - 2020

Impairment losses of US\$ 120 relates to equipment and structures in the E&P segment, mainly due to the decision to cease with the Estaleiro Inhaúma project, leading to the recognition of losses in the amount of US\$ 69.

## b3) Oil and gas production and drilling equipment in Brazil - 2019

In 2019, the Company decided to discontinue the use of P-37 platform in Marlim field, resulting in its exclusion of North group and its independent assessment for impairment, resulting in losses in the amount of US\$ 307.

#### c1) Second refining unit of RNEST - 2021

The cash flows to measure the value in use of the second refining unit of RNEST take into account the decision to resume the works and to start operating in August 2027, according to the 2022-2026 Strategic Plan, triggering impairment reversals in the amount of US\$ 359.

#### c2) Second refining unit of RNEST – 2020

The cash flows to measure the value in use of the second refining unit of RNEST took into account the postponing of the beginning of the operation, triggering impairment losses in the amount of US\$ 22.

### c3) Second refining unit of RNEST - 2019

The cash flows to measure the value in use of the second refining unit of RNEST took into account the postponing of the beginning of the operation, triggering impairment losses in the amount of US\$ 534.

## d1) Comperj - 2020

Impairment reversals amounted to US\$ 260, mainly due to the reduction in the estimated investments for the completion of the project relating to the first refining unit facilities, resulting from the depreciation of the Brazilian Real in relation to the U.S. Dollar, as well as to optimization measures adopted.

#### d2) Comperj - 2019

Impairment losses amounted to US\$ 209, arising from the investments made due to the Conduct Adjustment Declaration ("TAC") to close the public civil action requesting the environmental licensing, as well as to the investments made in the first refining unit facilities, which are part of the infrastructure for transporting and processing natural gas from the pre-salt layer in the Santos Basin.

#### e) Corporate facilities - 2020

The Company decided to hibernate a corporate building, in the state of Bahia, due to its permanent vacancy, resulting in a US\$ 161 impairment loss on the right of use asset.

#### f) Oil and gas production and drilling equipment abroad - 2019

In January 2020, the sale of drillship Sonda Vitória 10,000 (NS-30), owned by Drill Ship International B.V. - DSI, a subsidiary of PIB BV, was closed. Thus, impairment losses in the amount of US\$ 333 were recognized, due to the difference between the expected sale value and its carrying amount.

### g) Transpetro's fleet of vessels - 2019

The depreciation of Reais against U.S. Dollars used in the projections of the Strategic Plan 2020-2024, compared to the assumptions used in the previous plan, had a positive effect on the cash generation projected in Reais for the CGU, given that freight rates (cash inflows) are quoted in U.S. dollars. Thus, a US\$ 103 reversal of impairment was accounted for in 2019.

#### h) Fertilizer plant - UFN III - 2019

Following the Company's decision to quit the conclusion of this plant located in the state of Mato Grosso do Sul, this asset was written-off, in the amount of US\$ 200.

#### 25.1.4. Assets most sensitive to future impairment

Whenever the recoverable amount of an asset or CGU falls below the carrying amount, an impairment loss is recognized to reduce the carrying amount to the recoverable amount. The following table presents the assets and CGUs most sensitive to future impairment losses, presenting recoverable amounts close to their current carrying amounts.

The analysis presented below considers CGUs with estimated impairment losses or reversals if there was a 10% reduction or increase in their recoverable amounts, arising from changes in material assumptions:

Potential impairment losses - 10% reduction in the recoverable amount	Business segment	Carrying amount	Recoverable amount	Sensitivity
Assets with impairment losses				
Producing properties relating to oil and gas activities in Brazil (2 CGUs)	E&P	178	196	18
Second refining unit of RNEST	RT&M	769	690	79
Itaboraí utilities	G&P	763	686	77
		1,710	1,572	174

Potential impairment reversals - 10% increase in the recoverable amount	Business segment	Carrying amount	Recoverable amount	Sensitivity (*)
Assets with impairment losses				
Producing properties relating to oil and gas activities in Brazil (39 CGUs)	E&P	178	196	18
Second refining unit of RNEST	RT&M	769	844	75
Itaboraí utilities	G&P	763	839	76
		1,710	1,879	169

<sup>(\*)</sup> When calculating a 10% increase in the recoverable amount, the amount of impairment to be reversed is limited to the accumulated impairment of the CGU or to their recoverable amounts, whichever is lower.

## 25.1.5. Accounting policy for 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 (CGU). Note 4.3 presents detailed information about the Company's CGUs.

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

Considering the existing synergies between the Company's assets and businesses, as well as the expectation of the use of its assets for their remaining useful lives, value in use is generally used by the Company for impairment testing purposes. When specifically indicated, the Company assesses differences between its assumptions and assumptions that would be used by market participants in the determination of the fair value of an asset or CGU.

Reversal of previously recognized impairment losses may occur for assets other than goodwill.

### 25.2. Assets classified as held for sale

Asset or CGU by nature (*)	Carrying amount	Recoverable amount (**)	Impairment (losses) / reversals	Business segment
				2021
Thermoelectric power plants	91	12	(79)	G&E
Investment in Breitener	107	44	(67)	G&E
Oil and gas production and drilling equipment in Brazil	47	-	(46)	E&P
Refineries and associated logistics assets	255	218	(37)	RT&M
Others			5	
Total			(224)	
				2020
Producing properties relating to oil and gas activities	-	279	67	E&P
Cartola and Ataulfo Alves vessels	80	19	(62)	RT&M
Others			10	
Total			15	
				2019
Producing properties Pampo and Enchova fields	328	808	494	E&P
Producing properties Pampo and Frade field	19	105	84	E&P
Producing properties Pampo and Maromba field	_	68	67	E&P
PO&G BV	444	354	(89)	E&P
Others	592	468	(521)	Several
Total			35	

In 2021, the Company recognized losses on assets held for sale, in the amount of US\$ 224, arising from the assessment at the fair value of assets, net of disposal expenses, mainly due to:

- i. Camaçari power plants following the closing of the sale of thermoelectric power plants Arembepe, Muryci and Bahia 1, located in Camaçari, in the state of Bahia, these assets were measured at fair value net of selling expenses, and a US\$ 79 impairment loss was accounted for in the second quarter of 2021.
- ii. Breitener Energética S.A following the sale of this company, in the state of Amazonas, Petrobras recognized a US\$ 67 loss;
- iii. Oil and gas production and drilling equipment in Brazil: approval for the disposal of P-32 platform, resulting in the recognition of US\$ 46 losses; and
- iv. Refineries and associated logistics assets: following the approval for the sale of refinery Isaac Sabbá (REMAN), in the state of Amazonas, a US\$ 12 impairment loss was recognized, and of the refinery Shale Industrialization Unit (SIX), in the state of Paraná, a US\$ 25 impairment loss was recognized.

In 2020, the Company recognized reversals in the amount of US\$ 17 arising from the fair value of assets, net of disposal expenses, with the most significant relating to:

- i. the sale of Recôncavo group of fields (14 concessions located onshore and in shallow waters) in the amount of US\$ 35;
- ii. the sale of Rio Ventura group of fields (8 concessions located onshore) in the amount of US\$ 18;
- iii. the sale of Fazenda Belém group of fields, in the amount of US\$ 14.

These reversals were partially offset by a US\$ 62 impairment loss relating to Cartola and Ataulfo Alves vessels.

In 2019, as a result of the sale of several assets of the E&P segment, the Company recognized reversals in the amount of US\$ 558, considering the net fair value of disposal expenses, mainly: US\$ 494 relating to Pampo and Enchova Project (10 concessions located in shallow waters); US\$ 84 relating to Bispo project (in Frade field); US\$ 67 relating to Mangalarga project (in Maromba field), partially offset by a US\$ 89 impairment loss recognized on the sale of Petrobras Oil & Gas B.V. (PO & GBV).

The accounting policy for assets and liabilities held for sale is set out in note 31.

## 25.3. 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 post-tax discount rate derived from the WACC or the Capital Asset Pricing Model (CAPM) models, specific for each case.

## 25.3.1. Accounting policy for impairment of associates and joint ventures

Investments in associates and joint ventures are tested individually for impairment. When performing impairment testing of an equity-accounted investment, goodwill, if it exists, is also considered part of the carrying amount to be compared to the recoverable amount.

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

## 25.3.2. Investment in publicly traded associates

#### a) Braskem S.A.

Braskem's shares are publicly traded on stock exchanges in Brazil and abroad. As of December 31, 2020, the quoted market value of the Company's investment in Braskem was US\$ 2,943 based on the quoted values of both Petrobras' interest in Braskem's common stock (47% of the outstanding shares), and preferred stock (22% of the outstanding shares). However, there is extremely limited trading of the common shares, since non-signatories of the shareholders' agreement hold only approximately 3% of the common shares.

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

Cash flow projections to determine the value in use of Braskem were based on estimated prices of feedstock and petrochemical products reflecting international trends on prices, petrochemical products sales volume estimates reflecting projected Brazilian and global G.D.P. growth, post-tax discount rate (excluding inflation) of 6.2% p.a., (WACC), and decreases in the EBITDA margin during the growth cycle of the petrochemical industry in the next years and increases in the long-term. Estimated exchange rates and Brent prices are the same as those set out in note 27.1.1.

On December 16, 2021, Petrobras' Board of Directors approved the model for the sale of up to 100% of its preferred shares of Braskem, to be conducted through a secondary public offering (follow-on), according to an agreement entered into with Novonor (Braskem's parent company).

On January 17, 2022, Petrobras filed a follow-on request with the CVM. However, on January 28, 2022, the offer was canceled due to unstable market conditions, which resulted in demand and price levels unfavorable for the transaction.

### b) Petrobras Distribuidora S.A. (renamed Vibra Energia S.A.)

On August 26, 2020, the Company's Board of Directors approved the disposal of the remaining interest in this associate.

Accordingly, it was tested for impairment, when the recoverable value of this investment took into account the value in use, including the disposal value, considering the intention to sell the shares. As the value in use of this investment was lower than the book value, an impairment loss of US\$ 144 was recognized in the third quarter of 2020. The post-tax discount rate in constant currency applied was 11.1% p.a., considering the cost of equity.

On June 30, 2021, the Company's Board of Directors approved the price per common share of BR Distribuidora in the amount of US\$ 5.20 (R\$ 26.00) for the secondary public offering (follow on) of these shares, totaling US\$ 2,252 (R\$ 11,264 million), net of transaction costs.

Accordingly, considering the sale of the shares and the cash flows arising from this sale, a US\$ 404 impairment reversal was accounted for within results of equity-accounted investments, in the second quarter of 2021. The transaction was closed on July 5, 2021 (note 30.2).

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

On July 28, 2021, management approved the sale of its entire interest (51%) in Petrobras Gás S.A. – Gaspetro (see note 31.1), which holds interests in 19 companies that explore with exclusivity natural gas distribution in several Brazilian states. This investment was classified as held for sale, with no indication of impairment losses.

#### 25.3.4. Impairment losses in other equity-accounted investments

In 2021, the Company recognized impairment losses in other equity-accounted investments the amount of US\$ 21. In 2020, the Company recognized impairment losses amounting to US\$ 59, mainly in joint venture MP Gulf of Mexico (US\$ 59), due to the revised Brent prices projections (with a 5.4% p.a. post-tax discount rate in constant currency, applied for the E&P segment in the USA), and in BSBIOS (US\$ 22), resulting from the classification of this investment as held for sale, after the signing of the purchase and sale agreement by the Company's subsidiary Petrobras Biocombustível with RP Participações em Biocombustíveis, in December 2020. In 2019, the Company recognized a US\$ 4 loss relating to other equity-accounted investments.

# 26. Exploration and evaluation of oil and gas reserves

The exploration and evaluation activities include the search for oil and gas reserves from the date of 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 (*)	2021	2020
Property plant and equipment		
Opening Balance	3,024	4,262
Additions	459	428
Write-offs	(188)	(197)
Transfers	(1,097)	(494)
Cumulative translation adjustment	(204)	(975)
Closing Balance	1,994	3,024
Intangible Assets (**)	2,576	14,526
Capitalized Exploratory Well Costs / Capitalized Acquisition Costs	4,570	17,550

<sup>(\*)</sup> 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:

	2021	2020	2019
Exploration costs recognized in the statement of income			
Geological and geophysical expenses	358	296	477
Exploration expenditures written off (includes dry wells and signature bonuses)	248	456	308
Contractual penalties	47	38	4
Other exploration expenses	34	13	10
Total expenses	687	803	799
Cash used in:			0
Operating activities	393	307	485
Investment activities	555	532	17,265
Total cash used	948	839	17,750

Exploration expenditures written off arise from projects without economic feasibility. In 2021, write-offs were mainly related to exploratory wells in the concessions of Golfinho and Marlim Leste and in the Campos and Potiguar basins.

In 2021, the Company recognized provisions arising from potential contractual penalties for non-compliance with minimum percentages of local content in 158 blocks for which the exploratory phases were concluded (186 blocks in 2020).

<sup>(\*\*)</sup> The amount of the signature bonuses paid in the Surplus Oil of Transfer of Rights Agreement was transferred from intangible assets to property, plant and equipment after the Búzios Coparticipation Agreement came into effect, as described in Note 24.1.

## 26.1. Accounting policy for exploration and evaluation of oil and gas reserves

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

- Geological and geophysical costs related to exploration and appraisal activities incurred until economic and technical feasibility can be demonstrated are expensed.
- Amounts paid for obtaining concessions for exploration of crude oil and natural gas (capitalized acquisition costs) are initially capitalized as intangible assets and are transferred to property, plant and equipment once the technical and commercial feasibility can be demonstrated. More information on intangible assets accounting policy, see note 27.
- Costs directly attributable to exploratory wells, including their equipment and installations, pending determination of proved reserves are capitalized within property, plant and equipment. In some cases, exploratory wells have discovered oil and gas reserves, but at the moment the drilling is completed they are not yet able to be classified as proved. In such cases, the expenses continue to be capitalized if the well has found a sufficient quantity of reserves to justify its completion as a producing well and progress on assessing the reserves and the economic and operating viability of the project is under way (for more information see note 26).
- An internal commission of technical executives of the Company reviews these conditions monthly for each well, by analysis of geoscience and engineering data, existing economic conditions, operating methods and government regulations. For additional information on proved reserves estimates, see note 4.1.
- Costs related to exploratory wells drilled in areas of unproved reserves are charged to expense when determined to be dry or uneconomic by the aforementioned internal commission.
- Costs related to the construction, installation and completion of infrastructure facilities, such as drilling of development wells, construction of platforms and natural gas processing units, construction of equipment and facilities for the extraction, handling, storing, processing or treating crude oil and natural gas, pipelines, storage facilities, waste disposal facilities and other related costs incurred in connection with the development of proved reserve areas are capitalized within property, plant and equipment.

### 26.2. 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 (*)	2021	2020
Exploratory well costs capitalized for a period of one year	136	118
Exploratory well costs capitalized for a period greater than one year	1,858	2,906
Total capitalized exploratory well costs	1,994	3,024
Number of projects relating to exploratory well costs capitalized for a period greater than one year	22	38

	Capitalized costs (2021)	
2020	49	2
2017	39	1
2016 and previous years	1,770	31
Exploratory well costs that have been capitalized for a period greater than one year	1,858	34

<sup>(\*)</sup> 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 relate to 22 projects comprising (i) US\$ 1,858 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) US\$ 415 relate to costs incurred to evaluate the reserves and their potential development.

# 27. Collateral for crude oil exploration concession agreements

The Company has granted collateral to ANP in connection with the performance of the Minimum Exploration Programs established in the concession agreements for petroleum exploration areas in the total amount of US\$ 1,574 (US\$ 1,631 as of December 31, 2020) of which US\$ 1,574 were still in force as of December 31, 2021 (US\$ 1,543 as of December 31, 2020), net of commitments undertaken. The collateral comprises crude oil from previously identified producing fields, pledged as collateral, amounting to US\$ 1,243 (US\$ 1,256 as of December 31, 2020) and bank guarantees of US\$ 331 (US\$ 287 as of December 31, 2020).

# 28. Partnerships in E&P activities

In line with its strategic objectives, Petrobras operates in association with other companies in partnerships in Brazil as holder of oil and natural gas exploration and production rights in concessions and production sharing regimes.

As of December 31, 2021, the Company holds interests in 85 partnerships with 37 companies, among which Petrobras is the operator in 55 (in 2020, 98 partnerships with 40 companies and operator in 55). There were no new partnerships signed in 2021. The partnerships formed in 2020 are described below:

Consortium	Location	% Petrobras	% Partners	Operator	Year	Additional Information	ANP Bonus Petrobras portion (*)
ARAM (*)	Santos basin	80%	CNODC - 20%	Petrobras	2020	Production sharing	496
BT-SEAL-13A	Sergipe Alagoas basin	50%	Petrogal – 50%	Petrogal	2020	Concession – split	N/A
BÚZIOS – ECO (*)	Santos basin	90%	CNODC – 5% CNOOC – 5%	Petrobras	2020	Production sharing	14,985
C-M-477	Campos basin	70%	BP Energy do	Petrobras	2020	Concession	N/A

<sup>(\*)</sup> The bonuses referring to Aram and Búzios were paid in 2019, the year in which the respective rounds were held - First Round of Bidding for Surplus Transfer of Rights and 6th Round of Bidding in the Production Sharing Regime.

Partnerships brings benefits through risk sharing, increased investment capacity, technical and technological interchange, aiming at the growth in oil and gas production. The following table presents the production referring to Petrobras's participation in the main fields in which the Company is the operator in the partnership:

Field	Location	% Petrobras	% Partners	Petrobras production portion in 2020 (kboed)	Regime
Tupi (BMS-11)	Santos basin pre-salt	65%	Shell – 25% Petrogal – 10%	756.0	Concession
BÚZIOS – ECO	Santos basin	90%	CNODC – 5% CNOOC – 5%	150.8	Production sharing
Roncador	Campos basin	75%	Equinor – 25%	116.1	Concession
Sapinhoá (BMS-9)	Santos basin pre-salt	45%	Shell – 30% Repsol Sinopec – 25%	114.8	Concession
Tartaruga Verde	Campos basin	50%	Petronas – 50%	43.0	Concession
Sururu	Santos basin pre-salt	42.5%	Shell – 25% Total – 22.5% Petrogal – 10%	26.2	Concession
Albacora Leste	Campos basin	90%	Repsol Sinopec - 10%	24.9	Concession
Berbigão	Santos basin pre-salt	42.5%	Shell – 25% Total – 22.5% Petrogal – 10%	18.7	Concession
Mero	Santos basin pre-salt	40%	Total – 20% Shell – 20% CNODC – 10% CNOOC – 10%	10.4	Production sharing
Oeste de Atapu	Santos basin pre-salt	42.5%	Shell – 25% Total – 22.5% Petrogal – 10%	10.4	Concession
Total				1271.3	

## 28.1. Accounting policy for joint operations

The E&P partnerships are classified as joint operations, where the Company recognizes according to its interests: i) its assets, including its stake in any assets held jointly ii) its liabilities, including its stake in any liabilities assumed jointly; iii) its sales revenues corresponding to the proportion of its participation in the production resulting from the joint operation; and iv) its expenses, including the portion of any expenses incurred together.

