



Financial Statements 2022

PETRÓLEO BRASILEIRO S.A. - PETROBRAS

December 31, 2022, 2021 and 2020 with the report of independent auditors

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Consolidated Statements of Financial Position

PETROBRAS

As of December 31, 2022 and December 31, 2021 (Expressed in millions of US Dollars, unless otherwise indicated)

Assets	Note	12.31.2022	12.31.2021
Cash and cash equivalents	7.1	7,996	10,467
Marketable securities	7.2	2,773	650
Trade and other receivables	13.1	5,010	6,368
Inventories	14	8,779	7,255
Recoverable income taxes	16.1	165	163
Other recoverable taxes	16.2	1,142	1,183
Others	20	1,777	1,573
		27,642	27,659
Assets classified as held for sale	30	3,608	2,490
Current assets		31,250	30,149
Trade and other receivables	13.1	2,440	1,900
Marketable securities	7.2	1,564	44
Judicial deposits	18.2	11,053	8,038
Deferred income taxes	16.1	832	604
Other recoverable taxes	16.2	3,778	3,261
Others	20	1,553	487
Long-term receivables		21,220	14,334
Investments	29	1,566	1,510
Property, plant and equipment	23	130,169	125,330
Intangible assets	24	2,986	3,025
Non-current assets		155,941	144,199
Total assets		187,191	174,348
Liabilities	Note	12.31.2022	12.31.2021
Trade payables	15	5,464	5,483
Finance debt	31.1	3,576	3,641
Lease liability	32	5,557	5,432
Income taxes payable	16.1	2,883	733
Other taxes payable	16.2	3,048	4,001
Dividends payable	33.4	4,171	–
Employee benefits	17	2,215	2,144
Others	20	3,001	1,875
		29,915	23,309
Liabilities related to assets classified as held for sale	30	1,465	867
Current liabilities		31,380	24,176
Finance debt	31.1	26,378	32,059
Lease liability	32	18,288	17,611
Income taxes payable	16.1	302	300
Deferred income taxes	16.1	6,750	1,229
Employee benefits	17	10,675	9,374
Provisions for legal proceedings	18.1	3,010	2,018
Provision for decommissioning costs	19	18,600	15,619
Others	20	1,972	2,150
Non-current liabilities		85,975	80,360
Current and non-current liabilities		117,355	104,536
Share capital (net of share issuance costs)	33.1	107,101	107,101
Capital reserve and capital transactions		1,144	1,143
Profit reserves	33.4	66,434	72,811
Accumulated other comprehensive (deficit)		(105,187)	(111,648)
Attributable to the shareholders of Petrobras		69,492	69,407
Non-controlling interests	29.4	344	405
Equity		69,836	69,812
Total liabilities and equity		187,191	174,348

The notes form an integral part of these financial statements.

Consolidated Statements of Income

PETROBRAS

Years ended December 31, 2022, 2021 and 2020 (Expressed in millions of US Dollars, unless otherwise indicated)

	Note	2022	2021	2020
Sales revenues	8	124,474	83,966	53,683
Cost of sales	9.1	(59,486)	(43,164)	(29,195)
Gross profit		64,988	40,802	24,488
Income (expenses)				
Selling expenses	9.2	(4,931)	(4,229)	(4,884)
General and administrative expenses	9.3	(1,332)	(1,176)	(1,090)
Exploration costs	26	(887)	(687)	(803)
Research and development expenses		(792)	(563)	(355)
Other taxes		(439)	(406)	(952)
Impairment (losses) reversals	25	(1,315)	3,190	(7,339)
Other income and expenses, net	10	1,822	653	998
		(7,874)	(3,218)	(14,425)
Income before net finance expense, results of equity-accounted investments and income taxes		57,114	37,584	10,063
Finance income		1,832	821	551
Finance expenses		(3,500)	(5,150)	(6,004)
Foreign exchange gains (losses) and inflation indexation charges		(2,172)	(6,637)	(4,177)
Net finance expense	11	(3,840)	(10,966)	(9,630)
Results of equity-accounted investments	29	251	1,607	(659)
Net income (loss) before income taxes		53,525	28,225	(226)
Income taxes	16.1	(16,770)	(8,239)	1,174
Net income for the year		36,755	19,986	948
Net income attributable to shareholders of Petrobras		36,623	19,875	1,141
Net income (loss) attributable to non-controlling interests		132	111	(193)
Basic and diluted earnings per common and preferred share - in U.S. dollars	33	2.81	1.52	0.09

The notes form an integral part of these financial statements.

Consolidated Statements of Comprehensive Income

PETROBRAS

Years ended December 31, 2022, 2021 and 2020 (Expressed in millions of US Dollars, unless otherwise indicated)

		2022	2021	2020
Net income for the year		36,755	19,986	948
Items that will not be reclassified to the statement of income:				
Actuarial gains (losses) on post-employment defined benefit plans	17.3			
Recognized in equity		(1,583)	5,169	2,415
Deferred income tax		212	(1,340)	(127)
		(1,371)	3,829	2,288
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 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	34.3			
Recognized in equity		5,223	(3,949)	(21,460)
Reclassified to the statement of income		4,871	4,585	4,720
Deferred income tax		(3,432)	(215)	5,690
		6,662	421	(11,050)
Translation adjustments (*)				
Recognized in equity		975	(1,314)	(5,211)
Reclassified to the statement of income		-	41	-
		975	(1,273)	(5,211)
Share of other comprehensive income (loss) in equity-accounted investments				
Recognized in equity	29.2	219	22	(378)
Reclassified to the statement of income		-	-	43
		219	22	(335)
Other comprehensive income (loss)		6,485	2,999	(14,263)
Total comprehensive income (loss)		43,240	22,985	(13,315)
Comprehensive income (loss) attributable to shareholders of Petrobras		43,084	22,961	(13,126)
Comprehensive income (loss) attributable to non-controlling interests		156	24	(189)

(*) It includes cumulative translation adjustments in associates and joint ventures.

The notes form an integral part of these financial statements.

Consolidated Statements of Cash Flows

PETROBRAS

Years ended December 31, 2022, 2021 and 2020 (Expressed in millions of US Dollars, unless otherwise indicated)

	Note	2022	2021	2020
Cash flows from operating activities				
Net income for the year		36,755	19,986	948
Adjustments for:				
Pension and medical benefits - actuarial gains (expense)	17	1,228	2,098	(1,001)
Results of equity-accounted investments	29.3	(251)	(1,607)	659
Depreciation, depletion and amortization	37.1	13,218	11,695	11,445
Impairment of assets (reversals)	25	1,315	(3,190)	7,339
Inventory write-down (write-back) to net realizable value	14	11	(1)	375
Allowance (reversals) for credit loss on trade and other receivables		65	(30)	144
Exploratory expenditure write-offs	26	691	248	456
Disposal/write-offs of assets, remeasurement of investment retained with loss of control and reclassification of CTA		(1,144)	(1,900)	(456)
Foreign exchange, indexation and finance charges		4,557	10,795	11,094
Income taxes	16.1	16,770	8,239	(1,174)
Revision and unwinding of discount on the provision for decommissioning costs	19	745	661	981
PIS and COFINS recovery - exclusion of ICMS (VAT tax) from the basis of calculation		(1)	(986)	(3,173)
Results from co-participation agreements in bid areas	24	(4,286)	(631)	-
Assumption of interest in concessions		-	(164)	-
Early termination and cash outflows revision of lease agreements		(629)	(545)	(276)
(Gains) losses with legal, administrative and arbitration proceedings, net	10	1,362	740	493
Decrease (Increase) in assets				
Trade and other receivables		355	(2,075)	1
Inventories		(1,217)	(2,334)	724
Judicial deposits		(1,709)	(1,141)	(945)
Other assets		(413)	(289)	159
Increase (Decrease) in liabilities				
Trade payables		(359)	1,073	216
Other taxes payable		(2,441)	2,835	2,677
Pension and medical benefits		(2,130)	(2,239)	(1,048)
Provisions for legal proceedings		(380)	(643)	(668)
Short-term benefits		(182)	(312)	781
Provision for decommissioning costs		(602)	(730)	(482)
Other liabilities		(95)	376	(47)
Income taxes paid		(11,516)	(2,138)	(332)
Net cash provided by operating activities		49,717	37,791	28,890
Cash flows from investing activities				
Acquisition of PP&E and intangible assets		(9,581)	(6,325)	(5,874)
Investments in investees		(27)	(24)	(942)
Proceeds from disposal of assets - Divestment		4,846	4,783	1,997
Financial compensation from co-participation agreements	24	7,284	2,938	-
Divestment (Investment) in marketable securities		(3,328)	4	66
Dividends received		374	781	243
Net cash provided by (used in) investing activities		(432)	2,157	(4,510)
Cash flows from financing activities				
Changes in non-controlling interest		63	(24)	(67)
Proceeds from finance debt	31.3	2,880	1,885	17,023
Repayment of principal - finance debt	31.3	(9,334)	(21,413)	(25,727)
Repayment of interest - finance debt	31.3	(1,850)	(2,229)	(3,157)
Repayment of lease liability	32	(5,430)	(5,827)	(5,880)
Dividends paid to Shareholders of Petrobras		(37,701)	(13,078)	(1,367)
Dividends paid to non-controlling interests		(81)	(105)	(84)
Net cash used in financing activities		(51,453)	(40,791)	(19,259)
Effect of exchange rate changes on cash and cash equivalents		(316)	(402)	(773)
Net change in cash and cash equivalents		(2,484)	(1,245)	4,348
Cash and cash equivalents at the beginning of the period		10,480	11,725	7,377
Cash and cash equivalents at the end of the period		7,996	10,480	11,725

The notes form an integral part of these financial statements.

Consolidated Statements of Changes In Shareholders' Equity

PETROBRAS

Years ended December 31, 2022, 2021 and 2020 (Expressed in millions of US Dollars, unless otherwise indicated)

	Share capital (net of share issuance costs)			Accumulated other comprehensive income (deficit) and deemed cost				Profit Reserves								
	Share Capital	Share issuance costs	Capital reserve, Capital Transactions and Treasury shares	Cumulative translation adjustments	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, 2020	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
		107,101	1,064				(114,734)					65,917	-	59,348	528	59,876
Capital increase with reserves	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
Capital transactions	-	-	79	-	-	-	-	-	-	-	-	-	-	79	(40)	39
Net income	-	-	-	-	-	-	-	-	-	-	-	-	19,875	19,875	111	19,986
Other comprehensive income (loss)	-	-	-	(1,186)	421	3,829	22	-	-	-	-	-	-	3,086	(87)	2,999
Appropriations:																
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
Capital transactions	-	-	1	-	-	-	-	-	-	-	-	-	-	1	(146)	(145)
Net income	-	-	-	-	-	-	-	-	-	-	-	-	36,623	36,623	132	36,755
Other comprehensive income (loss)	-	-	-	951	6,662	(1,371)	219	-	-	-	-	-	-	6,461	24	6,485
Expired unclaimed dividends	-	-	-	-	-	-	-	-	-	-	-	-	11	11	-	11
Appropriations:																
Additional dividends proposed last year approved this year	-	-	-	-	-	-	-	-	-	-	-	(6,688)	-	(6,688)	-	(6,688)
Transfer to reserves	-	-	-	-	-	-	-	1,805	197	457	71	-	(2,530)	-	-	-
Dividends	-	-	-	-	-	-	-	-	-	-	(9,083)	6,864	(34,104)	(36,323)	(71)	(36,394)
Balance at December 31, 2022	107,380	(279)	1,144	(74,171)	(17,507)	(12,576)	(933)	11,574	3,281	1,677	43,038	6,864	-	69,492	344	69,836
		107,101	1,144				(105,187)					66,434	-	69,492	344	69,836

The notes form an integral part of these financial statements.

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 of 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 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 March 1, 2023.

2.2. 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/22	Sep/22	Jun/22	Mar/22	Dec/21	Sep/21	Jun/21	Mar/21	Dec/20	Sep/20	Jun/20	Mar/20
Quarterly average exchange rate	5.26	5.25	4.93	5.23	5.59	5.23	5.29	5.48	5.39	5.38	5.39	4.47
Period-end exchange rate	5.22	5.41	5.24	4.74	5.58	5.44	5.00	5.70	5.20	5.64	5.48	5.20

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 may also result from significant changes in the Company's strategy for development projects 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 differences between the reserves estimated by ANP/SPE definitions and those estimated using SEC regulation are mainly due to different economic assumptions and the possibility of considering as reserves the volumes expected to be produced beyond the concession contract expiration date in fields in Brazil according to ANP reserves regulation.

According to the definitions prescribed by the SEC, 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 feasible from a given date, 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, or when 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.

Although the Company is reasonably certain that proved reserves will be produced, the timing and amount recovered can be affected by a sort 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 the 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 4.5 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. Impairment testing

4.2.1. 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 the Organization of the Petroleum Exporting Countries (OPEC) decisions on the oil market, industry costs, idle capacity, the oil and gas production forecasted by specialized firms, and 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 consider 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 losses or reversals on certain assets or cash generating units - CGUs. For example, the Company's sales revenues 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 losses on these assets, as described in note 25.

4.2.2. 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 CGUs resulting from the review of investment, strategic or operational factors, may result in changes in the interdependencies of assets and, consequently, alter the aggregation or breakdown of assets that were part of certain CGUs, which may influence their ability to generate cash and cause additional losses or reversals in the recovery of such assets. If the approval for the sale of a CGU's component occurs between the reporting date and the date of the issuance of the consolidated financial statements, the Company reassesses whether the value in use of this component, estimated with the information existing at the reporting date, reasonably represents its fair value, net of disposal expenses. Such information must include evidence of the stage at which management was committed to the sale of the CGU's component.

The primary considerations in 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, 2022, Exploration and Production CGUs in Brazil had 37 fields and 15 groups of fields. Changes in the aggregation of CGUs occurred in 2022 are presented as follows:

- North group of fields: exclusion of platforms P-18, P-19, P-20, P-35 and P-47 from this CGU, due to management's decision to sell and definitively cease the operations of these platforms in the Marlim field. Each of these platforms is now assessed for impairment separately; and
- Oil and gas fields and groups of fields: exclusion of Alto Rodrigues, Canto do Amaro, Barrinha, Benfica, CMR and Fazenda Alegria groups of fields, as well as several other fields, mainly in the states of Bahia, Rio Grande do Norte and Ceará (31 concessions in total), due to their divestment processes. Right after the signature of the agreements for the sale of these concessions, the corresponding assets were transferred to assets classified as held for sale (see note 30.1).

ii) Equipment not related to oil and gas producing properties: drilling rigs which are not part of any CGU and are assessed for impairment separately, as well as platforms that stopped operating. In 2022, 14 drilling rigs were sold and the corresponding CGUs have been excluded.

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 serving the market at the lowest overall cost, preserving the strategic value of the whole set of assets in the long term. The operational planning is made in a centralized manner and these assets are not managed, measured or evaluated by their individual results. 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. Operational decisions are analyzed through an integrated model of operational planning for market supply, considering all the options for production, imports, exports, logistics and inventories, seeking to maximize the Company's global performance. The decision on new investments is not based on the profitability of the project where the asset will be installed, but on the additional result for the CGU as a whole. The model that supports the entire planning, used in technical and economic feasibility studies of new investments in refining and logistics, seeks to allocate a certain type of oil, or a mix of oil products, define market supply (area of influence), aiming at achieving the best integrated results. Pipelines and terminals are a complementary and interdependent portion of the refining assets, required to supply the market.

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PETROBRAS

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

In 2022, management approved the sale of LUBNOR and Potiguar Clara Camarão refineries from this CGU, whose assets were excluded from this CGU and its assets are classified as held for sale as of December 31, 2022 (see note 30.1).

- ii) CGU Itaboraí Utilities: composed of assets that will support the natural gas processing plant (UPGN) of the route 3 integrated project;
- iii) CGU GasLub: set of assets that remain in hibernation and are being evaluated for use in other projects.
- iv) CGU Second Refining Unit of RNEST: comprises assets of the second refining unit of Abreu e Lima refinery;
- v) Transportation CGU: comprises assets relating to Transpetro's fleet of vessels;
- vi) Hidrovia CGU: comprises the fleet of vessels under construction of the Hidrovia project (transportation of ethanol along the Tietê River); and
- vii) Other operations abroad defined as the smallest group of assets that generates independent cash flows.

c) Gas & Power CGUs:

- 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;
- ii) CGUs of Natural Gas Processing Plants: each remaining natural gas processing plant represents a separate CGU. In 2022, management approved the sale of Guamaré natural gas processing plant, and its assets were transferred to assets classified as held for sale (note 30.1);
- iii) CGU nitrogen fertilizer plants: formed by hibernated nitrogen fertilizer plants;
- iv) CGU Power: comprises the thermoelectric power generation plants (UTES). The operation and trade of energy of this CGU are carried out and coordinated in an integrated manner. The economic results of each of the plants in the integrated portfolio are highly dependent on each other, due to operational optimization aimed at maximizing the overall result.
- v) Other CGUs: operations abroad defined as the smallest group of assets that generates largely independent cash flows.

In 2022, management approved the lease of the Termocamaçari thermoelectric power plant, hence it is no more a cash-generating unit due to the reclassification of this operation to accounts receivable.

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.

4.3. Pension plan and other post-employment benefits

The actuarial obligations and net expenses related to defined benefit pension and health care post-employment 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.

4.4. 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 on 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.

4.5. 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.

4.6. 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.

4.7. 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 34 for more detailed information about cash flow hedge accounting and a sensitivity analysis of the cash flow hedge involving future exports.

4.8. 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 improperly 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, 2022, the Company has not identified any additional information that would affect the adopted calculation methodology and consequently require additional write-offs.

4.9. 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.

4.10. 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.

4.11. 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 pre-determined 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
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, by issuers of insurance and reinsurance contracts within the scope of the standard, and for reinsurance contracts held, 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 items, on initial recognition, give rise to equal taxable and deductible temporary differences.	January 1, 2023, retrospective application with specific rules.
Lease Liability in a Sale and Leaseback - Amendments to IFRS 16	The amendments add requirements that specify that the seller-lessee must subsequently measure the lease liability arising from the transfer of an asset - which meets the requirements of IFRS 15 to be accounted for as a sale - and sale and leaseback, so that no gain or loss is recognized related to the right of use retained in the transaction.	January 1, 2024, retrospective application.
Classification of Liabilities as Current or Non-current / Non-current Liabilities with Covenants- Amendments to IAS 1	<p>The amendments establish that the liability should be classified as current when the entity does not have the right, at the end of the reporting period, to defer the settlement of the liability for at least twelve months after the reporting period.</p> <p>Among other guidelines, the amendments provide that the classification of a liability is not affected by the likelihood of exercising the right to defer the settlement of the liability. Additionally, according to the amendments, only covenants whose compliance is mandatory before or at the end of the reporting period should affect the classification of a liability as current or non-current.</p> <p>Additional disclosures are also required by the amendments, including information on non-current liabilities with restrictive clauses.</p>	January 1, 2024, retrospective application.

Regarding the amendments effective as of January 1, 2023, 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, 2024, 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 objective in its capital management is to maintain its capital structure in adequate level in order to continue as a going concern, maximizing value to shareholders and investors. Its main source of funding has been cash provided by its operating activities.

The financial strategy of the 2023-2027 Strategic Plan is based on preserving financial strength, selecting projects with both financial and environmental resilience, focusing on value creation.

As 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 achieved 15 months in advance, the gross debt target defined in 2023-2027 Strategic Plan is to be maintained in the range between US\$ 50,000 and US\$ 65,000.

During 2022, through the Company's liability management, the maturity of outstanding finance debt is concentrated from 2027 onwards, which represents 56% of the total. Such factors, combined with the policy for oil products in line with the international market, allowed, in accordance with the Shareholders Dividends Policy, the distribution of greater remuneration to shareholders, without compromising the Company's financial sustainability.

As of December 31, 2022, gross debt decreased to US\$ 53,799, from US\$ 58,743 as of December 31, 2021, maintained in the range defined in the current Strategic Plan.

7. Cash and cash equivalents and Marketable securities

7.1. Cash and cash equivalents

They include cash, available bank deposits and short-term financial investments with high liquidity, which meet the definition of cash equivalents.

	12.31.2022	12.31.2021
Cash at bank and in hand	216	299
Short-term financial investments		
- In Brazil		
Brazilian interbank deposit rate investment funds and other short-term deposits	2,763	1,951
Other investment funds	244	163
	3,007	2,114
- Abroad		
Time deposits	2,388	4,310
Automatic investing accounts and interest checking accounts	2,365	3,732
Other financial investments	20	12
	4,773	8,054
Total short-term financial investments	7,780	10,168
Total cash and cash equivalents	7,996	10,467

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.

The main use of these funds in the year ended December 31, 2022 were for payment of dividends of US\$ 37,782, repayment of principal and interests related to finance debt and repayment of lease liability, amounting US\$ 16,614, as well as for acquisition of PP&E and intangible assets in the amount of US\$ 9,581.

The main resources constituted were substantially provided by cash provided by operating activities of US\$ 49,717, financial compensation from co-participation agreements of US\$ 7,284, proceeds from disposal of assets - divestment of US\$ 4,846 and proceeds from finance debt of US\$ 2,880.

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

	12.31.2022			12.31.2021		
	In Brazil	Abroad	Total	In Brazil	Abroad	Total
Fair value through profit or loss	713	-	713	650	-	650
Amortized cost - Bank Deposit Certificates and time deposits	2,548	1,026	3,574	-	-	-
Amortized cost - Others	50	-	50	44	-	44
Total	3,311	1,026	4,337	694	-	694
Current	1,747	1,026	2,773	650	-	650
Non-current	1,564	-	1,564	44	-	44

Marketable securities classified as fair value through profit or loss refer mainly to investments in Brazilian Federal Government Bonds (amounts determined by level 1 of the fair value hierarchy). These financial investments have maturities of more than three months.

Securities classified as amortized cost refer to investments in Brazil in post-fixed Bank Deposit Certificates with daily liquidity, with maturities between one and two years, and to investments abroad in time deposits with maturities of more than three months from the contracting date.

Accounting policy for marketable securities

The amounts invested in operations with terms of more than three months, as from the date of the agreement, are initially measured at fair value and subsequently according to their respective classifications, which are based on the way in which these funds are managed and their features of contractual cash flows:

- Amortized cost – financial assets that give rise, on specified dates, to cash flows represented exclusively by payments of principal and interest on the outstanding principal amount, the purpose of which is to receive its contractual cash flows. They are presented in current and in non-current asset according to their maturity term. Interest income from these investments is calculated using the effective interest rate method.
- Fair value through profit or loss – financial assets whose purpose is to receive for sale. They are presented in current asset due to the expectation of realization.

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 12.

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.

8.2. Net sales revenues

	2022	2021	2020
Diesel	40,149	24,236	13,924
Gasoline	16,175	11,910	6,313
Liquefied petroleum gas	5,121	4,491	3,383
Jet fuel	5,423	2,271	1,455
Naphtha	2,396	1,699	1,694
Fuel oil (including bunker fuel)	1,411	1,775	795
Other oil products	5,536	4,261	2,712
Subtotal oil products	76,211	50,643	30,276
Natural gas	7,673	5,884	3,649
Oil	7,719	671	48
Renewables and nitrogen products	283	40	59
Breakage	669	243	438
Electricity	694	2,902	1,109
Services, agency and others	1,043	808	755
Domestic market	94,292	61,191	36,334
Exports	27,497	21,491	15,945
Oil	19,332	14,942	11,720
Fuel oil (including bunker fuel)	7,399	5,480	3,525
Other oil products	766	1,069	700
Sales abroad (*)	2,685	1,284	1,404
Foreign market	30,182	22,775	17,349
Sales revenues	124,474	83,966	53,683

(*) Sales revenues from operations outside of Brazil, including trading and excluding exports.

	2022	2021	2020
Domestic market	94,292	61,191	36,334
Americas (except United States)	7,166	4,702	3,419
China	6,389	7,053	7,703
Europe	5,932	3,110	1,853
United States	4,914	2,162	1,193
Singapore	4,271	3,913	2,415
Asia (except China and Singapore)	1,505	1,671	746
Others	5	164	20
Foreign market	30,182	22,775	17,349
Sales revenues	124,474	83,966	53,683

In the year ended December 31, 2022, sales to two clients of the refining, transportation and marketing segment represented individually 15% and 11% of the Company's sales revenues. In the years ended December 31, 2021 and 2020, one client of the same segment represented more than 10% of the Company's sales revenues.

8.3. Remaining performance obligations

The Company is party to sales contracts signed until December 31, 2022 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 the year ended December 31, 2022 presented below are based on the contractually agreed future sales volumes, as well as prices prevailing at December 31, 2022 or practiced in recent sales reflecting more directly observable information:

	Expected recognition within 1 year	Expected recognition after 1 year	Total
Domestic market			
Gasoline	10,495	-	10,495
Diesel	31,175	-	31,175
Natural gas	15,643	14,636	30,279
Services and others	7,867	4,573	12,440
Naphtha	1,946	4,211	6,157
Electricity	658	6,352	7,010
Other oil products	30	-	30
Jet fuel	5,868	-	5,868
Foreign market			
Exports	2,961	8,761	11,722
Total	76,643	38,533	115,176

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 the year ended December 31, 2022 amounted to US\$ 48 (US\$ 19 as of the year ended December 31, 2021). 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.