(Expressed in millions of US Dollars, unless otherwise indicated)

Assets, liabilities, revenues and expenses relating to the participation in a joint operation are accounted for in accordance with the specific accounting policies applicable to assets, liabilities, revenues and expenses.

## 28.2. Unitization Agreements

Petrobras has Production Individualization Agreements (AIP) signed in Brazil with partner companies in E&P consortia, as well as contracts resulting from divestment operations and strategic partnerships related to these consortia. These agreements result in reimbursements payable to (or receivable from) partners regarding expenses and production volumes mainly related to Berbigão, Sururu, Albacora Leste, Tartaruga Verde and Mero.

#### Berbigão, Sururu, Albacora Leste and others

The table below presents changes in the reimbursements payable relating to these fields:

	12.31.2021	12.31.2020
Opening balance	370	113
Additions/(Write-offs) on PP&E	(64)	278
Payments made	-	(17)
Other income and expenses	84	11
Cumulative translation adjustments	(26)	(15)
Closing balance	364	370

As of December 31, 2021, Petrobras has reimbursements payable amounting to US\$ 364 (US\$ 370 on December 31, 2020). In 2021, these agreements resulted in additions and write-offs in PP&E, in addition to other income and expenses, reflecting the best available estimate of the assumptions used in the calculation base and the sharing of assets in areas to be equalized.

#### Agreements concluded

## a) Mero, Alagamar, Upanema, Brava and pre-salt of Albacora

In December 2021, several Agreements for the Equalization of Expenses and Volumes (AEGV) were signed with the partners Shell, Total, Sonangol, CNODC and CNOOC and PPSA, referring to the Mero, Alagamar, Upanema, Brava and Pre-Salt of Albacora, which resulted in the total amount receivable of US\$ 86, of which US\$ 8 was recognized within other income and expenses in 2021.

In the AEGV relating to Mero, Brava and Albacora pre-salt layer, the PPSA, representing the Brazilian Federal Government, will pay US\$ 79 to Petrobras through a share of production over the next years. Regarding the pre-salt of Albacora, the settlement will begin after the approval of the unitization agreement by the ANP.

# 28.3. Accounting Policy for unitization agreements

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

Events that occurred prior to the unitization agreement may lead to the need for compensation between the partners. At the signing of the AIP, an amount to be reimbursed to the Company will be recognized as an asset only when there is a contractual right to reimbursement or when the reimbursement is practically certain. An amount to be reimbursed by the Company will be recognized as a liability when it derives from a contractual obligation or, when the outflow of funds is deemed probable and the amount can be reliable estimated.

#### 29. Investments

### 29.1. Information on direct subsidiaries, joint arrangements and associates

Subsidiaries						
Petrobras International Braspetro - PIB BV	Several	100.00	100.00	48,950	1,896	Netherlands
Petrobras Transporte S.A Transpetro	RT&M	100.00	100.00	1,104	226	Brazil
Petrobras Logística de Exploração e Produção S.A PB-LOG	E&P	100.00	100.00	67	260	Brazil
Petrobras Gás S.A Gaspetro	Gas & Power	51.00	51.00	405	46	Brazil
Petrobras Biocombustível S.A.	Corporate, others	100.00	100.00	215	(45)	Brazil
Araucária Nitrogenados S.A.	Gas & Power	100.00	100.00	26	4	Brazil
Termomacaé S.A.	Gas & Power	100.00	100.00	88	10	Brazil
Braspetro Oil Services Company - Brasoil	Corporate, others	100.00	100.00	111	1	Cayman Islands
Termobahia S.A.	Gas & Power	98.85	98.85	106	6	Brazil
Baixada Santista Energia S.A.	Gas & Power	100.00	100.00	50	(4)	Brazil
Petrobras Comercializadora de Energia S.A PBEN	Gas & Power	100.00	100.00	12	6	Brazil
Fundo de Investimento Imobiliário RB Logística - FII	E&P	99.20	99.15	9	7	Brazil
Procurement Negócios Eletrônicos S.A.	Corporate, others	72.00	49.00	6	3	Brazil
Petrobras Comercializadora de Gás e Energia e Participações S.A.	Corporate, others	100.00	100.00	-	-	Brazil
Transportadora Brasileira Gasoduto Bolívia - Brasil S.A.	Gas & Power	51.00	51.00	60	150	Brazil
Refinaria de Canoas S.A. (i)	RT&M	100.00	100.00	-	-	Brazil
Paraná Xisto S.A. (i)	RT&M	100.00	100.00	_	-	Brazil
Refinaria de Mucuripe S.A (i)	RT&M	100.00	100.00	-	-	Brazil
Refinaria de Manaus S.A. (i)	RT&M	100.00	100.00	-	-	Brazil
Associação Petrobras de Saúde	Corporate, others	93.47	93.47	89	-	Brazil
Joint operations						
Fábrica Carioca de Catalizadores S.A FCC	RT&M	50.00	50.00	52	22	Brazil
Ibiritermo S.A.	Gas & Power	50.00	50.00	13	4	Brazil
Joint ventures						
Logum Logística S.A.	RT&M	30.00	30.00	159	(21)	Brazil
Petrocoque S.A. Indústria e Comércio	RT&M	50.00	50.00	21	46	Brazil
Refinaria de Petróleo Riograndense S.A.	RT&M	33.20	33.33	7	-	Brazil
Brasympe Energia S.A.	Gas & Power	20.00	20.00	13	3	Brazil
Brentech Energia S.A.	Gas & Power	30.00	30.00	(4)	(22)	Brazil
Metanor S.A Metanol do Nordeste	RT&M	34.54	50.00	15	6	Brazil
Companhia de Coque Calcinado de Petróleo S.A Coquepar	RT&M	45.00	45.00	-	-	Brazil
Participações em Complexos Bioenergéticos S.A PCBIOS	Corporate, others	50.00	50.00	-	-	Brazil
Associates						
Braskem S.A. (ii)	RT&M	36.15	47.03	2,287	2,501	Brazil
UEG Araucária Ltda.	Gas & Power	18.80	18.80	107	86	Brazil
Deten Química S.A.	RT&M	27.88	28.56	143	91	Brazil
Energética SUAPE II S.A.	Gas & Power	20.00	20.00	82	55	Brazil
Nitrocolor Produtos Químicos LTDA.	RT&M	38.80	38.80	-	-	Brazil
Bioenergética Britarumã S.A.	Gas & Power	30.00	30.00	-	-	Brazil
Transportadora Sulbrasileira de Gás - TSB	Gas & Power	25.00	25.00	2	1	Brazil

<sup>(</sup>i) Companies legally established, with capital contribution of US\$ 58 thousand for each company.

In 2021, the Company sold some equity interests, including the following significant divestments:

- Nova Transportadora do Sudeste S.A. (NTS) selling of the remaining interest of 10%;
- Petrobras Distribuidora S.A. (BR), now Vibra Energia S.A. selling of the remaining interest of 37.5%;
- Refinaria de Mataripe S.A., company that owns the Landulpho Alves Refinery (RLAM) and its associated logistics assets in the state of Bahia sale of 100% of the shares.

For more information on the operations mentioned above and other corporate transactions, see note 31;

The main investees of PIB BV are:

- Petrobras Global Trading B.V. PGT (100%, based in the Netherlands), dedicated to the trade of oil, oil products, biofuels and LNG (liquefied natural gas), as well as to the funding of its activities in light of Petrobras;
- Petrobras Global Finance B.V. PGF (100%, based in the Netherlands); the finance subsidiary of Petrobras, raising funds through bonds issued in the international capital market;
- Petrobras America Inc. PAI (100%, based in the United States), dedicated to trading and E&P activities (MP Gulf of Mexico, LLC);
   and

<sup>(</sup>ii) Equity and net income at September 30, 2021, most current public information.

• PNBV (100%, based in the Netherlands), operates through joint operations in Tupi BV (67.59%), Guará BV (45%), Agri Development BV (90%), Libra (40%), Papa Terra BV (62.5%), Roncador BV (75%), Iara BV (90.11%), Petrobras Frade Inversiones SA (100%) and BJOOS BV (20%), dedicated to the construction and lease of equipment and platforms for Brazilian E&P consortia.

## 29.2. Investments in associates and joint ventures

	Balance at 12.31.2020	Investments	Transfer to assets held for sale	Restructuring, capital decrease and others	Results in equity-accounted investments	СТА	OCI	Dividends	Balance at 12.31.2021
Joint Ventures	813	9	(325)	_	202	1	(1)	(190)	509
MP Gulf of Mexico, LLC/PIB BV	366	-	-	-	122	1	-	(102)	387
State natural gas distributors (Gaspetro)  Compañia Mega S.A MEGA  Petrochemical joint ventures	298 82 -	- - -	(308)	- - -	38 31 (23)	(2) 2 23	- - -	(26) (17)	98 -
Other joint ventures	67	9	(17)	-	34	(23)	(1)	(45)	24
Associates	2,455	15	(2,139)	(172)	1,405	(32)	23	(557)	998
Nova Transportadora do Sudeste	176	-	-	(176)	18	(3)	_	(15)	_
BR (current Vibra Energia)	1,862	-	(2,129)	-	450	(62)	_	(121)	-
Others Associates (*)	417	15	(10)	4	937	33	23	(421)	998
Other investments	5	-	-	-	_	(2)	-	-	3
Total	3,273	24	(2,464)	(172)	1,607	(33)	22	(747)	1,510

<sup>(\*)</sup> It includes Braskem.

## 29.3. Investments in non-consolidated listed companies

	Thousa	nd-share lot		Quoted stock exc	change prices (S\$ per share)		Fair value
	12.31.2021	12.31.2020	Туре	12.31.2021	12.31.2020	12.31.2021	12.31.2020
Associate							
Braskem S.A.	212,427	212,427	Common	10.17	4.85	2,160	1,031
Braskem S.A.	75,762	75,762	Preferred A	10.33	4.54	782	344
						2,942	1,375

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

Information on the main estimates used in the cash flow projections to determine the value in use of Braskem is set out in Note 25.

## 29.4. Non-controlling interest

The total amount of non-controlling interest at December 31, 2021 is US\$ 405 (US\$ 528 in 2020) primarily comprising US\$ 199 of Gaspetro (US\$ 213 in 2020), US\$ 165 of FIDC (US\$ 192 in 2020), and US\$ 29 of Transportadora Brasileira Gasoduto Brasil-Bolívia – TBG (US\$ 39 in 2020) and Consolidated Structured Entities (US\$ 65 in 2020).

Condensed financial information is set out as follows:

		Coonstra		nsolidated		FIDC		TBG
	2021	Gaspetro 2020	Structured 2021	2020	2021	2020	2021	2020
Current assets	462	81		897	11,969	3,951	134	228
Long-term receivables	-	50	-	460	-	_	-	-
Investments	-	298	_	_	-	_	-	_
Property, plant and equipment	-	-	-	-	-	-	279	313
Other non-current assets	-	53	_	1	_	_	2	3
	462	482	-	1,358	11,969	3,951	415	544
Current liabilities	58	25	_	1,043	4	1	109	206
Non-current liabilities	-	23	_	132	-	-	246	257
Shareholders' equity	404	434	_	183	11,965	3,950	60	81
	462	482	-	1,358	11,969	3,951	415	544
Sales revenues	132	83	-	-	-	-	327	310
Net income	47	64	(133)	(195)	454	416	150	111
Increase (decrease) in cash and cash equivalents	7	(4)	(333)	227	(315)	2	42	25

Gaspetro, a Petrobras' subsidiary, holds interests in several state distributors of natural gas in Brazil. The Company holds 51% of interests in this indirect subsidiary. On July 28, 2021, the Company signed a contract for the sale of its entire interest in Gaspetro. For more information see note 31.

The structured entities are Charter Development LLC (CDC), dedicated to construct, acquire and charter FPSOs, and Companhia de Desenvolvimento e Modernização de Plantas Industriais (CDMPI), which is dedicated to coking and hydrotreating of coke naphtha from Henrique Lage refinery (REVAP). On January 5, 2021, Petrobras acquired 100% of shares of the structured entity Companhia de Desenvolvimento e Modernização de Plantas Industriais (CDMPI) for US\$ 9 thousand. On December 28, 2021, PIB BV acquired 100% of shares of Charter Development LLC - CDC for one Dollar.

The Credit Rights Investment Fund (FIDC) is a fund mainly intended to securitize "performed" and "non-performed" credits for operations carried out by the Company's subsidiaries, aiming to optimize cash management.

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.

## 29.5. 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, refining, production, trade and logistics of oil products, gas distribution, biofuels, thermoelectric power plants, and other activities. Condensed financial information is set out below:

				2021				2020
		Joint ventures		Associates		J	oint ventures	Associates
	In Brazil	MP Gulf of Mexico, LLC	Other companies abroad	In Brazil (*)	In Brazil	MP Gulf of Mexico, LLC	Other companies abroad	In Brazil
Current assets	832	425	253	7,308	795	277	137	9,968
Non-current assets	371	203	11	2,334	385	259	4	3,941
Property, plant and equipment	461	2,683	195	6,845	492	2,380	62	9,914
Other non-current assets	460	1	1	539	482	2	-	761
	2,124	3,312	460	17,026	2,154	2,918	203	24,584
Current liabilities	728	324	126	4,632	573	228	58	7,279
Non-current liabilities	517	623	36	10,967	661	789	17	15,246
Shareholders' equity	874	1,979	196	1,688	887	1,535	81	2,358
Non-controlling interest	5	386	102	(261)	33	366	47	(299)
	2,124	3,312	460	17,026	2,154	2,918	203	24,584
Sales revenues	2,947	1,138	-	20,625	2,056	748	-	28,425
Net Income (loss) for the year	156	635	91	2,821	93	(607)	9	(241)
Ownership interest - %	20 to 83%	20%	34 to 45%	18.8 to 38%	23.5 to 83%	20%	34 to 45%	4.59 to 40%

<sup>(\*)</sup> In 2021, balance mainly composed by Braskem.

# 29.6. Accounting policy for investments in subsidiaries, joint operations, joint ventures and associates

#### Basis of consolidation

The consolidated financial statements include the financial information of Petrobras and the entities it controls (subsidiaries), joint operations (at the level of interest the Company has in them) and consolidated structured entities.

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

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

Investments structured through a separate vehicle are set up so that the voting rights, or similar rights, are not the dominant factor to determine who controls the entity.

Intragroup balances and transactions, including unrealized profits arising from intragroup transactions, are eliminated in the consolidation of the financial statements.

#### 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. Some of the Company's activities in the E&P segment are conducted through joint operations.

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

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

#### **Business combination and Goodwill**

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

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

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

# 30. Assets by operating segment

The segmented information reflects the decision-making process for resource allocation and performance evaluation carried out by the Company's Board of Executive Officers (as Chief Operating Decision Makers).

	Exploration and Production	Refining, Transportation & Marketing	Gas & Power	Corporate and other business	Elimina- tions	Total
Consolidated assets by operating segment - 12.31.2021						
Current assets	6,034	12,691	3,838	13,259	(5,673)	30,149
Non-current assets	107,112	21,697	6,751	8,639	-	144,199
Long-term receivables	5,042	2,212	322	6,758	-	14,334
Investments	393	970	119	28	-	1,510
Property, plant and equipment	99,033	18,419	6,241	1,637	-	125,330
Operating assets	87,210	16,086	3,739	1,373	-	108,408
Under construction	11,823	2,333	2,502	264	-	16,922
Intangible assets	2,644	96	69	216	-	3,025
Total Assets	113,146	34,388	10,589	21,898	(5,673)	174,348
Consolidated assets by operating segment - 12.31.2020						
Current assets	5,333	8,170	1,975	15,337	(3,427)	27,388
Non-current assets	114,947	23,879	8,321	15,473	2	162,622
Long-term receivables	4,745	2,539	976	11,938	2	20,200
Investments	390	400	607	1,876	-	3,273
Property, plant and equipment	95,222	20,842	6,614	1,523	-	124,201
Operating assets	84,916	18,304	4,300	1,238	-	108,758
Under construction	10,305	2,537	2,315	286	-	15,443
Intangible assets	14,590	98	124	136	-	14,948
Total Assets	120,280	32,049	10,296	30,810	(3,425)	190,010

Accounting practices for segment information are described in note 12 - Net Income by Operating Segment.

## 31. Disposal of assets and other changes in organizational structure

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

The major classes of assets and related liabilities classified as held for sale are shown in the following table:

					12.31.2021	12.31.2020
	E&P	RT&M	Gas & Power	Corporate and other business	Total	Total
Assets classified as held for sale						
Cash and cash equivalents	-	_	13	_	13	14
Trade receivables	-	_	31	_	31	24
Inventories	-	68	5	_	73	4
Investments	-	_	210	_	210	68
Property, plant and equipment	1,841	134	-	_	1,975	640
Others	-	1	187	_	188	35
Total	1,841	203	446	-	2,490	785
Liabilities on assets classified as held for sale						
Trade payables	-	-	2	-	2	22
Finance debt	-	-	-	1	1	13
Provision for decommissioning costs	833	-	-	-	833	640
Others	-	-	31	-	31	10
Total	833	-	33	1	867	685

# 31.1. Transactions pending closing at December 31, 2021

The assets and liabilities corresponding to the transactions pending closing are classified as held for sale at December 31, 2021, as follows:

Transaction	Acquirer	Date of approval / signing	Transaction amount (*)	Further information
Sale of the Company's entire interest in Fazenda Belem and Icapuí onshore fields (Fazenda Belem group of fields), located in Potiguar basin, in the state of Ceará	SPE Fazenda Belém S.A., a wholly owned subsidiary of 3R Petroleum e Participações S.A	August 2020	35	а
Sale of the Company's entire interest in Recôncavo group of 14 onshore fields, in the state of Bahia	Ouro Preto Energia Onshore S.A, a wholly owned subsidiary of 3R Petroleum Óleo e Gás S.A.	December 2020	250	b
Sale of E&P assets in the state of Espírito Santo (Polo Peroá)	DBO Energy and OP Energy (renamed 3R Offshore)	January 2021	13	С
Sale of the Company's entire interest in a set of seven onshore and shallow water fields called Alagoas group, and of Alagoas Natural Gas Processing Unit, in the state of Alagoas	Petromais Global Exploração e Produção S.A. (renamed Origem Energia S.A.)	June 2021	300	d
Sale of the Company's 62,5% interest in Papa-Terra field, in the Campos basin	3R Petroleum Offshore S.A.	July 2021	16	е
Sale of the Company's entire interest (51%) in Petrobras Gas S.A (Gaspetro)	Compass Gas e Energia S.A.	July 2021	373 (R\$ 2,030 million)	f
Sale of shares of the company that will hold the Isaac Sabbá Refinery (REMAN) and its associated logistics assets, in the state of Amazonas	Ream Participações S.A. (a company controlled by the partners of Atem Distribuidora de Petróleo S.A.)	August 2021	190	g
Exercise of the call option for additional 5% interest in the surplus volume of the Transfer of Rights Agreement of Búzios field	CNOOC Petroleum Brasil Ltda (CNOOC)	September 2021	2,080	h
Sale of shares of the company that will hold the Shale Industrialization Unit (SIX), in the state of Paraná.	Forbes & Manhattan Resources Inc., a wholly owned subsidiary of Forbes & Manhattan Inc.	November 2021	33	1
Sale of the Company's entire interest in 11 onshore production fields (Carmópolis group of fields), including integrated facilities, in the state of Sergipe	Carmo Energy S.A.	December 2021	1,100	j

# a) Sale of Fazenda Belem group of onshore fields

The agreement provides for the receipt of US\$ 9 at the transaction signing, US\$ 16 at the transaction closing, and US\$ 10 to be received one year after the closing. This transaction is subject to price adjustments and conditions precedent, such as approval by the ANP.

#### b) Sale of Recôncavo group of onshore fields

The agreement provides for the receipt of US\$ 10 at the transaction signing, and US\$ 240 at the transaction closing, subject to price adjustments and conditions precedent, such as approval by the ANP.

### c) Sale of E&P assets of Peroá group of fields

Amounts due to Petrobras are composed of: (i) US\$ 5 was received at the contract signing; (ii) US\$ 8 to be received at the transaction closing; (iii) up to US\$ 42 as contingent receivables provided for in the contract, related to factors such as Malombe's declaration of commerciality, future oil prices and extension of the concession terms. This transaction is subject to price adjustments and to the fulfillment of conditions precedent, such as approval by the Brazilian Agency of Petroleum, Natural Gas and Biofuels (ANP).

## d) Sale of Alagoas group of onshore and shallow water fields, and of a natural gas processing unit in the state of Alagoas

The agreement provides for the receipt of US\$ 60 at the transaction signing and US\$ 240 at the transaction closing, subject to price adjustments and conditions precedent, such as approval by the ANP.

#### e) Sale of Papa-Terra field

The agreement provides for the receipt of US\$ 6 at the transaction signing and US\$ 10 at the transaction closing, subject to price adjustments and conditions precedent, such as approval by the ANP. In addition, there is a total of US\$ 90 in contingent receivables provided for in the contract (contingent assets), related to production volume of the asset and future oil prices.

#### f) Sale of Gaspetro

The payment to Petrobras of US\$ 373 (R\$ 2,030 million) will be made at the transaction closing, subject to price adjustments and the fulfillment of certain conditions precedent, such as approval by the Administrative Council for Economic Defense (CADE). In addition, until closing, Petrobras will comply with the provisions contained in the shareholders' agreements of Gaspetro and natural gas distributors, including preemptive rights.

#### g) Sale of REMAN refinery assets

The agreement provides for the receipt of US\$ 29 at the transaction signing and US\$ 161 at the transaction closing, subject to price adjustments and conditions precedent, such as approval by the CADE.

#### h) Exercise of the call option in Búzios field

For more information, see note 24.1.

### i) Sale of interest in SIX shale processing plant

The agreement provides for (i) US\$ 3 received at the transaction signing, and (ii) US\$ 30 to be received at the transaction closing, subject to price adjustments and contingent payments (earn out). The transaction is subject to the fulfillment of conditions precedent, such as approval by CADE and ANP.

## j) Sale of Carmópolis group of onshore fields

The agreement provides for (i) US\$ 275 received in January 2022, (ii) US\$ 550 to be received at the transaction closing, and (iii) US\$ 275 to be received one year after the closing.

The transaction is subject to price adjustments and to the fulfillment of conditions precedent, such as approval by CADE and ANP.

# 31.2. Closed transactions in 2021

Transaction	Acquirer	Signature date (S) Closing date (C)	Sale amount (*)	Gain/ (loss) (**)	Further information
Sale of 30% of the Frade field concession. The transaction also includes the sale of the entire stake held by the subsidiary Petrobras Frade Inversiones S.A. (PFISA), in the company Frade BV	PetroRio	November 2019 (S) February 2021 (C)	44	88	а
Sale of the Company's entire interest in Petrobras Uruguay Distribución S.A. (PUDSA)	DISA Corporación Petrolífera S.A.	August 2019 (S) February 2021 (C)	68	(3)	b
Petrobras Biocombustível S.A. (PBio) sale of all of its shares issued by BSBios Indústria e Comércio de Biodiesel Sul Brasil S.A. (BSBios) (50% of the share capital)	RP Participações em Biocombustíveis S.A	December 2020 (S) February 2021 (C)	47 (R\$ 253 million)	(1)	С
Sale of the Company's entire interest (49%) in companies Eólica Mangue Seco 1, 3 and 4, wind power generation plants, in the state of Rio Grande do Norte	V2I Transmissão de Energia Elétrica S.A.	December 2020 (S) April 2021 (C)	26 (R\$ 145 million)	19	d
Sale of the Company's remaining 10% interest in NTS	Nova Infraestrutura Gasodutos Participações S.A.	April 2021 (S and C)	277 (R\$ 1,539 million)	109	е
Sale of the Company's entire interest (51%) in company Eólica Mangue Seco 2, a wind power generation plant, in the state of Rio Grande do Norte	Fundo de Investimento em Participações Multiestratégia Pirineus (FIP Pirineus)	February 2021 (S) May 2021 (C)	6 (R\$ 34 million)	4	f
Sale of the Company's entire interest in eight onshore fields, called Rio Ventura group, located in the state of Bahia	3R Rio Ventura S.A., subsidiary of 3R Petroleum e Participações S.A	August 2020 (S) July 2021 (C)	97	109	g
Sale of the Company's remaining 37.5% interest in BR Distribuidora (renamed Vibra Energia)	Several (public offering)	June 2021 (S) July 2021 (C)	2,203 (R\$ 11,358 million)	-	h
Transfer of the Company's remaining 10% interest in Lapa field and in Lapa Oil & Gas BV	TotalEnergies	December 2018 (S) August 2021 (C)	49	13	i
Sale of the Company's 40% interest in the company GNL Gemini Comercialização e Logística de Gás Ltda. (GásLocal)	White Martins Gases Industriais Ltda.	September 2020 (S) September 2021 (C)	12 (R\$ 61 million)	(1)	j
Sale of 100% of the shares of Refinaria Mataripe S.A., controller of Landulpho Alves Refinery - RLAM and its associated logistics assets, in the state of Bahia	MC Brazil Downstream Participações, a company of the Mubadala Capital group	March 2021 (S) November 2021 (C)	1,811	574	k
Sale of the Company's entire interest in Termelétrica Potiguar S.A TEP (20%) and in Companhia Energética Manauara S.A CEM (40%)	Global Participações Energia S.A., through subsidiaries	July 2021 (S) November 2021 (C)	28 (R\$ 156 million)	4	I
Sale of the Company's entire 93.7% interest in Breitener Energética S.A., in the state of Amazonas	Breitener Holding Participações S.A., a wholly- owned subsidiary of Ceiba Energy LP.	August 2021 (S) November 2021 (C)	35 (R\$ 192 million)	(10)	m
Sale of the Company's entire interest in 9 onshore production fields (Miranga group of fields), in the state of Bahia	SPE Miranga S.A., subsidiary of PetroRecôncavo S.A.	February 2021 (S) December 2021 (C)	154	130	n
Sale of the Company's entire interest in 12 onshore production fields (Remanso group of fields), in the state of Bahia	PetroRecêncavo S.A.	December 2020 (S) December 2021 (C)	16	25	0
Sale of the Company's entire interest in 27 onshore production fields (Cricaré group of fields), in the state of Espírito Santo	Karavan Seacrest SPE Cricare	August 2020 (S) December 2021(C)	38	36	р
Sale of three thermoelectric plants powered by fuel oil, located in Camaçari, in the state of Bahia  Total	São Francisco Energia S.A., a subsidiary of Global Participações em Energia	May 2021 (S) December 2021(C)	11 (R\$ 61 million) <b>4,914</b>	(25) <b>1,071</b>	q

<sup>(\*)</sup> The amount of "Proceeds from disposal of assets" in the Statement of Cash Flows is composed of amounts received this period, including installments of operations from previous years, and advances referring to operations not completed.

<sup>(\*\*)</sup> Recognized in "Results on disposal/write-offs of assets and on remeasurement of investment retained with loss of control" within other income and expenses (note 6).

#### a) Sale of the Frade field

The transaction was closed with the payment of US\$ 36 to Petrobras, after price adjustments (including cash inflows from the sale of crude oil from the concession), in addition to US\$ 8 paid to Petrobras upon the contract signing. In addition, there is a contingent amount of US\$ 20 linked to a potential new commercial discovery in the field.

The original sale amounting to US\$ 100 was adjusted considering the cash flows arising from the Company's interest in the field from July 1, 2019 (inception date of the negotiation) to February 5, 2021 (closing date). In addition, there is a contingent payment amounting to US\$ 20 subject to a new discovery in the field.

### b) Sale of Petrobras Uruguay Distribución S.A. (PUDSA)

The transaction was closed with the payment of US\$ 62 to Petrobras, in addition to US\$ 6 paid upon the contract signing, totaling US\$ 68. As a result of this operation, a US\$ 34 loss was reclassified to the statement of income, within other income and expenses, relating to cumulative translation adjustments arising from exchange rate variations recognized in PUDSA's shareholders' equity since de acquisition of this investment.

## c) Sale of BSBios

The transaction was closed with the payment of US\$ 47 to Petrobras, including price adjustments. Moreover, US\$ 12 is held in an escrow account for indemnification of eventual contingencies, to be released according to terms and conditions set forth in the contract.

### d) Sale of Mangue Seco 1, 3 and 4

The sale of Mangue Seco 1 was closed with the payment of US\$ 8 to Petrobras, including price adjustments. The sale of Mangue Seco 3 and 4 was closed with the payment of US\$ 14 to Petrobras, including price adjustments, in addition to US\$ 4 received at the signing, totaling US\$ 18.

#### e) Sale of remaining 10% interest in NTS

The transaction was closed with the payment of US\$ 277 to Petrobras, on the date of signing and closing of the transaction, including price adjustments.

## f) Sale of Eólica Mangue Seco 2

The transaction results from the exercise of the preemptive right by FIP Pirineus, in accordance with the shareholders' agreement of Eólica Mangue Seco 2, and was closed with the payment of US\$ 6 to Petrobras, including price adjustments.

## g) Sale of Rio Ventura group of onshore fields

The operation was concluded in July 2021 with the payment of US\$ 34 to Petrobras, including price adjustments, in addition to US\$ 4 paid to Petrobras at the contract signing.

The agreement provides for further US\$16 to be paid in January 2024 and up to US\$ 44 in contingent payments related to future oil prices, already received in September 2021 (US\$ 22) and in December 2021 (US\$ 22).

#### h) Sale of remaining 37.5% interest in BR Distribuidora (renamed Vibra Energia)

On June 17, 2021, Petrobras filed a request for registration of a secondary public offering (follow on) of common shares issued by (renamed Vibra Energia), with the release of a preliminary offering prospectus. The Company offered 37.5% of the share capital of BR Distribuidora, corresponding to the remaining interest held by Petrobras.

On June 30, 2021, Petrobras approved the price per common share of BR Distribuidora in the amount of US\$ 5.20 (R\$ 26.00), totaling US\$ 2,203 (R\$11,358 million). Thus, a US\$ 404 impairment reversal was recognized, as detailed in note 19.

On July 5, 2021, the follow-on was closed with the Company receiving US\$ 2,184, net of transactions costs.

#### i) Transfer of interest in Lapa field and in Lapa BV

In 2018, Petrobras exercised its put option, as provided in the contract, transferring its remaining 10% interest in Lapa field to Total Energies, including the remaining 10% interest held by Petrobras Netherlands BV (PNBV) in Lapa BV. In September 2021, the operation was concluded with the payment of US\$ 49 to Petrobras.

In addition, there was a price adjustment relating to the transfer of rights of Lapa and lara fields by Petrobras, as well as of the interests held by PNBV in Lapa BV and lara BV, with the recognition of a US\$ 22 gain within other income and expenses.

### j) Sale of interest in GásLocal

The agreement resolved controversies arising from the activities of the Gemini consortium and GasLocal, in particular pending arbitration and judicial proceedings. It also provides for the commercial conditions for the supply of gas by Petrobras, as an integrant of Gemini consortium, until the end of 2023, as required by CADE.

The transaction was closed with the payment of US\$ 11 (R\$56 million) to Petrobras upon the signing of the agreement, and US\$ 1 (R\$ 4.6 million), to be paid up to 13 months from the closing of the agreement.

#### k) Sale of RLAM refinery assets

The transaction was closed in November 2021 after the payment of US\$ 1,811 to Petrobras, including price adjustments provided for in the contract, arising from changes in working capital, net debt and investments until the transaction closing.

#### I) Sale of interest in electricity companies

The total payment to Petrobras will be made at the transaction closing, US\$ 14 from each of the two acquirers, totaling US\$ 28.

#### m) Sale of the Company's interest in Breitener Energética

The transaction was closed in November 2021 after the payment of US\$ 45 to Petrobras, including price adjustments provided for in the contract. In addition, there is a contingent amount of US\$ 9 depending on future sales revenues of the plant.

## n) Sale of Miranga group of onshore fields

The transaction was closed in December 2021 after the payment of US\$ 48 to Petrobras, in addition to US\$ 11 received upon the contract signing.

The agreement also provides for the receipt of US\$ 80, deferred in three installments over three years from the transaction closing, and up to US\$ 85 in contingent receivables related to future average Brent prices. Of this amount, in December 2021 the Company met the agreed conditions for the receipt of US\$ 15, recognized within other income and expenses.

### o) Sale of Remanso group of onshore fields

The transaction was closed in December 2021 after the payment of US\$ 7 to Petrobras, in addition to US\$ 4 received upon the contract signing.

The agreement also provides for the receipt of US\$ 5 in December 2022, subject to price adjustments.

#### p) Sale of Cricaré group of onshore fields

The transaction was closed in December 2021 after the payment of US\$ 27 to Petrobras, in addition to US\$ 11 received upon the contract signing.

The agreement provides for up to US\$ 116 in contingent payments related to future oil prices.

### q) Sale of three thermoelectric plants in Camaçari

The transaction was closed in December 2021 after the payment of US\$ 11 to Petrobras.

## 31.3. Other operation

On January 5, 2021, Petrobras acquired 100% of shares of the structured entity Companhia de Desenvolvimento e Modernização de Plantas Industriais (CDMPI) for US\$ 9 thousand. On December 28, 2021, Petrobras acquired 100% of shares of the structured entity Charter Development LLC (CDC)) for US\$ 1 dollar.

The difference between the amount paid and the shareholders' equity of this structured entities was recorded as a capital transaction, increasing the shareholders' equity attributable to shareholders of Petrobras, while increasing non-controlling interests, in the amount of US\$ 79, since Petrobras already controlled its operations and consolidated this structured entities prior to these transactions.

# 31.4. Contingent assets from disposed investments – transactions closed in previous years

### 31.4.1. Pampo and Enchova

In July 2020, Petrobras closed the sale of its entire interest in Pampo and Enchova groups of fields to Trident Energy do Brasil Ltda (see note 33.2 of the annual consolidated financial statements for 2020), with additional conditions providing for the payment to Petrobras of amounts of up to US\$ 650 classified as contingent assets, to be recognized when the agreed conditions, relating to Brent prices, are met. Of this amount, the Company has already recognized US\$ 36, within other income and expenses. The contract provides for revaluations until 2030.

#### 31.4.2. Contingent installment of the exploratory block BM-S-8 sale

On July 28, 2016, the Company disposed its 66% interest in the exploratory block BM –S-8 to Equinor Brasil Energia Ltda, which includes the Bacalhau field (former Carcará) located in the pre-salt layer of Santos basin, for the amount of US\$ 2,500, to be paid in three installments, of which the last two were contingent payments to Petrobras.

The first installment (US\$ 1,250) was received on November 22, 2016, and the second installment (US\$ 300) on March 21, 2018.

On December 9, 2021, the ANP approved the Production Individualization Agreement (AIP) for the Bacalhau and Norte de Bacalhau fields, the condition for the receipt by Petrobras of the final installment, in the amount of US\$ 950. This gain was recognized in the statement of income in December 2021, within other income and expenses, and received in February 2022.

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

In 2021, 2020 and 2019, the Company disposed of its interest in certain subsidiaries over which control was lost. The following table summarizes cash flows arising from losing control in subsidiaries:

	Cash received	Cash in subsidiary before losing control	Net Proceeds
Jan-Dec/2021			
Mataripe refinery - RLAM	1,868	(119)	1,749
PUDSA	62	(15)	47
Total	1,868	(119)	1,749
Jan-Dec/2020			
Petrobras Oil & Gas B.V.(PO&GBV)	276	_	276
Liquigas	784	(10)	774
Total	1,060	(10)	1,050
Jan-Dec/2019			
Petrobras Paraguay	381	(45)	336
Total	381	(45)	336

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

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

When a component of the Company is disposed of or classified as held for sale, and it represented a separate major line of business, the disposed interest is considered a discontinued operation, thus its net income, operating, investing and financing cash flows are presented in separate line items until the date of the closing of the operation.

### 32. Finance debt

## 32.1. Balance by type of finance debt

In Brazil	12.31.2021	12.31.2020
Banking Market	1,237	5,016
Capital Market	2,504	2,512
Development banks (*)	769	1,315
Others	7	11
_Total	4,517	8,854
Abroad		
Banking Market	8,525	13,581
Capital Market	19,527	27,625
Development banks (*)	-	201
Export Credit Agency	2,951	3,424
Others	180	203
_Total	31,183	45,034
Total finance debt	35,700	53,888
Current	3,641	4,186
Non-current	32,059	49,702

 $<sup>(^\</sup>star)$  It includes BNDES, FINAME, FINEP and New Development Bank (NDB)

#### Current finance debt is composed of:

	12.31.2021	12.31.2020
Short-term debt	108	1,140
Current portion of long-term debt	3,063	2,383
Accrued interest on short and long-term debt	470	663
Total	3,641	4,186

The capital market balance is mainly composed of US\$ 18,823 in global notes, issued by PGF and US\$ 2,352 in debentures issued in reais in Brazil. The balance in global notes has maturities between 2024 to 2115 and does not require collateral. Such financing was carried out in dollars, euros and pounds, 87%, 3% and 10%, of the total global notes, respectively.