Accounting policy for revenues

The Company evaluates contracts with customers for the sale of oil and oil products, natural gas, electricity, services and other products, which will be subject to revenue recognition, and identifies the distinct goods and services promised in each of them.

Sales revenues are recognized when control is transferred to the client, which usually occurs upon delivery of the product or when the service is provided. At this moment, the company satisfies the performance obligation.

Performance obligations are considered to be promises to transfer to the client: (i) good or service (or group of goods or services) that is 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 client.

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

Invoicing occurs in periods very close to deliveries and rendering of services, therefore, significant changes in transaction prices are not expected to be recognized in revenues for periods subsequent to satisfaction of the performance obligation, except for some exports in which final price formation occurs after the transfer of control of the products and are subject to the variation in the value of the commodity.

Sales are carried out in short terms of receipt, thus there are no significant financing components.

9. Costs and expenses by nature

9.1. Cost of sales

	2022	2021	2020
Raw material, products for resale, materials and third-party services (*)	(32,354)	(20,869)	(12,699)
Depreciation, depletion and amortization	(10,514)	(9,277)	(8,847)
Production taxes	(14,953)	(11,136)	(5,920)
Employee compensation	(1,665)	(1,882)	(1,729)
Total	(59,486)	(43,164)	(29,195)

(*) It Includes short-term leases and inventory turnover.

9.2. Selling expenses

	2022	2021	2020
Materials, third-party services, freight, rent and other related costs	(3,987)	(3,542)	(4,163)
Depreciation, depletion and amortization	(789)	(610)	(564)
Allowance for expected credit losses	(58)	12	2
Employee compensation	(97)	(89)	(159)
Total	(4,931)	(4,229)	(4,884)

9.3. General and administrative expenses

	2022	2021	2020
Employee compensation	(865)	(834)	(749)
Materials, third-party services, rent and other related costs	(362)	(256)	(252)
Depreciation, depletion and amortization	(105)	(86)	(89)
Total	(1,332)	(1,176)	(1,090)

10. Other income and expenses

	2022	2021	2020
Unscheduled stoppages and pre-operating expenses	(1,834)	(1,362)	(1,441)
Losses with legal, administrative and arbitration proceedings	(1,362)	(740)	(493)
Pension and medical benefits - retirees (*)	(1,015)	(1,467)	889
Performance award program	(547)	(469)	(439)
Losses with commodities derivatives	(256)	(79)	(308)
Gains (losses) on decommissioning of returned/abandoned areas	(225)	99	(342)
Operating expenses with thermoelectric power plants	(150)	(88)	(133)
Profit sharing	(131)	(125)	(7)
Institutional relations and cultural projects	(103)	(96)	(83)
Health, safety and environment	(80)	(79)	(75)
Transfer of rights on concession agreements	-	363	84
Recovery of taxes (**)	68	561	1,580
Amounts recovered from Lava Jato investigation	96	235	155
Results of non-core activities	168	170	182
Fines imposed on suppliers	228	163	95
Government grants	471	154	10
Early termination and changes to cash flow estimates of leases	629	545	276
Reimbursements from E&P partnership operations	683	485	912
Results on disposal/write-offs of assets and on remeasurement of investment retained with loss of control	1,144	1,941	499
Results from co-participation agreements in bid areas (***)	4,286	631	-
Others	(248)	(189)	(363)
Total	1,822	653	998

(*) In 2022, it includes US\$ 67 referring to the payment of a contribution as provided for in the Pre-70 Term of Financial Commitment (TFC) for the administrative funding of the PPSP-R pre-70 and PPSP-NR pre-70 plans.

(**) In 2021 and 2020, 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.

(***) For 2022, it mainly refers to the gain related to the agreement of Atapu and Sépia fields (see note 24.3). For 2021, it refers to the agreement of Buzios field.

11. Net finance income (expense)

	2022	2021	2020
Finance income	1,832	821	551
Income from investments and marketable securities (Government Bonds)	1,159	315	202
Other income, net	673	506	349
Finance expenses	(3,500)	(5,150)	(6,004)
Interest on finance debt	(2,363)	(2,870)	(3,595)
Unwinding of discount on lease liabilities	(1,340)	(1,220)	(1,322)
Discount and premium on repurchase of debt securities	(121)	(1,102)	(1,157)
Capitalized borrowing costs	1,032	976	941
Unwinding of discount on the provision for decommissioning costs	(519)	(761)	(638)
Other finance expenses, net	(189)	(173)	(233)
Foreign exchange gains (losses) and indexation charges	(2,172)	(6,637)	(4,177)
Foreign exchange gains (losses) (*)	1,022	(2,737)	(1,363)
Reclassification of hedge accounting to the Statement of Income (*)	(4,871)	(4,585)	(4,720)
Monetary restatement of dividends and dividends payable (**)	994	108	(15)
Recoverable taxes inflation indexation income (***)	86	518	1,807
Other foreign exchange gains (losses) and indexation charges, net	597	59	114
Total	(3,840)	(10,966)	(9,630)

(*) For more information, see notes 34.3a and 34.3c.

(**) In 2022, it refers to the income on the monetary restatement of paid anticipated dividends, in the amount of US\$ 1,293 (US\$ 121 in 2021), and to the expense on the indexation charges on dividends payable, in the amount of US\$ 299 (US\$ 13 in 2021 and US\$ 15 in 2020).

(***) In 2021, it includes inflation indexation income related to the exclusion of ICMS (VAT tax) from the basis of calculation of PIS and COFINS.

12. Information by operating segment

During 2022, Petrobras implemented changes to its financial reporting system, according to the metric approved by the Executive Board. These changes did not change the allocation of Petrobras' reportable operating segments (E&P, RT&M and G&P). However, the measurement of certain components of the operating segments and of Corporate and other businesses was changed as following:

- trade and other receivables, recoverable income taxes and other recoverable taxes, previously allocated to operating segments, are now presented in Corporate and other businesses. Expected credit losses are also now also presented in Corporate and other businesses;
- losses with commodity derivatives (within other income and expenses, net), previously presented in Corporate and other businesses, are now presented in operating segments;
- general and administrative expenses related to logistics and fuel sales, previously presented in Corporate and other businesses, are now disclosed in the RT&M segment.

This information reflects the Company's current management model and is used by the Board of Executive Officers (Chief Operating Decision Maker - CODM) to make decisions regarding resource allocation and performance evaluation. In this context, the information by operating segment for 2021 and 2020 has been restated for comparison purposes, as follows:

Consolidated Statement of Income by operating segment - 2021 Reclassified

	Exploration and Production (E&P)	Refining, Transportation & Marketing (RT&M)	Gas & Power (G&P)	Corporate and other businesses	Eliminations	Total
Net income (loss) for the year disclosed in 2021	23,350	5,746	(109)	(7,291)	(1,710)	19,986
Changes in the measurement	(29)	(121)	(13)	163	–	–
Net income (loss) for the year reclassified - 2021	23,321	5,625	(122)	(7,128)	(1,710)	19,986

Consolidated Statement of Income by operating segment - 2020 Reclassified

	Exploration and Production (E&P)	Refining, Transportation & Marketing (RT&M)	Gas & Power (G&P)	Corporate and other businesses	Eliminations	Total
Net income (loss) for the year disclosed in 2020	4,471	77	894	(4,898)	404	948
Changes in the measurement	40	64	2	(106)	–	–
Net income (loss) for the year reclassified - 2020	4,511	141	896	(5,004)	404	948

Consolidated assets by operating segment - 2021 Reclassified

	Exploration and Production (E&P)	Refining, Transportation & Marketing (RT&M)	Gas & Power (G&P)	Corporate and other businesses	Eliminations	Total
Consolidated assets disclosed - 12.31.2021	113,146	34,388	10,589	21,898	(5,673)	174,348
Changes in the measurement	(3,671)	(3,782)	(2,809)	9,020	1,242	–
Consolidated assets reclassified - 12.31.2021	109,475	30,606	7,780	30,918	(4,431)	174,348

12.1. Net income by operating segment

Consolidated Statement of Income by operating segment

	2022					
	Exploration and Production (E&P)	Refining, Transportation & Marketing (RT&M)	Gas & Power (G&P)	Corporate and other businesses	Eliminations	Total
Sales revenues	77,890	113,531	15,068	511	(82,526)	124,474
Intersegments	76,579	1,950	3,991	6	(82,526)	-
Third parties	1,311	111,581	11,077	505	-	124,474
Cost of sales	(30,465)	(99,154)	(10,518)	(522)	81,173	(59,486)
Gross profit (loss)	47,425	14,377	4,550	(11)	(1,353)	64,988
Income (expenses)	907	(3,132)	(2,965)	(2,671)	(13)	(7,874)
Selling expenses	(22)	(1,841)	(2,979)	(76)	(13)	(4,931)
General and administrative expenses	(46)	(275)	(62)	(949)	-	(1,332)
Exploration costs	(887)	-	-	-	-	(887)
Research and development expenses	(678)	(6)	(5)	(103)	-	(792)
Other taxes	(79)	(31)	(44)	(285)	-	(439)
Impairment (losses) reversals	(1,218)	(97)	1	(1)	-	(1,315)
Other income and expenses, net	3,837	(882)	124	(1,257)	-	1,822
Income (loss) before net finance income (expense), results of equity-accounted investments and income taxes	48,332	11,245	1,585	(2,682)	(1,366)	57,114
Net finance expense	-	-	-	(3,840)	-	(3,840)
Results of equity-accounted investments	170	3	83	(5)	-	251
Net income / (loss) before income taxes	48,502	11,248	1,668	(6,527)	(1,366)	53,525
Income taxes	(16,433)	(3,822)	(540)	3,559	466	(16,770)
Net income (loss) for the year	32,069	7,426	1,128	(2,968)	(900)	36,755
Attributable to:						
Shareholders of Petrobras	32,073	7,426	1,038	(3,014)	(900)	36,623
Non-controlling interests	(4)	-	90	46	-	132

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2021 - Reclassified

	Exploration and Production (E&P)	Refining, Transportation & Marketing (RT&M)	Gas & Power (G&P)	Corporate and other businesses	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)	3,240	(1,805)	(2,890)	(1,741)	(22)	(3,218)
Selling expenses	-	(1,539)	(2,668)	-	(22)	(4,229)
General and administrative expenses	(152)	(245)	(73)	(706)	-	(1,176)
Exploration costs	(687)	-	-	-	-	(687)
Research and development expenses	(415)	(11)	(25)	(112)	-	(563)
Other taxes	(192)	(122)	(38)	(54)	-	(406)
Impairment (losses) reversals	3,107	289	(208)	2	-	3,190
Other income and expenses, net	1,579	(177)	122	(871)	-	653
Income (loss) before net finance income (expense), results of equity-accounted investments and income taxes	35,151	7,099	(333)	(1,740)	(2,593)	37,584
Net finance expense	-	-	-	(10,966)	-	(10,966)
Results of equity-accounted investments	119	941	98	449	-	1,607
Net income / (loss) before income taxes	35,270	8,040	(235)	(12,257)	(2,593)	28,225
Income taxes	(11,949)	(2,415)	113	5,129	883	(8,239)
Net income (loss) for the year	23,321	5,625	(122)	(7,128)	(1,710)	19,986
Attributable to:						
Shareholders of Petrobras	23,324	5,625	(219)	(7,145)	(1,710)	19,875
Non-controlling interests	(3)	-	97	17	-	111

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2020 - Reclassified

	Exploration and Production (E&P)	Refining, Transportation & Marketing (RT&M)	Gas & Power (G&P)	Corporate and other businesses	Eliminations	Total
Sales revenues	34,395	47,782	7,725	876	(37,095)	53,683
Intersegments	33,524	865	2,455	251	(37,095)	-
Third parties	871	46,917	5,270	625	-	53,683
Cost of sales	(18,098)	(44,011)	(3,985)	(832)	37,731	(29,195)
Gross profit (loss)	16,297	3,771	3,740	44	636	24,488
Income (expenses)	(9,187)	(2,895)	(2,575)	256	(24)	(14,425)
Selling expenses	-	(2,522)	(2,318)	(20)	(24)	(4,884)
General and administrative expenses	(155)	(271)	(85)	(579)	-	(1,090)
Exploration costs	(803)	-	-	-	-	(803)
Research and development expenses	(232)	(11)	(10)	(102)	-	(355)
Other taxes	(478)	(137)	(31)	(306)	-	(952)
Impairment (losses) reversals	(7,364)	164	36	(175)	-	(7,339)
Other income and expenses, net	(155)	(118)	(167)	1,438	-	998
Income (loss) before net finance income (expense), results of equity-accounted investments and income taxes	7,110	876	1,165	300	612	10,063
Net finance expense	-	-	-	(9,630)	-	(9,630)
Results of equity-accounted investments	(181)	(437)	128	(169)	-	(659)
Net income / (loss) before income taxes	6,929	439	1,293	(9,499)	612	(226)
Income taxes	(2,418)	(298)	(397)	4,495	(208)	1,174
Net income (loss) for the year	4,511	141	896	(5,004)	404	948
Attributable to:						
Shareholders of Petrobras	4,515	175	823	(4,776)	404	1,141
Non-controlling interests	(4)	(34)	73	(228)	-	(193)

The amount of depreciation, depletion and amortization by segment is set forth as follows:

	Exploration and Production (E&P)	Refining, Transportation & Marketing (RT&M)	Gas & Power (G&P)	Corporate and other businesses	Total
2022	10,415	2,248	448	107	13,218
2021	9,005	2,167	430	93	11,695
2020	8,661	2,114	473	197	11,445

12.2. Assets by operating segment

	Exploration and Production (E&P)	Refining, Transportation & Marketing (RT&M)	Gas & Power (G&P)	Corporate and other business	Elimina- tions	Total
Consolidated assets by operating segment - 12.31.2022						
Current assets	5,224	12,035	391	18,864	(5,264)	31,250
Non-current assets	111,110	22,396	7,193	15,242	–	155,941
Long-term receivables	6,351	1,811	94	12,964	–	21,220
Investments	379	977	173	37	–	1,566
Property, plant and equipment	101,875	19,496	6,851	1,947	–	130,169
Operating assets	92,087	16,851	4,808	1,585	–	115,331
Under construction	9,788	2,645	2,043	362	–	14,838
Intangible assets	2,505	112	75	294	–	2,986
Total Assets	116,334	34,431	7,584	34,106	(5,264)	187,191
Consolidated assets by operating segment - 12.31.2021 - Reclassified						
Current assets	3,770	9,632	1,256	19,922	(4,431)	30,149
Non-current assets	105,705	20,974	6,524	10,996	–	144,199
Long-term receivables	3,635	1,489	95	9,115	–	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	109,475	30,606	7,780	30,918	(4,431)	174,348

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 considers 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.

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.

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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 business segments, including those with corporate characteristics, in addition to distribution and biofuels businesses. Corporate items mainly include those related to corporate financial management, overhead related to central administration and other expenses, including actuarial expenses related to pension and health plans for beneficiaries. Other businesses include the distribution of oil products abroad (South America) and the production of biodiesel and its co-products. In 2021 and 2020, the results of other businesses included the equity interest in the associate Vibra Energia, formerly Petrobras Distribuidora, until the date of sale of the remaining interest in this associate, which took place in July 2021.

13. Trade and other receivables

13.1. Trade and other receivables

	12.31.2022	12.31.2021
Receivables from contracts with customers		
Third parties	5,210	4,839
Related parties		
Investees (note 35.1)	93	385
Subtotal	5,303	5,224
Other trade receivables		
Third parties		
Receivables from divestments (*)	1,922	2,679
Lease receivables	394	435
Other receivables	765	872
Related parties		
Petroleum and alcohol accounts - receivables from Brazilian Federal Government	602	506
Subtotal	3,683	4,492
Total trade and other receivables, before ECL	8,986	9,716
Expected credit losses (ECL) - Third parties	(1,533)	(1,428)
Expected credit losses (ECL) - Related parties	(3)	(20)
Total trade and other receivables	7,450	8,268
Current	5,010	6,368
Non-current	2,440	1,900

(*) At December 31, 2022, it mainly refers to the receivables from the divestments of Atapu, Sépia, Carmópolis, Roncador, Maromba, Miranga, Baúna, Pampo e Enchova, Breitener, Rio Ventura e Cricaré. In 2021, 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\$ 470 as of December 31, 2022 (US\$ 1,155 as of December 31, 2021).

The Company expects to receive the amounts of Petroleum and Alcohol Accounts between 2023 and 2027, according to the constitutional amendments of December 2021, which established limits for disbursements by the Federal Government in each fiscal year.

13.2. Aging of trade and other receivables – third parties

	12.31.2022		12.31.2021	
	Trade and other receivables	Expected credit losses	Trade and other receivables	Expected credit losses
Current	6,474	(39)	7,059	(77)
Overdue:				
1-90 days	189	(48)	218	(26)
91-180 days	30	(27)	40	(6)
181-365 days	63	(51)	51	(29)
More than 365 days	1,535	(1,368)	1,457	(1,290)
Total	8,291	(1,533)	8,825	(1,428)

13.3. Changes in provision for expected credit losses

	31.12.2022	31.12.2021
Opening balance	1,448	1,596
Additions	136	69
Write-offs	(21)	(40)
Reversals	(81)	(112)
Transfer of assets held for sale	–	(8)
Translation adjustment	54	(57)
Closing balance	1,536	1,448
Current	245	158
Non-current	1,291	1,290

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.

ECL is the weighted average of historical credit losses with the respective default risks, which may occur according to the weightings. The credit loss on a financial asset is measured by the difference between all contractual cash flows due to the Company and all cash flows the Company expects to receive, discounted at the original effective interest rate.

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.

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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.

14. Inventories

	12.31.2022	12.31.2021
Crude oil	3,738	3,048
Oil products	3,278	2,495
Intermediate products	587	532
Natural gas and Liquefied Natural Gas (LNG)	135	349
Biofuels	14	19
Fertilizers	4	8
Total products	7,756	6,451
Materials, supplies and others	1,023	804
Total	8,779	7,255

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, 2022, the Company recognized a US\$ 11 loss within cost of sales, adjusting inventories to net realizable value (a US\$ 1 reversal of cost of sales in the year ended December 31, 2021) primarily due to changes in international prices of crude oil and oil products.

At December 31, 2022, the Company had pledged crude oil and oil products volumes as collateral for the Term of Financial Commitment (TFC) related to plans PPSP-R, PPSP-R Pre-70 and PPSP-NR Pre-70 signed by Petrobras and Petros Foundation in 2008, in the estimated amount of US\$ 1,082, after deducting the partial early settlement of the TFC relating to the Pension Difference and TFC Pre-70, made in February 2022, meeting the contractual conditions of the debt coverage as stated in the TCF.

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, considering the purpose for which the inventories are held. Inventories with identifiable sales contracts have a net realizable value based on the contracted price, as, for example, in offshore operations (without physical tanking, with loading onto the ship and direct unloading at the customer) or auctions. Other items in inventory have a net realizable value based on general selling prices, considering the most reliable evidence available at the time of the estimate.

The net realizable value of inventories is determined by grouping similar items with the same characteristic or purpose. 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

	12.31.2022	12.31.2021
Third parties in Brazil	3,497	3,556
Third parties abroad	1,935	1,861
Related parties	32	66
Total in current liabilities	5,464	5,483

Forfeiting

The Company has a program to encourage the development of the oil and gas production chain called “*Mais Valor*” (More Value), operated by a partner company on a 100% digital platform.

By using this platform, the suppliers who want to anticipate their receivables may launch a reverse auction, in which the winner is the financial institution which offers the lowest discount rate. The financial institution becomes the creditor of invoices advanced by the supplier, and Petrobras pays the invoices on the same date and under the conditions originally agreed with the supplier.

Invoices are advanced in the “*Mais Valor*” program exclusively at the discretion of the suppliers and do not change the term, prices and commercial conditions contracted by Petrobras with such suppliers, as well as it does not add financial charges to the Company, therefore, the classification is maintained as Trade payables in Statements of Cash Flows (Cash flows from operating activities).

As of December 31, 2022, the amount due by the Company to the financial institutions relating to this program is US\$ 130 (US\$ 178 as of December 31, 2021) and has an average payment term of 24 days.

16. Taxes

16.1. Income taxes

	Current assets		Current liabilities		Non-current liabilities	
	12.31.2022	12.31.2021	12.31.2022	12.31.2021	12.31.2022	12.31.2021
Taxes in Brazil						
Income taxes	160	133	2,505	682	-	-
Income taxes - Tax settlement programs	-	-	50	43	302	300
	160	133	2,555	725	302	300
Taxes abroad	5	30	328	8	-	-
Total	165	163	2,883	733	302	300

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.

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:

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	2022	2021	2020
Net income (loss) before income taxes	53,525	28,225	(226)
Nominal income taxes computed based on Brazilian statutory corporate tax rates (34%)	(18,197)	(9,597)	77
Adjustments to arrive at the effective tax rate:			
Tax benefits from the deduction of interest on capital distribution	1,234	843	(16)
Different jurisdictional tax rates for companies abroad	822	296	1,874
Brazilian income taxes on income of companies incorporated outside Brazil (*)	(763)	(546)	(743)
Tax incentives	187	50	(9)
Tax loss carryforwards (unrecognized tax losses)	221	59	(428)
Post-employment benefits	(394)	(802)	559
Results of equity-accounted investments in Brazil and abroad	87	318	49
Non-incidence of income taxes on indexation (SELIC interest rate) of undue paid taxes	33	903	-
Others	-	237	(189)
Income taxes	(16,770)	(8,239)	1,174
Deferred income taxes	(906)	(4,058)	1,743
Current income taxes	(15,864)	(4,181)	(569)
Effective tax rate of income taxes	31.3%	29.2%	(519.5)%

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

Deferred income taxes - non-current

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

	2022	2021
Opening balance	(625)	6,256
Recognized in the statement of income for the period	(906)	(4,058)
Recognized in shareholders' equity	(3,220)	(1,555)
Translation adjustment	(45)	(133)
Use of tax loss carryforwards	(1,123)	(1,172)
Others	1	37
Closing balance	(5,918)	(625)

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

Nature	Realization basis	12.31.2022	12.31.2021
PP&E - Exploration and decommissioning costs	Depreciation, amortization and write-offs of assets	158	(1,362)
PP&E - Impairment	Amortization, impairment reversals and write-offs of assets	3,602	4,382
PP&E - depreciation methods and capitalized borrowing costs	Depreciation, amortization and write-offs of assets	(15,438)	(12,924)
Loans, trade and other receivables / payables and financing	Payments, receipts and considerations	810	3,490
Lease liabilities	Appropriation of the considerations	434	1,244
Provision for legal proceedings	Payments and use of provisions	885	605
Tax loss carryforwards	Taxable income compensation	914	1,827
Inventories	Sales, write-downs and losses	333	228
Employee Benefits	Payments and use of provisions	1,518	1,250
Others		866	635
Total		(5,918)	(625)
Deferred tax assets		832	604
Deferred tax liabilities		(6,750)	(1,229)

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.

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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.

Timing of reversal of deferred income taxes

Deferred tax assets were recognized based on projections of taxable profit in future periods supported by the assumptions within the Company's 2023-2027 Strategic Plan, whose pillars are the preservation of financial strength, financial and environment resilience of projects, and focus on value creation.

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 2023-2027 Strategic Plan.

The estimated schedule of recovery/reversal of net deferred tax assets (liabilities) as of December 31, 2022 is set out in the following table:

	Assets	Liabilities
2023	55	(93)
2024	22	304
2025	20	1,091
2026	20	1,033
2027	20	(171)
2028 and thereafter	695	4,586
Recognized deferred tax assets	832	6,750

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

	Assets 12.31.2022	Assets 12.31.2021
Brazil	–	1
Abroad	987	1,351
Unrecognized deferred tax assets	987	1,352

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

In 2022, the Company accounted for part of these tax assets (US\$ 249) due to estimated future taxable income arising from business operations.

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

	2030 - 2032	2033 - 2035	2036 -2038	Undefined expiration	Total
Unrecognized deferred tax assets	418	339	167	63	987

Uncertain tax treatments

As of December 31, 2022, the Company had US\$ 6,043 (US\$ 4,983 as of December 31, 2021) of uncertain tax treatments for IRPJ and CSLL related to judicial and administrative proceedings (see note 18.3). Additionally, as of December 31, 2022, the Company has other positions that can be considered as uncertain tax treatments for IRPJ and CSLL amounting to US\$ 30,020 (US\$ 10,712 as of December 31, 2021), 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 believes that such positions are likely to be accepted by the tax authorities.