The debentures, with maturities between 2024 and 2034 and without guarantees, are not convertible into shares.

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

	Balance at 12.31.2019	Additions	Principal amorti zation (*)	Interest amorti zation (*)	Accrued interest (**)	Foreign exchange/ inflation indexation charges	Cumulative translation adjustment (CTA)	Modification of contractual cash flows	Transfer to liabilities classified as held for sale	Balance at 12.31.2020
In Brazil	10,730	1,488	(1,080)	(352)	399	142	(2,473)	-	-	8,854
Abroad	52,530	15,535	(23,471)	(2,967)	3,187	1,667	(1,201)	(245)	-	45,035
	63,260	17,023	(24,551)	(3,319)	3,586	1,809	(3,674)	(245)	-	53,889
Debt restructuring			(1,176)	_						
Deposits linked to financing (***)			_	162						
Net cash used in fin	ancing		(25,727)	(3,157)						

<sup>(\*)</sup> It includes pre-payments.

<sup>(\*\*)</sup> It includes premium and discount over notional amounts, as well as gains and losses by modifications in contractual cash flows.

	Balance at 12.31.2020	Additions	Principal amorti zation (*)	Interest amorti zation (*)	Accrued interest (**)	Foreign exchange/ inflation indexation charges	Cumulative translation adjustment (CTA)	Modification of contractual cash flows	Transfer to liabilities classified as held for sale	Balance at 12.31.2021
In Brazil	8,854	-	(4,274)	(267)	316	233	(344)	-	-	4,517
Abroad	45,035	1,885	(15,971)	(2,034)	2,407	186	(324)	-	-	31,183
	53,889	1,885	(20,245)	(2,301)	2,723	419	(668)	-	-	35,700
Debt restructuring			(1,102)	-						
Deposits linked to financing (***)			(66)	72						
Net cash used in fin	nancing		(21,413)	(2,229)						

<sup>(\*)</sup> It includes pre-payments.

In 2021, the Company used its cash, in addition to raising funds in the international capital market, to pay off older debts and manage liabilities, aiming at improving the debt repayment profile taking into account its alignment with investments returns over the long run.

The Company repaid several finance debts, in the amount of US\$ 23,642 notably: (i) prepayment of banking loans in the domestic and international market totaling US\$ 6,344 and (ii) US\$ 9,840 to repurchase and withdraw global bonds previously issued by the Company in the capital market, with net premium paid to bond holders amounting to US\$ 1,090; and (iii) total prepayment of US\$ 593 for loans with development agencies.

The company raised US\$ 1,442 through bonds issued in the international capital market (Global Notes) maturing in 2051.

<sup>(\*\*)</sup> It includes premium and discount over notional amounts, as well as gains and losses by modifications in contractual cash flows.

<sup>(\*\*\*)</sup> Deposits linked to financing with China Development Bank (CDB), with semiannual settlements in June and December.

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

Maturity in	Up to 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	5 years onwards	Total (**)	Fair Value
		-	-	_				
Financing in U.S. Dollars (US\$)(*):	2,540	2,564	3,354	2,746	1,686	15,228	28,118	30,063
Floating rate debt	2,154	2,564	2,676	1,934	1,143	897	11,368	
Fixed rate debt	386	-	678	812	543	14,331	16,750	
Average interest rate	5.0%	5.2%	5.5%	5.7%	6.2%	6.6%	6.3%	
Financing in Brazilian Reais (R\$):	1,006	409	620	211	402	1,870	4,518	4,462
Floating rate debt	663	263	263	130	130	496	1,945	
Fixed rate debt	343	146	357	81	272	1,374	2,573	
Average interest rate	5.9%	5.5%	5.0%	4.5%	4.1%	4.6%	4.9%	
Financing in Euro (€):	49	-	14	492	-	664	1,219	1,347
Fixed rate debt	49	-	14	492	-	664	1,219	
Average interest rate	4.7%	-	4.7%	4.7%	-	4.7%	4.7%	
Financing in Pound Sterling (£):	46	-	-	-	744	1,055	1,845	2,019
Fixed rate debt	46	-	-	-	744	1,055	1,845	
Average interest rate	6.2%	-	-	-	6.2%	6.4%	6.3%	
Total as of December 31, 2021	3,641	2,973	3,988	3,449	2,832	18,817	35,700	37,891
Average interest rate	5.2%	5.3%	5.5%	5.6%	5.9%	6.5%	6.2%	
Total as of December 31, 2020	3,282	5,892	5,961	6,229	28,338	53,888	53,888	61,517
Average interest rate	4.8%	4.8%	5.1%	5.2%	6.4%	5.9%	5.9%	

<sup>(\*)</sup> Includes debt raised in Brazil (in Brazilian reais) indexed to the U.S. dollar.

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

Level 1- quoted prices in active markets for identical liabilities, when applicable, amounting to US\$ 20,769 of December 31, 2021 (US\$ 33,236 of December 31, 2020); and

Level 2 – discounted cash flows based on discount rate determined by interpolating spot rates considering financing debts indexes proxies, taking into account their currencies and also Petrobras' credit risk, amounting to US\$ 17,122 as of December 31, 2021 (US\$ 28,281 as of December 31, 2020).

The sensitivity analysis for financial instruments subject to foreign exchange variation is set out in note 36.3.

A maturity schedule of the Company's finance debt (undiscounted), including face value and interest payments is set out as follows:

Maturity	2022	2023	2024	2025	2026	2027 and thereafter	12.31.2021	12.31.2020
Principal	3,171	3,066	4,071	3,524	2,909	19,816	36,557	55,130
Interest	1,806	1,631	1,549	1,381	1,295	22,895	30,557	38,953
Total	4,977	4,697	5,620	4,905	4,204	42,711	67,114	94,083

<sup>(\*)</sup> A maturity schedule of the lease arrangements (nominal amounts) is set out in note 23.

<sup>(\*\*)</sup>The average maturity of outstanding debt as of December 31, 2021 is 13.39 years (11.71 years as of December 31, 2020).

### 32.4. Lines of credit

12.31.2021

Company		Financial Date	Maturity	Available (Lines of Credit)	Used	Balance
Abroad						
PGT BV	Syndicate of banks	12/16/2021	11/16/2026	5,000	-	5,000
PGT BV (*)	Syndicate of banks	3/27/2019	2/27/2024	3,250	_	3,250
Total				8,250	_	8,250
In Brazil						
Petrobras	Banco do Brasil	3/23/2018	9/26/2026	358	_	358
Petrobras	Bradesco	6/1/2018	5/31/2023	358	-	358
Petrobras	Banco do Brasil	10/4/2018	9/5/2025	358	-	358
Transpetro	Caixa Econômica Federa	11/23/2010	Not defined	59	_	59
Total				1,133	-	1,133

<sup>(\*)</sup> In April 2021, PGT extended part of the Revolving Credit Facility. As such, US\$ 2,050 will be available for withdrawal from February 28, 2024 until February 27, 2026.

### 32.5. Covenants and Collateral

#### **32.5.1.** Covenants

The Company has covenants that were not in default at December 31, 2021 in its loan agreements and notes issued in the capital markets requiring, among other obligations i) the presentation of interim financial statements within 90 days of the end of each quarter (not reviewed by Independent Registered Public Accounting Firm) and audited financial statements within 120 days of the end of each fiscal year, with a grace period ranging from 30 to 60 days, depending on the agreement; ii) Negative Pledge / Permitted Liens clause; and iii) covenants with respect to debt level in some of its loan agreements with the Brazilian Development Bank (Banco Nacional de Desenvolvimento Econômico e Social - BNDES).

Additionally, there are other non-financial obligations that the Company has to comply with: i) clauses of compliance with the laws, rules and regulations applicable to the conduct of its business including (but not limited to) environmental laws; (ii) clauses in financing agreements that require both the borrower and the guarantor to conduct their business in compliance with anti-corruption laws and anti-money laundering laws and to institute and maintain policies necessary for such compliance; and (iii) clauses in financing agreements that restrict relations with entities or even countries sanctioned primarily by the United States (including, but not limited to, the Office of Foreign Assets Control - OFAC, Department of State and Department of Commerce), the European Union and United Nations.

#### 32.5.2. Collateral

Most of the Company's debt is unsecured, but certain specific funding instruments to promote economic development are collateralized.

A Financing agreement with China Development Bank (CDB) maturing in 2026 is also collateralized based on future oil exports for specific buyers limited to 200 thousand barrels per day. This collateral may not exceed the amount of the related debt (US\$ 5,005 at December 31, 2020 and US\$ 5,006 at December 31, 2019).

The loans obtained by structured entities are collateralized based on the projects' assets, as well as liens on receivables of the structured entities. Bonds issued by the Company in the capital market are unsecured.

The global notes issued by the Company in the capital market through its wholly-owned subsidiary Petrobras Global Finance B.V. – PGF are unsecured. However, Petrobras fully, unconditionally and irrevocably guarantees these notes, as set out in note 37.5.

### 32.6. Accounting policy loans and finance debt

Loans and finance debt are initially recognized at fair value less transaction costs that are directly attributable to its issue and subsequently measured at amortized cost using the effective interest method.

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

as gain or loss in the statement of income. When such modification is substantial, the original liability is extinguished and a new liability is recognized, impacting the statement of income for the period.

Regarding the interest rate benchmark reform (Interbank offered rate - IBOR Reform), the company continues to monitor the standards of the regulatory authorities, as well as the measures that have been adopted, aiming at adapting the various financial instruments to the new benchmarks. Petrobras and its subsidiaries have debts indexed to Libor, corresponding to 32% of total finance debt (see note 32.3).

### 33. Lease liabilities

The Company is the lessee in agreements primarily including oil and gas producing units, drilling rigs and other exploration and production equipment, vessels and support vessels, helicopters, lands and buildings.

Changes in the balance of lease liabilities are presented below:

	Balance at 12.31.2020	Remeasurem ent / new contracts	Payment of principal and interest (*)	Interest expenses	Foreign exchange gains and losses	Cumulative translation adjustment	Transfers	Balance at 12.31.2021
In Brazil	4,340	1,655	(1,560)	243	151	(272)	47	4,604
Abroad	17,310	4,474	(4,267)	990	1,288	(1,310)	(46)	18,439
Total	21,650	6,129	(5,827)	1,233	1,439	(1,582)	1	23,043

A maturity schedule of the lease arrangements (nominal amounts) is set out as follows:

Nominal Future Payments	up to 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	5 years onwards	Total	Recoverable taxes
Without readjustment								
Vessels	2,620	1,644	885	380	243	1,150	6,922	218
Others	110	62	23	13	-	-	208	16
With readjustment - abroad (*)								
Vessels	471	288	276	215	176	186	1,612	-
Platforms	1,700	1,434	1,460	1,414	1,339	11,986	19,333	-
With readjustment - Brazil								
Vessels	361	272	184	101	43	18	979	87
Properties	94	89	90	90	90	869	1,322	9
Others	211	155	109	96	81	399	1,051	16
TOTAL	5,567	3,944	3,027	2,309	1,972	14,608	31,427	346

<sup>(\*)</sup> Contracts signed in the U.S. Dollars.

The following table presents information on leases by class of underlying assets:

Present Value of Future Payments	Discount rate (%)	Average Period	Recoverable taxes	Closing Balance	Opening Balance
Without readjustment					
Vessels	3,5155	5.4 years	205	6,201	7,462
Others	1,5029	2.5 years	16	202	262
With readjustment - abroad (*)					
Platforms	5,5194	14.6 years	_	13,059	10,747
Vessels	4,3124	4.7 years	_	1,431	1,530
With readjustment - Brazil					
Vessels	6,8752	3.3 years	76	850	794
Properties	8,7184	21.5 years	7	590	643
Others	9,7347	7.9 years	14	710	212
TOTAL	5,2637	11.7 years	318	23,043	21,650

<sup>(\*)</sup> Incremental nominal rate on company debt calculated from the yield curve of bonds and credit risk of the Company, as well as terms .

Payments in certain lease agreements vary due to changes in facts or circumstances occurring after their inception other than the passage of time. Such payments are not included in the measurement of the lease obligations. Variable lease payments in the year ended December 31,2021 amounted to US\$ 898, representing 15% in relation to fixed payments (US\$ 785 and 13% in the same period of 2020).

In the year ended December 31, 2021, the Company recognized lease expenses in the amount of US\$ 110 relating to short-term leases (US\$ 118 in the same period of 2020).

At December 31, 2021, the nominal amounts of lease agreements for which the lease term has not commenced, as they relate to assets under construction or not yet available for use, is US\$ 79,557 (US\$ 67,408 at December 31, 2020). The increase in the year ended December 31, 2021 corresponds to new contractual commitment, including 2 floating production units.

The sensitivity analysis of financial instruments subject to exchange variation is presented in note 36.3.

# 33.1. Accounting policy for lease liabilities

Lease liabilities, including those whose underlying assets are of low value, are measured at the present value of lease payments, which includes recoverable taxes, non-cancellable periods and options to extend a lease when they are reasonably certain. These payments are discounted at the Company's nominal incremental rate on loans, as the interest rates implicit in lease agreements with third parties usually cannot be readily determined.

Lease remeasurements reflect changes arising from contractual rates or indexes, as well as lease terms due to new expectations of lease extensions or terminations.

Unwinding of discount on the lease liability is classified as finance expense, while payments reduce their carrying amount. According to the Company's foreign exchange risk management, foreign exchange variations on lease liabilities denominated in U.S. dollars are designated as instruments to protect cash flow hedge relationships from highly probable future exports (see note 36.3).

In the E&P segment, some activities are conducted by joint operations where the company is the operator. In cases where all parties to the joint operation are primarily responsible for the lease payments, the Company recognizes the lease liability in proportion to its share. When using underlying assets arising from a specific contract in which the Company is solely responsible for the lease payments, the lease liabilities remain fully recognized and the partners are charged in proportion to their interests.

Payments associated with short-term leases (term of 12 months or less) are recognized as an expense over the term of the lease.

## 34. Equity

## 34.1. Share capital (net of share issuance costs)

As of December 31, 2021 and December 31, 2020, subscribed and fully paid share capital, net of issuance costs, was US\$ 107,101, represented by 7,442,454,142 common shares and 5,602,042,788 preferred shares, all of which are registered, book-entry shares with no par value.

Preferred shares have priority on returns of capital, do not grant any voting rights and are non-convertible into common shares.

## 34.1.1. Accounting policy for share capital

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

As of December 31, 2021 and December 31, 2020, the Company held treasury shares, of which 222,760 are common shares and 72,909 are preferred shares.

### 34.2. Capital reserves

Capital reserve comprises treasury shares owned by Petrobras, in the amount of US\$ 2, at December 31, 2021.

## 34.3. Capital transactions

#### 34.3.1. Incremental costs directly attributable to the issue of shares

It includes any transaction costs directly attributable to the issue of new shares, net of taxes.

## 34.3.2. Change in interest in subsidiaries

It includes any excess of amounts paid/received over the carrying value of the interest acquired/disposed. Changes in interests in subsidiaries that do not result in loss of control of the subsidiary are equity transactions.

## 34.3.3. Treasury shares

Shares held in treasury in the amount of US\$ 2, represented by 222,760 common shares and 72,909 preferred shares.

#### 34.4. Profit reserves

## 34.4.1. Legal reserve

It represents 5% of the net income for the year, calculated pursuant to article 193 of the Brazilian Corporation Law.

#### 34.4.2. Statutory reserve

Appropriated by applying 0.5% of the year-end share capital and is retained to fund technology research and development programs. The balance of this reserve may not exceed 5% of the share capital, pursuant to article 56 of the Company's bylaws.

#### 34.4.3. Tax incentives reserve

Government grants are recognized in the statement of income and are appropriated from retained earnings to the tax incentive reserve in the shareholders' equity pursuant to article 195-A of Brazilian Corporation Law. This reserve may only be used to offset losses or increase share capital.

In 2021, the amount of US\$ 118 was appropriated from retained earnings to the tax incentive reserve referring to a subsidy incentive for investments, granted from the Superintendencies for Development of the Northeast Region of Brazil (SUDENE) and of the Amazon (SUDAM).

## 34.4.4. Accounting policy for tax incentives reserve

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.

#### 34.4.5. Profit retention reserve

It Includes funds intended for capital expenditures, primarily in oil and gas exploration and development activities, as per the capital budget of the Company, pursuant to article 196 of the Brazilian Corporation Law.

### 34.5. Distributions to shareholders

Pursuant to Brazilian Corporation Law, the Company's shareholders are entitled to receive minimum mandatory dividends (and/or interest on capital) of 25% of the adjusted net income for the year in proportion to the number of common and preferred shares held by them.

To the extent the Company proposes dividend distributions, preferred shares have priority in dividend distribution, which is based on the highest of 3% of the preferred shares' net book value or 5% of the preferred share capital. Preferred shares participate under the same terms as common shares in capital increases resulting from the capitalization of profit reserves or retained earnings. However, this priority does not necessarily grant dividend distributions to the preferred shareholders in the event of loss for a year.

The payment of dividends may be made only to preferred shareholders if the priority dividends absorb all the adjusted net income for the year or reach an amount equal to or greater than the mandatory minimum dividend of 25%.

(Expressed in millions of US Dollars, unless otherwise indicated)

The Company's policy on distributions to shareholders, over and above those required by the Brazilian Corporate Law, approved by the Board of Directors in 2019 and updated in November 2021, defines the following:

- minimum distribution of US\$ 4,000 for fiscal years when the average Brent price exceeds US\$ 40 per barrel, regardless its level of
  indebtedness. This distribution will be equal to both common and preferred shares, once it exceeds the minimum value for preferred
  shares provided for in the Company's bylaws;
- in case of gross debt (comprising current and non-current finance debt and lease liability) equal to or less than US\$ 65,000, in addition to the existence of net income attributable to shareholders of Petrobras, to be verified on a quarterly basis, the Company will distribute to shareholders 60% of the difference between net cash provided by operating activities and cash used in the acquisition of PP&E and intangibles assets, calculated in Brazilian reais, provided that the result of this calculation exceeds US\$ 4,000 and does not compromise the financial sustainability of the Company;
- regardless its level of indebtedness, the Company may, in exceptional cases, pay extraordinary dividends, exceeding the minimum mandatory dividend or the values established in the policy, provided that the Company's financial sustainability is preserved;
- the distribution of remuneration to shareholders must be made on a quarterly basis; and
- the Company may exceptionally distribute dividends even if there is no net income for the year, in accordance with the rules provided for the Brazilian Corporation Law and the criteria defined in this policy.

Petrobras seeks, through its policy on distributions to shareholders, to ensure short, medium and long-term financial sustainability, providing predictability to the dividend payments to shareholders.

## 34.5.1. Accounting policy for distributions to shareholders

Distributions to shareholders are made by means of dividends and interest on capital, determined in accordance with the limits defined in the Brazilian Corporation Law and in the Company's bylaws. Interest on capital is a deductible expense in the income tax calculation, while dividend is not deductible.

The dividends portion provided for in the bylaws or that represents the minimum mandatory dividends is recognized as a liability within the statement of financial position. Any excess must be maintained in shareholders' equity, as additional dividends proposed, until its approval on the Annual General Shareholders Meeting.

#### 34.5.2. Proposed dividends

Distribution to shareholders for 2021, proposed by management for approval at the Annual General Shareholders Meeting, amounting to US\$ 18,541, is superior to the minimum mandatory dividend of 25% of the adjusted income and will be paid in equal proportions for common and preferred shares.

Considering the net income for the year and the achievement of the indebtedness target, the amount of dividends proposed by the Company was based on the policy on distribution to shareholders, equivalent to 60% of the difference between net cash provided by operating activities (R\$ 203,126 million) and cash used in the acquisition of PP&E and intangibles assets (R\$ 34,134 million), resulting in a R\$ 101,395 million distribution, which is equivalent to US\$ 18,541 translated based on the exchange rate prevailing at the date of approval for each anticipation and in the closing exchange rate for the complementary dividends.

				_	Com	mon Shares	Prefe	rred Shares	
	Payment	Date of Board of Directors approval	Date of register	Date of Payment	Amount	Amount per share	Amount	Amount per share	Total
1st installment – dividends		08.04.2021	08.16.2021	08.25.2021	2,300	0.3091	1,731	0.3091	4,031
2 <sup>nd</sup> installment - interest on capital		08.04.2021	12.01.2021	12.15.2021	1,483	0.1993	1,116	0.1993	2,599
2 <sup>nd</sup> installment - dividends		10.28.2021	12.01.2021	12.15.2021	2,911	0.3911	2,191	0.3911	5,102
Indexation charges on paid anticipations					69	0.0093	52	0.0093	121
Complementary dividends		02.23.2022	04.13.2022	05.16.2022	3,816	0.5127	2,872	0.5127	6,688
Total for 2021					10,579	1.4215	7,962	1.4215	18,541
Total for 2020					1,128	0.1515	849	0.1515	1,977

Amounts translated into U.S. dollar based on the exchange rate prevailing at the date of the approval, except for the complementary dividends, based on the closing exchange rate at the date of the financial statements.

Distributions to shareholders for 2020 amounted to US\$ 1,977, including the minimum mandatory dividend to preferred shareholders (US\$ 849) and the additional dividends proposed (US\$ 1,128) to ordinary shareholders, arising from the remaining portion of the net income for that year and the profit retention reserve, considering cash generation in the year and the Company's preserved financial sustainability.

## 34.5.3. Dividends payable

As of December 31, 2021, there are no dividends payable to shareholders within current liabilities, given that anticipation of dividends have already been paid throughout 2021, while the complementary dividends will be maintained in shareholders' equity until its approval on the Annual General Shareholders Meeting. As of December 31, 2020 this balance amounted to US\$ 858.

## 34.6. Earnings per share

		2021			2020			2019
Common	Preferred	Total	Common	Preferred	Total	Common	Preferred	Total
			651	490				10,151
11,339	8,536	19,875	651	490	1,141	4,370	3,290	7,660
_	_	_	_	_	_	1,421	1,070	2,491
7 442 231 382	5 601 969 879	13 044 201 261	7 442 231 382	5 601 969 879	13 044 201 261	7 442 231 382	5 601 969 879	13,044,201,261
	.,,,.							0.78
	1.52		0.09					0.59
_	_	_	_	_	_	0.19	0.19	0.19
2.04	204	2.04	0.40	0.40	0.40	4.50	4.50	4.50
3.04	3.04	3.04	0.18	0.18	U.18	1.56	1.56	1.56
3.04	3.04	3.04	0.18	0.18	0.18	1.18	1.18	1.18
	11,339 11,339 - 7,442,231,382 1.52 - 3.04	11,339       8,536         11,339       8,536         -       -         7,442,231,382       5,601,969,879         1.52       1.52         1.52       1.52         -       -         3.04       3.04	11,339       8,536       19,875         11,339       8,536       19,875         -       -       -         7,442,231,382       5,601,969,879       13,044,201,261         1.52       1.52       1.52         1.52       1.52       1.52         -       -       -         3.04       3.04       3.04	Common         Preferred         Total         Common           11,339         8,536         19,875         651           11,339         8,536         19,875         651           -         -         -         -           7,442,231,382         5,601,969,879         13,044,201,261         7,442,231,382           1.52         1.52         1.52         0.09           -         -         -         -           3.04         3.04         3.04         0.18	Common         Preferred         Total         Common         Preferred           11,339         8,536         19,875         651         490           11,339         8,536         19,875         651         490           -         -         -         -         -           7,442,231,382         5,601,969,879         13,044,201,261         7,442,231,382         5,601,969,879           1.52         1.52         1.52         0.09         0.09           1.52         1.52         1.52         0.09         0.09           -         -         -         -         -         -           3.04         3.04         3.04         0.18         0.18	Common         Preferred         Total         Common         Preferred         Total           11,339         8,536         19,875         651         490         1,141           11,339         8,536         19,875         651         490         1,141           -         -         -         -         -         -           7,442,231,382         5,601,969,879         13,044,201,261         7,442,231,382         5,601,969,879         13,044,201,261           1.52         1.52         1.52         0.09         0.09         0.09           1.52         1.52         1.52         0.09         0.09         0.09           -         -         -         -         -         -           3.04         3.04         0.18         0.18         0.18	Common         Preferred         Total         Common         Preferred         Total         Common           11,339         8,536         19,875         651         490         1,141         4,370           11,339         8,536         19,875         651         490         1,141         4,370           -         -         -         -         -         -         -         1,421           7,442,231,382         5,601,969,879         13,044,201,261         7,442,231,382         5,601,969,879         13,044,201,261         7,442,231,382           1.52         1.52         1.52         0.09         0.09         0.09         0.78           -         -         -         -         -         -         0.19           -         -         -         -         -         0.19           -         -         -         -         -         0.19           -         -         -         -         -         0.19           -         -         -         -         -         0.19           -         -         -         -         -         0.19	Common         Preferred         Total         Common         Preferred         Total         Common         Preferred           11,339         8,536         19,875         651         490         1,141         5,791         4,360           11,339         8,536         19,875         651         490         1,141         4,370         3,290           -         -         -         -         -         -         1,421         1,070           7,442,231,382         5,601,969,879         13,044,201,261         7,442,231,382         5,601,969,879         13,044,201,261         7,442,231,382         5,601,969,879           1.52         1.52         1.52         0.09         0.09         0.09         0.78         0.78           1.52         1.52         1.52         0.09         0.09         0.09         0.59         0.59           -         -         -         -         -         -         0.19         0.19           3.04         3.04         0.18         0.18         0.18         1.56         1.56

Basic earnings per share are calculated by dividing the net income (loss) attributable to shareholders of Petrobras by the weighted average number of outstanding shares during the period.

(Expressed in millions of US Dollars, unless otherwise indicated)

Diluted earnings per share are calculated by adjusting the net income (loss) attributable to shareholders of Petrobras and the weighted average number of outstanding shares during the period taking into account the effects of all dilutive potential shares (equity instrument or contractual arrangements that are convertible into shares).

Basic and diluted earnings are identical as the Company has no potentially dilutive shares.

### 35. Fair value of financial assets and liabilities

	Level I	Level II	Level III	Total fair value recorded
Assets				
Marketable securities	650	-	-	650
Foreign currency derivatives	-	23	-	23
Balance at December 31, 2021	650	23	-	673
Balance at December 31, 2020	652	115	_	767
Liabilities Foreign currency derivatives	-	(271)	-	(271)
Commodity derivatives	(1)	_	-	(1)
Interest rate derivatives	_	(1)	-	(1)
Balance at December 31, 2021	(1)	(272)	-	(273)
Balance at December 31, 2020	(10)	(269)	-	(279)

The estimated fair value for the Company's long-term debt, computed based on the prevailing market rates, is set out in note 32.

Certain receivables are classified as fair value through profit or loss, as presented in note 13.

The fair values of cash and cash equivalents, short-term debt and other financial assets and liabilities are equivalent or do not differ significantly from their carrying amounts.

# 36. Risk management

The Company is exposed to a variety of risks arising from its operations, including price risk (related to crude oil and oil products prices), foreign exchange rates risk, interest rates risk, credit risk and liquidity risk. Corporate risk management is part of the Company's commitment to act ethically and comply with the legal and regulatory requirements of the countries where it operates. To manage market and financial risks the Company prefers structuring measures through adequate capital and leverage management. While managing risks, the Company considers its corporate governance and controls, technical departments and statutory committees monitoring, under the guidance of the Board of Executive Officers and the Board of Directors. The Company takes account of risks in its business decisions and manages any such risk in an integrated manner in order to enjoy the benefits of diversification.

## 36.1. Derivative financial instruments

A summary of the positions of the derivative financial instruments held by the Company and recognized in other current assets and liabilities as of December 31, 2021, as well as the amounts recognized in the statement of income and other comprehensive income and the guarantees given is set out as follows:

			;	Statement of Fina	ncial Position
			Fair value		
		Notional value	Asset Pos	ition (Liability)	Maturity
	12.31.2021	12.31.2020	12.31.2021	12.31.2020	
Derivatives not designated for hedge accounting					
Future contracts - total (*)	(1,308)	(240)	(1)	(10)	
Long position/Crude oil and oil products	1,380	3,927	-	-	2022
Short position/Crude oil and oil products	(2,688)	(4,167)	-	-	2022
SWAP (**)					_
Short call/Soybean oil (**)	(11)	_	-	-	2022
Forward contracts					
Long position/Foreign currency forwards (GPD/USD) (***)	-	GBP 354	-	23	2021
Swap					
Foreign currency / Cross-currency Swap (***)	GBP 583	GBP 615	23	44	2026
Foreign currency / Cross-currency Swap (***)	GBP 442	GBP 600	(50)	(26)	2034
Swap - IPCA	3,008	R\$ 3,008	(1)	47	2029/2034
Foreign currency / Cross-currency Swap (***)	US\$ 729	US\$ 729	(221)	(244)	2024/2029
Total recognized in the Statement of Financial Position			(250)	(166)	

<sup>(\*)</sup> Notional value in thousands of bbl.

	Gains/ (losses)	Gains/ (losses) recognized in the statement of inco				
	2021	2020	2019			
Commodity derivatives						
Crude oil - 36.2 (a)	-	(502)	(216)			
Gasoline - 36.2 (b)	-	-	11			
Diesel - 29.2 (b)	-	-	(12)			
Other commodity derivative transactions - 29.2 (b)	(79)	194	(153)			
Recognized in Other Income and Expenses	(79)	(308)	(370)			
Currency derivatives						
Swap Pounds Sterling x Dollar - 36.3 (b)	(85)	11	(18)			
NDF – Euro x Dollar - 36.3 (b)	-	(23)	(153)			
NDF – Pounds Sterling x Dollar - 36.3 (b)	9	20	(8)			
Swap CDI x Dollar - 36.3 (c)	(3)	(284)	7			
Others	1	(2)	6			
	(78)	(278)	(166)			
Interest rate derivatives	•					
Swap - CDI X IPCA	(41)	(36)	6			
	(41)	(36)	6			
Cash flow hedge on exports (*)	(4,585)	(4,720)	(3,136)			
Recognized in Net finance income (expense)	(4,704)	(5,034)	(3,296)			
Total	(4,783)	(5,342)	(3,666)			
·						

<sup>(\*)</sup> As presented in note 29.3

	Guarantees	given as collateral
	12.31.2021	12.31.2020
Commodity derivatives	15	13
Currency derivatives	27	78
Total	42	91

A sensitivity analysis of the derivative financial instruments for the different types of market risks as of December 31, 2021 is set out as follows:

<sup>(\*\*)</sup> Notional value in thousands of tons. (\*\*\*) Amounts in US\$ million.

Financial Instruments  Derivatives not designated for hedge accounting	Risk	Probable Scenario (*)	Reasonably possible scenario (*)	Remote Scenario (*)
Future and forward contracts	Crude oil and oil products - price changes	-	(23)	-47
Future and forward contracts	Soybean oil - price changes	-	(8)	-17
Non-deliverable forwards (NDF)	Foreign currency - depreciation BRL x USD		(8)	(16)
		-	(39)	(80)

<sup>(\*)</sup> The probable scenario was computed based on the fair value of oil and oil products prices at December 31, 2021. Reasonably possible and remote scenarios consider 25% and 50% deterioration in the associated risk variables, respectively.

The probable scenario uses market references, used in pricing models for oil, oil products and natural gas markets, and takes into account the closing price of the asset on December 31, 2021. Therefore, no variation is considered arising from outstanding operations in this scenario. The reasonably possible and remote scenarios reflect the potential effects on the statement of income from outstanding transactions, considering a variation in the closing price of 25% and 50%, respectively. To simulate the most unfavorable scenarios, the variation was applied to each asset according to open transactions; price decrease for long positions and increase for short positions.

## 36.2. Risk management of crude oil and oil products prices

The Company is usually exposed to commodity price cycles, although it may use derivative instruments to hedge exposures related to prices of products purchased and sold to fulfill operational needs and in specific circumstances depending on business environment analysis and assessment of whether the targets of the Strategic Plan are being met.

## a) Crude Oil

In March 2020, in order to preserve the Company's liquidity, Petrobras approved a hedge strategy for exported oil already shipped but not priced mainly due to the high volatility at that time, both due to the effects of the oil price drop and the effects of the COVID-19 pandemic on the global oil consumption.

As a result of this strategy, from April 2020, transactions using forward (swap) and futures contracts were carried out. Forward transactions do not require initial disbursement, whereas future transactions require margin deposits, depending on the volume contracted.

## b) Other commodity derivative transactions

Petrobras, by use of its assets, positions and market knowledge from its operations in Brazil and abroad, occasionally seeks to optimize some of its commercial operations in the international market, with the use of commodity derivatives to manage price risk.

## 36.3. Foreign exchange risk management

The Company's Risk Management Policy provides for, as an assumption, an integrated risk management that extends to the whole corporation, pursuing the benefit from the diversification of its businesses.

By managing its foreign exchange risk, the Company takes into account the cash flows derived from its operations as a whole. This concept is especially applicable to the risk relating to the exposure of the Brazilian Real against the U.S. dollar, in which future cash flows in U.S. dollar, as well as cash flows in Brazilian Real affected by the fluctuation between both currencies, such as cash flows derived from diesel and gasoline sales in the domestic market, are assessed in an integrated manner.

Accordingly, the financial risk management mainly involves structured actions encompassing the business of the Company.

Changes in the Real/U.S. dollar spot rate, as well as foreign exchange variation of the Real against other foreign currencies, may affect net income and the statement of financial position due to the exposures in foreign currencies, such as high probable future transactions, monetary items and firm commitments.

The Company seeks to mitigate the effect of potential variations in the Real/U.S. dollar spot rates mainly raising funds denominated in US dollars, aiming at reducing the net exposure between obligations and receipts in this currency, thus representing a form of structural protection that takes into account criteria of liquidity and cost competitiveness.

Foreign exchange variation on future exports denominated in U.S. Dollar in a given period are efficiently hedged by the US dollar debt portfolio taking into account changes in such portfolio over time.

(Expressed in millions of US Dollars, unless otherwise indicated)

The foreign exchange risk management strategy may involve the use of derivative financial instruments to hedge certain liabilities, mitigating foreign exchange rate risk exposure, especially when the Company is exposed to a foreign currency in which no cash inflows are expected, for example, the pounds sterling.

In the short-term, the foreign exchange risk is managed by applying resources in cash or cash equivalent denominated in Brazilian Real, U.S. Dollar or in another currency.

#### a) Cash Flow Hedge involving the Company's future exports

The carrying amounts, the fair value as of December 31, 2021, and a schedule of expected reclassifications to the statement of income of cumulative losses recognized in other comprehensive income (shareholders' equity) based on a US\$ 1.00 / R\$ 5.5805 exchange rate are set out below:

Present value of hedging instrument notional value at 12.31.2021

						12.31.2021
Не	dging Instrument	Hedged Transactions	Nature of the Risk		US\$ million	R\$ million
Foreign exchange gains a proportion of non-derivativinstruments cash flows		Foreign exchange gains and losses of highly probable future monthly exports revenues	Foreign Currency  – Real vs U.S. Dollar Spot Rate	January 2022 to December 2031	72,640	405,370
Changes in the present value of hedging instrument notional value						R\$ million
Amounts designated as of	January 1, 2021				61,502	319,608
Additional hedging relation	nships designated,	designations revoked and hedging instrument	s re-designated		40,924	224,721
Exports affecting the state	ment of income				(14,354)	(77,269)
Principal repayments / amortization					(15,432)	(83,366)
Foreign exchange variation					-	21,676
Amounts designated as	Amounts designated as of December 31, 2021					
Nominal value of hedgin	Nominal value of hedging instrument (finance debt and lease liability) at December 31, 2021					

According to the 2022-2026 Strategic Plan, there is an increase in expected exports, mainly as a result of the increase in Brent prices and, consequently, an increase in the value of highly probable future exports. As a result, the net exposure Dollar/Real observed during 2021 is reduced as of December 31, 2021, as presented in item (c) below.

In the year ended December 31, 2021, the Company recognized a US\$ 15 gain within foreign exchange gains (losses) due to ineffectiveness (a US\$ 1 loss in the same period of 2020).

The average ratio of future exports for which cash flow hedge accounting was designated to the highly probable future exports is 100%.

A roll-forward schedule of cumulative foreign exchange losses recognized in other comprehensive income as of December 31, 2021 is set out below:

	Exchange rate variation	Tax effect	Total
Balance at January 1,2020	(20,517)	6,977	(13,540)
Recognized in Other comprehensive income	(21,460)	7,296	(14,164)
Reclassified to the statement of income - occurred exports	4,172	(1,419)	2,753
Reclassified to the statement of income - exports no longer expected or not occurred	548	(187)	361
Balance at December 31, 2020	(37,257)	12,667	(24,590)
Recognized in Other comprehensive income	(3,949)	1,343	(2,606)
Reclassified to the statement of income - occurred exports	4,585	(1,557)	3,028
Balance at December 31, 2021	(36,621)	12,453	(24,168)

Additional hedging relationships may be revoked or additional reclassification adjustments from equity to the statement of income may occur as a result of changes in forecasted export prices and export volumes following a revision of the Company's strategic plan. Based on a sensitivity analysis considering a US\$ 10/barrel decrease in Brent prices stress scenario, when compared to the Brent price projections in our Strategic Plan 2022-2026, would not indicate a reclassification from equity to the statement of income.