On February 8, 2023, the Brazilian Supreme Federal Court (STF), unanimously, considered that a final decision (*res judicata*) on taxes collected on a continuous basis, loses its effects if this Court decides otherwise at a later time. The judgment was based on collections of the income tax CSLL, a tax judged constitutional by the STF in 2007. This decision does not imply any impact on Petrobras.

Accounting policy for income taxes

The Company calculates income taxes in accordance with current legislation that are enacted or substantively enacted, based on the taxable income calculated in accordance with relevant legislation, applying rates in effect at the end of the reporting. 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.

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 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.

Uncertain tax treatments are periodically assessed, considering the probability of acceptance by the tax authority.

b) Deferred income taxes

Deferred income taxes are generally 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.

Deferred tax assets are 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

	Current assets		Non-current assets		Current liabilities		Non-current liabilities (*)	
	12.31.2022	12.31.2021	12.31.2022	12.31.2021	12.31.2022	12.31.2021	12.31.2022	12.31.2021
Taxes in Brazil								
Current / Non-current ICMS (VAT)	716	665	473	379	699	995	-	-
Current / Non-current PIS and COFINS (**)	378	418	2,362	2,030	28	499	89	45
Claim to recover PIS and COFINS	-	-	657	594	-	-	-	-
CIDE	1	6	-	-	5	42	-	-
Production taxes	-	-	-	-	1,996	2,147	114	21
Withholding income taxes	-	-	-	-	149	86	-	-
Tax Settlement Program	-	-	-	-	9	67	7	6
Others	40	48	273	249	143	142	83	70
Total in Brazil	1,135	1,137	3,765	3,252	3,029	3,978	293	142
Taxes abroad	7	46	13	9	19	23	-	-
Total	1,142	1,183	3,778	3,261	3,048	4,001	293	142

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

(**) As of December 31, 2022, it includes US\$ 5 (US\$ 104 as of December 31, 2021) related to exclusion of ICMS (VAT tax) in the basis of calculation of sales taxes PIS and COFINS (contributions for the social security).

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.

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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.

Claim to recover PIS and COFINS

The Company filed four 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. Two lawsuits have resulted in judicialized debts (*precatórios*) in the amounts claimed by the Company. Regarding the two remaining cases, both had rulings by the court favorable to the Company and, in one of them, the Brazilian Federal Government has already expressed its agreement and there was a decision in favor of the Company, still subject to appeal. Regarding the other lawsuit, there is no court decision at this point.

As of December 31, 2022, the Company had non-current receivables of US\$ 657 (US\$ 594 as of December 31, 2021) related to PIS and COFINS, which are indexed to inflation.

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.

	12.31.2022	12.31.2021
Liabilities		
Short-term employee benefits	1,452	1,289
Termination benefits	192	349
Post-employment benefits	11,246	9,880
Total	12,890	11,518
Current	2,215	2,144
Non-current	10,675	9,374

17.1. Short-term employee benefits

	12.31.2022	12.31.2021
Variable compensation program - PPP	489	461
Accrued vacation	505	440
Salaries and related charges and other provisions	327	270
Profit sharing	131	118
Total	1,452	1,289
Current	1,421	1,286
Non-current (*)	31	3

(*) Remaining balance relating to the four-year deferral of 40% of the PPP portion of executive officers and the upper management

The Company recognized the following amounts in the statement of income:

	2022	2021	2020
Salaries, accrued vacations and related charges	(3,006)	(2,665)	(3,064)
Variable compensation program - PPP (*)	(547)	(469)	(439)
Profit sharing (*)	(131)	(125)	(7)
Management fees and charges	(14)	(15)	(14)
Total	(3,698)	(3,274)	(3,524)

(*) It includes reversals of provisions related to previous year.

17.1.1. Variable compensation programs

Performance award program (PPP)

On September 17, 2021, the Company's Board of Directors approved the pay-out criteria for granting PPP 2021 to employees. The PPP 2021 model established that, in order to trigger this payment, it is necessary to have net income for the year and a declaration and payment of distribution to shareholders.

On December 15, 2021, the Company's Board of Directors approved the pay-out criteria for the program for 2022, maintaining the criteria of the PPP 2021.

In 2022, the main changes related to the PPP were:

- payment of US\$ 507 relating to the PPP provisioned in 2021;
- payment of US\$ 85 relating to the PPP provisioned in 2022;
- provision of US\$ 553 for the PPP related to 2022, accounted for within other income and expenses.

Profit Sharing (PLR)

On December 29, 2020, the 17 unions representing onshore employees of Petrobras 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 for 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 of assets; results on disposal/write-offs of assets, remeasurement of investment retained with loss of control and reclassification of CTA; and results from co-participation agreements in bid areas), to 6.25% of net income and to 25% of dividends distributed to shareholders, in each year, whichever is lower.

In 2022, the main changes related to the PLR were:

- payment of US\$ 129 relating to the PLR provisioned in 2021;
- provision of US\$ 132 for the PLR related to 2022, accounted for within other income and expenses.

Accounting policy for variable compensation programs (PPP and PLR)

The provisions for variable compensation programs are recognized on an accrual basis, during the periods in which the employees provided services. They represent the estimates 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 and that the obligation can be reliably estimated.

17.2. Termination benefits

Termination benefits are employee benefits provided in exchange for the termination of labor contract as a result of either: i) the Company'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.

In 2022, the wholly-owned subsidiary Transpetro launched a new voluntary severance program for its offshore employees, whose enrollment occurred between May 4, 2022 and July 14, 2022, and the deadline for the termination of employees was December 3, 2022.

For the current programs, there are 11,688 adhesions accumulated through December 31, 2022 (11,418 through December 31, 2021).

Changes on the provisions for termination benefits are presented as follows:

	2022	2021
Opening Balance	349	900
Effects in the statement of income	16	(11)
Enrollments	18	30
Revision of provisions	(2)	(41)
Effects in cash and cash equivalents	(199)	(497)
Terminations in the period	(199)	(497)
Translation adjustment	26	(43)
Closing Balance	192	349
Current	75	207
Non-current	117	142

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

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

As of December 31, 2022, from the balance of US\$ 192, US\$ 22 refers to the second installment of 426 retired employees and US\$ 170 refers to 1,651 employees enrolled in voluntary severance programs with expected termination by September 2025.

17.3. Post-employment benefits

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

The following table presents the balance of post-employment benefits:

	12.31.2022	12.31.2021
Liabilities		
Health Care Plan - Saúde Petrobras	5,813	4,485
Petros Pension Plan - Renegotiated (PPSP-R)	3,606	3,233
Petros Pension Plan - Non-renegotiated (PPSP-NR)	1,041	658
Petros Pension Plan - Renegotiated - Pre-70 (PPSP-R Pre 70)	284	817
Petros Pension Plan - Non-renegotiated - Pre-70 (PPSP-NR Pre 70)	339	511
Petros 2 Pension Plan (PP-2)	163	165
Other plans	-	11
Total	11,246	9,880
Current	719	651
Non-current	10,527	9,229

17.3.1. Nature and risks associated with defined benefit plans

Health Care Plan

The health care plan *Saúde Petrobras* 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 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), being 60% by the Company and 40% by the participants.

Annual revision of the health care plan

At December 31, 2022, this obligation was revised using the actuarial assumptions in force, which results are shown in note 17.3.2.

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.

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 and Termomacaé.

The PPSP-R and PPSP-NR were created in 2018 as a split of 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.

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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 agree with changes 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 payments supplementing the benefit granted by the Brazilian National Institute of Social Security.				Lifetime defined benefit monthly payments or non-defined benefit monthly payments in accordance with the participant's election.	Undefined benefit with monthly payments, in accordance with the participant election.
Other general benefits	Lump sum death benefit (insured capital) and monthly payments related to the following events: death, disability, sickness, and 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 Nationwide Consumer Price Index.		Based on the current index levels applicable to active employees' salaries and the indexes set out by the Brazilian National Institute 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 until the settlement of the TFC.	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 until the settlement of the TFC.	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 (these contributions are not currently being made but may occur in the future).	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 (*).	Financial obligations with a principal amounting to US\$132 at 12/31/2022.	Financial obligations with a principal amounting to US\$304 at 12/31/2022.	Financial obligations settled early in 2021.	Financial obligations with a principal amounting to US\$202 at 12/31/2022.	N/A	N/A
	Annually remeasured in accordance with actuarial assumptions, with semi-annual payment of interest based on the updated balance and maturing in 2028.					

(*) This obligation is recorded in these financial statements, within actuarial liabilities.

Debt Assumption Instrument relating to Deficit Settlement Plan 2015 (PED 2015)

On October 18, 2022, the Company assumed its commitment for the payment of extraordinary sponsor's contributions in the scope of PED 2015, implemented in 2017, together with the PPSP-R and the PPSP-NR. These contributions were not previously made due to court injunctions.

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The amount owed by Petrobras is US\$ 214 (R\$ 1,114 million) and refers to amounts not charged from July 2020 to December 2021. The Company paid US\$ 44 on October 28, 2022, and the remaining balance will be paid according to the payroll in return for the collection of the portion of participants and assisted.

The effects of this plan have already been recognized in the financial statements in the years in which they were implemented.

On December 31, 2022, the balance of this instrument, recorded within actuarial liabilities, is US\$ 168.

Deficit Settlement Plan 2021 referring to the PPSP-R plan

On November 10, 2022, Petros' Foundation Deliberative Council approved a plan to settle the deficit registered by the PPSP-R in 2021, being assessed by the Company's Board of Directors on November 30, 2022 and submitted to Secretariat of Management and Governance of the State-owned Companies (SEST).

If there is a favorable decision from this council, this settlement should be implemented by Petros, with extraordinary contributions expected to begin in April 2023, in addition to the other existing contributions.

The deficit of the plan for 2021 was due to the effects of the economic situation over the fixed income market, mainly due to government bonds marked to market, which experienced price fluctuations.

According to relevant regulation, this deficit, amounting to US\$ 1,485 as of December 31, 2021 (US\$ 1,632 monetarily restated as of December 31, 2022) must be settled in a parity basis: 50% by sponsors (Petrobras, Vibra Energia e Petros) and 50% by participants, of which US\$ 769 will be paid by Petrobras, during the lifetime of the plan.

The disbursement by the sponsors will decrease over the life of the deficit settlement plan. For 2023, is estimated a US\$ 57 disbursement for Petrobras.

The actuarial liability of the PPSP-R plan and the effects of the implementation of these contributions are reflected in note 17.3.2.

This settlement is a legal obligation as provided for in CNPC Resolution No. 30/2018, to ensure the financial sustainability of a pension plan.

Annual revision of the pension plans

At December 31, 2022, this obligation was revised using the actuarial assumptions in force, which results are shown in note 17.3.2.

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

Net actuarial liabilities represent the obligations of the Company, net of the fair value of plan assets (when applicable), at present value.

For information on actuarial assumptions used to determine the defined benefit obligation, see the table in Note 17.3.6.

Changes in the actuarial liabilities related to pension and healthcare plans with defined benefit characteristics is presented as follows:

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						2022
	Pension Plans		Health Care Plan	Other plans	Total	
	PPSP-R (*)	PPSP-NR (*)	Petros 2	Saúde Petrobras		
Amounts recognized in the Statement of Financial Position						
Present value of obligations	12,771	4,119	1,102	5,813	–	23,805
(-) Fair value of plan assets	(8,881)	(2,739)	(939)	–	–	(12,559)
Net actuarial liability as of December 31, 2022	3,890	1,380	163	5,813	–	11,246
Changes in the net actuarial liability						
Balance as of January 1, 2022 (**)	4,050	1,169	165	4,485	11	9,880
Recognized in the Statement of Income	457	129	33	609	–	1,228
Current service cost	10	1	13	105	–	129
Net interest	447	128	20	504	–	1,099
Recognized in Equity - other comprehensive income	420	417	(45)	791	–	1,583
Remeasurement effects recognized in other comprehensive income	420	417	(45)	791	–	1,583
Cash effects	(1,325)	(421)	–	(384)	–	(2,130)
Contributions paid	(304)	(94)	–	(384)	–	(782)
Payments related to Term of financial commitment (TFC)	(1,021)	(327)	–	–	–	(1,348)
Other changes	288	86	10	312	(11)	685
Others	–	–	–	1	(10)	(9)
Translation Adjustment	288	86	10	311	(1)	694
Balance at December 31, 2022	3,890	1,380	163	5,813	–	11,246

(*) It includes the balance of PPSP-R pre-70 and PPSP-NR pre-70.

(**) It includes the payment of US\$ 1,324 of a portion of the TFC made on February 25, 2022.

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						2021
	Pension Plans			Health Care Plan	Other plans	Total
	PPSP-R (*)	PPSP-NR (*)	Petros 2	Saúde Petrobras		
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
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)
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

(*) It includes the balance of PPSP-R pre-70 and PPSP-NR pre-70.
(**) It includes obligations with contribution for the revision of the lump sum death benefit.
(***) It includes the contribution for the migration to PP-3 (US\$ 241).

b) Changes in present value of the obligation

						2022
	Pension Plans			Health Care Plan	Other plans	Total
	PPSP-R (*)	PPSP-NR (*)	Petros 2	Saúde Petrobras		
Present value of obligations at the beginning of the year	11,481	3,485	987	4,485	9	20,447
Recognized in the Statement of Income	1,277	382	129	609	-	2,397
Interest expense	1,267	381	116	504	-	2,268
Service cost	10	1	13	105	-	129
Recognized in Equity - other comprehensive income	281	380	(6)	791	-	1,446
Remeasurement: Experience (gains) / losses	1,367	687	95	(277)	-	1,872
Remeasurement: (gains) / losses - demographic assumptions	-	4	6	(25)	-	(15)
Remeasurement: (gains) / losses - financial assumptions	(1,086)	(311)	(107)	1,093	-	(411)
Others	(268)	(128)	(8)	(72)	(9)	(485)
Benefits paid, net of assisted contributions	(1,088)	(379)	(72)	(384)	-	(1,923)
Contributions paid by participants	23	6	-	-	-	29
Others	-	-	1	-	(9)	(8)
Translation Adjustment	797	245	63	312	-	1,417
Present value of obligations at the end of the year	12,771	4,119	1,102	5,813	-	23,805

(*) It includes the balance of PPSP-R pre-70 and PPSP-NR pre-70.

						2021
	Pension Plans			Health Care Plan	Other plans	Total
	PPSP-R (*)	PPSP-NR (*)	Petros 2	Saúde Petrobras		
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	1,178	355	122	1,388	(8)	3,035
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	(2,575)	(640)	(144)	(658)	(2)	(4,019)
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)
Translation Adjustment	(969)	(297)	(79)	(349)	(2)	(1,696)
Present value of obligations at the end of the year	11,481	3,485	987	4,485	9	20,447

(*) It includes the balance of PPSP-R pre-70 and PPSP-NR pre-70.

c) Changes in the fair value of plan assets

Petrobras has four pension plans (PPSP-R, PPSP-NR, PPSP-R Pre-70) which are currently making use of plan assets, and one plan (PP-2) in which most of participants are in the phase of accumulating funds.

Therefore, changes to the fair value of plan assets reflect these effects, including inflows of contributions, outflows of funds for payment of benefits, and the return of these assets.

						2022
	Pension Plans			Health Care Plan	Other plans	Total
	PPSP-R (*)	PPSP-NR (*)	Petros 2	Saúde Petrobras		
Fair value of plan assets at the beginning of the year	7,431	2,316	822	–	(2)	10,567
Recognized in the Statement of Income	820	253	96	–	–	1,169
Interest income	820	253	96	–	–	1,169
Recognized in Equity - other comprehensive income	(139)	(37)	39	–	–	(137)
Remeasurement: Higher/(lower) return on plan assets compared to discount rate	(139)	(37)	39	–	–	(137)
Cash effects	1,325	421	–	384	–	2,130
Contributions paid by the sponsor (Company)	304	94	–	384	–	782
Term of financial commitment (TFC) paid by the Company	1,021	327	–	–	–	1,348
Other Changes	(556)	(214)	(18)	(384)	2	(1,170)
Contributions paid by participants	23	6	–	–	–	29
Benefits paid, net of assisted contributions	(1,088)	(379)	(72)	(384)	–	(1,923)
Others	–	–	–	–	2	2
Translation Adjustment	509	159	54	–	–	722
Fair value of plan assets at the end of the year	8,881	2,739	939	–	–	12,559

(*) It includes the balance of PPSP-R pre-70 and PPSP-NR pre-70.

	2021				
	Pension Plans			Health Care Plan	Other plans
	PPSP-R (*)	PPSP-NR (*)	Petros 2	Saúde Petrobras	Total
Fair value of plan assets at the beginning of the year	8,650	2,213	700	–	12
Recognized in the Statement of Income	728	182	50	–	1
Interest income	728	182	50	–	1
Recognized in Equity - other comprehensive income	(746)	(52)	194	–	(13)
Remeasurement: Higher/(lower) return on plan assets compared to discount rate	(746)	(52)	194	–	(13)
Cash effects	999	490	–	309	–
Contributions paid by the sponsor (Company)	475	86	–	309	–
Term of financial commitment (TFC) paid by the Company	524	404	–	–	–
Other Changes	(2,200)	(517)	(122)	(309)	(2)
Contributions paid by participants	26	7	–	–	–
Benefits paid, net of assisted contributions	(952)	(319)	(65)	(309)	–
Transfer and contribution for PP-3	(680)	(31)	–	–	–
Translation Adjustment	(594)	(174)	(57)	–	(2)
Fair value of plan assets at the end of the year	7,431	2,316	822	–	(2)

(*) It includes the balance of PPSP-R pre-70 and PPSP-NR pre-70.

Pension Plan assets

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, using 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.

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

	2022				2021	
Type of asset	Quoted prices in active markets	Unquoted prices	Total fair value	%	Total fair value	%
Receivables	–	1,353	1,353	11%	846	8%
Fixed income	3,548	5,297	8,845	70%	6,864	67%
Government bonds	3,503	3,947	7,450	–	4,522	–
Fixed income funds	–	864	864	–	860	–
Other investments	45	486	531	–	1,482	–
Variable income	1,184	243	1,427	9%	1,918	16%
Common and preferred shares	1,184	–	1,184	–	1,686	–
Other investments	–	243	243	–	232	–
Structured investments	33	126	159	4%	184	2%
Real estate properties	–	490	490	4%	475	4%
	4,765	7,509	12,274	98%	10,287	97%
Loans to participants	–	285	285	2%	280	3%
Fair value of plan assets at the end of the year	4,765	7,794	12,559	100%	10,567	100%

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

As of December 31, 2022, the investment portfolio included debentures of US\$ 3 (US\$ 6 in 2021), Company's common shares in the amount of US\$ 1 (US\$ 1 in 2021) and real estate properties leased by the Company in the amount of US\$ 2 (US\$ 243 in 2021).

d) Net expenses relating to benefit plans

	Pension Plans			Health Care Plan	Other Plans	Total
	PPSP-R (*)	PPSP-NR (*)	Petros 2	Saúde Petrobras		
Related to active employees (cost of sales and expenses)	(33)	(5)	(20)	(222)	–	(280)
Related to retirees (other income and expenses)	(424)	(124)	(13)	(387)	–	(948)
Net expenses for - 2022	(457)	(129)	(33)	(609)	–	(1,228)
Net expenses for - 2021	(469)	(178)	(72)	(1,388)	9	(2,098)
Net expenses for - 2020	(399)	(139)	(131)	1,672	(2)	1,001

(*) It includes the balance of PPSP-R pre-70 and PPSP-NR pre-70.

17.3.3. Contributions

In 2022, the Company contributed with US\$ 2,130 to the defined benefit plans (reducing the balance of obligations of these plans, as presented in note 17.3.2), and with US\$ 197 and US\$ 2, respectively, to the defined contribution portions of PP-2 and PP-3 plans (US\$ 169 for PP-2 and US\$ 1 for PP-3 in 2021).

For 2023, the expected contributions for the PPSP-R, PPSP-NR, PPSP-R pre-70 and PPSP-NR pre-70 plans, amounts to US\$ 423, and for PP-2 amounts to US\$ 205, relating to the defined contribution portion.

The contribution to the defined benefit portion of the PP-2 is suspended between July 1, 2012 and March 31, 2023, 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 flows

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

				Health Care Plan	Other Plans	2022	2021
	PPSP-R (*)	PPSP-NR (*)	Pension Plan Petros 2			Total	Total
Up to 1 Year	999	354	74	301	–	1,728	1,520
1 to 5 Years	4,122	1,437	313	1,149	–	7,021	6,150
6 to 10 Years	2,888	973	231	1,275	–	5,367	4,615
11 To 15 Years	1,962	622	166	1,012	–	3,762	3,193
Over 15 Years	2,800	733	318	2,076	–	5,927	4,969
Total	12,771	4,119	1,102	5,813	–	23,805	20,447

(*) 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.

	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.	11.06	6.59	10.37	7.14

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 Pré-70	PPSP-NR Pré-70	Pension Plans	2022 Health Care Plan
					PP2	
Nominal discount rate (including inflation)(1)	11.95%	11.95%	11.93%	11.93%	11.97%	11.97%
Real discount rate	6.16%	6.16%	6.15%	6.15%	6.18%	6.18%
Nominal expected salary growth (including inflation) (2)	6.27%	6.16%	6.27%	6.16%	7.74%	n/a
Expected changes in medical and hospital costs (3)	n/a	n/a	n/a	n/a	n/a	9.87% 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	Disability Experience PP-2 2022	Assets: PP-2: Disability Experience PP-2 2022 Assisted: n/a
Mortality table for disabled participants	AT-49 male	AT-83 Basic by gender	MI 2006, by gender, 20% smoothed	Petros Experience 2014	IAPB-57 strong, 30% smoothed	AT-49 male
Age of retirement	Male, 56 years / Female, 55 years	Male, 58 years / Female, 56 years	n/a	n/a	1st eligibility	Male, 56 years / Female, 55 years

(1) Inflation reflects market projections: 5.45% for 2023 and converging to 3.25% in 2027 onwards.

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

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

Assumptions	Pension Plans					2021 Health Care Plan
	PPSP-R	PPSP-NR	PPSP-R Pre-70	PPSP-NR Pre-70	PP2	
Nominal discount rate (including inflation)(1)	10.64%	10.62%	10.55%	10.54%	10.73%	10.68%
Real discount rate	5.40%	5.38%	5.32%	5.31%	5.49%	5.44%
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	Álvaro 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

(1) Inflation reflects market projections: 4.97% for 2022 and converging to 3.25% in 2026 onwards.

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

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

The most significant assumptions are described in Note 4.3.

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:

	Discount Rate				Expected changes in medical and hospital costs	
	Pension Benefits		Medical Benefits		Medical Benefits	
	+100 bps	-100 bps	+100 bps	-100 bps	+100 bps	-100 bps
Pension Obligation	(1,474)	1,882	(602)	735	772	(176)
Current Service cost and interest cost	(24)	47	(46)	56	128	(26)

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 estimate, 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 the statement of income 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

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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 is the change during the period in the net defined benefit liability that arises from the passage of time. Such interest is accounted for in the statement of income.

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

The Company also contributes 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, judicial deposits and contingent liabilities

18.1. Provisions for legal, administrative and arbitral proceedings

The Company recognizes provisions for legal, administrative and arbitral proceedings based on the best estimate of the costs 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) several individual and collective labor claims; (ii) 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 (iii) actions of outsourced employees.
- Tax claims including: (i) tax notices for alleged non-compliance with ancillary obligations; (ii) claims relating to benefits previously taken for Brazilian federal tax credits applied that were subsequently alleged to be disallowable; and (iii) claims for alleged non-payment of CIDE on imports of propane and butane.
- Civil claims, in particular: (i) lawsuits related to contracts; (ii) penalties applied by ANP, mainly relating to production measurement systems; and (iii) litigation involving corporate conflicts.
- Environmental claims, specially: (i) fines relating to the Company's offshore operation; (ii) fines relating to an environmental accident in the State of Paraná in 2000; and (iii) public civil action for oil spill in 2004 in Serra do Mar State Park, in the state of São Paulo.

Provisions for legal, administrative and arbitral proceedings are set out as follows:

Non-current liabilities	12.31.2022	12.31.2021
Labor claims	737	716
Tax claims	466	306
Civil claims	1,504	820
Environmental claims	303	176
Total	3,010	2,018

	2022	2021
Opening Balance	2,018	2,199
Additions, net of reversals	1,072	540
Use of provision	(487)	(715)
Revaluation of existing proceedings and interest charges	273	150
Others	(2)	8
Translation adjustment	136	(164)
Closing Balance	3,010	2,018

In preparing its consolidated financial statements for the year ended December 31, 2022, the Company considered all available information concerning legal, administrative and arbitral 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

The Company make deposits in judicial phases, mainly to suspend the chargeability of the tax debt and to maintain its tax compliance. Judicial deposits are set out in the table below according to the nature of the corresponding lawsuits:

Non-current assets	12.31.2022	12.31.2021
Tax	7,876	5,790
Labor	907	796
Civil	2,089	1,275
Environmental	109	101
Others	72	76
Total	11,053	8,038
	2022	2021
Opening Balance	8,038	7,281
Additions	1,710	1,145
Use	(115)	(109)
Accruals and charges	897	263
Others	(9)	3
Translation adjustment	532	(545)
Closing Balance	11,053	8,038

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.