(Expressed in millions of US Dollars, unless otherwise indicated)

A schedule of expected reclassification of cumulative foreign exchange losses recognized in other comprehensive income to the statement of income as of December 31, 2021 is set out below:

	2022	2023	2024	2025	2026	2027	2028 a 2031	Total
Expected realization	(8,460)	(6,908)	(5,390)	(3,824)	(3,384)	(3,475)	(5,180)	(36,621)

## **Accounting policy**

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

Considering the natural hedge and the risk management strategy, the Company designates hedging relationships to account for the effects of the existing hedge between a foreign exchange gain or loss from proportions of its long-term debt obligations (denominated in U.S. dollars) and foreign exchange gain or loss of its highly probable U.S. dollar denominated future export revenues, so that gains or losses associated with the hedged transaction (the highly probable future exports) and the hedging instrument (debt obligations) are recognized in the statement of income in the same periods.

Foreign exchange gains and losses on proportions of debt obligations and lease liability (non-derivative financial instruments) have been designated as hedging instruments.

The highly probable future exports for each month are hedged by a proportion of the debt obligations with an equal US dollar nominal amount. Only a portion of the Company's forecast exports are considered highly probable.

The Company's future exports are exposed to the risk of variation in the Brazilian Real/U.S. dollar spot rate, which is offset by the converse exposure to the same type of risk with respect to its debt denominated in US dollar.

The hedge relationships are assessed on a monthly basis and they may cease and may be re-designated in order to achieve the risk management strategy.

Foreign exchange gains and losses relating to the effective portion of such hedges are recognized in other comprehensive income and reclassified to the statement of income within finance income (expense) in the periods when the hedged item affects the statement of income.

Whenever a portion of future exports for a certain period, for which their foreign exchange gains and losses hedging relationship has been designated is no longer highly probable, the Company revokes the designation and the cumulative foreign exchange gains or losses that have been recognized in other comprehensive income remain separately in equity until the forecast exports occur.

If future exports for which foreign exchange gains and losses hedging relationship has been designated is no longer expected to occur, any related cumulative foreign exchange gains or losses that have been recognized in other comprehensive income from the date the hedging relationship was designated to the date the Company revoked the designation is immediately recycled from equity to the statement of income.

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

Gains or losses relating to the ineffective portion are immediately recognized in finance income (expense). Ineffectiveness may occur as hedged items and hedge instruments have different maturity dates and due to discount rate used to determine their present value.

#### b) Information on ongoing contracts

#### Cross currency swap - Pounds Sterling x Dollar

In 2017, the Company, through its wholly owned subsidiary Petrobras Global Trading B.V. (PGT), entered into cross currency swaps maturing in 2026 and 2034, with notional amounts of £ 700 million and £ 600 million, respectively, in order to hedge its Pound/U.S. Dollar exposure arising from bonds issued amounting to £ 1,300.

After the repurchase of bonds, the current notional amount is £ 1,025.

#### Non-Deliverable Forward (NDF) – Euro x Dollar and Pounds Sterling x Dollar

In 2018, the Company, also through PGT, entered into non deliverable forwards, in other to reduce its euro x dollar and pounds sterling x dollar exposures raised by bonds issued.

The net notional amount of derivatives originally contracted were reduced to € 2,245 million and 164 million pounds sterling, respectively, in line with a lower exposure to the euro, provided by the repurchase of bonds in that currency throughout 2019.

As of December 31, 2020, net notional amount of pounds sterling x dollar derivative changed to 354 million pounds sterling, while the position in euros was terminated.

## Swap contracts - IPCA x CDI and CDI x Dollar

In September 2019, Petrobras contracted a cross currency swap aiming to protect against exposure arising from the 7th issuance of debentures, settled on October 9, 2019, in the total notional amount of US\$ 367 for IPCA x CDI operations, maturing in September 2029 and September 2034, and US\$ 240 for CDI x U.S. Dollar operations, maturing in September 2024 and September 2029.

Changes in future interest rate curves (CDI) may have an impact on the Company's results, due to the market value of these swap contracts. The parallel shock was estimated from the average term of swap contracts (25% of the future interest rate). A sensitivity analysis on CDI through a parallel shock keeping all other variables remaining constant, would result in the impacts shown in the following table:

Sensitivity Analysis	Result
Parallel increase of 300 basis points	(7)
Parallel reduction of 300 basis points	21

# c) Sensitivity analysis for foreign exchange risk on financial instruments

A sensitivity analysis is set out below, showing the probable scenario for foreign exchange risk on financial instruments, computed based on external data along with reasonably possible and remote scenarios (25% and 50% changes in the foreign exchange rates prevailing on December 31, 2021, respectively), except for assets and liabilities of foreign subsidiaries, when transacted in a currency equivalent to their respective functional currencies. This analysis only covers the exchange rate variation and maintains all other variables constant.

Financial Instruments	Exposure at 12.31.2021	Risk	Probable Scenario (*)	Reasonably possible Scenario (**)	Remote Scenario (**)
Assets	4,487		-	1,122	2,243
Liabilities	(92,548)	Dollar/Real	8	(23,137)	(46,274)
Exchange rate - Cross currency swap	(539)		-	(135)	(270)
Cash flow hedge on exports	72,641		(6)	18,160	36,320
	(15,959)		2	(3,990)	(7,981)
Assets	2	Euro/Real	_	1	1
Liabilities	(18)		-	(5)	(9)
	(16)	<u> </u>	-	(4)	(8)
Assets	1,247	Euro/Dollar	(14)	312	624
Liabilities	(2,472)		27	(618)	(1,236)
	(1,225)	<u> </u>	13	(306)	(612)
Assets	2	Pound/Real	_	1	1
Liabilities	(22)		-	(6)	(11)
	(20)		-	(5)	(10)
Assets	1,909	Pound/Dollar	(1)	477	955
Liabilities	(3,685)		2	(921)	(1,843)
Derivative - cross currency swap	1,381		(1)	345	691
	(395)		_	(99)	(197)
Total at December 31, 2021	(17,615)		15	(4,404)	(8,808)

(\*) At December 31, 2021, the probable scenario was computed based on the following risks: R\$ x U.S. Dollar - a 0% depreciation of the Real; Euro x U.S. Dollar: a 1.1% depreciation of the Euro; Pounds Sterling x U.S. Dollar: a 0.5% depreciation of the Pounds Sterling; Real x Euro: a 1.1% depreciation of the Real; and Real x Pounds Sterling - a 0.1% depreciation of the Real. Source: Focus and Thomson Reuters.

<sup>(\*\*)</sup> Reasonably possible and remote scenarios consider 25% and 50% change in the foreign exchange rates prevailing on December 31, 2021, respectively.

# 36.4. Interest rate risk management

The Company considers that interest rate risk does not create a significant exposure and therefore, preferably does not use derivative financial instruments to manage interest rate risk, except for specific situations faced by certain subsidiaries of Petrobras.

The sensitivity analysis of interest rate risk presented in the table below is carried out for a 12-month term. Amounts referring to reasonably possible and remote scenarios mean the total floating interest expense if there is a variation of 25% and 50% in these interest rates, respectively, maintaining all other variables constant.

Risk	Probable Scenario (*)	Reasonably possible Scenario (*)	Remote Scenario (*)
LIBOR 1M	_	-	-
LIBOR 3M	2	3	3
LIBOR 6M	333	376	419
CDI	128	160	192
TJLP	57	71	85
IPCA	82	102	122
	602	712	821

<sup>(\*)</sup> The probable scenario was calculated considering the quotations of currencies and floating rates to which the debts are indexed.

# 36.5. Liquidity risk management

The possibility of a shortage of cash or other financial assets in order to settle the Company's obligations on the agreed dates is managed by the Company based on policies such as:

- centralization of cash management, optimization of the level of cash and cash equivalents held and reduction of working capital;
- maintenance of an adequate cash balance to ensure that cash need for investments and short-term obligations is met even in adverse market conditions;
- increase in the average debt maturity, increase in funding sources from domestic and international markets (new markets and financial products); and
- funds under the partnership and divestment program; and
- revolving credit facilities with several financial institutions.

Following its liability management strategy, the Company regularly evaluates market conditions and may enter into transactions to repurchase its own securities or those of its affiliates, through a variety of means, including tender offers, make whole exercises and open market repurchases, in order to improve its debt repayment profile and cost of debt.

### 36.6. Credit risk

Credit risk management in Petrobras aims to mitigate risk of not collecting receivables, financial deposits or collateral from third parties or financial institutions through efficient credit analysis, granting and management based on quantitative and qualitative parameters that are appropriate for each market segment in which the Company operates.

The commercial credit portfolio is broad and diversified and comprises clients from the domestic and foreign markets. Credit granted to financial institutions is related to collaterals received, cash surplus invested and derivative financial instruments. It is spread among "investment grade" international banks rated by international rating agencies and Brazilian banks with low credit risk.

## 36.6.1. Credit quality of financial assets

#### a) Trade and other receivables

Most of Petrobras's clients do not have a risk rating granted by rating agencies. Thus, for the definition and monitoring of credit limits, management evaluates the customer's field of activity, commercial relationship, financial relationship with Petrobras and its financial statements, among other aspects.

## b) Other financial assets

Credit quality of cash and cash equivalents, as well as marketable securities is based on external credit ratings provided by Standard & Poor's, Moody's and Fitch. The credit quality of those financial assets, that are neither past due nor considered to be credit impaired, are set out below:

	Cash and	I cash equivalents	Marketable securitie	
	12.31.2021	12.31.2020	12.31.2021	12.31.2020
AA	1,152	1,995	-	_
A	1,145	2,363	-	_
BBB	2,308	168	-	_
BB	3,672	4,154	-	_
AAA.br	530	673	694	652
AA.br	1,639	1,960	_	43
Other ratings	21	398	-	8
	10,467	11,711	694	703

# 37. Related-party transactions

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

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

- · Competitiveness: prices and conditions of services compatible with those practiced in the market;
- Compliance: adherence to the contractual terms and responsibilities practiced by the Company;
- Transparency: adequate reporting of the agreed conditions, as well as their effects on the company's financial statements;
- Fairness: establishment of mechanisms that prevent discrimination or privileges and the adoption of practices that ensure the non-use of privileged information or business opportunities for the benefit of individuals or third parties; and
- Commutability: arm's length basis.

The Audit Committee must approve in advance transactions between the Company and the Brazilian Federal Government, including its agencies or similar bodies; Petros Foundation; Petrobras Health Association; controlled and associated entities (including entities controlled by its associates); and entities controlled by key management personnel or by their close family members, taking into account the materiality established by this policy. The Audit Committee (CAE) reports monthly to the Board of Directors.

Transactions with the Brazilian Federal Government, including its agencies or similar bodies and controlled entities (the latter when classified as out of the Company's normal course of business by the CAE), which are under the scope of Board of Directors approval, must be preceded by the CAE and Minority Shareholders Committee assessment and must have prior approval of, at least, 2/3 of the board members.

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

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

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

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

		12.31.2021		12.31.2020
	Assets	Liabilities	Assets	Liabilities
Joint ventures and associates				
BR Distribuidora, current Vibra Energia	_	_	196	39
Natural Gas Transportation Companies	-	-	74	191
State-controlled gas distributors (joint ventures)	255	42	225	68
Petrochemical companies (associates)	26	12	17	9
Other associates and joint ventures	104	13	152	120
Subtotal	385	67	664	427
Brazilian government – Parent and its controlled entities				
Government bonds	1,446	-	1,632	-
Banks controlled by the Brazilian Government	8,417	1,267	7,676	3,707
Receivables from the Electricity sector	-	-	205	_
Petroleum and alcohol account - receivables from the Brazilian Government	506	-	482	
Brazilian Federal Government - dividends	2	-	2	-
Others	26	54	38	47
Subtotal	10,397	1,321	10,035	3,754
Pension plans	51	61	52	65
Total	10,833	1,449	10,751	4,246
Current	2,110	315	2,663	1,225
Non-Current	8,723	1,134	8,088	3,021
Total	10,833	1,449	10,751	4,246

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

	2021	2020	2019
Joint ventures and associates			
BR Distribuidora, current Vibra Energia	7.936	11,038	7.242
Natural Gas Transportation Companies	(308)	(1,478)	(1,858)
State-controlled gas distributors (joint ventures)	2,410	1,723	2,812
Petrochemical companies (associates)	3,553	2,769	2,926
Other associates and joint ventures	418	265	208
Subtotal	14,009	14,317	11,330
Brazilian government – Parent and its controlled entities	·		
Government bonds	64	41	107
Banks controlled by the Brazilian Government	(157)	(456)	(652)
Receivables from the Electricity sector	131	72	300
Petroleum and alcohol account - receivables from the Brazilian Government	58	235	8
Brazilian Federal Government - dividends	31	(4)	(4)
Empresa Brasileira de Administração de Petróleo e Gás Natural – Pré-Sal Petróleo S.A. – PPSA	(139)	(135)	(110)
Others	(34)	(15)	(130)
Subtotal	(46)	(262)	(481)
Pension plans	-	(177)	-
Total	13,963	13,878	10,849
Revenues, mainly sales revenues	14,672	16,202	13,748
Purchases and services	(494)	(2,074)	(2,591)
Income (expenses)	(315)	(93)	-
Foreign exchange and inflation indexation charges, net	(59)	(102)	(395)
Finance income (expenses), net	159	(55)	87
Total	13,963	13,878	10,849

On December 29, 2021, the Company signed five new contracts with the associate Braskem for the sale and purchase of petrochemical products. These contracts amount to US\$ 7.5 billion, equivalent to the remaining values of the prior contracts that were canceled. The new contracts are effective from January 1, 2022 with maturities between May 2026 and December 2029.

Information on the *precatories* (judicialized debts from the Brazilian Federal Government) issued in favor of the Company arising from the petroleum and alcohol accounts is disclosed in note 13.1.

The liability related to pension plans of the Company's employees and managed by the Petros Foundation, including debt instruments, is presented in note 17.

# Petrobras agreement with Amazonas Energia

On April 7, 2021, Petrobras and its subsidiaries Breitener Tambaqui S.A. and Breitener Jaraqui S.A. signed a legal agreement with Amazonas Energia S.A. (debtor) and Centrais Elétricas Brasileiras S.A. - Eletrobras (jointly responsible), in the amount of US\$ 77 (R\$ 438 million), for the receipt of amounts relating to seven lawsuits, which will be suspended until the full settlement of the negotiated credits. The debt will be settled in 60 installments updated based on 124.75% of the CDI interest rate, from January 18, 2021 until full settlement.

The signing of the agreement generated a positive effect on the Company's statement of income in the second quarter of 2021 of US\$ 59 (R\$ 329 million), net of tax effects, since these receivables had already been written-off in previous years. In November 2021, the Company sold its entire interest in Breitener as set out in explanatory note 31.

### 37.2. Compensation of key management personnel

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

The compensation of employees (including those occupying managerial positions) and officers in December 2021 and December 2020 were:

(Expressed in millions of US Dollars, unless otherwise indicated)

Compensation of employees, excluding officers (amounts in U.S. dollars)	2021	2020
Lowest compensation	678	614
Average compensation	3,775	3,617
Highest compensation	19,220	18,799
Compensation of highest paid Petrobras officer	21,642	20,700

The total compensation of Executive Officers and Board Members of Petrobras is set out as follows:

		Jar	n-Dec/2021		Jar	Jan-Dec/2020		
	Executive Officers	Board of Directors	Total	Executive Officers	Board of Directors	Total		
Wages and short-term benefits	2.6	0.1	2.7	2.8	0.1	2.9		
Social security and other employee-related taxes	0.7	_	0.7	0.9	-	0.9		
Post-employment benefits (pension plan)	0.3	_	0.3	0.2	-	0.2		
Variable compensation	2.5	-	2.5	2.4	-	2.4		
Benefits due to termination of tenure	0.6	-	0.6	0.1	-	0.1		
Total compensation recognized in the statement of income	6.7	0.1	6.8	6.4	0.1	6.5		
Total compensation paid (*)	6.0	0.1	6.1	4.8	-	4.8		
Average number of members in the period (**)	9.00	10.58	19.58	9.00	10.00	19.00		
Average number of paid members in the period (***)	9.00	4.50	13.50	9.00	4.42	13.42		

<sup>(\*)</sup> The variable compensation (PPP) paid to management is included in the Executive Officers columns.

In 2021, expenses related to compensation of the board members and executive officers of Petrobras amounted to US\$ 15 (US\$ 14 for the same period of 2020).

On April 14, 2021, the Company's Annual Shareholders' Meeting set the threshold for the overall compensation for executive officers and board members at US\$ 8 (R\$ 47.06 million) from April 2021 to March 2022.

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

In accordance with Brazilian regulations applicable to companies controlled by the Brazilian Federal Government, Board members who are also members of the Audit Committee or Audit Committee of Petrobras and its subsidiaries are only compensated with respect to their Audit Committee duties. The total compensation concerning these members was US\$ 544 thousand for the year ended December 31, 2021 (US\$ 642 thousand with tax and social security costs). For the same period of 2020, the total compensation concerning these members was US\$ 441 thousand (US\$ 529 thousand with tax and social security costs).

The Variable Compensation Program for Executive Officers is subject to compliance with prerequisites and performance indicators. The variable remuneration to be paid changes according to the percentage of goals achievement and its payment is deferred in 5 years.

In 2021, the Company provisioned US\$ 3 referring to the Performance Award Program – PPP 2021 for Executive Directors.

## **Exemption from damage (indemnity)**

The company's bylaws establishes the obligation to indemnify and keep the officers without losses, members with statutory functions and other employees and agents that legally act through officers' delegation, so as to cope with certain expenses due to claims, inquiries, investigations and administrative, arbitration or judicial proceedings in Brazil or in any other jurisdiction, which aim to impute any responsibility for regular acts of management performed exclusively in the exercise of its activities since the date of your possession or since the beginning of the contractual relation with the Company.

The first period of the agreement coverage began on December 18, 2018 and continues until the occurrence of the following events, whichever comes last: (i) the end of the fifth (5th) year following the date on which the beneficiary leave, for any reason, to exercise the mandate, function or position; (ii) the course of the time required in transit of any Process in which the Beneficiary is partly due to the practice of Regular Management Act; or (iii) the course of the limitation period according to law to events that can generate the obligations of indemnification by the Company, including, but not limited to, the criminal statute applicable deadline, even if such period is applied by administrative authorities. The maximum exposure established by the company (global limit for all eventual claims) until March 24, 2020 is US\$ 500.

The second period of the agreement coverage began on April 25, 2020 and continues until the occurrence of the same kind of events of the first period. The maximum exposure established by the company (global limit for all eventual claims) until March, 2022 is US\$ 300.

<sup>(\*\*)</sup> Monthly average number of members.

<sup>(\*\*\*)</sup> Monthly average number of paid members.

Indemnity agreements shall not cover: (i) acts covered under Directors and Officers (D&O) insurance policy purchased by the Company, as formally recognized and implemented by the insurance company; (ii) acts outside the regular exercise of the duties or powers of the Beneficiaries; (iii) acts in bad faith act, malicious acts, fraud or serious fault on the part of the Beneficiaries; (iv) self-interested acts or in favor of third parties that damage the company's social interest; (v) obligation to pay damages arising from social action according to article 159 of Law 6,404/76 or reimbursement of the damages according to art. 11, § 5°, II of Law 6,385/76; (vi) other cases provided for in the indemnity contract; (vii) other cases where a manifest conflict of interest with the company is established. It is worth noting that after a final unappealable decision, if it is proved that the act performed by the beneficiary is not subject to indemnification, the beneficiary is obligated to return the advanced amounts to the company. Petrobras will have no obligation to indemnify the Beneficiaries for loss of profits, loss of business opportunity, interruption of professional activity, moral damages or indirect damages.

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

# 38. Supplemental information on statement of cash flows

	2021	2020	2019
Amounts paid/received during the year:			
Withholding income tax paid on behalf of third-parties	904	770	1,165
Transactions not involving cash			
Purchase of property, plant and equipment on credit	-	310	76
Lease	6,945	4,255	2,301
Provision/(reversals) for decommissioning costs	(1,082)	5,174	5,497
Use of deferred tax and judicial deposit for the payment of contingency	1,173	2	3
Assets received due to assumption of participation in concessions	165	-	-
Receivables from Búzios Agreement	54	-	-

# 39. Subsequent events

## Sale of Potiguar group of fields and related assets

On January 31, 2022, Petrobras signed with the company 3R Potiguar SA, a wholly-owned subsidiary of 3R Petroleum Óleo e Gás SA, a contract for the sale of its entire interest (100%) in a set of 22 production onshore and shallow water field concessions, together with its associated infrastructure, located in the Potiguar Basin, in the state of Rio Grande do Norte, jointly called the Potiguar group of fields.

This sale amounts to US\$ 1,385, of which (a) US\$ 110 was received on the transaction signing; (b) US\$ 1,040 to be received at the closing of the transaction and (c) US\$ 235 to be paid in 4 annual installments of US\$ 58.75, starting in March 2024. The contract provides for price adjustments until the closing of the transaction, and it is also subject to the fulfillment of conditions precedent, such as approval by the ANP.

#### Sale of Alagoas group of fields and related assets

On February 4, 2022, Petrobras closed the sale of Alagoas group of fields to Origin Energia S.A. (formerly Petro+), with the sale of its entire interest (100%) in seven concessions, six onshore (Anambé, Arapaçu, Cidade of São Miguel dos Campos, Furado, Pilar and São Miguel dos Campos) and one in in shallow water (Paru field), jointly called the Alagoas Pole.

This sale amounts to US\$ 300, with US\$ 60 received on the transaction signing and US\$ 240 at the transaction closing.

# Minimum compensation based on employee's position and work schedule - RMNR

In February 2022, the judgment of the appeals filed by the plaintiff and several amicus curiae was started. The judgment is currently underway in the First Panel of the Supreme Federal Court, with 3 votes in favor of the Company, confirming that there is an understanding of recognizing the merit of the collective bargaining agreement signed between Petrobras and the unions. Considering that the last minister to vote requested additional time for analysis, the trial was suspended, and is pending the presentation of the vote by this last minister.

Additional information on the subject is presented in Note 18.

#### NOTES TO THE FINANCIAL STATEMENTS

**PETROBRAS** 

(Expressed in millions of US Dollars, unless otherwise indicated)

#### Partial prepayment to Petros

On February 22, 2022, the Company's Board of Directors approved the partial prepayment of the Term of Financial Commitment relating to the plans PPSP-R Pre-70 and PPSP-NR Pre-70, and of the Term of Financial Commitment relating to the Pension Difference, entered into with the Petros Foundation, in the amount of US\$ 1,233 (R\$ 6,882 million), scheduled to occur on February 25, 2022.

Both commitments are recorded in these financial statements, within the actuarial liability amount (note 17).

## Sale of Norte Capixaba group of fields

On February 22, 2022, the Company's Board of Directors approved the sale of its entire interest (100%) in a set of four onshore production fields, with integrated facilities, located in the state of Espírito Santo, jointly called Norte Capixaba group of fields, to Seacrest Petróleo SPE Norte Capixaba Ltda., a wholly-owned subsidiary of Seacrest Exploração e Produção de Petróleo Ltda..

This sale amounts to US\$ 478, of which (a) US\$ 36 was paid at the contract signing; (b) US\$ 442 to be paid at the transaction closing. In addition, there are up to US\$ 66 in contingent payments provided for in the contract, depending on future Brent prices. The agreement provides for price adjustments and to the fulfillment of conditions precedent, such as the approval by the ANP.

Supplementary information on Oil and Gas Exploration and Production (unaudited)

(Expressed in millions of US Dollars, unless otherwise indicated)

# Supplementary information on Oil and Gas Exploration and Production (unaudited)

This section provides supplemental information on oil and gas exploration and production activities of the Company. The information included in items (i) through (iii) provides historical cost information pertaining to costs incurred in exploration, property acquisition and development, capitalized costs and results of operations. The information included in items (iv) and (v) presents information on Petrobras' estimated net proved reserve quantities, standardized measure of estimated discounted future net cash flows related to proven reserves, and changes in estimated discounted future net cash flows.

The Company, on December 31, 2021, maintains activities mainly in Brazil, in addition to activities in Argentina, Colombia and Bolivia, in South America. The equity-accounted investments are comprised of the operations of the joint venture company MP Gulf of Mexico, LLC (MPGoM), in which Murphy Exploration & Production Company ("Murphy") has 80% stake and Petrobras America Inc ("PAI") 20% stake in United States of America, North America. The Company reports its reserves in Brazil, United States of America and Argentina. Bolivian reserves are not included due to restrictions determined by Bolivian Constitution. In Colombia, our activities are exploratory, and therefore, there are no associated reserves.

## i) Capitalized costs relating to oil and gas producing activities

As set out in note 26, the Company uses the successful efforts method of accounting for appraisal and development costs of crude oil and natural gas production. In addition, notes 23 and 24 presents the accounting policies applied by the Company for recognition, measurement and disclosure of property, plant and equipment and intangible assets.

The following table summarizes capitalized costs for oil and gas exploration and production activities with the related accumulated depreciation, depletion and amortization, and asset retirement obligations:

				Consolio	lated entities	
				Abroad		
	Brazil	South America	Others	Total	Total	Equity Method Investees
December 31, 2021						
Unproved oil and gas properties	4,455	115	-	115	4,570	-
Proved oil and gas properties	80,523	172	-	172	80,695	832
Support Equipment	67,988	777	1	778	68,766	
Gross Capitalized costs	152,967	1,064	1	1,065	154,032	832
Depreciation, depletion and amortization	(51,621)	(733)	(1)	(734)	(52,355)	(296)
Net capitalized costs	101,345	331	-	331	101,677	536
December 31, 2020						
Unproved oil and gas properties	17,438	112	-	112	17,550	-
Proved oil and gas properties	61,857	140	-	140	61,997	792
Support Equipment	73,199	761	1	762	73,961	-
Gross Capitalized costs	152,494	1,013	1	1,014	153,508	792
Depreciation, depletion and amortization	(43,008)	(687)	(1)	(688)	(43,696)	(316)
Net capitalized costs	109,486	326	-	326	109,812	476
December 31, 2019						
Unproved oil and gas properties	23,063	117	-	117	23,180	-
Proved oil and gas properties	81,063	135	-	135	81,198	4,202
Support Equipment	88,289	687	1	688	88,977	-
Gross Capitalized costs	192,414	940	1	941	193,355	4,202
Depreciation, depletion and amortization	(51,332)	(581)	(1)	(582)	(51,914)	(1,690)
Net capitalized costs	141,081	359	-	359	141,441	2,513

Supplementary information on Oil and Gas Exploration and Production (unaudited) (Expressed in millions of US Dollars, unless otherwise indicated)

#### ii) Costs incurred in oil and gas property acquisition, exploration and development activities

Costs incurred are summarized below and include both amounts expensed and capitalized:

				Consolida	ated entities	
				Abroad		
	Brazil	South America	Others	Total	Total	Equity Method Investees
December 31, 2021						
Acquisition costs:						
Proved	-	-	-	-	-	-
Unproved	-	-	-	-	-	-
Exploration costs	682	5	-	5	687	-
Development costs	6,035	44	-	44	6,079	37
Total	6,717	49	-	49	6,766	37
December 31, 2020						
Acquisition costs:						
Proved	315	-	-	-	315	-
Unproved	24	-	-	-	24	-
Exploration costs	805	10	-	10	815	-
Development costs	5,664	3	-	3	5,667	57
Total	6,808	13	-	13	6,821	57
December 31, 2019						
Acquisition costs:						
Proved	-	-	-	-	-	-
Unproved (*)	16,670	-	-	-	16,670	-
Exploration costs	1,069	11	-	11	1,080	3
Development costs	6,819	6	-	6	6,825	150
Total	24,558	17	-	17	24,575	153

<sup>(\*)</sup> Mainly acquisition of oil exploration rights - Transfer of Rights, according to note 24.1.

### (iii) Results of operations for oil and gas producing activities

The Company's results of operations from oil and gas producing activities for the years ended December 31, 2021, 2020 and 2019 are shown in the following table. The Company transfers substantially all of its Brazilian crude oil and gas production to the Refining, Transportation & Marketing segment in Brazil. The internal transfer prices calculated by the Company's model may not be indicative of the price the Company would have realized had this production been sold in an unregulated spot market. Additionally, the prices calculated by the Company's model may not be indicative of the future prices to be realized by the Company. Gas prices used are those set out in contracts with third parties.

Production costs are lifting costs incurred to operate and maintain productive wells and related equipment and facilities, including operating employees' compensation, materials, supplies, fuel consumed in operations and operating costs related to natural gas processing plants.

Exploration expenses include the costs of geological and geophysical activities and projects without economic feasibility. Depreciation and amortization expenses relate to assets employed in exploration and development activities. In accordance with Codification Topic 932 – Extractive Activities – Oil and Gas, income taxes are based on statutory tax rates, reflecting allowable deductions. Interest income and expense are excluded from the results reported in this table.

Supplementary information on Oil and Gas Exploration and Production (unaudited) (Expressed in millions of US Dollars, unless otherwise indicated)

					Abroad		
	Brazil	South America	North America	Others	Total	Total	Equity Method Investees
December 31, 2021	Diazii	America	America	Others	Total	Total	IIIVOSICO
Net operation revenues:							
Sales to third parties	974	131	-	_	131	1,105	220
Intersegment	54,479	-	-	_	-	54,479	
	55,453	131	_	_	131	55,584	220
Production costs	(14,601)	(67)	_	_	(67)	(14,668)	(44)
Exploration expenses	(685)	(2)	_	_	(2)	(687)	(
Depreciation, depletion and amortization	(8,959)	(46)	_	_	(46)	(9,005)	(38)
	(0,000)	()			(10)	(0,000)	(00)
Impairment of oil and gas properties	3,107	_	_	_	_	3,107	
Other operating expenses	852	15	114	(118)	11	863	(17)
Results before income tax expenses	35,167	31	114	(118)	27	35,194	121
Income tax expenses	(11,957)	(11)	(39)	40	(10)	(11,967)	(41)
income tax expenses	(11,957)	(11)	(00)	40	(10)	(11,301)	(41)
Results of operations (excluding corporate overhead and interest costs)	23,210	20	75	(78)	17	23,227	80
December 31, 2020				` '			
Net operation revenues:							
Sales to third parties	763	108	_	_	108	871	148
Intersegment	33,524	_	_	_	_	33,524	_
	34,287	108	_	_	108	34,395	148
Production costs	(9,378)	(59)	_	_	(59)	(9,437)	(54)
Exploration expenses	(796)	(7)	_	_	(7)	(803)	_
Depreciation, depletion and amortization	(8,611)	(50)	_	_	(50)	(8,661)	(57)
.,	(-,- ,	()			()	(2,22)	(-
Impairment of oil and gas properties	(7,364)	-	-	-	-	(7,364)	-
Other operating expenses	(885)	(2)	(167)	(26)	(195)	(1,080)	(158)
Results before income tax expenses	7,253	(10)	(167)	(26)	(203)	7,050	(121)
Income tax expenses	(2,466)	3	57	9	69	(2,398)	41
Results of operations (excluding corporate	4.700	(7)	(440)	(47)	(404)	4.050	(0.0
December 31, 2019	4,786	(7)	(110)	(17)	(134)	4,652	(80)
Net operation revenues:							
	888	174	_	_	17/	1.060	1 11 /
Sales to third parties					174	1,062	1,114
Intersegment	49,400	474			474	49,400	4 44 4
Deschustion costs	50,288	174	-	-	174	50,462	1,114
Production costs	(15,749)	(69)	-	-	(69)	(15,818)	(124)
Exploration expenses	(793)	(6)	-	(42)	(6)	(799)	(5)
Depreciation, depletion and amortization	(11,436)	(37)	-	(13)	(50)	(11,486)	(292)
Impairment of oil and gas properties	(1,535)	_	_	(421)	(421)	(1,956)	-
Other operating expenses	(1,420)	(13)	41	(34)	(6)	(1,426)	(20)
Results before income tax expenses	19,354	50	41	(468)	(377)	18,977	672
Income tax expenses	(6,579)	(17)	(14)	159	128	(6,451)	(229)
Results of operations (excluding corporate overhead and interest costs)	12,775	33	27	(309)	(249)	12,526	443

Supplementary information on Oil and Gas Exploration and Production (unaudited)

(Expressed in millions of US Dollars, unless otherwise indicated)

### (iv) Reserve quantities information

As presented in note 4.1, proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations – prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain. The project to extract the hydrocarbons must have commenced or there must be reasonable certainty that the project will commence within a reasonable time. Reserves estimate involves a high degree of judgment and complexity and its application affects different items of these Financial Statements.

The Company's estimated net proved oil and gas reserves and changes thereto for the years 2021, 2020 and 2019 are presented in the following table. Proved reserves are estimated in accordance with the reserve definitions prescribed by the Securities and Exchange Commission.

Proved developed oil and gas reserves are proved reserves that can be expected to be recovered: (i) through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared to the cost of a new well; and (ii) through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is done by means not involving a well.

Proved reserves for which substantial new investments in additional wells and related facilities will be required are named proved undeveloped reserves.

Reserve estimates are subject to variations due to technical uncertainties in the reservoir and changes in economic scenarios. A summary of the annual changes in the proved reserves of oil is as follows (in millions of barrels):

Proved developed and undeveloped reserves(*)			C	Consolidated Entities	Equity Met	hod Investees	
	Crude oil in Brazil	Crude Oil in South America	Synthetic Oil in Brazil	Consolidated Total	Crude Oil in North America	Crude Oil in Africa	Total
Reserves at December 31, 2018 (1)	8,169	2	5	8,175	27	60	8,262
Revisions of previous estimates	719	-	-	719	1	(7)	713
Extensions and discoveries	18	-	4	21	-	1	22
Improved Recovery	-	-	-	-	-	-	-
Sales of reserves	(68)	_	-	(68)	-	-	(68)
Purchases of reserves	-	-	-	-	-	-	-
Production for the year	(754)	-	(1)	(755)	(5)	(12)	(772)
Reserves at December 31, 2019 (1)	8,083	1	8	8,092	23	42	8,156
Revisions of previous estimates	269	(1)	(7)	261	_	-	261
Extensions and discoveries	35	_	_	35	_	-	35
Improved Recovery	-	-	-	-	-	-	-
Sales of reserves	(61)	_	_	(61)	_	(41)	(102)
Purchases of reserves	-	-	-	-	-	-	-
Production for the year	(792)	_	(1)	(793)	(4)	(1)	(798)
Reserves at December 31, 2020	7,534	-	-	7,534	18	-	7,552
Extensions and discoveries	-	-	-	-	-	-	-
Revisions of previous estimates	1,654	2	11	1,667	1	-	1,668
Sales of reserves	(9)	_	-	(9)	_	-	(9)
Production for the year	(773)	-	(1)	(774)	(3)	-	(777)
Reserves at December 31, 2021	8,406	2	10	8,419	17	-	8,435

<sup>(1)</sup> In 2018, total proved reserves includes 60 million barrels related to PO&G assets held for sale. In 2019, total proved reserves include 42 million barrels of assets held for sale (PO&G)

 $<sup>(\</sup>sp{*})$  Apparent differences in the sum of the numbers are due to rounding off.

Supplementary information on Oil and Gas Exploration and Production (unaudited) (Expressed in millions of US Dollars, unless otherwise indicated)

A summary of the annual changes in the proved reserves of natural gas is as follows (in billions of cubic feet):

Proved developed and undeveloped reserves (*)			Cons	Consolidated Entities Equity Method Investees				
	Natural Gas in Brazil	Natural Gas in South America	Synthetic Gas in Brazil	Consolidated Total	Gas Natural in North America	Gas Natural in Africa	Total	
Reserves at December 31, 2018 (1)	7,790	214	6	8,010	11	47	8,068	
Revisions of previous estimates	1,416	(42)	-	1,373	-	11	1,384	
Extensions and discoveries	15	-	8	23	-	-	23	
Improved Recovery	-	-	-	-	-	-	-	
Sales of reserves	(24)	-	-	(24)	-	-	(24)	
Purchases of reserves	-	-	-	-	-	-	-	
Production for the year	(817)	(16)	(1)	(834)	(2)	(11)	(847)	
Reserves at December 31, 2019 (1)	8,381	156	12	8,549	9	47	8,605	
Revisions of previous estimates	(93)	(119)	(11)	(222)	_	-	(222)	
Extensions and discoveries	36	-	-	36	-	-	36	
Improved Recovery	-	-	-	-	-	-	-	
Sales of reserves	(42)	-	-	(42)	-	(47)	(90)	
Purchases of reserves	-	-	-	-	-	-	-	
Production for the year	(735)	(12)	(1)	(749)	(2)	-	(750)	
Reserves at December 31, 2020	7,547	26	-	7,572	8	-	7,580	
Extensions and discoveries	-	-	-	-	-	-	-	
Revisions of previous estimates	1,615	167	19	1,802	-	-	1,802	
Sales of reserves	(15)	-	_	(15)	-	-	(15)	
Production for the year	(692)	(16)	(1)	(709)	(1)	-	(710)	
Reserves at December 31, 2021	8,455	177	18	8,650	7	-	8,657	

<sup>(1)</sup> In 2018, total proved reserves includes 47 billion cubic feet related to Africa assets held for sale. In 2019, total proved reserves includes 47 billion cubic feet related to Africa assets held for sale.