The estimates of contingent liabilities are indexed to inflation and updated by applicable interest rates. As of December 31, 2022, estimated contingent liabilities for which the possibility of loss is considered possible are set out in the following table:

Nature	12.31.2022	12.31.2021
Tax	32,094	24,785
Labor	8,272	7,172
Civil - General	7,548	5,720
Civil - Environmental	1,257	1,192
Total	49,171	38,869

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

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	Estimate	
Description of tax matters	12.31.2022	12.31.2021
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 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.		
	10,386	9,092
2) Income from foreign subsidiaries 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.		
	4,396	3,890
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 2022, the Company obtained favorable final decisions at CARF and new tax notices were issued.		
	705	827
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.		
	922	706
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.		
	485	428
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.		
	646	570
7) Income taxes (IRPJ and CSLL) - Capital gains and Amortization of goodwill on the acquisition of equity interests.		
Current status: This claim involves lawsuits in different administrative and judicial stages. In 2022, new tax notices were issued against the Company.		
	501	234
8) Deduction of the PIS and COFINS tax base, including in ship or pay contracts and charters of aircraft and vessels.		
Current status: The claims involve lawsuits in different administrative and judicial stages. In 2022, a new tax notice was issued against the Company.		
	986	330
9) Collection of IRPJ and CSLL - Transfer price - Charter contracts		
Current status: In one of the assessments, there was an unfavorable administrative decision. A voluntary appeal by Petrobras is pending judgment. In 2022, a new tax notice was issued against the Company.		
	498	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 2022, a new tax notice was issued against the Company.		
	294	249
11) Collection of Import tax (II), PIS/COFINS and customs fines including Petrobras as jointly liable.		
Current status: In 2022, the Company received a new tax notice regarding the collection on joint liabilities of customs taxes and fines arising from the import of goods under the Repetro regime, for use in the Frade consortium.		
	2,414	-
12) Customs - Fines of 1% and 5% on the Customs Value.		
Fines imposed on the customs value of imported products due to information considered inaccurate in the import declarations. There is a court decision unfavorable to the Company.		
Current status: This claim involves lawsuits in different administrative and judicial stages.		
	240	209
13) Collection of PIS/COFINS - Incidences on Amnesties.		
Current status: In 2022, the company received a new tax notice related to the collection of social contributions PIS/COFINS, resulting from the tax transaction provided for in article 3 of the Federal Brazilian Law 13.586/2017.		
	870	-
Plaintiff: States of SP, RJ, BA, PA, AL, MA, PB, PE, AM and SE Finance Departments		
14) VAT (ICMS) and VAT credits on internal consumption of bunker fuel and marine diesel, destined to chartered vessels.		
Current status: This claim involves lawsuits in different administrative and judicial stages.		
	425	367
Plaintiff: States of RJ, AL, BA, PE, PA and RS Finance Departments		
15) 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.		

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Current status: This claim involves lawsuits in different administrative and judicial stages.	842	746
Plaintiff: States of PE, RJ and PA Finance Departments		
16) 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. In 2022, new tax notices were issued against the Company.	440	110
Plaintiff: States of RJ, AL, AM, PA, BA, GO, MA, SP and PE Finance Departments		
17) 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.	916	788
Plaintiff: States of RJ, BA, PE, SE and AM Finance Departments		
18) 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.	929	800
Plaintiff: States of GO, RJ, PA, BA, SE, SP, PR, AM, CE, MT, RN and PE Finance Departments		
19) 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 2022, new tax notices were issued against the Company.	687	569
Plaintiff: States of RJ, PR, AM, BA, PA, PE, SP and AL Finance Departments		
20) 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 2022, new tax notices were issued against the Company.	799	446
Plaintiff: State of SP Finance Department		
21) 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.	263	232
Plaintiff: States of RJ, SP, BA, PE, PR, SE and CE Finance Departments		
22) Misappropriation of VAT tax credit (ICMS) on the acquisitions of goods that, per the tax authorities, are not related to property, plant and equipment.		
Current status: This claim involves lawsuits in different administrative and judicial stages.	478	417
Plaintiff: States of RJ, SP, BA, AL, PE, CE and AM Finance Departments		
23) 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.	486	422
Plaintiff: Municipal government of Angra dos Reis/RJ		
24) Added value of ICMS on oil import operations.		
Current status: This claim involves lawsuits in several judicial stages. In 2022, judicial decisions favorable to the Company were handed down in two lawsuits, by the Court of Justice of Rio de Janeiro. There is a Special Appeal filed by the Municipality pending judgment.	347	289
Plaintiff: Several Municipalities		
25) Alleged failure to withhold and pay tax on services (ISSQN).		
Current status: There are lawsuits in different administrative and judicial stages.	223	201
Plaintiff: Municipal governments of the cities of Anchieta, Aracruz, Guarapari, Itapemirim, Marataizes, Linhares, Vila Velha and Vitória		
26) 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. In 2022, the lawsuits were reclassified to remote loss due to a decision favorable to the Company's thesis in the Court of Justice of Espírito Santo.	-	1,071
27) Other tax matters	1,916	1,505
Total for tax matters	32,094	24,785

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	Estimate	
Description of labor matters	12.31.2022	12.31.2021
Plaintiff: Employees and Sindipetro Union of ES, RJ, BA, MG, SP, PE, PB, RN, CE, PI, PR and SC.		
1) Actions requiring a review of the methodology by which the minimum compensation based on an employee's position and work schedule (Remuneração Mínima por Nível e Regime - RMNR) is calculated.		
Current status: The dispute is in the Federal Supreme Court (STF). On 07/28/2021, Petrobras filed an appeal and 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 amici 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 a view, the trial was suspended, and is juts pending the presentation of the vote by this last minister.		
	6,806	5,917
2) Other labor matters	1,466	1,255
Total for labor matters	8,272	7,172

	Estimate	
Description of civil matters	12.31.2022	12.31.2021
Plaintiff: Agência Nacional de Petróleo, Gás Natural e Biocombustíveis - ANP and other agencies		
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. In 2022, new tax notices were issued against the Company.	1,980	1,197
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. In 2022, there was an increase in the value, due to the judicial deposits that are made by Petrobras:		
a) Tupi and Cernambi: initially, the Company made judicial deposits for the alleged differences resulting from the special participation. However, with the reversal of the favorable injunction, the 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 Federal Regional Court of the Second Region upheld the suspension of arbitration. Petrobras filed appeals with the Superior Courts.		
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 up to item 6 of the joint schedule (pre-hearing meeting) formulated by the parties.		
	1,531	829
Plaintiff: Agência Estadual de Regulação de Serviços Públicos de Energia, Transportes e Comunicações da Bahia (AGERBA) and State Gas Companies		
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. In 2022, there was a decrease in value due to agreements entered into by Petrobras.	39	318
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. In 2022, there was an increase in value due to new lawsuits and decisions unfavorable to Petrobras.	2,988	2,491
5) Several lawsuits of civil nature, with emphasis on those related to expropriation and easement of passage, civil liability and portfolio management.	1,010	885
Total for civil matters	7,548	5,720

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	Estimate	
	12.31.2022	12.31.2021
Description of environmental matters		
Plaintiff: Several authors, notably: 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) Several lawsuits of an environmental nature, with emphasis on fines related to the company's operations and public civil action for alleged environmental damage due to the sinking of Platform P-36.	1,257	1,192
Total for environmental matters	1,257	1,192

18.4. Class action and related proceedings

18.4.1. Class action in the Netherlands

On January 23, 2017, Stichting Petrobras Compensation Foundation ("Foundation") filed a class action in the Netherlands, at the District Court of Rotterdam, against Petróleo Brasileiro S.A. – Petrobras, Petrobras International Braspetro B.V. (PIB BV), Petrobras Global Finance B.V. (PGF), Petrobras Oil & Gas B.V. (PO&G) and some former Petrobras managers.

The Foundation alleges that it represents the interests of an unidentified group of investors and asserts that, based on the facts revealed by the Lava-Jato Operation, the defendants acted illegally before the investors. Based on these allegations, the Foundation is seeking a series of court declarations from the Dutch court.

On May 26, 2021, after previous intermediate decisions in which the Court decided that it has jurisdiction to judge the majority of the seven requests made by the Foundation, the District Court of Rotterdam decided that the class action must proceed and that the arbitration clause of 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 started 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.

In 2021 and 2022, the parties presented their arguments and defenses in writing regarding the merits of the claims and the Court scheduled hearings for oral arguments, which took place on January 17 and 24, 2023. At these hearings, the Court did not provide any indications as to the content of its decision on the merits of the case. The Court determined that Petrobras and the other defendants may present additional statements on February 22, 2023, after which the Court intends to issue a sentence on July 26, 2023. Such deadline is indicative and the decision may be postponed or anticipated.

This class action concerns complex issues and the outcome is subject to substantial uncertainties, which depend on factors such as: the scope of the arbitration clause of the Petrobras Statute, the jurisdiction of the Dutch courts, the scope of the agreement that ended the Class Action in the United States, the Foundation's legitimacy to represent the interests of investors, the several laws applicable to the case, the information obtained from the production phase of evidence, the expert analyses, the timetable to be defined by the Court and the judicial decisions on key issues of the process, possible appeals, including before the Dutch Supreme Court, as well as the fact that the Foundation seeks only a declaratory decision in this class action. It is currently not possible to predict whether the Company will be liable for the effective payment of damages in any future individual claims, as this analysis will depend on the outcome of these complex procedures. In addition, it is not possible to know which investors will be able to bring subsequent individual actions related to this matter against Petrobras.

Furthermore, the claims formulated are broad, cover a multi-year period and involve a wide variety of activities and, in the current scenario, the impacts of such claims are highly uncertain. The uncertainties inherent in all of these issues affect the value and duration of final resolution of this action. As a result, Petrobras is unable to estimate an eventual loss resulting from this action. However, Petrobras reiterates its condition as a victim of the corruption scheme revealed by the Lava-Jato operation and intends to present and prove this condition before the Dutch court.

Considering the uncertainties, it is not possible to make any reliable assessment regarding possible risks related to this litigation. The eventual indemnification for the alleged damages will only be determined by judicial decisions in later actions to be brought by individual investors. The Foundation cannot claim compensation for damages within the scope of the class action, since the final decision will be merely declaratory.

The Company deny the allegations made by the Foundation and intend to defend itself vigorously.

18.4.2. Arbitration in Argentina

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

On June 14, 2019, 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.

The Company deny the allegations presented by the Association and intends to defend itself vigorously.

18.4.3. 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 the Association 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 preliminary defense on the merits, which has not yet been considered by the judge, in addition to procedural defenses, which are currently 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 before the Court of Cassation, and the Company's appeal was denied. After the lower court denied Petrobras immunity from jurisdiction, the Company appealed to the Court. On December 27, 2022, the Court again considered the first instance decision premature, determining that a third one be issued, still pending. On another procedural front, on September 14, 2022, the decision that had recognized that the Association could not act as a representative of financial consumers was reformed by the Court of Cassation after an appeal by the Association. On November 2, 2022, Petrobras filed an appeal against this decision before the Argentine Supreme Court, which is still pending judgment. This criminal action is pending before the Criminal Economic Court No. 2 of the city of Buenos Aires.

18.4.4. Lawsuit in the United States related to Sete Brasil Participações S.A. ("Sete")

In February 2016, EIG Management Company, LLC and certain affiliated funds (collectively referred to as "EIG") filed a claim in the District Court for the District of Columbia in Washington, D.C. regarding the indirect purchase of equity interests in Sete Brasil, a company created to build platforms with high local content. In this process, EIG claims that Petrobras would have induced the plaintiffs to invest in Sete Brasil and that it was one of those responsible for the financial crisis of Sete, which filed for judicial recovery in Brazil.

In 2017, the District Court denied the summary filing request submitted by Petrobras and decided that the process should proceed to the evidence production phase. There was the filing of appeals by Petrobras, and this appeal phase lasted until January 16, 2020, when the decision of the Court of the District of Columbia became final. During 2020, the parties engaged in extensive exchanges of documents and other documentary evidence. The parties also heard the testimonies of several witnesses to the events. In 2021, in addition to the continuity of such hearings, expert evidence was produced, as well as the parties submitted requests for the case to be judged summarily (motion for summary judgment).

On August 8, 2022, the judge upheld EIG's claim as to Petrobras' responsibility for the alleged losses, which are recorded in the third quarter of 2022 as provisions for legal proceedings, but denied the motion for summary judgment with respect to damages, whereby the award of compensation will be subject to the proof of damages by EIG at a hearing and to the consideration of the defenses by the Company. In the same decision, the judge denied the request to dismiss the case based on Petrobras' immunity from jurisdiction, which is why an appeal was filed with the Federal Court of Appeals for the District of Columbia.

On August 26, 2022, a request was filed by Petrobras for the action to be suspended until the judgment of the appeal, and such suspension was granted by the judge on October 26, 2022.

On August 26, 2022, the District Court of Amsterdam granted a precautionary measure to block certain Petrobras assets in the Netherlands, at the request of EIG.. The decision was based on that rendered precautionary measure by the District Court of the District of Columbia, on August 8, 2022, and was intended to ensure the satisfaction of EIG's claims contained in the aforementioned US lawsuit. For the purpose of this injunction alone, the District Court of Amsterdam limited EIG's claims to a total of US\$ 297.2, although the US Court ruled that any award of damages would depend on evidence of damages by EIG at a trial hearing. There are some discussions about the scope of the assets blocked by EIG, but there is no related lawsuit pending in the Netherlands. This precautionary block does not prevent Petrobras and its subsidiaries from complying with their obligations to third parties.

18.5. 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. 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.

In the year ended December 31, 2022, there were no events that changed the assessment and information on arbitrations in Brazil.

18.6. Tax recoveries under dispute - 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 December 2022, the court issued a final decision in favor of the Company in relation to the merits of the case. Currently, it is at the beginning of the execution phase, when the Company's credit will be determined and settled. Considering that legal discussions are still pending regarding the methodology for calculating, the Company is still unable to estimate the amount of the contingent asset.

18.7. Lawsuits brought by natural gas distributors and others

In 2022, Petrobras entered into agreements with CEGÁS, SC GÁS and ES GÁS, with the aim of putting an end to existing litigation and pacifying controversial issues regarding the price of natural gas supplied, based on the current economic conditions of the natural gas market. Regarding ES GÁS, the new gas purchase and sale agreements were signed and became effective in February 2023. In relation to

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the State of Minas Gerais, the matter remains in court, however the gas price collection continues to be carried out in accordance with the current Contract signed between Petrobras and GASMIG.

The sale of gas by Petrobras, in the state of Rio de Janeiro, has been taking place under the terms of the injunctions granted, observing the conditions of the gas supply contracts that would end on December 31, 2021 but had their terms extended by these injunctions.

In the state of Sergipe, the sale of gas has been taking place under the terms of the injunction granted in a legal proceeding that is under justice secrecy.

Accounting policy for provisions for legal, administrative and arbitral 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, considering the best information available to the date of the issuance of these financial statements.

The methodology used to estimate the provisions is described in note 4.4.

Contingent assets are not recognized, but are disclosed in explanatory notes when the inflow of economic benefits is considered probable and the amount is considered material. However, if the inflow of economic benefits is virtually certain, which, in general, considers the final and unappealable decision, and if the value can be reliably measured, the related asset is not a contingent asset anymore and it is recognized.

19. Provision for decommissioning costs

The following table details the amount of the provision for decommissioning costs by producing area:

	12.31.2022	12.31.2021
Onshore	418	873
Shallow waters	4,399	3,732
Deep and ultra-deep post-salt	9,988	8,420
Pre-salt	3,795	2,594
	18,600	15,619

Changes in the provision for decommissioning costs are presented as follows:

	2022	2021
Non-current liabilities		
Opening balance	15,619	18,780
Adjustment to provision	3,484	(1,186)
Transfers related to liabilities held for sale	(1,258)	(704)
Use of provisions	(854)	(730)
Interest accrued	476	723
Others	(5)	5
Translation adjustment	1,138	(1,269)
Closing balance	18,600	15,619

The provision associated with divestment projects of E&P assets classified as held for sale was transferred to liabilities related to assets classified as held for sale. In 2022, it refers to: the Potiguar groups of fields, in Rio Grande do Norte state; the Albacora Leste Field, in Rio de Janeiro; Golfinho, Camarupim and Norte Capixaba groups of fields, in the state of Espírito Santo, as set out in note 30. In 2021, it included transfers to held for sale mainly related to: Alagoas groups of fields, Papa-Terra Field, Peroá Group, Miranga Group and Búzios fields.

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 declaration of commercial feasibility of an oil and gas field. The calculations of the cost estimates for future environmental removals and recoveries are complex and involve significant judgments (as set out in note 4.5).

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, within other income and expenses.

20. Other Assets and Liabilities

Assets		12.31.2022	12.31.2021
Escrow account and/ or collateral	(a)	1,087	961
Advances to suppliers	(b)	1,561	308
Prepaid expenses	(c)	363	297
Derivatives transactions	(d)	54	31
Assets related to E&P partnerships	(e)	71	262
Others		194	201
		3,330	2,060
Current		1,777	1,573
Non-Current		1,553	487

Liabilities		12.31.2022	12.31.2021
Obligations arising from divestments	(f)	1,355	1,106
Contractual retentions	(g)	601	521
Advances from customers	(h)	906	606
Provisions for environmental expenses, R&D and fines	(i)	674	568
Other taxes	(j)	293	143
Unclaimed dividends	(k)	241	81
Derivatives transactions	(d)	147	282
Various creditors		95	84
Others		661	634
		4,973	4,025
Current		3,001	1,875
Non-Current		1,972	2,150

The following references detail the nature of the operations that make up the balances of other assets and liabilities:

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 when the start of operations has been postponed due to legal requirements or to 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 contractual indemnities and 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 oil fields.

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 advances or cash receipt from third parties, related to the sale of products or services.

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 taxes (see note 16).

k) Dividends made available to shareholders and not paid due to the existence of pending registration issues for which the shareholders are responsible with the custodian bank for the shares and with Petrobras, according to note 33.

Accounting policy for other assets and liabilities

The accounting recognition of obligations arising from divestment is at present value, using a risk-free discount rate, adjusted to the company's credit risk, being the best estimate of the disbursement required to settle the present obligation on the statement of financial position date. The obligations are subject to significant changes as activity execution schedules are updated and detailed by buyers.

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 year ended December 31, 2022, 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 2022, new leniency and plea agreements entitled the Company to receive funds with respect to compensation for damages, in the amount of US\$ 96 (US\$ 235 in 2021), accounted for as other income and expenses. Thus, the total amount recovered from Lava Jato investigation through December 31, 2022 was US\$ 1,618.

21.1. Investigations involving the Company

21.1.1. 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. In May 2022, Petrobras took notice that the proceeding was closed in February 2021.

22. Commitment to purchase natural gas

The Gas Supply Agreement (GSA) 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, Petrobras and YPFB 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. On August 5, 2022, through a new contractual amendment, Petrobras and YPFB once again modified the GSA, adjusting, among other aspects, the minimum supply and payment commitments, which changed from annual constant to monthly seasonal. Furthermore, the aforementioned contracted volume was consolidated and updated.

Thus, as of December 31, 2022, the total amount of the GSA for 2023, corresponding to the delivery obligation of YPFB, is nearly 5.76 billion m³ of natural gas (equivalent to 15.77 million m³ per day), corresponding to a total estimated value of US\$ 1.51 billion.

Based on the aforementioned extension clause, the Company expects purchases to continue through January 2026, considering the withdrawal based on the Daily Quantity Guaranteed by YPFB, which means the maximum volume contracted every day, ranging from 8

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million m³ per day to 20 million m³ per day (on a monthly basis), representing an estimated additional amount of US\$ 3.81 billion, from January 2023 to January 2026.

If the withdrawal occurs based on the Daily Quantity Guaranteed by Petrobras (take-or-pay), ranging from 5.6 million m³ per day to 14 million m³ per day (on a monthly basis), there will be an additional extension until May 2028, representing an estimated additional total value of US\$ 3.47 billion from January 2023 to May 2028.

23. Property, plant and equipment

23.1. By class of assets

	Land, buildings and improvement	Equipment and other assets (*)	Assets under construction (**)	Exploration and development costs (***)	Right-of-use assets	Total
Balance at January 1, 2022	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 and impairment (****)	(1,697)	(44,959)	(9,032)	(26,059)	(9,330)	(91,077)
Additions	-	841	7,525	48	7,126	15,540
Decommissioning costs - Additions to / review of estimates	-	-	-	3,269	-	3,269
Capitalized borrowing costs	-	-	1,021	-	-	1,021
Signature Bonuses Transfers (****)	-	-	-	1,177	-	1,177
Write-offs	(20)	(746)	(2,152)	(667)	(1,469)	(5,054)
Transfers (*****)	130	5,162	(8,611)	3,617	2	300
Transfers to assets held for sale	(27)	(1,874)	(410)	(1,976)	(140)	(4,427)
Depreciation, amortization and depletion	(88)	(4,746)	-	(5,306)	(4,478)	(14,618)
Impairment recognition (note 25)	-	(693)	(605)	(142)	(13)	(1,453)
Impairment reversal (note 25)	-	223	15	52	-	290
Translation adjustment	160	3,854	1,133	2,515	1,132	8,794
Balance at December 31, 2022	2,538	55,147	14,838	38,434	19,212	130,169
Cost	4,343	105,429	23,938	67,581	29,670	230,961
Accumulated depreciation and impairment (****)	(1,805)	(50,282)	(9,100)	(29,147)	(10,458)	(100,792)
Balance at January 1, 2021	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 and impairment (****)	(2,407)	(48,519)	(12,101)	(29,736)	(7,911)	(100,674)
Additions	-	1,650	5,761	5	6,954	14,370
Decommissioning costs - Additions to / review of estimates	-	-	-	(1,069)	-	(1,069)
Capitalized borrowing costs	-	-	971	-	-	971
Signature Bonuses Transfers (****)	-	-	-	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	-	(377)	(1)	(27)	(4)	(409)
Impairment reversal	-	1,796	114	1,879	34	3,823
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 and impairment (****)	(1,697)	(44,959)	(9,032)	(26,059)	(9,330)	(91,077)

(*) 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.

(**) See note 12 for assets under construction by operating segment.

(***) 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 (oil and gas production properties).

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

(***** Transfer from intangible assets related to Atapu, Sepia and Itapu fields in 2022 (related to Búzios in 2021).

(*****) It includes mainly transfers between classes of assets and transfers from advances to suppliers.

The investments made by the company in 2022 were mainly for the development of oil and natural gas field production, primarily in the pre-salt (Búzios, Mero, Tupi, Itapu, among others), including the contracting of new leases.

23.2. Estimated useful life

The useful life of assets depreciated by the linear method are shown below:

Asset	Weighted average useful life in years
Buildings and improvement	40 (25 to 50)
Equipment and other assets	20 (3 to 31) (except assets by the units of production method)
Exploration and development costs	Units of production method
Right-of-use	8 (2 to 47)

The estimated useful life of buildings and improvements, equipment and other assets is as follows:

Buildings and improvements, equipment and other assets			
Estimated useful life	Cost	Accumulated depreciation	Balance at December 31, 2022
5 years or less	4,762	(3,894)	868
6 - 10 years	8,316	(6,288)	2,028
11 - 15 years	5,442	(1,767)	3,675
16 - 20 years	27,705	(16,590)	11,115
21 - 25 years	30,195	(7,709)	22,486
25 - 30 years	11,727	(3,480)	8,247
30 years or more	4,600	(1,855)	2,745
Units of production method	16,907	(10,498)	6,409
Total	109,654	(52,081)	57,573
Buildings and improvements	4,225	(1,799)	2,426
Equipment and other assets	105,429	(50,282)	55,147

23.3. Right-of-use assets

The table below shows the split by type of asset and readjustment clauses with possible impacts on accumulated depreciation and impairment, as follows:

	Platforms	Vessels	Properties	Total
Balance at December 31, 2022	9,211	8,254	1,747	19,212
Cost	12,604	14,788	2,278	29,670
Accumulated depreciation and impairment	(3,393)	(6,534)	(531)	(10,458)
Without contractual readjustment clauses	–	(5,322)	(64)	(5,386)
With contractual readjustment clauses - Brazil	(3,393)	(218)	–	(3,611)
With contractual readjustment clauses – abroad	–	(994)	(467)	(1,461)
Balance at December 31, 2021	9,840	5,997	1,215	17,052
Cost	13,362	11,267	1,753	26,382
Accumulated depreciation and impairment	(3,522)	(5,270)	(538)	(9,330)
Without contractual readjustment clauses	–	(4,375)	(97)	(4,472)
With contractual readjustment clauses - Brazil	(3,522)	(196)	–	(3,718)
With contractual readjustment clauses – abroad	–	(699)	(441)	(1,140)

Accounting policy for property, plant and equipment

Property, plant and equipment are measured at the cost of acquisition or construction, 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, and are depreciated over the useful life of the item of property, plant and equipment to which they relate.