Natural gas production volumes used in these tables are the net volumes withdrawn from our proved reserves, including gas consumed in operations and excluding reinjected gas. Our disclosure of proved gas reserves includes gas consumed in operations, which represent 36% of our total proved reserves of natural gas as of December 31, 2021.

 $<sup>(\</sup>sp{*})$  Apparent differences in the sum of the numbers are due to rounding off.

Supplementary information on Oil and Gas Exploration and Production (unaudited)

(Expressed in millions of US Dollars, unless otherwise indicated)

The tables below summarize information about the changes in total proved reserves of crude oil and natural gas, in millions of barrels of oil equivalent, in our consolidated entities and equity method investees for 2021, 2020 and 2019:

Proved developed and undeveloped reserves(*)		Consolidated Entities Equity Method Investees						
	Oil equivalent in Brazil	Oil equivalent in South America	Synthetic Oil in Brazil	Consolidated Total	Oil equivalent in North America	Oil equivalent in Africa	Total	
Reserves at December 31, 2018 (1)	9,467	37	6	9,510	28	68	9,606	
Revisions of previous estimates	955	(7)	-	948	1	(5)	944	
Extensions and discoveries	20	-	5	25	_	1	26	
Improved Recovery	-	-	-	-	_	-	-	
Sales of reserves	(72)	_	-	(72)	-	-	(72)	
Purchases of reserves	-	_	_	_	-	-	_	
Production for the year	(890)	(3)	(1)	(894)	(5)	(14)	(913)	
Reserves at December 31, 2019 (1)	9,480	27	10	9,517	24	49	9,590	
Revisions of previous estimates	253	(21)	(9)	224	-	-	224	
Extensions and discoveries	41	_	_	41	_	-	41	
Improved Recovery	_	_	-	_	-	-	-	
Sales of reserves	(68)	-	-	(68)	-	(49)	(117)	
Purchases of reserves	-	_	_	_	-	-	_	
Production for the year	(914)	(2)	(1)	(918)	(5)	(1)	(923)	
Reserves at December 31, 2020	8,792	5	-	8,796	19	-	8,816	
Extensions and discoveries	-	-	-	-	1	-	1	
Revisions of previous estimates	1,923	30	14	1,967	2	-	1,969	
Sales of reserves	(11)	_	-	(11)	-	-	(11)	
Production for the year	(888)	(3)	(1)	(892)	(3)	-	(896)	
Reserves at December 31, 2021	9,816	31	13	9,860	18	-	9,878	

<sup>(1)</sup> In 2018, includes 68 million barrels of oil equivalent related to PO&G assets held for sale in Africa; and in 2019, includes 49 million barrels of oil equivalent related to assets held for sale in Africa

In 2021, we incorporated 1,969 million boe of proved reserves by revising previous estimates, including:

- (i) addition of 1,376 million boe due to new projects, mainly in Búzios field and in other fields in the Santos and Campos Basins. The new projects in Búzios field were made possible due to the acquisition of the Transfer of Rights Surplus and the approval of Búzios Coparticipation Agreement;
- (ii) addition of 429 million boe related to economic revisions, mainly due to the increase in oil prices; and
- (iii) addition of 164 million boe arising from technical revisions, mainly due to good performance and increased production experience in reservoirs in the pre-salt layer of Santos Basin.

The additions in our proved reserves were partially offset by the reduction of 11 million boe due to sales of proved reserves.

The company's total proved reserve resulted in 9,878 million boe in 2021, considering the variations above and the reduction from 2021 production of 896 million boe. Production refers to volumes that were previously included in our reserves and, therefore, does not consider natural gas liquids, since the reserve is estimated at a reference point prior to gas processing, except in the United States and Argentina. The production also does not consider volumes of injected gas, the production of Extended Well Tests in exploratory blocks and production in Bolivia, since the Bolivian Constitution does not allow the disclosure of reserves.

In 2020, we incorporated 224 million boe of proved reserves by revising previous estimates, including:

- (i) addition of 637 million boe arising from technical revisions, mainly due to good performance and increased production experience in reservoirs in the pre-salt layer of Santos Basin;
- (ii) addition of 254 million boe due to approvals of new projects in the Santos and Campos Basins; and
- (iii) reduction of 667 million boe related to economic revisions, mainly due to the decrease in oil prices.

 $<sup>(\</sup>mbox{\ensuremath{^{\star}}})$  Apparent differences in the sum of the numbers are due to rounding off.

Supplementary information on Oil and Gas Exploration and Production (unaudited)

(Expressed in millions of US Dollars, unless otherwise indicated)

In addition, we added 41 million boe to our proved reserves due to extensions and discoveries in the pre-salt of Santos Basin, and reduced 117 million boe due to sales of proved reserves.

The company's total proved reserve resulted in 8,816 million boe in 2020, considering the variations above and the reduction from 2020 production of 923 million boe. Production refers to volumes that were previously included in our reserves and, therefore, does not consider natural gas liquids, since the reserve is estimated at a reference point prior to gas processing, except in the United States and Argentina. The production also does not consider volumes of injected gas, the production of Extended Well Tests in exploratory blocks and production in Bolivia, since the Bolivian Constitution does not allow the disclosure of reserves.

In 2019, we incorporated 944 million boe of reserves proved by revisions of previous estimates, composed of:

- (i) addition of 529 million boe due to technical reviews, mainly associated with good performance and increased production experience of presalt reservoirs in the Santos Basin;
- (ii) addition of 267 million boe referring to contractual revisions, including the reallocation of volumes due to the revision of the Transfer of Rights agreement, and the extension of concession contracts in Brazil;
- (iii) addition of 243 million boe due to the approval of new projects in the Santos, Campos and Espírito Santo Basins; and
- (iv) a 95 million boe reduction due to economic revisions, mainly due to the price reduction.

We also incorporated 26 million boe into our proved reserves due to discoveries and extensions, mainly in the Santos Basin pre-salt, and reduced 72 million boe from our proved reserves due to proved reserve sales.

Considering the production of 913 million boe in 2019 and the variations above, the company's total proved reserve resulted in 9,590 million boe in 2019. Production refers to volumes that were included in our reserves and, therefore, does not consider natural gas liquids, since the reserve is estimated at a reference point prior to gas processing, except in the United States and Argentina. The production also does not consider volumes of injected gas, the production of Extended Well Tests in exploratory blocks and production in Bolivia, since the Bolivian Constitution does not allow the disclosure of reserves.

Supplementary information on Oil and Gas Exploration and Production (unaudited) (Expressed in millions of US Dollars, unless otherwise indicated)

The tables below present the volumes of proved developed and undeveloped reserves, net, that is, reflecting Petrobras' participation:

					2019
	Crude Oil	Synthetic Oil	Natural Gas	Synthetic Gas	Total oil and gas
	(n	ımbbl)	(bn	cf)	(mmboe)
Net proved developed reserves (*):					
Consolidated Entities					
Brazil	4,999	8	5,716	12	5,961
South America, outside Brazil (2)	1	-	67	_	12
Total Consolidated Entities	5,000	8	5,783	12	5,973
Equity Method Investees					
North America (2)	18	-	7	-	19
Africa	37	_	45	_	45
Total Equity Method Investees	55	-	52	-	64
Total Consolidated and Equity Method Investees (1)	5,055	8	5,834	12	6,037
Net proved undeveloped reserves (*):					
Consolidated Entities					
Brazil	3,084	-	2,665	-	3,528
South America, outside Brazil (2)	1	-	89	_	15
Total Consolidated Entities	3,084	-	2,754	-	3,543
Equity Method Investees					
North America (2)	4	-	2	-	5
Africa	4	_	2	_	5
Total Equity Method Investees	9	-	5	-	10
Total Consolidated and Equity Method Investees (1)	3,093	-	2,759	-	3,553
Total proved reserves (developed and undeveloped)	8,148	8	8,593	12	9,590

<sup>(1)</sup> It includes amounts related to assets held for sale (37 million barrels of oil and 45 billion cubic feet of natural gas in net proved developed reserves and 4 million barrels of oil and 2 billion cubic feet of natural gas in net proved undeveloped reserves) in Africa (PO&G).

<sup>(2)</sup> South America oil reserves includes 20% of natural gas liquid (NGL) in proved developed reserves and 59% of NGL in proved undeveloped reserves. North America oil reserves includes 4 % of natural gas liquid (NGL) in proved developed reserves and 59% of NGL in proved undeveloped reserves.

<sup>(\*)</sup> Apparent differences in the sum of the numbers are due to rounding off.

Supplementary information on Oil and Gas Exploration and Production (unaudited) (Expressed in millions of US Dollars, unless otherwise indicated)

					2020
	Crude Oil	Synthetic Oil	Natural Gas	Synthetic Gas	Total oil and gas
	(m	nmbbl)	(bno	cf)	(mmboe)
Net proved developed reserves (*):					
Consolidated Entities					
Brazil	4,858	-	5,714	-	5,810
South America, outside Brazil (1)	_	_	26	_	5
Total Consolidated Entities	4,858	-	5,740	-	5,815
Equity Method Investees					
North America (1)	17	-	7	-	18
Total Equity Method Investees	17	_	7	_	18
Total Consolidated and Equity Method Investees	4,875	-	5,747	-	5,833
Net proved undeveloped reserves (*):					
Consolidated Entities					
Brazil	2,676	-	1,833	-	2,982
South America, outside Brazil (1)	-	-	-	-	-
Total Consolidated Entities	2,676	-	1,833	-	2,982
Equity Method Investees					
North America (1)	1	-	1	-	1
Total Equity Method Investees	1	-	1	-	1
Total Consolidated and Equity Method Investees	2,678	-	1,833	-	2,983
Total proved reserves (developed and undeveloped)	7,552	_	7,580	_	8,816

<sup>(1)</sup> South America oil reserves includes 21% of natural gas liquid (NGL) in proved developed reserves. North America oil reserves includes 6% of natural gas liquid (NGL) in proved developed reserves and 5% of NGL in proved undeveloped reserves.

 $<sup>(\</sup>mbox{\ensuremath{^{'}}}\xspace)$  Apparent differences in the sum of the numbers are due to rounding off.

					2021
	Crude Oil	Synthetic Oil	Natural Gas	Synthetic Gas	Total oil and gas
	(m	nmbbl)	(bno	ef)	(mmboe)
Net proved developed reserves (*):					
Consolidated Entities					
Brazil	4,711	10	5,591	18	5,656
South America, outside Brazil (1)	1	_	79	-	14
Total Consolidated Entities	4,712	10	5,670	18	5,670
Equity Method Investees					
North America (1)	15	-	6	-	16
Total Equity Method Investees	15	-	6	-	16
Total Consolidated and Equity Method Investees	4,727	10	5,676	18	5,686
Net proved undeveloped reserves (*):					
Consolidated Entities					
Brazil	3,695	_	2,865	-	4,173
South America, outside Brazil (1)	1	_	98	-	17
Total Consolidated Entities	3,696	-	2,963	-	4,190
Equity Method Investees					
North America (1)	2	_	1	-	2
Total Equity Method Investees	2	-	1	-	2
Total Consolidated and Equity Method Investees	3,698	-	2,964	-	4,192
Total proved reserves (developed and undeveloped)	8,425	10	8,640	18	9,878

<sup>(1)</sup> South America oil reserves includes 24% of natural gas liquid (NGL) in proved developed reserves and 24% of NGL in proved undeveloped reserves. North America oil reserves includes 2% of natural gas liquid (NGL) in proved developed reserves and 3% of NGL in proved undeveloped reserves.

 $<sup>(\</sup>mbox{\ensuremath{^{'}}}\xspace)$  Apparent differences in the sum of the numbers are due to rounding off.

Supplementary information on Oil and Gas Exploration and Production (unaudited) (Expressed in millions of US Dollars, unless otherwise indicated)

#### (v) Standardized measure of discounted future net cash flows relating to proved oil and gas quantities and changes therein

The standardized measure of discounted future net cash flows, related to the above proved oil and gas reserves, is calculated in accordance with the requirements of Codification Topic 932 – Extractive Activities – Oil and Gas.

Estimated future cash inflows from production in Brazil are computed by applying the average price during the 12-month period prior to the ending date of the period covered by the report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions. Future price changes are limited to those provided by contractual arrangements existing at the end of each reporting year. Future development and production costs are those estimated future expenditures necessary to develop and produce year-end estimated proved reserves based on current costs, assuming continuing economic conditions. Estimated future income taxes (including future social contributions on net income - CSLL) are calculated by applying appropriate year-end statutory tax rates. The amounts presented as future income taxes expenses reflect allowable deductions considering statutory tax rates. Discounted future net cash flows are calculated using 10% mid-period discount factors. This discounting requires a year-by-year estimate of when the future expenditures will be incurred and when the reserves will be produced.

The valuation prescribed under Codification Topic 932 – Extractive Activities – Oil and Gas requires assumptions as to the timing and amount of future development and production costs. The calculations are made as of December 31 each year and should not be relied upon as an indication of Petrobras' future cash flows or the value of its oil and gas reserves.

Supplementary information on Oil and Gas Exploration and Production (unaudited) (Expressed in millions of US Dollars, unless otherwise indicated)

# Standardized measure of discounted future net cash flows:

_		idated entities				
				Abroad		
	Brazil	South America	North America	Total	Total	Equity Method Investees (2
December 31, 2021						
Future cash inflows	612,924	587	-	587	613,511	1,129
Future production costs	(264,158)	(261)	-	(261)	(264,419)	(329)
Future development costs	(44,027)	(107)	-	(107)	(44,134)	(28)
Future income tax expenses	(104,568)	(61)	-	(61)	(104,628)	
Undiscounted future net cash flows	200,171	159	-	159	200,330	772
10 percent midyear annual discount for timing of estimated cash flows (1)	(85,391)	(70)	-	(70)	(85,461)	(303)
Standardized measure of discounted future net cash flows	114,780	89		89	114,869	470
December 31, 2020						
Future cash inflows	333,248	69	-	69	333,317	667
Future production costs	(182,534)	(51)	-	(51)	(182,585)	(465)
Future development costs	(31,236)	(16)	-	(16)	(31,252)	(48)
Future income tax expenses	(46,862)	-	-	-	(46,862)	(79
Undiscounted future net cash flows	72,616	2	-	2	72,618	75
10 percent midyear annual discount for timing of estimated cash flows (1)	(26,638)	-	-	-	(26,638)	(1)
Standardized measure of discounted future net cash flows	45,978	1		1	45,979	74
December 31, 2019						
Future cash inflows	535,788	609	-	609	536,397	4,045
Future production costs	(272,381)	(285)	-	(285)	(272,666)	(1,349
Future development costs	(34,346)	(141)	-	(141)	(34,487)	(515)
Future income tax expenses	(86,012)	(31)	-	(31)	(86,044)	(438)
Undiscounted future net cash flows	143,049	152	-	152	143,200	1,743
10 percent midyear annual discount for timing of estimated cash flows (1)	(54,928)	(83)	_	(83)	(55,010)	(332)
Standardized measure of discounted future net cash flows	88,121	69	-	69	88,190	1,412

<sup>(1)</sup> Semiannual capitalization

<sup>(2)</sup> It includes the amount of US\$ 1,047 related to PO&G assets classified as held for sale in 2019.

Apparent differences in the sum of the numbers are due to rounding off.

Supplementary information on Oil and Gas Exploration and Production (unaudited) (Expressed in millions of US Dollars, unless otherwise indicated)

# Changes in discounted net future cash flows:

				Consoli	dated entities	
_	_			Abroad		
	Brazil	South America	North America	Total	Total	Equity Method Investees (1)
Balance at January 1, 2021	45,978	1	-	1	45,979	74
	,				,	
Sales and transfers of oil and gas, net of production cost	(38,074)	(43)	_	(43)	(38,117)	(177)
Development cost incurred	6,035	44	-	44	6,079	37
·						
Net change due to purchases and sales of minerals in place	(246)	_	_	-	(246)	-
Net change due to extensions, discoveries and improved recovery related costs	_	_	_	_	_	10
Revisions of previous quantity estimates	41,211	205	-	205	41,416	30
Net change in prices, transfer prices and in production costs	108,268	58	-	58	108,326	401
Changes in estimated future development costs	(19,900)	(119)	-	(119)	(20,019)	
Accretion of discount	4,598	_	-	-	4,598	49
Net change in income taxes	(33,089)	(47)	-	(47)	(33,136)	48
Other - unspecified	_	(9)	_	(9)	(9)	(7
Balance at December 31, 2021	114,780	89	-	89	114,869	470
Balance at January 1, 2020	88,121	69	-	69	88,190	1,412
Sales and transfers of oil and gas, net of production cost	(24,908)	(14)	_	(14)	(24,922)	(94
Development cost incurred	5,664	3	_	3	5,666	5
	-,				.,	
Net change due to purchases and sales of minerals in place	(847)	-	-	-	(847)	(1,047
Net change due to extensions, discoveries and improved recovery related costs	509	_	_	_	509	
Revisions of previous quantity estimates	3,160	(35)	-	(35)	3,125	(10
Net change in prices, transfer prices and in production costs	(54,606)	(145)	_	(145)	(54,751)	(375
Changes in estimated future development costs	(4,716)	97	_	97	(4,618)	6
Accretion of discount	8,812	9	_	9	8,821	12
Net change in income taxes	24,788	24	_	24	24,812	5
Other - unspecified		(7)	_	(7)	(7)	
Balance at December 31, 2020	45,978	1	_	1	45,979	74
Balance at January 1, 2019	111,121	185	_	185	111,305	2,29
• •						
Sales and transfers of oil and gas, net of production cost	(34,522)	(65)	-	(65)	(34,587)	(792
Development cost incurred	6,819	6	-	6	6,826	15
Net change due to purchases and sales of minerals in place	(1,387)	_	_	_	(1,387)	
Net change due to extensions, discoveries and improved						
recovery related costs	385	-	-	-	385	
Revisions of previous quantity estimates	18,317	(44)	-	(44)	18,273	
Net change in prices, transfer prices and in production costs	(34,114)	(145)	_	(145)	(34,259)	(505
Changes in estimated future development costs	(5,324)	60	-	60	(5,265)	(97
Accretion of discount	11,112	25	-	25	11,137	244
Net change in income taxes	15,714	41	_	41	15,755	363
Other - unspecified		7	_	7	7	(249
Balance at December 31, 2019	88,121	69	-	69	88,190	1,412

(1) It includes the amount of US\$ 1,675 related to PO&G assets classified as held for sale at January 1st, 2019. Includes the amount of US\$ 1,047 related to PO&G assets classified as held for sale at December 31, 2019.

Apparent differences in the sum of the numbers are due to rounding off.