Borrowing costs directly attributable to the acquisition or construction of qualifying assets are capitalized as part of the costs of these assets.

General borrowing costs are capitalized based on the Company's weighted average cost of borrowings outstanding applied over the balance of assets under construction.

In general, the Company suspends capitalization of borrowing to the extent investments in a qualifying asset hibernates during a period greater than one year or whenever the asset is prepared for its intended use.

Assets directly associated to the production of oil and gas in a contracted area whose useful lives are not less than the life of the field (reserve exhaustion time), including rights and concessions such as signature bonus, are depleted by the unit-of-production method.

The unit-of-production method of depreciation (amortization) is computed based on the monthly production volume 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 23.2 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.

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

In 2022, the following oil and gas fields were returned to ANP: Anequim, Congro, Corvina, Garoupa, Garupinha, Malhado, Namorado, Parati and Viola. These fields were returned to ANP mainly due to their economic unfeasibility and, as a consequence, the Company wrote off the amount of US\$ 619 in addition to impairments recognized in prior years.

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.

23.5. 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, 2022, the capitalization rate was 6.55% p.a. (6.17% p.a. for the year ended December 31, 2021).

24. Intangible assets

24.1. By class of assets

	Rights and Concessions (*)	Software	Goodwill	Total
Balance at January 1, 2022	2,695	308	22	3,025
Cost	2,744	1,321	22	4,087
Accumulated amortization and impairment	(49)	(1,013)	–	(1,062)
Addition	898	181	–	1,079
Capitalized borrowing costs	–	11	–	11
Write-offs	(12)	(6)	–	(18)
Transfers	(11)	(1)	–	(12)
Signature Bonuses Transfers (**)	(1,177)	–	–	(1,177)
Amortization	(4)	(73)	–	(77)
Impairment recognition	–	(1)	–	(1)
Translation adjustment	134	20	2	156
Balance at December 31, 2022	2,523	439	24	2,986
Cost	2,578	1,560	24	4,162
Accumulated amortization and impairment	(55)	(1,121)	–	(1,176)
Estimated useful life in years	(***)	5	Indefinite	
Balance at January 1, 2021	14,714	210	24	14,948
Cost	14,803	1,245	24	16,072
Accumulated amortization and impairment	(89)	(1,035)	–	(1,124)
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
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)
Estimated useful life in years	(***)	5	Indefinite	

(*) 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.

(**) Transfer to PP&E relating to Sépia, Atapu and Itapu in 2022 (Búzios in 2021).

(***) 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.

24.2. ANP Bidding Result

Sudoeste de Sagitário, Água Marinha e Norte de Brava Blocks - 1st Cycle of Permanent Offer for Production Sharing

On December 16, 2022, Petrobras acquired the right to explore and produce oil and natural gas in Sudoeste de Sagitário, Água Marinha and Norte de Brava blocks in the 1st Cycle of Permanent Offer for Production Sharing, carried out by the ANP. The total amount of signature bonuses to be paid by Petrobras is US\$ 140 (R\$ 729 million), which the Company expects to pay in the first quarter of 2023, to be accounted for as intangible assets.

The Sudoeste de Sagitário block was acquired with Shell Brasil, which will have a 40% interest, while Petrobras will be the operator with a 60% interest.

The Água Marinha block was acquired in partnership with TotalEnergies EP (30%), Petronas (20%), and QatarEnergy (20%), while Petrobras will be the operator with a 30% interest.

The Norte de Brava block was entirely acquired by Petrobras.

24.3. Surplus volumes of Transfer of Rights Agreement

Atapu and Sépia

On April 27, 2022, Petrobras signed the Production Sharing Contract for the surplus volume of the Transfer of Rights Agreement related to the Atapu field, in partnership with Shell Brasil Petróleo Ltda (Shell, 25%) and TotalEnergies EP Brasil Ltda. (TotalEnergies, 22.5%), and related to the Sépia field in consortium with TotalEnergies (28%), Petronas Petróleo Brasil Ltda. (Petronas, 21%) and QP Brasil Ltda. (QP, 21%), according to the results of the Second Bidding Round for the Surplus Volume of the Transfer of Rights Agreement in the Production Sharing regime, which was held on December 17, 2021.

Also on April 27, 2022, the Company signed the Co-participation Agreements and the Amendments to the Agreement for the Individualization of Atapu and Sépia Production (AIPs), which are necessary to manage the coexisting deposits of the Transfer of Rights Agreement and the Production Sharing Contract (related to the surplus volume) of these areas.

The compensation to Petrobras for Atapu and Sépia, including an estimate of the gross-up of the taxes levied, pursuant to Ordinance No. 8 of April 19, 2021 of the MME, were paid by the partners in April 2022, totaling US\$ 2,093 for Atapu and US\$ 3,059 for Sépia.

The agreements became effective on May 2, 2022, when Pré-Sal Petróleo S.A. (PPSA) confirmed there was no settlement pending for this transaction, in accordance with the provisions of Ordinance No. 519 of May 21, 2021 of the MME.

On the same date, a partial write-off of the assets associated with these fields was carried out, in exchange for the financial compensation, resulting in a transaction similar to a sale.

The signature bonus corresponding to the Company's participation in the Production Sharing Contract was US\$ 416 for Atapu and US\$ 424 for Sépia.

Since these agreements relate to the surplus volume of fields with technical and commercial feasibility already identified, the signature bonuses paid by the Company in the first quarter of 2022, totaling US\$ 840, were transferred from intangible assets to property, plant and equipment after the Co-participation Agreements came into effect.

The Company accounted for an additional US\$ 129 gain corresponding to the difference between the estimate and the final calculation of the gross-up of taxes levied on the gain on the transfer of assets to the Production Sharing regime, as provided for in the mentioned ordinance (US\$ 60 for Atapu and US\$ 69 for Sépia). These amounts were paid to Petrobras in July 2022.

Additionally, as established in Ordinance No. 8 of April 19, 2021, between 2022 and 2032, whenever the price of Brent oil reaches an annual average ranging from US\$ 40.00 to US\$ 70.00, an earn out is due to Petrobras, for which the Company expects to receive a maximum of US\$ 5,244.

In 2022, the Company recognized part of this contingent asset related to the Earn Out for the years 2022 and 2023, in the amount of US\$ 693, within other income and expenses, considering that the inflow of economic benefits is virtually certain, of which: (i) US\$ 384, received in January 2023, as set out in Note 37; and (ii) US\$ 309 expected to be received in 2024.

Such earn outs are due as of the last business day of January of the subsequent year.

The total gain in this operation, including the earn out for 2022, was US\$ 3,552 (US\$ 1,242 for Atapu and US\$ 2,310 for Sépia), accounted for within other income and expenses.

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. - CNODC (5%) and CNOOC Petroleum Brasil Ltda. - CNOOC (5%).

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 Búzios Co-participation Agreement and not included in the total compensation amount, in the updated amount of US\$ 58 (R\$ 319 million), were reimbursed to Petrobras by the partners CNODC and CNOOC in February 2022.

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In addition, on March 4, 2022, Petrobras signed an agreement with its partner CNOOC for the transfer of 5% of its interest in the Production Sharing Contract for the Surplus Volume of the Transfer of Rights Agreement of the Búzios field, in the pre-salt layer of the Santos basin, to this company. The agreement results from the call option exercised by CNOOC on September 29, 2021.

On November 24, 2022, Petrobras received US\$ 1,953 referring to the compensation and reimbursement of the signature bonus of CNOOC's additional interest, including adjustments provided for in the contract up to the closing date. On November 30, 2022, the operation was closed with the signature of the amendment to the Production Sharing Contract by the Ministry of Mines and Energy. The agreement entered into force on December 1, 2022.

The total gain in this operation was US\$ 735 accounted for within other income and expenses.

After the transaction becomes effective, Petrobras hold an 85% interest in the Production Sharing Contract of the Surplus Volume of the Transfer of Rights Agreement of the Búzios field, CNOOC hold a 10% interest and CNODC a 5% interest. The total participation in this Búzios Co-participation Agreement, including the portions of the Transfer of Rights Agreement and of the BS-500 Concession Agreement (100% of Petrobras) is 88.99% of Petrobras, 7.34% of CNOOC and 3.67% of CNODC.

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

In 2022, there were no basins returned to the ANP. In 2021, 3 exploration areas in Santos and Potiguar basins were returned to the ANP, totaling US\$ 3.

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 registered 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 technical and commercial feasibility of 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	2022	2021	2020
Property, plant and equipment	(1,163)	3,414	(7,342)
Intangible assets	(1)	1	(12)
Assets classified as held for sale	(151)	(225)	15
Impairment losses	(1,315)	3,190	(7,339)
Investments	(6)	383	(514)
Net effect within the statement of income	(1,321)	3,573	(7,853)
Losses	(1,640)	(654)	(15,692)
Reversals	319	4,227	7,839

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.

On November 30, 2022, management concluded and approved its 2023-2027 Strategic Plan, considering a complete update of economic assumptions, as well as its project portfolio and estimates of reserve volumes.

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, 18 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
2022					
Property, plant and equipment and intangible assets					
Producing properties relating to oil and gas activities in Brazil (several CGUs)	8,307	7,747	(628)	E&P	item (a1)
Oil and gas production and drilling equipment in Brazil	486	7	(478)	E&P	item (b1)
Itaboraí utilities	919	777	(142)	E&P	item (c)
Second refining unit in RNEST	792	882	89	E&P	item (d1)
Others			(5)	Several	
			(1,164)		
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 (a2)
Oil and gas production and drilling equipment in Brazil	250	-	(250)	E&P	item (b2)
Second refining unit in RNEST	404	767	359	RT&M	item (d2)
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 (a3)
Oil and gas production and drilling equipment in Brazil	120	-	(119)	E&P	item (b3)
Second refining unit in RNEST	410	388	(22)	RT&M	item (d3)
Comperj	266	526	260	RT&M	item (e)
Corporate facilities	152	-	(161)	Corporate, others	item (f)
Others			2	Several	
			(7,354)		

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

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

In assessing the recoverable amount of property, plant and equipment and intangible assets, individually or grouped in CGUs, 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 forecasts approved by management for the period corresponding to the expected life cycle of each different business; and
- 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 by specific country-risks, in case of assets abroad. The use of post-tax discount rates in determining value in use does not result in 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, 2022, were mainly based on the following updated assumptions for average Brent prices and Brazilian real/U.S. dollar average exchange rates:

2023-2027 Strategic Plan	2023	2024	2025	2026	2027	Long term Average
Average Brent (US\$/barrel)	85	80	75	70	65	55
Average Brazilian Real (excluding inflation) - Real /U.S. dollar exchange rate	5.02	5.00	5.00	4.97	4.88	4.76

At December 31, 2021, average Brent prices and Brazilian real/U.S. dollar average exchange rates used were:

2022-2026 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

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

2021-2025 Strategic Plan (*)	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 which presented the main impairment losses and reversals for the period were:

Activity	12.31.2022	12.31.2021
Producing properties relating to oil and gas activities in Brazil	7.3% p.a.	6.4% p.a.
RT&M in Brazil – postponed projects	7.1% p.a.	6.2% p.a.
Gas utilities	5.7% p.a.	5.1% p.a.

Information on key assumptions for impairment testing and on CGU definitions is presented in note 4.2.

25.1.2. Information on the main impairment losses of property, plant and equipment and intangible assets

a1) Producing properties in Brazil – 2022

Impairment losses on producing properties in Brazil amount to US\$ 628, mainly in Roncador field (US\$ 518), reflecting the revision of abandonment costs and of the recovery of areas, as well as changes in operational efficiency estimates, which had a negative effect over production curves of this field.

a2) Producing properties in Brazil – 2021

Impairment reversals on producing properties in Brazil amount to US\$ 3,918, most of it related to CGUs of producing properties, reflecting the revision on the key assumptions of the 2022-2026 Strategic Plan, mainly the increase in average Brent prices.

a3) 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.

b1) Oil and gas production and drilling equipment in Brazil – 2022

Impairment losses of US\$ 478 relates to equipment and structures in the E&P segment, mainly due to the decision to cease the use of platforms P-18, P-19, P-20, P-35 and P-47 in the Marlim field, leading to the recognition of losses in the amount of US\$ 402.

b2) 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.

b3) 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.

c) Itaboraí utilities

The postponement of the beginning of operations of the Natural Gas Processing Unit (UPGN) of the Gaslub plant in Itaboraí, in the state of Rio de Janeiro, due to the termination of the agreement with the contractor responsible for the works, impacted revenue estimate, resulting in the recognition of a US\$ 142 impairment loss.

d1) Second refining unit of RNEST – 2022

The cash flows to measure the value in use of the second refining unit of RNEST considers operational optimization and the margins for the refining segment estimated in the 2023-2027 Strategic Plan, triggering impairment reversals in the amount of US\$ 89.

d2) Second refining unit of RNEST – 2021

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

d3) 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.

e) 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.

f) 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.

25.1.3. 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:

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Potential impairment losses - 10% reduction in the recoverable amount	Business segment	Carrying amount	Recoverable amount	Sensitivity
Asset with recoverable amount close to its carrying amount				
CGU Marlim Sul	E&P	5,544	5,365	(179)
Assets with impairment losses				
Producing properties relating to oil and gas activities in Brazil (CGU Roncador)	E&P	7,313	6,581	(732)
Second refining unit of RNEST	RTC	882	794	(88)
Itaboraí utilities	G&E	777	699	(78)
		14,516	13,439	(1,077)

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 (CGU Roncador)	E&P	7,313	8,044	731
Second refining unit of RNEST	RTC	882	970	88
Itaboraí utilities	G&E	777	855	78
		8,972	9,869	897

(*) 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.

Accounting policy for impairment of property, plant and equipment and intangible assets

Property, plant and equipment and intangible 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 4.2 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
				2022
Producing properties relating to oil and gas activities	376	300	(116)	E&P
Refinery and associated logistics assets	77	34	(44)	RT&M
Others			9	
Total			(151)	
				2021
Thermoelectric power plants	91	12	(79)	G&E
Investments in associates and joint ventures	107	44	(67)	G&E
Oil and gas production and drilling equipment	47	-	(46)	E&P
Refineries and associated logistics assets	255	218	(37)	RT&M
Others			4	
Total			(225)	
				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	

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

(**) The recoverable amounts of assets for impairment computation were their fair value.

In 2022, the Company recognized losses on assets held for sale, in the amount of US\$ 150, arising from the assessment at the fair value of assets, net of disposal expenses, mainly:

- i. producing properties relating to oil and gas activities – a US\$ 116 impairment loss, due to the revision of abandonment costs and of the recovery of areas of several concessions in groups of fields Golfinho (a US\$ 72 impairment loss), Pescada (a US\$ 29 impairment loss) and Camarupim (a US\$ 15 impairment loss); and
- ii. refinery and associated logistics assets: approval for the disposal of LUBNOR refinery, in the state of Ceará, resulting in the recognition of a US\$ 44 impairment loss.

In 2021, the Company recognized losses on assets held for sale, in the amount of US\$ 225, 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 Arembepé, 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. Breitenner 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\$ 15 arising from the fair value of assets, net of disposal expenses, with the most significant relating to:

- v. the sale of Recôncavo group of fields (14 concessions located onshore and in shallow waters) in the amount of US\$ 35;
- vi. the sale of Rio Ventura group of fields (8 concessions located onshore) in the amount of US\$ 18;
- vii. 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.

The accounting policy for assets and liabilities held for sale is set out in note 30.

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.

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.

25.3.1. 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, 2022, the quoted market value of the Company's investment in Braskem was US\$ 1,370 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 25.1.1.

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 and, 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.

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 moment in which technical and commercial feasibility to produce oil and gas are demonstrated.

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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 (*)	2022	2021
Property plant and equipment		
Opening Balance	1,994	3,024
Additions	379	459
Write-offs	(545)	(188)
Transfers	(83)	(1,097)
Translation adjustment	131	(204)
Closing Balance	1,876	1,994
Intangible Assets	2,406	2,576
Capitalized Exploratory Well Costs / Capitalized Acquisition Costs	4,282	4,570

(*) 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:

	2022	2021	2020
Exploration costs recognized in the statement of income			
Geological and geophysical expenses	(342)	(358)	296
Exploration expenditures written off (includes dry wells and signature bonuses)	(691)	(248)	456
Contractual penalties on local content requirements	165	(47)	38
Other exploration expenses	(19)	(34)	13
Total expenses	(887)	(687)	803
Cash used in:			
Operating activities	360	393	307
Investment activities	1,253	555	532
Total cash used	1,613	948	839

In 2022, exploration expenditures written off were mainly related to 8 exploratory wells in the Sergipe and Alagoas basin (US\$ 453), and projects run by subsidiaries of PIBBV in Colombia (US\$ 107) and Bolivia (US\$ 56).

Term of Conduct Adjustment with the ANP

In 2022, Petrobras approved the execution, with the ANP, of a Term of Conduct Adjustment (TAC) to offset local content fines related to:

- 22 concessions in which Petrobras has a 100% interest, located in the Barreirinhas, Campos, Espírito Santo, Parecis, Potiguar, Recôncavo, Santos, Sergipe-Alagoas and Solimões basins;
- 18 concessions in which Petrobras operates in partnership with other companies, located in the Almada, Espírito Santo, Mucuri, Parnaíba, Pelotas, Pernambuco-Paraíba, Potiguar, Recôncavo, Santos and Sergipe basins.

The TAC provides for the conversion of fines into investment commitments in the Exploration and Production segment with local content. Under the terms of the agreement, Petrobras is committed to investing US\$ 288 (R\$ 1,501 million) in local content by December 31, 2026. As a result, all administrative proceedings related to the collection of fines arising from alleged non-compliance with local content in these concessions will be closed, resulting in a US\$ 180 gain for the reversal of this liability as of December 31, 2022.

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 are demonstrated are immediately recognized as an expense;
- 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 are demonstrated. More information on intangible assets accounting policy, see note 24;

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• costs directly attributable to exploratory wells, including their equipment, installations and other costs necessary to identify the technical and commercial feasibility, 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 well 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 technical and commercial feasibility of the project is under way (for more information see note 24);

• an internal commission of technical executives of the Company monthly reviews these conditions for each well, by analysis of geoscience and engineering data, existing economic conditions, operating methods and government regulations (for more information 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; and

• 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 (technically and commercially feasible) are capitalized within property, plant and equipment.

26.1. Aging of Capitalized Exploratory Well Costs

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

Aging of capitalized exploratory well costs (*)	2022	2021
Exploratory well costs capitalized for a period of one year	406	136
Exploratory well costs capitalized for a period greater than one year	1,470	1,858
Total capitalized exploratory well costs	1,876	1,994
Number of projects relating to exploratory well costs capitalized for a period greater than one year	15	22

	Capitalized costs (2022)	Number of wells
2021	74	2
2020	17	1
2017 and previous years	1,379	20
Exploratory well costs that have been capitalized for a period greater than one year	1,470	23

(*) 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 15 projects comprising 23 wells, are composed of (i) US\$ 1,413 of wells in areas in which there has been ongoing drilling or firmly planned drilling activities for the near term and for which an evaluation plan has been submitted for approval by the ANP; and (ii) US\$ 57 relates to costs incurred to evaluate technical and commercial feasibility necessary for the decision on the production development and on definition of proved reserves.

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\$ 1,748 (US\$ 1,574 as of December 31, 2021), which is still in force as of December 31, 2022, net of commitments undertaken. As of December 31, 2022, the collateral comprises crude oil from previously identified producing fields and already in production, pledged as collateral, in the amount of US\$ 1,648 (US\$ 1,243 as of December 31, 2021) and bank guarantees of US\$ 100 (US\$ 331 as of December 31, 2021).

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, 2022, the Company holds interests in 78 partnerships with 36 companies, among which Petrobras is the operator in 50 (in 2021, 85 partnerships with 37 companies and operator in 55).

The partnerships formed in 2022 are described below (there were no new partnerships formed in 2021):

Consortium	Location	Petrobras %	Partners %	Operator	Year	Additional Information	ANP Bonus Petrobras portion
Atapu	Santos basin	52.5%	Shell - 25% TotalEnergies - 22,5%	Petrobras	2022	Production sharing	402
Sépia	Santos basin	30.0%	TotalEnergies - 28% Petronas - 21% QP - 21%	Petrobras	2022	Production sharing	409

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 2022 (kboed)	Regime	Operator
Tupi (BMS-11)	Santos basin pre-salt	65%	Shell – 25% Petrogal – 10%	709	Concession	Petrobras
Búzios	Santos basin pre-salt	85%	CNODC – 10% CNOOC – 5%	469	Production sharing	Petrobras
Roncador	Campos basin	75%	Equinor – 25%	107	Concession	Petrobras
Sapinhoá (BMS-9)	Santos basin pre-salt	45%	Shell – 30% Repsol Sinopec – 25%	106	Concession	Petrobras
Mero	Santos basin pre-salt	40%	Total – 20% Shell – 20% CNODC – 10% CNOOC – 10%	40	Production sharing	Petrobras
Sururu	Santos basin pre-salt	43%	Shell – 25% Total – 22,5% Petrogal – 10%	38	Concession	Petrobras
Tartaruga Verde	Campos basin	50%	Petronas – 50%	37	Concession	Petrobras
Atapu	Santos basin pre-salt	53%	Shell – 25% Total – 22,5%	31	Production sharing	Petrobras
Albacora Leste (*)	Campos basin	90%	Repsol Sinopec - 10%	29	Concession	Petrobras
Sépia	Santos basin pre-salt	30%	Total – 28% Petronas - 21% Qatar – 21%	22	Production sharing	Petrobras
Total				1,588		

(*) On January 26, 2023, Petrobras concluded the sale of its entire interest, as set out in note 37.

Accounting policy for joint operations

The E&P partnerships are classified as joint operations, where the assets, liabilities, revenues and expenses relating to these partnerships are accounted for in the financial statements individually, observing the applicable specific accounting policies and reflecting the portion of the contractual rights and obligations that the company has.

28.1. 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 Agulhinha, Albacora Leste, Berbigão, Budião Noroeste, Budião Sudeste, Caratinga, Sururu and Tartaruga.

Berbigão, Sururu, Albacora Leste and others

The table below presents changes in the reimbursements payable relating to the execution of the AIP submitted to the approval of the ANP:

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	2022	2021
Opening balance	364	370
Additions/(Write-offs) on PP&E	(7)	(64)
Other income and expenses	26	84
Translation adjustments	24	(26)
Closing balance	407	364

In 2022, 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.

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 reliably estimated.

29. Investments

29.1. Information on direct subsidiaries, joint arrangements and associates

	Main business segment	% Petrobras' ownership	% Petrobras' voting rights	Shareholders' equity (deficit)	Net income (loss) for the year	Country
Subsidiaries						
Petrobras International Braspetro - PIB BV	Several	100.00	100.00	52,728	3,787	Netherlands
Petrobras Transporte S.A. - Transpetro	RT&M	100.00	100.00	932	90	Brazil
Petrobras Logística de Exploração e Produção S.A. - PB-LOG	E&P	100.00	100.00	87	225	Brazil
Petrobras Biocombustível S.A.	Corporate, others	100.00	100.00	193	(38)	Brazil
Araucária Nitrogenados S.A.	Gas & Power	100.00	100.00	31	10	Brazil
Termomacacé S.A.	Gas & Power	100.00	100.00	61	14	Brazil
Braspetro Oil Services Company - Brasoil	Corporate, others	100.00	100.00	118	7	Cayman Islands
Termobahia S.A.	Gas & Power	98.85	98.85	67	11	Brazil
Baixada Santista Energia S.A.	Gas & Power	100.00	100.00	58	4	Brazil
Fundo de Investimento Imobiliário RB Logística - FII	E&P	99.15	99.15	16	8	Brazil
Procurement Negócios Eletrônicos S.A.	Corporate, others	72.00	49.00	7	2	Brazil
Petrobras Comercializadora de Gás e Energia e Participações S.A.	Corporate, others	100.00	100.00	11	–	Brazil
Transportadora Brasileira Gasoduto Bolívia - Brasil S.A.	Gas & Power	51.00	51.00	119	181	Brazil
Refinaria de Canoas S.A. (i)	RT&M	100.00	100.00	–	–	Brazil
Refinaria de Mucuripe S.A.	RT&M	100.00	100.00	–	–	Brazil
Ibiritermo S.A.	Gas & Power	100.00	100.00	2	5	Brazil
Associação Petrobras de Saúde (ii)	Corporate, others	93.47	93.47	116	21	Brazil
Joint operations						
Fábrica Carioca de Catalizadores S.A. - FCC	RT&M	50.00	50.00	50	17	Brazil
Joint ventures						
Logum Logística S.A.	RT&M	30.00	30.00	192	(33)	Brazil
Petrocoque S.A. Indústria e Comércio	RT&M	50.00	50.00	16	80	Brazil
Refinaria de Petróleo Riograndense S.A.	RT&M	33.20	33.33	19	15	Brazil
Brasympe Energia S.A.	Gas & Power	20.00	20.00	14	1	Brazil
Brentech Energia S.A.	Gas & Power	30.00	30.00	16	28	Brazil
Metanor S.A. - Metanol do Nordeste	RT&M	34.54	50.00	19	5	Brazil
Companhia de Coque Calcinado de Petróleo S.A. - Coquepar	RT&M	45.00	45.00	–	–	Brazil
Associates						
Braskem S.A. (iii)	RT&M	36.15	47.03	1,309	206	Brazil
UEG Araucária Ltda.	Gas & Power	18.80	18.80	82	(26)	Brazil
Energética SUAPE II S.A.	Gas & Power	20.00	20.00	88	31	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	3	2	Brazil

(i) Company legally established, with capital contribution of US\$ 58 thousand.

(ii) APS is a non-profit civil association, which carries out social or assistance activities (health care), and is consolidated in the Company's financial statements.

(iii) Equity and net income at September 30, 2022, most current public information.

In 2022, the Company sold some equity interests, including the following significant divestments:

- Deten Química S.A.– selling of its interest of 27.88%;
- Gaspetro - selling of its interest of 51%;
- Refinaria de Manaus S.A. (REMAN) - sale of 100% of the shares;
- Paraná Xisto (SIX) - sale of 100% of the shares.

For more information on the operations mentioned above and other corporate transactions, see note 30;

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;

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- 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
- PNBV (100%, based in the Netherlands), operates through joint operations in Tupi BV (67.59%), Guar BV (45%), Agri Development BV (90%), Libra (40%), Papa Terra BV (62.5%), Roncador BV (75%), Iara BV (90.11%), Petrobras Frade Inverses 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 12.31.2021	Investments	Transfer to assets held for sale	Restructuring, capital decrease and others	Results in equity- accounted investments	CTA	OCI	Dividends	Balance at 12.31.2022
Joint Ventures	509	16	1	(2)	256	1	–	(235)	546
MP Gulf of Mexico, LLC/PIB BV	387	–	–	–	170	1	–	(184)	374
Compaia Mega S.A. - MEGA	98	–	–	–	55	1	–	(5)	149
Other joint ventures	24	16	1	(2)	31	(1)	–	(46)	23
Associates	998	11	(58)	(13)	(5)	(27)	219	(109)	1,016
Other investments	3	–	–	–	–	1	–	–	4
Total	1,510	27	(57)	(15)	251	(25)	219	(344)	1,566

	Balance at 12.31.2020	Investments	Transfer to assets held for sale	Restructuring, capital decrease and others	Results in equity- accounted investments	CTA	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)	298	–	(308)	–	38	(2)	–	(26)	–
Compaia Mega S.A. - MEGA	82	–	–	–	31	2	–	(17)	98
Other joint ventures	67	9	(17)	–	11	–	(1)	(45)	24
Associates	2,455	15	(2,139)	(172)	1,405	(32)	23	(557)	998
Other investments	5	–	–	–	–	(2)	–	–	3
Total	3,273	24	(2,464)	(172)	1,607	(33)	22	(747)	1,510

29.3. Investments in non- consolidated listed companies

	Thousand-share lot		Type	Quoted stock exchange prices (US\$ per share)		Fair value
	12.31.2022	12.31.2021		12.31.2022	12.31.2021	
Associate						
Braskem S.A.	212,427	212,427	Common	4.83	10.17	2,160
Braskem S.A.	75,762	75,762	Preferred A	4.55	10.33	782
						1,370
						2,942

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, 2022 is US\$ 344 (US\$ 405 in 2021) primarily comprising US\$ 277 of FIDC (US\$ 165 in 2021); US\$ 58 of Transportadora Brasileira Gasoduto Brasil-Bolvia – TBG (US\$ 29 in 2021); and Gaspetro (US\$ 199 in 2021).

Condensed financial information is set out as follows:

	FIDC		TBG		Gaspetro		Consolidated Structured entities
	2022	2021	2022	2021	2022	2021	2021
Current assets	9,194	3,951	200	134	–	462	–
Property, plant and equipment	–	–	298	279	–	–	–
Other non-current assets	–	–	3	2	–	–	–
	9,194	3,951	501	415	–	462	–
Current liabilities	7	1	145	109	–	58	–
Non-current liabilities	–	–	237	246	–	–	–
Shareholders' equity	9,187	3,950	119	60	–	404	–
	9,194	3,951	501	415	–	462	–
Sales revenues	–	–	350	327	100	132	–
Net income (loss)	1,454	416	181	150	21	47	(133)
Increase (decrease) in cash and cash equivalents	616	2	72	42	(14)	7	(333)

Gaspetro, a Petrobras' subsidiary, holds interests in several state distributors of natural gas in Brazil. In July 2022, the Company closed the sale of its entire interest in Gaspetro (51%). For more information see note 30.

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:

	2022						2021	
	Joint ventures			Associates			Joint 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	295	481	410	6,642	832	425	253	7,308
Non-current assets	231	139	17	2,491	371	203	11	2,334
Property, plant and equipment	508	2,690	191	7,380	461	2,683	195	6,845
Other non-current assets	37	1	–	605	460	1	1	539
	1,071	3,311	618	17,118	2,124	3,312	460	17,026
Current liabilities	294	344	145	4,473	728	324	126	4,632
Non-current liabilities	494	548	32	11,263	517	623	36	10,967
Shareholders' equity	277	2,045	291	1,587	874	1,979	196	1,688
Non-controlling interest	6	374	150	(205)	5	386	102	(261)
	1,071	3,311	618	17,118	2,124	3,312	460	17,026
Sales revenues	1,159	1,408	32	18,709	2,947	1,138	–	20,625
Net Income (loss) for the year	72	887	162	(146)	156	635	91	2,821
Ownership interest - %	20 to 50%	20%	34 to 45%	18.8 to 38.8%	20 to 83%	20%	34 to 45%	18.8 to 38.8%

Accounting policy for investments

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.

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

Investments in other companies

Profit or loss, assets and liabilities related to joint ventures and associates are accounted for by the equity method.

Business combination

A business combination is a transaction in which the acquirer obtains control of another business, regardless its 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.

30. Disposal of assets and other transactions

The Company has an active partnership and divestment portfolio, which takes into account opportunities of partnerships and 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 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:

				12.31.2022	12.31.2021
	E&P	RT&M	Corporate and other businesses	Total	Total
Assets classified as held for sale					
Cash and cash equivalents	-	-	-	-	13
Trade receivables	-	-	-	-	31
Inventories	-	21	-	21	73
Investments	-	-	-	-	210
Property, plant and equipment	3,568	19	-	3,587	1,975
Others	-	-	-	-	188
Total	3,568	40	-	3,608	2,490
Liabilities on assets classified as held for sale					
Trade payables	-	-	-	-	2
Finance debt	-	-	133	133	1
Provision for decommissioning costs	1,332	-	-	1,332	833
Others	-	-	-	-	31
Total	1,332	-	133	1,465	867

30.1. Sales pending closing

The assets and liabilities corresponding to the transactions pending closing are classified as held for sale at December 31, 2022:

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Transaction	Acquirer	Date of approval / signing	Transaction amount (*)	Further information
Sale of the Company's 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.	3R Potiguar SA, subsidiary of 3R Petroleum Óleo e Gás SA	January 2022	1,385	a
Sale of the Company's entire interest 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.	Seacrest Petróleo SPE Norte Capixaba Ltda., a wholly owned subsidiary of Seacrest Exploração e Produção de Petróleo Ltda.	February 2022	478	b
Sale of the Company's entire interest in the Albacora Leste concession, located predominantly in deep waters in the Campos Basin.	Petro Rio Jaguar Petróleo Ltda. (PetroRio), subsidiary of Petro Rio S.A.	April 2022	1,951	c
Sale of the Lubrificantes e Derivados de Petróleo do Nordeste (LUBNOR) refinery and its associated logistics assets, located in the state of Ceará.	Grepar Participações Ltda.	May 2022	34	d
Sale of the Company's entire interest in a set of maritime concessions called Golfinho and Camarupim groups of fields, in deep waters of the post-salt layer, located in the Espírito Santo Basin.	BW Energy Maromba do Brasil Ltda (BWE)	June 2022	15	e

(*) Amounts considered at the signing of the transaction, not including contingent assets. Transactions signed in Brazilian reais are translated to U.S. dollars with the closing exchange rate of the period.

These transactions may provide for price adjustments until the closing of the transaction and be also subject to the fulfillment of conditions precedent, such as approval by the Brazilian Agency of Petroleum, Natural Gas and Biofuels (ANP) and CADE.

a) Sale of Potiguar group of fields

The agreement provides for the receipt of US\$ 110 on the transaction signing date, US\$ 1,040 at the transaction closing, and US\$ 235 to be paid to Petrobras in 4 annual installments of US\$ 58.75, starting in March 2024.

b) Sale of Norte Capixaba group of fields

The agreement provides for the receipt of US\$ 36 on the transaction signing date, and US\$ 442 at the transaction closing and up to US\$ 66 in contingent payments provided for in the contract, depending on future Brent prices.

c) Sale of Albacora Leste concession

The agreement provides for the receipt of US\$ 293 on the transaction signing date, US\$ 1,658 at the transaction closing, and up to US\$ 250 in contingent payments provided for in the contract, depending on future Brent prices.

d) Sale of LUBNOR refinery

The agreement provides for the receipt of US\$ 3 on the transaction signing date, US\$ 10 at the transaction closing, and 3 annual installments of US\$ 7 expected to occur from 2024 to 2026.

e) Sale of interest in Golfinho and Camarupim concessions

The agreement provides for the receipt of US\$ 3 on the transaction signing date, and US\$ 12 at the transaction closing and up to US\$ 60 in contingent payments provided for in the contract, depending on future Brent prices and the development of these assets.

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30.2. Closed sales

Transaction	Acquirer	Signature date (S) Closing date (C)	Sale amount (*)	Gain/ (loss) (**)	Further information
Sale of the Company's entire interest in a set of seven onshore and shallow water fields called Alagoas group of fields, and of Alagoas Natural Gas Processing Unit, in the state of Alagoas.	Petromais Global Exploração e Produção S.A. (renamed Origem Energia S.A.)	July 2021 (S) February 2022 (C)	300	335	a
Sale of the Company's entire interest in 14 onshore production fields (Recôncavo group of fields), in the state of Bahia	3R Candeias S.A., a wholly owned subsidiary of 3R Petroleum Óleo e Gás S.A.	December 2020 (S) May 2022 (C)	256	215	b
Sale of the Company's entire interest (27.88%) in Deten Química S.A (Deten), a petrochemical plant located in the industrial hub of Camaçari, in the state of Bahia.	Cepsa Química S.A.	April 2022 (S) July 2022 (C)	103	52	c
Sale of the Company's entire interest (51%) in Petrobras Gas S.A (Gaspetro)	Compass Gas e Energia S.A.	July 2021 (S) July 2022 (C)	391	173	d
Sale of the Company's entire interest in Peroá group of fields, in the state of Espírito Santo	DBO Energia and OP Energia, currently 3R Offshore	January 2021 (S) August 2022 (C)	13	34	e
Sale of the Company's entire interest in Fazenda Belém and Icapuí onshore fields, named Fazenda Belém group of fields, located in the Potiguar Basin, in the state of Ceará	SPE Fazenda Belém S.A., wholly owned subsidiary of 3R Petroleum e Participações S.A.	August 2020 (S) August 2022 (C)	23	39	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 (S) November 2022 (C)	257	37	g
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 (S) November 2022 (C)	42	(2)	h
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 (S) December 2022 (C)	1,098	619	i
Sale of the Company's 62.5% interest in Papa-Terra field, in the Campos basin	3R Petroleum Offshore S.A.	July 2021 (S) December 2022 (C)	24	(39)	j
Total			2,507	1,463	

(*) 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.

(**) 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 10).

The operations were concluded after the fulfillment of conditions precedent.

a) Sale of Alagoas group of fields and of Alagoas Natural Gas Processing Unit

The transaction was closed with the payment of US\$ 240 to Petrobras in February 2022, in addition to the US\$ 60 paid to Petrobras on the transaction signing date.

b) Sale of Recôncavo group of onshore fields

The transaction was closed with the payment of US\$ 246 to Petrobras in May 2022, in addition to the US\$ 10 paid to Petrobras on the transaction signing date.

c) Sale of Deten petrochemical plant

The transaction was closed with the payment of US\$ 96 to Petrobras, including price adjustments such as the effects of inflation indexation and compensation of dividends received, in addition to the US\$ 6 paid to Petrobras on the transaction signing date. In addition, US\$ 4 was paid to Petrobras up to December 2022 referring to the receipt of earn outs (tax credits) as provided for in the contract.

d) Sale of Gaspetro

The full amount was paid to Petrobras on the transaction closing date.

e) Sale of Peroá group of fields

The operation was closed with the payment of US\$ 8, including price adjustments, in addition to the US\$ 5 paid to Petrobras on the transaction signing date.

In addition to these amounts, Petrobras expects to receive up to US\$ 43 in contingent payments, depending on future Brent prices and the development of these assets.

f) Sale of Fazenda Belém group of fields

The operation was closed with the payment of US\$ 5, including price adjustments, in addition to the US\$ 9 paid to Petrobras on the transaction signing date.

Petrobras expects to receive the remaining balance in August 2023, including price adjustments.

g) Sale of REMAN refinery assets

The transaction was closed in November 2022 after the payment of US\$ 229 to Petrobras, including price adjustments, arising from changes in working capital, net debt and investments until the transaction closing, in addition to US\$ 28 received upon the contract signing.

The contract also provides for a final adjustment to the acquisition price, which is expected to occur in the first quarter of 2023.

h) Sale of interest in SIX shale processing plant

The transaction was closed with the payment of US\$ 39, including price adjustments, in addition to US\$ 3 received upon the contract signing.

i) Sale of Carmópolis group of onshore fields

The transaction was closed with the payment of US\$ 548, including price adjustments, in addition to the US\$ 275 paid to Petrobras on the transaction signing date.

In addition, US\$ 275 million will be received within 12 months.

j) Sale of Papa-Terra field

The transaction was closed with the payment of US\$ 18, including price adjustments, in addition to the US\$ 6 paid to Petrobras on the transaction signing date.

In addition, there is US\$ 80 in contingent receivables provided for in the contract (contingent asset), related to production volume of the asset and future oil prices.

30.3. Price adjustments – sales closed in previous periods

a) Sale of RLAM refinery assets

The transaction closed in November 2021 included price adjustments provided for in the contract, for which the Company recognized US\$ 68 in January 2022 within other income and expenses.

30.4. Surplus volumes of Transfer of Rights Agreement

Transaction	Closing date	Financial compensation	Results (*)
Production Sharing Contract for the surplus volumes of the Transfer of Rights Agreement related to Atapu and Sepia fields, including the gross-up of the taxes levied	April 2022	5,281	3,743
Exercise of the call option for additional 5% interest in the surplus volume of the Transfer of Rights Agreement of Búzios field	November 2022	1,951	737

(*) Recognized in "Results from co-participation agreements in bid areas" within other income and expenses (note 10).

For more information, see note 24.

30.5. Contingent assets from disposed investments and other transactions

Some disposed assets and other agreements provide for receipts subject to contractual clauses, especially related to the Brent variation in transactions related to E&P assets.

The transactions that may generate revenue recognition, accounted for within other income and expenses, are presented below:

Transaction	Closing date	Amounts subject to recognition	Assets recognized in 2022	Assets recognized in previous periods
Sales in previous years				
Riacho da Forquilha group of fields	December 2019	62	28	–
Pampo and Enchova group of fields	July 2020	650	144	36
Baúna field	November 2020	285	115	17
Frade field	February 2021	20	–	–
Ventura group of fields	July 2021	43	–	43
Miranga group of fields	December 2021	85	40	15
Cricare group of fields	December 2021	118	22	–
Sales in the period				
Peroá group of fields	August 2022	43	10	–
Papa-Terra field	December 2022	90	15	–
Surplus volume of the Transfer of Rights Agreement				
Sepia and Atapu (*)	April 2022	5,244	693	–
Total			1,067	111

(*) For more information, see note 24.3.

30.6. Other operation

On March 23, 2022, the dissolution of Participações em Complexos Bioenergéticos S.A. – PCBios, in which Petrobras held 50%, was concluded, after approval at this company's Extraordinary General Meeting. There were no accounting effects arising from this transaction.

On August 18, 2022, Petrobras concluded an agreement with Edison S.p.A for the purchase of an additional 50% interest in the company Ibiritermo S.A., for the amount of US\$ 1 (R\$ 2,5 million), which became a wholly owned subsidiary. This transaction was classified as a business combination, with recognition of gain on bargain purchase of US\$ 2.

On December 31, 2022, Petrobras Comercializadora de Gás e Energia e Participações S.A. (PBEN-P) and Petrobras Comercializadora de Energia S/A (PBEN), carried out a corporate restructuring in which PBEN-P incorporated PBEN. The two companies are wholly-owned subsidiaries of Petrobras. Therefore, there is no effect on these consolidated financial statements.

30.7. Cash flows from sales of interest with loss of control

In 2022, 2021 and 2020, 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
2022			
Gaspetro	391	(22)	369
REMAN	233	(22)	211
Total	624	(44)	580
2021			
Mataripe refinery (former RLAM)	1,868	(119)	1,749
PUDSA	62	(15)	47
Total	1,930	(134)	1,796
2020			
Petrobras Oil & Gas B.V.(PO&GBV)	276	–	276
Liquigas	784	(10)	774
Total	1,060	(10)	1,050

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 disposal expenses. Assets and liabilities are presented separately in the statement of financial position.

In the classification of non-current assets as held for sale, provisions for decommissioning costs related to these assets are also disclosed. Any commitments with decommissioning assumed by the Company resulting from the sale process are recognized after the closing of the transaction, in accordance with the contractual terms.

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.

31. Finance debt

31.1. Balance by type of finance debt

	12.31.2022	12.31.2021
In Brazil		
Banking market	1,285	1,237
Capital market	2,896	2,504
Development banks (*)	723	769
Others	4	7
Total	4,908	4,517
Abroad		
Banking market	8,387	8,525
Capital market	14,061	19,527
Export credit agency	2,443	2,951
Others	155	180
Total	25,046	31,183
Total finance debt	29,954	35,700
Current	3,576	3,641
Non-current	26,378	32,059

(*) It includes BNDES, FINAME and FINEP

Current finance debt is composed of:

	12.31.2022	12.31.2021
Short-term debt	–	108
Current portion of long-term debt	3,111	3,063
Accrued interest on short and long-term debt	465	470
Total	3,576	3,641

The capital market balance is mainly composed of US\$ 13,442 in global notes issued abroad by the wholly owned subsidiary PGF, as well as US\$ 1,874 in debentures and US\$ 880 in commercial notes issued by Petrobras 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%, 2% and 11%, of the total global notes, respectively.

The debentures and the commercial notes, with maturities between 2024 and 2037, do not require collateral and are not convertible into shares or equity interests.

31.2. Changes in finance debt

	In Brazil	Abroad	Total
Balance at December 31, 2021	4,517	31,183	35,700
Proceeds from finance debt	853	2,027	2,880
Repayment of principal (*)	(1,013)	(8,183)	(9,196)
Repayment of interest (*)	(292)	(1,554)	(1,846)
Accrued interest (**)	396	1,867	2,263
Foreign exchange/ inflation indexation charges	120	(580)	(460)
Translation adjustment	326	287	613
Balance at December 31, 2022	4,907	25,047	29,954

	In Brazil	Abroad	Total
Balance at December 31, 2020	8,854	45,035	53,889
Proceeds from finance debt	-	1,754	1,754
Repayment of principal (*)	(4,213)	(14,894)	(19,107)
Repayment of interest (*)	(245)	(1,613)	(1,858)
Accrued interest (**)	241	1,970	2,211
Foreign exchange/ inflation indexation charges	173	82	255
Translation adjustment	(228)	(200)	(428)
Balance at December 31, 2021	4,582	32,134	36,716

(*) It includes pre-payments.

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

In 2022, the Company repaid several finance debts, in the amount of US\$ 11,184 notably US\$ 5,444 to repurchase global bonds previously issued by the Company in the international capital market.

In the same period, the Company raised funds in the amount of US\$ 2,880, mainly reflecting: (i) US\$ 1,244 through a Sustainability-Linked Loan, in the international banking market, maturing in 2027; (ii) US\$ 572 through the issuance of commercial notes in the Brazilian capital market due in 2030 and 2032; and (iii) US\$ 280 through the issuance of private placement commercial notes that backed the issuance of certificates of real estate receivables, maturing in 2030, 2032 and 2037. The certificates of real estate receivables were issued by a securitization that fully subscribed the Commercial Notes issued by Petrobras.

The loan linked to sustainability commitments was signed with Bank of China, MUFG and The Bank of Nova Scotia, with a value of US\$ 1,244 and maturity in July 2027. The contract includes incentive mechanisms for achieving sustainability commitments, based on the corporate performance indicators of E&P's greenhouse gas (GHG) intensity, refining GHG intensity and E&P methane intensity.

31.3. Reconciliation with cash flows from financing activities

	2022			2021		
	Proceeds from finance debt	Repayment of principal	Repayment of interest	Proceeds from finance debt	Repayment of principal	Repayment of interest
Changes in finance debt	2,880	(9,196)	(1,846)	1,754	(19,107)	(1,858)
Repurchase of debt securities	-	(121)	-	-	-	-
Deposits linked to finance debt (*)	-	(17)	(4)	-	-	-
Net cash used in financing activities	2,880	(9,334)	(1,850)	1,754	(19,107)	(1,858)

(*) Deposits linked to finance debt with China Development Bank, with semiannual settlements in June and December.

31.4. 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\$):	2,879	3,240	2,569	1,528	2,465	10,006	22,687	22,721
Floating rate debt (**)	2,588	2,681	1,934	1,143	1,739	652	10,737	
Fixed rate debt	291	559	635	385	726	9,354	11,950	
Average interest rate p.a.	6.8%	6.5%	6.1%	6.3%	5.9%	6.6%	6.6%	
Financing in Brazilian Reais (R\$):	622	690	221	440	427	2,507	4,907	4,907
Floating rate debt (***)	324	280	138	138	333	1,060	2,273	
Fixed rate debt	298	410	83	302	94	1,447	2,634	
Average interest rate p.a.	6.7%	6.9%	6.5%	6.2%	6.4%	6.6%	6.6%	
Financing in Euro (€):	37	13	289	-	-	583	922	897
Fixed rate debt	37	13	289	-	-	583	922	
Average interest rate p.a.	4.7%	4.7%	4.7%	-	-	4.7%	4.7%	
Financing in Pound Sterling (£):	38	-	-	555	-	845	1,438	1,328
Fixed rate debt	38	-	-	555	-	845	1,438	
Average interest rate p.a.	6.2%	0.0%	0.0%	6.2%	0.0%	6.5%	6.3%	
Total as of December 31, 2022	3,576	3,943	3,079	2,523	2,892	13,941	29,954	29,853
Average interest rate	6.7%	6.5%	6.1%	6.2%	6.0%	6.6%	6.5%	
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%	

(*) The average maturity of outstanding debt as of December 31, 2022 is 12.07 years (13.39 years as of December 31, 2021).

(**) Operations with variable index + fixed spread.

(***) Operations with variable index + fixed spread, if applicable.

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\$ 13,061 of December 31, 2022 (US\$ 20,770 of December 31, 2021); 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\$ 16,792 as of December 31, 2022 (US\$ 17,121 as of December 31, 2021).

Regarding the Interest Rate Benchmark Reform (IBOR Reform), in order to prepare for the transition to alternative reference rates, the Company continues to monitor the pronouncements of regulatory authorities, aimed at adapting its financial instruments to the new benchmark, and the Company expects that the replacement of the LIBOR reference in the current financing agreements will be carried out under market conditions and, therefore, expects that there will be no material impacts when this process is completed.

The Company has debts indexed to Libor (London Interbank Offered Rate), corresponding to 30.8% of total finance debt.

The sensitivity analysis for financial instruments subject to foreign exchange variation is set out in note 34.3.

A maturity schedule of the Company's finance debt (undiscounted), including face value and interest payments is set out as follows:

Maturity	2023	2024	2025	2026	2027	2028 and thereafter	12.31.2022	12.31.2021
Principal	3,106	4,061	3,173	2,665	2,657	16,041	31,703	36,557
Interest	1,928	1,748	1,441	1,282	1,068	17,348	24,815	30,557
Total	5,034	5,809	4,614	3,947	3,725	33,389	56,518	67,114

A maturity schedule of the lease arrangements (nominal amounts) is set out in note 32.

31.5. Lines of credit

							12.31.2022
Company	Financial institution	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	383	–	383	
Petrobras	Banco do Brasil	10/4/2018	9/5/2025	383	–	383	
Transpetro	Caixa Econômica Federal	11/23/2010	Not defined	63	–	63	
Total				829	–	829	

(*) In April 2021, the subsidiary PGT BV 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.

31.6. Covenants and Collateral

31.6.1. Covenants

The Company has covenants that were not in default at December 31, 2022 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.

31.6.2. Collateral

Most of the Company's debt is unsecured, but certain specific funding instruments to promote economic development are collateralized. Such contracts represent 16% of the total financing, notably a Financing agreement with China Development Bank (CDB).

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.

Accounting policy for 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 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.

32. 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:

	In Brazil	Abroad	Total
Balance at December 31, 2021	4,604	18,439	23,043
Remeasurement / new contracts	2,730	2,219	4,949
Payment of principal and interest (*)	(1,785)	(3,638)	(5,423)
Interest expenses	365	991	1,356
Foreign exchange gains and losses	(169)	(1,221)	(1,390)
Translation adjustment	287	1,170	1,457
Transfers	(12)	(135)	(147)
Balance at December 31, 2022	6,020	17,825	23,845
Current			5,557
Non-current			18,288

(*) The Repayment of lease liability, disclosed in the Statements of Cash Flows, includes US\$ 7 related to assets classified as held for sale.

	In Brazil	Abroad	Total
Balance at December 31, 2020	4,340	17,310	21,650
Remeasurement / new contracts	1,655	4,474	6,129
Payment of principal and interest	(1,560)	(4,267)	(5,827)
Interest expenses	243	990	1,233
Foreign exchange gains and losses	151	1,288	1,439
Translation adjustment	(272)	(1,310)	(1,582)
Transfers	47	(46)	1
Balance at December 31, 2021	4,604	18,439	23,043
Current			5,432
Non-current			17,611

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	2,813	2,000	1,141	491	340	1,695	8,480	255
Others	93	40	19	5	–	–	157	14
With readjustment - abroad (*)								
Vessels	238	213	179	158	131	17	936	–
Platforms	1,546	1,539	1,461	1,368	1,358	10,992	18,264	–
With readjustment - Brazil								
Vessels	609	464	288	109	18	10	1,498	120
Properties	159	209	163	156	175	1,365	2,227	93
Others	252	156	129	107	100	419	1,163	73
Nominal amounts on December 31, 2022	5,710	4,621	3,380	2,394	2,122	14,498	32,725	555
Nominal amounts on December 31, 2021	5,567	3,944	3,027	2,309	1,972	14,608	31,427	346

(*) Contracts signed in the U.S. Dollars.

The following table presents the main information on leases by class of underlying assets, where platforms and vessels represent 92% of the lease liability:

Present Value of Future Payments	Discount rate (%)	Average Period	Recoverable taxes	Closing Balance	Opening Balance
Without readjustment					
Vessels	4,0518	5.8 years	255	7,421	6,201
Others	2,5774	2.6 years	14	149	202
With readjustment - abroad (*)					
Platforms	5,7393	13.9 years	–	12,340	13,059
Vessels	4,4127	4.2 years	–	838	1,431
With readjustment - Brazil					
Vessels	7,8958	2.8 years	120	1,298	850
Properties	8,0496	22.7 years	93	1,010	590
Others	9,8752	7.7 years	73	789	710
Total (**)	5,5127	11.4 years	555	23,845	23,043

(*) Incremental nominal rate on company debt calculated from the yield curve of bonds and credit risk of the Company, as well as terms .

(**) Total amount, except for the average period column.

In certain contracts, there are variable payments and amounts less than 1 year recognized as an expense:

	31.12.2022	31.12.2021
Variable payments	1,060	898
Variable payments x fixed payments	20%	15%
Up to 1 year maturity	118	110

At December 31, 2022, 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\$ 79,913 (US\$ 79,557 at December 31, 2021).

The sensitivity analysis of financial instruments subject to exchange variation is presented in note 34.3.

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 34.3).

In the E&P segment, some activities are conducted by joint operations with partner companies 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.

33. Equity

33.1. Share capital (net of share issuance costs)

As of December 31, 2022 and December 31, 2021, 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.

33.2. Capital reserve

Capital reserve comprises treasury shares owned by Petrobras, in the amount of US\$ 2, at December 31, 2022 and December 31, 2021.

33.3. Capital transactions

33.3.1. 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.

33.3.2. 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.

33.3.3. Treasury shares

Shares held in treasury in the amount of US\$ 2, at December 31, 2022 and December 31, 2021, represented by 222,760 common shares and 72,909 preferred shares.

33.4. Profit reserves

33.4.1. Legal reserve

It represents 5% of the net income for the year, calculated pursuant to article 193 of the Brazilian Corporation Law.

33.4.2. 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.

33.4.3. Tax incentives reserve

Government grants are recognized in the statement of income and are appropriated from retained earnings to the tax incentive reserve pursuant to article 195-A of Brazilian Corporation Law. This reserve may only be used to offset losses or increase share capital.

In 2022, the amount of US\$ 457 was appropriated from retained earnings to the tax incentive reserve referring to a subsidy incentive for investments, granted by the Superintendencies for Development of the Northeast Region of Brazil (SUDENE) and of the Amazon (SUDAM).

33.4.4. Profit retention reserve

It includes funds intended for capital expenditures, primarily in oil and gas exploration and development activities, as per the capital budget of the Company, pursuant to article 196 of the Brazilian Corporation Law.

33.5. 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%.

The Company's policy on distributions to shareholders, 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.

33.5.1. Accounting policy on 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, since it is part of the dividend for the year, as provided for in the Company's bylaws, and accounted for in the statement of income, as required by tax legislation, resulting in a tax credit for income taxes recognized in the statement of income of the year.

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.

Dividends not claimed by Petrobras' shareholders are transferred from dividends payable to other current liabilities. After 3 years from the date these dividends are made available to shareholders, they are reclassified from other current liabilities to equity within retained earnings, in accordance with Petrobras' bylaws.

33.5.2. Proposed dividends for 2022

Distribution to shareholders for 2022, proposed by management for approval at the Annual General Shareholders Meeting, amounting to US\$ 43,187 (US\$ 3.3106 per outstanding share), includes the minimum mandatory dividend of 25% of the adjusted net income (US\$ 8,458) and additional dividends proposed (US\$ 34,729), arising from the remaining portion of retained earnings and the profit retention reserve.

This amount includes US\$ 36,323 of anticipations to shareholders, updated by SELIC interest rate, from the payment date to December 31, 2022, and US\$ 6,864 of complementary dividends.

Cash generation arising from higher sales margins, the maintenance of the indebtedness target, as well as the absence of investments held back by financial restrictions, allowed proposed dividends for 2022 to be higher than dividends calculated based on the Company's policy on distribution to shareholders (US\$ 23,660).

	Date of approval	Date of record	Amount per common and preferred share	Amount
Dividends and interest on capital - paid in 2 installments - June and July 2022	05.05.2022	05.23.2022	0.7423	9,683
Dividends and interest on capital - paid in 2 installments - August and September 2022	07.28.2022	08.11.2022	1.2909	16,839
Dividends and interest on capital - paid in 2 installments - December 2022 and January 2023	11.03.2022	11.21.2022	0.6521	8,508
Total approved anticipations of dividends as of December 31, 2022			2.6853	35,030
Monetary restatement on paid anticipations			0.0991	1,293
Total anticipations of dividends monetarily restated			2.7844	36,323
Complementary dividends			0.5262	6,864
Total dividends proposed for 2022			3.3106	43,187
Total dividends for 2021			1.4215	18,541

According to the Company's by-laws, these amounts are indexed to the Selic interest rate, from the date of the payment to the end of the fiscal year (US\$ 1,293), and are considered in determining the remaining dividends to be paid relating to 2022.

The interest on capital anticipated for the year 2022 resulted in a deductible expense which reduced the income tax expense by US\$ 1,234. This amount was subject to withholding income tax (IRRF) of 15%, except for immune and exempt shareholders, as established in applicable law.

33.5.3. Dividends for 2021

Distribution to shareholders for 2021, proposed by management and approved at the Annual General Shareholders Meeting held on April 13, 2022, amounted US\$ 18,541 (corresponding to US\$ 1.4215 per outstanding share), includes the minimum mandatory dividend of 25% of the adjusted net income (US\$ 4,510) and additional dividends proposed (US\$ 14,031), arising from the remaining portion of retained earnings and the profit retention reserve. This proposal was superior to the priority of preferred shares.

This amount included US\$ 11,853 of anticipations to shareholders, updated by SELIC interest rate, from the payment date to December 31, 2021, and US\$ 6,688 of complementary dividends.

These complementary were reclassified from shareholders' equity to liabilities on the date of approval on the Annual General Shareholders Meeting and paid on May 16, 2022 in the amount of US\$ 6,987, equivalent to US\$ 0.5356 per outstanding share, including the updated by the Selic interest rate from December 31, 2021 to the payment date, in the amount of US\$ 299.

33.5.4. Dividends payable

As of December 31, 2022, dividends payable within current liabilities, amounting to US\$ 4,171, relate to the second installment of the anticipation of dividend approved on November 3, 2022 and paid on January 19, 2023.

	2022	2021
Opening balance of dividends payable to shareholders of Petrobras	-	849
Additions relating to complementary dividends	6,688	1,128
Additions relating to anticipated dividends	35,030	11,732
Payments made	(37,701)	(13,078)
Monetary restatement	(298)	(13)
Transfers to unclaimed dividends	(165)	(67)
Withholding income tax over interest on capital and monetary restatement	(366)	(217)
Translation adjustment	981	(334)
Closing balance of dividends payable to shareholders of Petrobras	4,169	-
Dividends payable to non-controlling shareholders	2	-
Consolidated closing balance of dividends payable	4,171	-

Complementary dividends amounting to US\$ 6,932 (US\$ 0.5314 per outstanding share) will be maintained in shareholders' equity until its approval on the Annual General Shareholders Meeting, to be held in April 2023, when it will be reclassified to liabilities, if approved.

33.5.5. Unclaimed Dividends

As of December 31, 2022, the balance of dividends not claimed by shareholders of Petrobras is US\$ 241 recorded as other current liabilities, as described in note 20 (US\$ 81 as of December 31, 2021). The payment of these dividends was not carried out due to the lack of registration data for which the shareholders are responsible with the custodian bank for the Company's shares and with Petrobras.

	2022	2021
Changes in unclaimed dividends		
Opening balance	81	18
Transfers from dividends payable	165	67
Prescription	(11)	-
Translation adjustment	6	(4)
Closing Balance	241	81

Prescribed dividends amounting to US\$ 11 in 2022 was transferred to equity, within retained earnings.

The following table presents the Company's expectation of prescription of unclaimed dividends if missing registration data is uninformed by shareholders of Petrobras.

	12.31.2022
Expectation of prescription of unclaimed dividends	
2022	7
2023	63
2024	171
	241

33.6. Earnings per share

	2022			2021			2020		
	Common	Preferred	Total	Common	Preferred	Total	Common	Preferred	Total
Net income attributable to shareholders of Petrobras	20,895	15,728	36,623	11,339	8,536	19,875	651	490	1,141
Weighted average number of outstanding shares	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
Basic and diluted earnings per share - in U.S. dollars	2.81	2.81	2.81	1.52	1.52	1.52	0.09	0.09	0.09
Basic and diluted earnings (losses) per ADS equivalent - in U.S. dollars (*)	5.62	5.62	5.62	3.04	3.04	3.04	0.18	0.18	0.18

(*) Petrobras' ADSs are equivalent to two shares.

Basic earnings per share are calculated by dividing the net income (loss) attributable to shareholders of Petrobras by the weighted average number of outstanding shares during the period.

Diluted earnings 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.

34. Risk management

The Company is exposed to a variety of risks arising from its operations, including price risk (related to crude oil and oil products prices), foreign exchange rates risk, interest rates risk, credit risk and liquidity risk. Corporate risk management is part of the Company's commitment to act ethically and comply with the legal and regulatory requirements of the countries where it operates.

To manage market and financial risks the Company prefers structuring measures through adequate capital and leverage management. While managing risks, the Company considers its corporate governance and controls, 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.

The Company presents a sensitivity analysis of factors relating to its corporate risk management process. The possible and remote scenarios are related to events with low and very low probability of occurrence, respectively. The period of application of the sensitivity analysis is one year, except for operations with commodity derivatives, for which a three-month period is applied, due to the short-term nature of these transactions.

34.1. 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, 2022, as well as the amounts recognized in the statement of income and other comprehensive income and the guarantees given is set out as follows:

	Statement of Financial Position				
	Notional value		Fair value		Maturity
	12.31.2022	12.31.2021	Asset Position (Liability)	12.31.2021	
Derivatives not designated for hedge accounting					
Future contracts - total (*)	683	(1,308)	(40)	(1)	
Long position/Crude oil and oil products	9,058	1,380	-	-	2023
Short position/Crude oil and oil products	(8,375)	(2,688)	-	-	2023
Swap (**)					-
Long put/ Soybean oil (**)	(3)	(11)	-	-	2023
Forward contracts					
Short position/Foreign currency forwards (BRL/USD) (***)	-	US\$ 15	-	-	-
Swap					
Foreign currency / Cross-currency Swap (***)	-	GBP 583	-	23	-
Foreign currency / Cross-currency Swap (***)	-	GBP 442	-	(50)	-
Swap - CDI X IPCA	R\$ 3,008	R\$ 3,008	(16)	(1)	2029/2034
Foreign currency / Cross-currency Swap (***)	US\$ 729	US\$ 729	(64)	(221)	2024/2029
Total recognized in the Statement of Financial Position			(120)	(250)	

(*) Notional value in thousands of bbl.

(**) Notional value in thousands of tons.

(***) Amounts in US\$, GBP and R\$ are presented in million.

NOTES TO THE FINANCIAL STATEMENTS

PETROBRAS

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

		Gains/ (losses) recognized in the statement of income		
		2022	2021	2020
Commodity derivatives				
Crude oil - Note 34.2 (a)		-	-	(502)
Other commodity derivative transactions - Note 34.2 (b)		(256)	(79)	194
Recognized in Other Income and Expenses		(256)	(79)	(308)
Currency derivatives				
Swap Pounds Sterling x Dollar - Note 34.3 (b)		(297)	(85)	11
NDF – Euro x Dollar		-	-	(23)
NDF – Pounds Sterling x Dollar		-	9	20
Swap CDI x Dollar - Note 34.3 (b)		211	(3)	(284)
Others		5	1	(2)
		(81)	(78)	(278)
Interest rate derivatives				
Swap - CDI X IPCA - Note 34.3 (b)		(50)	(41)	(36)
		(50)	(41)	(36)
Cash flow hedge on exports - Note 34.3 (a)		(4,871)	(4,585)	(4,720)
Recognized in Net finance income (expense)		(5,002)	(4,704)	(5,034)
Total		(5,258)	(4,783)	(5,342)

		Gains/ (losses) recognized in other comprehensive income		
		2022	2021	2020
Cash flow hedge on exports - Note 34.3 (a)		10,094	636	(16,740)

		Guarantees given as collateral	
		12.31.2022	12.31.2021
Commodity derivatives		96	15
Currency derivatives		-	27
Total		96	42

A sensitivity analysis of the derivative financial instruments for the different types of market risks as of December 31, 2022 is set out as follows:

		Probable Scenario	Reasonably possible scenario	Remote Scenario
Financial Instruments	Risk			
Derivatives not designated for hedge accounting				
Future and forward contracts	Crude oil and oil products - price changes	-	(135)	(269)
		-	(135)	(269)

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, 2022. 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 20% and 40%, 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.

34.2. Risk management of 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.

34.3. 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.

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.

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, 2022, 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\$ 5,2177 exchange rate are set out below:

Hedging Instrument	Hedged Transactions	Nature of the Risk	Maturity Date	Present value of hedging instrument notional value at 12.31.2022	
				US\$ million	R\$ million
Foreign exchange gains and losses on proportion of non-derivative financial instruments cash flows	Foreign exchange gains and losses of highly probable future monthly exports revenues	Foreign Currency – Real vs U.S. Dollar Spot Rate	January 2023 to December 2032	62,119	324,121

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Changes in the present value of hedging instrument notional value	US\$ million	R\$ million
Amounts designated as of December 31, 2021	72,640	405,370
Additional hedging relationships designated, designations revoked and hedging instruments re-designated	14,589	76,263
Exports affecting the statement of income	(12,037)	(62,172)
Principal repayments / amortization	(13,073)	(67,270)
Foreign exchange variation	-	(28,070)
Amounts designated as of December 31, 2022	62,119	324,121
Nominal value of hedging instrument (finance debt and lease liability) at December 31, 2022	72,393	377,723

In the year ended December 31, 2022, the Company recognized a US\$ 62 loss within foreign exchange gains (losses) due to ineffectiveness (a US\$ 15 gain in the same period of 2021).

The average ratio of future exports for which cash flow hedge accounting was designated to the highly probable future exports is 48.58%.

A roll-forward schedule of cumulative foreign exchange losses recognized in other comprehensive income as of December 31, 2022 is set out below:

	Exchange rate variation	Tax effect	Total
Balance at December 31, 2021	(36,621)	12,452	(24,169)
Recognized in Other comprehensive income	5,223	(1,776)	3,447
Reclassified to the statement of income - occurred exports	4,871	(1,656)	3,215
Balance at December 31, 2022	(26,527)	9,020	(17,507)

	Exchange rate variation	Tax effect	Total
Balance at December 31, 2020	(37,257)	12,667	(24,590)
Recognized in Other comprehensive income	(3,949)	1,344	(2,605)
Reclassified to the statement of income - occurred exports	4,585	(1,559)	3,026
Balance at December 31, 2021	(36,621)	12,452	(24,169)

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 the Strategic Plan 2023-2027, would not indicate a reclassification from equity to the statement of income.

A schedule of expected reclassification of cumulative foreign exchange losses recognized in other comprehensive income to the statement of income as of December 31, 2022 is set out below:

	2023	2024	2025	2026	2027	2028	2029 to 2032	Total
Expected realization	(7,613)	(5,692)	(3,558)	(3,019)	(3,258)	(2,251)	(1,136)	(26,527)

Accounting policy for hedge accounting

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

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 exports 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.

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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.

Over the last few years, Petrobras repurchased part of these bonds, reducing its position in this derivative instrument. Between October and November 2022, after carrying out an integrated analysis of the main risk factors to which the Company is exposed, Petrobras terminated the position in this derivative instrument.

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.

In July 2022, the Company approved a repurchase plan for these debentures, to hold them in treasury or resell them. At December 31, 2022, only an immaterial amount of this debt had been effectively repurchased. Thus, the position in this swap remains unchanged.

Changes in interest rate forward curves (CDI interest rate) may affect the Company's results, due to the market value of these swap contracts. In preparing a sensitivity analysis for these curves, a parallel shock on this curve was estimated based on the average maturity of these swap contracts, in the scope of the Company's Risk Management Policy. For possible and remote scenarios, the effects of 40% (500 b.p.) and 80% (1,000 b.p.) variations, respectively, on the interest rate forward curves were estimated. The effects of this sensitivity analysis, keeping all other variables remaining constant, are shown in the following table:

	Possible Result	Remote Result
SWAP cambial (IPCA x USD)	(13)	(15)

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The methodology used to calculate the fair value of this swap operation consists of calculating the future value of the operations, using rates agreed in each contract and the projections of the forward curves, IPCA coupon and foreign exchange coupon, discounting to present value using the risk-free rate. Curves are obtained from Bloomberg based on forward contracts traded in stock exchanges.

Finally, the mark-to-market is adjusted to the credit risk of the financial institutions, which is not relevant in terms of financial volume, since the Company makes contracts with highly rated banks.

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 (20% and 40% changes in the foreign exchange rates prevailing on December 31, 2022, 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.

Risk	Financial Instruments	Exposure at 12.31.2022	Probable Scenario (*)	Reasonably possible scenario	Remote Scenario
Dollar/Real	Assets	7,448	75	1,490	2,979
	Liabilities	(96,873)	(971)	(19,374)	(38,749)
	Exchange rate - Cross currency swap	(576)	(6)	(115)	(231)
	Cash flow hedge on exports	62,120	623	12,424	24,848
	Total	(27,881)	(279)	(5,575)	(11,153)
Euro/Dollar	Assets	1,018	32	204	407
	Liabilities	(2,173)	(68)	(435)	(869)
	Total	(1,155)	(36)	(231)	(462)
Pound/Dollar	Assets	1,445	33	289	578
	Liabilities	(2,879)	(66)	(576)	(1,152)
	Total	(1,434)	(33)	(287)	(574)
Pound/Real	Assets	2	-	-	1
	Liabilities	(26)	(1)	(5)	(10)
	Total	(24)	(1)	(5)	(9)
Euro/Real	Assets	4	-	1	2
	Liabilities	(63)	(3)	(12)	(25)
	Total	(59)	(3)	(11)	(23)
Total at December 31, 2022		(30,553)	(352)	(6,109)	(12,221)

(*) At , the probable scenario was computed based on the following risks: R\$ x U.S. Dollar - a 1% depreciation of the Real; Euro x Dollar: a 3.1 appreciation of the Euro; Pound Sterling x U.S. Dollar: a 2.26% appreciation of the Pound Sterling; Real x Euro: a 4.2% depreciation of the Real; and Real x Pound Sterling - a 3.3% depreciation of the Real. Source: Focus and Thomson Reuters.

34.4. 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 twelve-month term. Amounts referring to reasonably possible and remote scenarios mean the total floating interest expense if there is a variation of 40% and 80% in these interest rates, respectively, maintaining all other variables constant.

The following table presents the amounts to be disbursed by Petrobras with the payment of interest related to debts with floating interest rates at December 31, 2022:

Risk	Probable Scenario (*)	Reasonably possible scenario	Remote Scenario
LIBOR 3M	12	16	19
LIBOR 6M	655	917	1,179
SOFR 3M	84	109	135
SOFR 6M	17	23	30
CDI	181	253	325
TJLP	70	98	126
IPCA	96	134	173
	1,115	1,550	1,987

(*) The probable scenario was calculated considering the quotations of currencies and floating rates to which the debts are indexed.

34.5. 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. In the Company's consolidated financial statements for the year ended December 31, 2022, the net working capital was negative. To mitigate such position, the Company has investments in post-fixed Bank Deposit Certificates (CDB) classified as non-current assets (see note 7.2), with daily liquidity.

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.

34.6. 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.

34.6.1. 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 cash equivalents		Marketable securities	
	12.31.2022	12.31.2021	12.31.2022	12.31.2021
AA	–	1,152	–	–
A	3,806	1,145	820	–
BBB	212	2,308	–	–
BB	917	3,672	205	–
AAA.br	3,034	530	3,311	694
AA.br	1	1,639	1	–
Other ratings	26	21	–	–
	7,996	10,467	4,337	694

34.7. Fair value of financial assets and liabilities

	Level I	Level II	Level III	Total fair value recorded
Assets				
Balance at December 31, 2022	-	-	-	-
Balance at December 31, 2021	-	23	-	23
Liabilities				
Foreign currency derivatives	-	(64)	-	(64)
Commodity derivatives	(40)	-	-	(40)
Interest rate derivatives	-	(17)	-	(17)
Balance at December 31, 2022	(40)	(81)	-	(121)
Balance at December 31, 2021	(1)	(272)	-	(273)

The fair value of other financial assets and liabilities is presented in the respective notes: 7 – Marketable securities; 13 – Trade and other receivables; and 31 – Finance debt (estimated amount).

The fair values of cash and cash equivalents, current debt and other financial assets and liabilities are equivalent or do not differ significantly from their carrying amounts.

35. 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.

35.1. 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:

	12.31.2022		12.31.2021	
	Assets	Liabilities	Assets	Liabilities
Joint ventures and associates				
State-controlled gas distributors (joint ventures)	–	–	255	42
Petrochemical companies (associates)	21	10	26	12
Other associates and joint ventures	72	21	104	13
Subtotal	93	31	385	67
Brazilian government – Parent and its controlled entities				
Government bonds	1,689	–	1,446	–
Banks controlled by the Brazilian Government	11,811	1,567	8,417	1,267
Petroleum and alcohol account - receivables from the Brazilian Government	602	–	506	–
Brazilian Federal Government (*)	–	1,422	2	–
Pré-Sal Petróleo S.A. – PPSA	–	57	–	–
Others	58	71	26	54
Subtotal	14,160	3,117	10,397	1,321
Petros	56	301	51	61
Total	14,309	3,449	10,833	1,449
Current	2,603	2,119	2,110	315
Non-Current	11,706	1,330	8,723	1,134

(*) It includes amounts related to dividends and lease liabilities.

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

	2022	2021	2020
Joint ventures and associates			
BR Distribuidora (now called Vibra Energia)	–	7,936	11,038
Natural Gas Transportation Companies	–	(308)	(1,478)
State-controlled gas distributors (joint ventures)	1,196	2,410	1,723
Petrochemical companies (associates)	4,465	3,553	2,769
Other associates and joint ventures	96	418	265
Subtotal	5,757	14,009	14,317
Brazilian government – Parent and its controlled entities			
Government bonds	204	64	41
Banks controlled by the Brazilian Government	71	(157)	(456)
Receivables from the Electricity sector	–	131	72
Petroleum and alcohol account - receivables from the Brazilian Government	62	58	235
Brazilian Federal Government	288	31	(4)
Pré-Sal Petróleo S.A. – PPSA	(657)	(139)	(135)
Others	(79)	(34)	(15)
Subtotal	(111)	(46)	(262)
Petros	(21)	–	(177)
Total	5,625	13,963	13,878
Revenues, mainly sales revenues	5,821	14,672	16,202
Purchases and services	(4)	(494)	(2,074)
Income (expenses)	(804)	(315)	(93)
Foreign exchange and inflation indexation charges, net	299	(59)	(102)
Finance income (expenses), net	313	159	(55)
Total	5,625	13,963	13,878

On December 23, 2022, Petrobras signed a contract with UEG Araucária S.A., in the amount of US\$ 925 (R\$ 4,850), with the purpose of selling 2,150,000 m³/day of gas, in the interruptible mode, to supply energy generation electricity by UTE Araucária. The contract is effective from January 1, 2023 to December 31, 2023.

Information on the judicialized debts from the Brazilian Federal Government (*precatórios*) issued in favor of the Company arising from the petroleum and alcohol accounts is disclosed in note 13.

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.

35.2. 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 2022 and December 2021 were:

Compensation of employees, excluding officers (amounts in U.S. dollars)	2022	2021
Lowest compensation	759	678
Average compensation	4,367	3,775
Highest compensation	20,790	19,220
Employees	2022	2021
Number of employees	38,682	38,703
Compensation of the Director of Petrobras (includes variable compensation)	2022	2021
Lowest compensation (*)	322,668	536,948
Average compensation (**)	586,324	697,110
Highest compensation (***)	437,916	544,862

(*) It corresponds to the lowest annual compensation, including former members, according to Circular Letter CVM/SEP no. 01/2021 of February 26, 2021. If the Company excluded from the calculation the amounts paid to former members, as termination of office and deferred variable compensation, and considered the amounts paid to members who held the position for less than 12 months, the lowest amount would be US\$ 65,172 in 2022 and US\$ 475,777 in 2021.

(**) It corresponds to the total value of the annual compensation, including expenses with former members, divided by the number of remunerated positions (9), according to Circular Letter CVM/SEP no. 01/2021 of February 26, 2021. If the Company excluded from the average compensation the amounts paid to former members, as termination of office and deferred variable compensation, the average amount would be US\$ 414,854 in 2022 and US\$ 526,021 in 2021.

(***) It corresponds to the annual compensation of the officer with the highest individual compensation and who held the position for 12 months of the fiscal year, according to Circular Letter CVM/SEP no. 01/2021 of February 26, 2021.

The criteria for compensation of members of the Board of Directors and the Board Executive Officers is based on the guidelines established by the Secretariat of Management and Governance of the State-owned Companies (SEST) of the Ministry of Economy, and by the MME. The total compensation is set out as follows:

	2022			2021		
	Executive Officers	Board of Directors	Total	Executive Officers	Board of Directors	Total
Wages and short-term benefits	2.7	0.1	2.8	2.6	0.1	2.7
Social security and other employee-related taxes	0.8	-	0.8	0.7	-	0.7
Post-employment benefits (pension plan)	0.4	-	0.4	0.3	-	0.3
Variable compensation	2.8	-	2.8	2.5	-	2.5
Benefits due to termination of tenure	0.3	-	0.3	0.6	-	0.6
Total compensation recognized in the statement of income	7.0	0.1	7.1	6.7	0.1	6.8
Total compensation paid	6.3	-	6.3	6.0	0.1	6.1
Monthly average number of members in the period	9.00	11.00	20.00	9.00	10.58	19.58
Monthly average number of paid members in the period	9.00	3.83	12.83	9.00	4.50	13.50

In 2022, expenses related to compensation of the board members and executive officers of Petrobras amounted to US\$ 13.7 (US\$ 14.7 for the same period of 2021).

On April 13, 2022, the Company's Annual Shareholders' Meeting set the threshold for the overall compensation for executive officers and board members at US\$ 8 (R\$ 39.59 million) from April 2022 to March 2023.

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.

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In accordance with Brazilian regulations applicable to companies controlled by the Brazilian Federal Government, Board members who are also members of the Statutory Audit Committees are only compensated with respect to their Audit Committee duties. The total compensation concerning these members was US\$ 613 thousand for 2022 December 31, 2022 (US\$ 728 thousand with tax and social security costs). For the same period of 2021, the total compensation concerning these members was US\$ 544 thousand (US\$ 642 thousand with tax and social security costs).

The average annual remuneration of the members of Petrobras' Fiscal Council, in fiscal year 2022, was US\$ 28 (US\$ 33, considering 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 2022, the Company provisioned US\$ 3 referring to the Performance Award Program – PPP 2022 for Executive Directors.

Exemption from damage (indemnity)

The Company's Bylaws establish since 2002 the obligation to indemnify and keep its managers, members with statutory functions and other employees and agents who legally act by delegation of the Company's managers, in order to cover certain expenses due to complaints, inquiries, administrative, arbitration or judicial investigations and proceedings, in Brazil or in any other jurisdiction, which aim to impute any responsibility for regular management acts practiced exclusively in the exercise of its activities since the date of its investiture or the beginning of the contractual relationship with the Company.

The first Indemnity Commitment was approved by the Board of Directors on December 18, 2018, starting from its signature until the Ordinary General Meeting of 2020. The maximum exposure established by the Company (global limit for all eventual damages) was US\$ 500.

The second Indemnity Commitment was approved by the Board of Directors on March 25, 2020, starting from its signature until the Ordinary General Meeting of 2022. The maximum exposure established by the Company (global limit for all possible damages) was US\$ 300.

The third Indemnity Commitment was approved by the Board of Directors on March 30, 2022, starting from its signature, until the Ordinary General Meeting of 2024. The maximum exposure established by the Company (global limit for all possible damages) was US\$ 200.

In addition, the term of coverage provided for in the Commitment begins from the date of signature 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 or function/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 or at any time when there is an indemnifiable event based on an imprescriptible fact.

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, § 5º, II of Law 6,385/76; (vi) other cases where a manifest conflict of interest with the Company is established.

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. eventually claimed by the Beneficiaries, with compensation or reimbursement limited to the cases provided for in the Indemnity Commitment.

In the case of conviction for an intentional act or committed with gross error, final and unappealable in criminal, public civil, impropriety, popular action, action proposed by a third party, or by shareholders in favor of the Company, or, still, of an unappealable administrative decision in which it concludes by the practice of a malicious act or committed with gross error and that has not been subject to judicial suspension, the beneficiary undertakes, regardless of any manifestation of the independent third party, to reimburse the Company for all amounts spent by the Company within the scope of this Commitment, including all expenses and costs related to the process, refunding them within a period of up to 30 (thirty) days from the competent notification.

In order to avoid the configuration of conflicts of interest, notably as provided for in art. 156 of Law 6,404/76, the Company will hire external professionals, who may act individually or jointly, with an unblemished, impartial and independent reputation ("Independent Third Party"), and with robust experience to analyze any claim by the Beneficiaries on the characterization of Regular Management Act or on the hypothesis of exclusions. In addition, Beneficiaries who are claiming said amounts are prohibited from participating in meetings or

discussions that deal with the approval of the payment of expenses, in compliance with the provisions of art. 156, head provision of Law 6,404/76, Brazilian Corporate Law.

36. Supplemental information on statement of cash flows

	2022	2021	2020
Amounts paid/received during the year:			
Withholding income tax paid on behalf of third-parties	1,413	904	770
Transactions not involving cash			
Purchase of property, plant and equipment on credit	19	–	310
Lease	6,923	6,945	4,255
Provision/(reversals) for decommissioning costs	3,260	(1,082)	5,174
Use of tax credits and judicial deposit for the payment of contingency	1,236	1,173	2
Assets received due to the increase of interest in concessions without disbursement	–	165	–
Remeasurement of property, plant and equipment acquired in previous periods	24	–	–
Earn Out related to Atapu and Sépia groups	694	54	–

The balance of Cash and cash equivalents in the Statements of Cash Flows includes amounts related to assets classified as held for sale, as shown in the reconciliation below:

	2022	2021
Reconciliation of the balance at the beginning of the period		
Cash and cash equivalents in statements of financial position	10,467	11,711
Cash and cash equivalents classified as assets held for sale (note 30)	13	14
Cash and cash equivalents according to Statements of Cash Flows (opening balance)	10,480	11,725
Reconciliation of the balance at the end of the period		
Cash and cash equivalents in statements of financial position	7,996	10,467
Cash and cash equivalents classified as assets held for sale (note 30)	–	13
Cash and cash equivalents according to Statements of Cash Flows (closing balance)	7,996	10,480

36.1. Reconciliation of Depreciation, depletion and amortization with Statements of Cash Flows

	2022	2021	2020
Depreciation of Property, plant and equipment	14,618	12,955	12,326
Amortization of Intangible assets	77	60	66
Capitalized depreciation	(1,343)	(1,240)	(973)
Depreciation of right of use - recovery of PIS/COFINS	(134)	(80)	26
Depreciation, depletion and amortization in the Statements of Cash Flows	13,218	11,695	11,445

37. Subsequent events

Leniency Agreement

On January 16, 2023, Petrobras received the amount of US\$ 87 (R\$ 456 million), recovered through a leniency agreement of the company UOP LLC – a subsidiary of Honeywell International Inc. – entered into with General Federal Inspector's Office (CGU - *Controladoria Geral da União*) and the Federal Attorney General's Office (AGU – *Advocacia Geral da União*).

Receipt of the earn out relating to Atapu and Sépia fields

In January 2023, Petrobras received the entire amount of US\$ 384 (R\$ 2,007 million), of the earn out related to 2022, from the partners in Atapu and Sépia fields, including gross up of taxes, as follows:

- US\$ 258 (R\$1,347 million) relating to the interest held by TotalEnergies (28%), Petronas Petróleo Brasil Ltda (21%) and QatarEnergy Brasil Ltda (21%), in the Sépia field;
- US\$ 126 (R\$ 660 million) relating to the interest held by TotalEnergies (22.5%) and the interest of Shell (25%), in the Atapu field.

For more information, see note 24.

Sale of the Albacora Leste field

On January 26, 2023, after fulfilling all the conditions precedent, Petrobras concluded the sale of its entire interest in Albacora Leste producing field, located in the Campos Basin, to the company Petro Rio Jaguar Petróleo LTDA (PetroRio), a subsidiary of Petro Rio S.A.

The transaction was closed with the receipt, in cash, of US\$ 1,635, including price adjustments provided for in the contract.

With this closing, PetroRio becomes the operator of this field, with a 90% interest, in partnership with Repsol Sinopec Brasil, which holds the remaining 10%.

For more information, see note 30.

Receipt of the earn out relating to Baúna field

On January 30, 2023, Petrobras received US\$ 84, including price adjustments provided for in the contract, from Karoon Petróleo & Gás Ltda (Karoon), a subsidiary of Karoon Energy Ltd, as a contingent payment related to Brent prices of 2022.

This receipt is in accordance with the terms of the agreement signed by the companies in 2020, relating to the sale of Petrobras' entire interest in Baúna field (concession area BM-S-40). The other contingent payments may be received by Petrobras until 2026, depending on Brent prices in future years.

Result on judgment of the Administrative Board of Tax Appeals (*Conselho Administrativo de Recursos Fiscais - CARF*)

On February 1, 2023, the First Panel of the Superior Chamber of Tax Appeals (CSRF), a member of the CARF, dismissed the appeals filed by the Company and decided that Petrobras owed income taxes (IRPJ and CSLL) on subsidiary abroad relating to 2011 and 2012. This decision was taken by exercising the casting vote of the President of the Class, based on Provisional Measure no. 1160/2023, after a tie between the judges. With this decision, tax debts amounting to US\$ 1,092 (R\$ 5,700) become to a virtually at final administrative level. Accordingly, the Company will adopt the appropriate measures.

The expectation of loss in this contingency is deemed possible (see note 18). This decision does not trigger any provisioning in the Company's financial statements.

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

Supplementary information on Oil and Gas Exploration and Production (unaudited)

In accordance with Codification Topic 932 - Extractive Activities – Oil and Gas, 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, 2022, 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:

	Consolidated entities					Equity Method Investees
	Abroad					
	Brazil	South America	Others	Total	Total	
December 31, 2022						
Unproved oil and gas properties	4,227	55	–	55	4,282	–
Proved oil and gas properties	83,030	205	–	205	83,235	762
Support Equipment	69,735	732	1	733	70,468	–
Gross Capitalized costs	156,993	992	1	993	157,986	762
Depreciation, depletion and amortization	(52,836)	(769)	(1)	(770)	(53,606)	(224)
Net capitalized costs	104,156	223	–	223	104,380	538
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

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(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:

	Consolidated entities				Equity Method Investees
	Abroad				
	Brazil	South America	Total	Total	
December 31, 2022					
Acquisition costs:					
Proved	–	–	–	–	–
Unproved	892	–	–	892	–
Exploration costs	707	51	51	758	1
Development costs	6,883	31	31	6,914	30
Total	8,482	82	82	8,564	31
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

(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, 2022, 2021 and 2020 are shown in the following table. The Company transfers substantially all of its Brazilian crude oil and gas production to the Refining, Transportation & Marketing segment in Brazil. The internal transfer prices calculated by the Company's model may not be indicative of the price the Company would have realized had this production been sold in an unregulated spot market. Additionally, the prices calculated by the Company's model may not be indicative of the future prices to be realized by the Company. Gas prices used are those set out in contracts with third parties.

Production costs are lifting costs incurred to operate and maintain productive wells and related equipment and facilities, including operating employees' compensation, materials, supplies, fuel consumed in operations and operating costs related to natural gas processing plants.

Exploration expenses include the costs of geological and geophysical activities and projects without economic feasibility. Depreciation and amortization expenses relate to assets employed in exploration and development activities. In accordance with Codification Topic 932 – Extractive Activities – Oil and Gas, income taxes are based on statutory tax rates, reflecting allowable deductions. Interest income and expense are excluded from the results reported in this table.

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

	Consolidated entities						Equity Method Investees
	Abroad					Total	
	Brazil	South America	North America	Others	Total	Total	
December 31, 2022							
Net operation revenues:							
Sales to third parties	1,153	158	–	–	158	1,311	275
Intersegment	76,579	–	–	–	–	76,579	–
	77,732	158	–	–	158	77,890	275
Production costs	(19,975)	(75)	–	–	(75)	(20,050)	(41)
Exploration expenses	(719)	(168)	–	–	(168)	(887)	–
Depreciation, depletion and amortization	(10,373)	(42)	–	–	(42)	(10,415)	(42)
Impairment of oil and gas properties	(1,216)	(2)	–	–	(2)	(1,218)	–
Other operating expenses	3,000	(1)	(8)	21	12	3,012	(22)
Results before income tax expenses	48,449	(130)	(8)	21	(117)	48,332	170
Income tax expenses	(16,474)	44	–	(3)	41	(16,433)	–
Results of operations (excluding corporate overhead and interest costs)	31,975	(86)	(8)	19	(76)	31,899	170
December 31, 2021							
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)
Impairment of oil and gas properties	3,107	–	–	–	–	3,107	–
Other operating expenses	809	15	114	(118)	11	820	(17)
Results before income tax expenses	35,124	31	114	(118)	27	35,151	121
Income tax expenses	(11,984)	(11)	–	43	33	(11,951)	–
Results of operations (excluding corporate overhead and interest costs)	23,141	20	114	(75)	59	23,200	121
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)
Impairment of oil and gas properties	(7,364)	–	–	–	–	(7,364)	–
Other operating expenses	(825)	(2)	(167)	(26)	(195)	(1,020)	(158)
Results before income tax expenses	7,313	(10)	(167)	(26)	(203)	7,110	(121)
Income tax expenses	(2,486)	3	57	9	69	(2,417)	41
Results of operations (excluding corporate overhead and interest costs)	4,827	(7)	(110)	(17)	(134)	4,693	(80)

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(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 2022, 2021 and 2020 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):

	Consolidated Entities				Equity Method Investees		
Proved developed and undeveloped reserves(*)	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, 2019	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
Revisions of previous estimates	1,705	–	–	1,705	3	–	1,708
Sales of reserves (1)	(455)	–	(10)	(465)	(1)	–	(465)
Production for the year	(748)	–	(1)	(749)	(3)	–	(752)
Reserves at December 31, 2022	8,908	2	–	8,910	16	–	8,926

(1) Includes the effects of the write-offs related to the Co-Participation Agreements of Atapu and Sepia fields

(*) Apparent differences in the sum of the numbers are due to rounding off.

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A summary of the annual changes in the proved reserves of natural gas is as follows (in billions of cubic feet):

	Consolidated Entities				Equity Method Investees		
Proved developed and undeveloped reserves (*)	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, 2019	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
Revisions of previous estimates	1,667	16	-	1,682	-	-	1,682
Sales of reserves (1)	(408)	-	(17)	(425)	(1)	-	(425)
Production for the year	(626)	(20)	(1)	(647)	(1)	-	(648)
Reserves at December 31, 2022	9,088	173	-	9,261	6	-	9,267

(1) Includes the effects of the write-offs related to the Co-Participation Agreements of Atapu and Sepia fields

(*) Apparent differences in the sum of the numbers are due to rounding off.

Natural gas production volumes used in these tables are the net volumes withdrawn from our proved reserves, including gas consumed in operations and excluding reinjected gas. Our disclosure of proved gas reserves includes gas consumed in operations, which represent 37% of our total proved reserves of natural gas as of December 31, 2022.

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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 2022, 2021 and 2020:

Proved developed and undeveloped reserves(*)	Consolidated Entities				Equity Method Investees		Total
	Oil equivalent in Brazil	Oil equivalent in South America	Synthetic Oil in Brazil	Consolidated Total	Oil equivalent in North America	Oil equivalent in Africa	
Reserves at December 31, 2019	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
Revisions of previous estimates	1,983	3	–	1,986	3	–	1,988
Sales of reserves (1)	(523)	–	(12)	(536)	(1)	–	(536)
Production for the year	(852)	(4)	(1)	(857)	(3)	–	(860)
Reserves at December 31, 2022	10,423	31	–	10,453	17	–	10,470

(1) Includes the effects of the write-offs related to the Co-Participation Agreements of Atapu and Sepia fields

(*) Apparent differences in the sum of the numbers are due to rounding off.

In 2022, we incorporated 1,988 million boe of proved reserves by revising previous estimates, including:

- (i) addition of 1,279 million boe due to new projects, mainly in Búzios field and in other fields in the Santos and Campos Basins; and
- (ii) addition of 709 million boe arising from other revisions, mainly due to good performance of reservoirs in the pre-salt layer of Santos Basin and to the contract term extension of Rio Urucu and Leste do Urucu fields.

We did not have relevant changes related to the variation in the oil price.

The addition in our proved reserves were partially offset by the reduction of 536 million boe, due to the effects of the transfer of interests of 5% of the Surplus Volume of the Transfer of Rights of Búzios field, of the write-offs related to the Co-Participation Agreements of Atapu and Sepia fields and of sales of properties in mature fields.

The company's total proved reserve resulted in 10,470 million boe in 2022, considering the variations above and the reduction from 2022 production of 860 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 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.

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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.

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.

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(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:

	2020				
	Crude Oil	Synthetic Oil	Natural Gas	Synthetic Gas	Total oil and gas
	(mmbbl)		(bnct)		(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	–	5,814
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

(1) 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.

(*) 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
	(mmbbl)		(bnct)		(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	5,669	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	5,675	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	8,639	18	9,878

(1) 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.

(*) Apparent differences in the sum of the numbers are due to rounding off.

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

	2022				
	Crude Oil	Synthetic Oil	Natural Gas	Synthetic Gas	Total oil and gas
	(mmbbl)		(bncf)		(mmboe)
Net proved developed reserves (*):					
Consolidated Entities					
Brazil	4,185	–	5,447	–	5,093
South America, outside Brazil (1)	1	–	91	–	16
Total Consolidated Entities	4,186	–	5,538	–	5,109
Equity Method Investees					
North America (1)	14	–	5	–	15
Total Equity Method Investees	14	–	5	–	15
Total Consolidated and Equity Method Investees	4,200	–	5,543	–	5,124
Net proved undeveloped reserves (*):					
Consolidated Entities					
Brazil	4,723	–	3,641	–	5,330
South America, outside Brazil (1)	1	–	82	–	14
Total Consolidated Entities	4,724	–	3,723	–	5,345
Equity Method Investees					
North America (1)	2	–	1	–	2
Total Equity Method Investees	2	–	1	–	2
Total Consolidated and Equity Method Investees	4,726	–	3,724	–	5,347
Total proved reserves (developed and undeveloped)	8,926	–	9,267	–	10,470

(1) 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 4% of NGL in proved undeveloped reserves.

(*) Apparent differences in the sum of the numbers are due to rounding off

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(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, including abandonment 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.

Standardized measure of discounted future net cash flows:

	Consolidated entities			Equity Method Investees
	Brazil	South America	Total	
December 31, 2022				
Future cash inflows	983,826	837	984,663	1,581
Future production costs	(399,655)	(357)	(400,012)	(273)
Future development costs	(62,548)	(128)	(62,676)	(21)
Future income tax expenses	(178,412)	(88)	(178,500)	–
Undiscounted future net cash flows	343,211	264	343,475	1,287
10 percent midyear annual discount for timing of estimated cash flows (1)	(151,828)	(124)	(151,951)	(401)
Standardized measure of discounted future net cash flows	191,383	141	191,524	886
December 31, 2021				
Future cash inflows	612,924	587	613,511	1,129
Future production costs	(264,158)	(261)	(264,419)	(329)
Future development costs	(44,027)	(107)	(44,134)	(28)
Future income tax expenses	(104,568)	(61)	(104,628)	–
Undiscounted future net cash flows	200,171	159	200,330	772
10 percent midyear annual discount for timing of estimated cash flows (1)	(85,391)	(70)	(85,461)	(303)
Standardized measure of discounted future net cash flows	114,780	89	114,869	470
December 31, 2020				
Future cash inflows	333,248	69	333,317	667
Future production costs	(182,534)	(51)	(182,585)	(465)
Future development costs	(31,236)	(16)	(31,252)	(48)
Future income tax expenses	(46,862)	–	(46,862)	(79)
Undiscounted future net cash flows	72,616	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	45,979	74

(1) Semiannual capitalization

Apparent differences in the sum of the numbers are due to rounding off.

Changes in discounted net future cash flows:

	Consolidated entities			Equity Method Investees
	Brazil	South America	Total	
Balance at January 1, 2022	114,780	89	114,869	470
Sales and transfers of oil and gas, net of production cost	(54,230)	(62)	(54,291)	(235)
Development cost incurred	6,883	31	6,913	29
Net change due to purchases and sales of minerals in place	(17,030)	–	(17,030)	–
Net change due to extensions, discoveries and improved recovery related costs	–	–	–	10
Revisions of previous quantity estimates	64,535	17	64,553	82
Net change in prices, transfer prices and in production costs	129,462	122	129,584	349
Changes in estimated future development costs	(23,317)	(39)	(23,356)	(4)
Accretion of discount	11,478	14	11,492	93
Net change in income taxes	(41,178)	(17)	(41,194)	–
Other - unspecified	–	(15)	(15)	92
Balance at December 31, 2022	191,383	141	191,524	886
Balance at January 1, 2021	45,978	1	45,979	74
Sales and transfers of oil and gas, net of production cost	(38,074)	(43)	(38,117)	(177)
Development cost incurred	6,035	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	41,416	30
Net change in prices, transfer prices and in production costs	108,268	58	108,326	401
Changes in estimated future development costs	(19,900)	(119)	(20,019)	3
Accretion of discount	4,598	–	4,598	49
Net change in income taxes	(33,089)	(47)	(33,136)	48
Other - unspecified	–	(9)	(9)	(7)
Balance at December 31, 2021	114,780	89	114,869	470
Balance at January 1, 2020	88,121	69	88,190	1,412
Sales and transfers of oil and gas, net of production cost	(24,908)	(14)	(24,922)	(94)
Development cost incurred	5,664	3	5,666	57
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)	3,125	(10)
Net change in prices, transfer prices and in production costs	(54,606)	(145)	(54,751)	(375)
Changes in estimated future development costs	(4,716)	97	(4,618)	67
Accretion of discount	8,812	9	8,821	12
Net change in income taxes	24,788	24	24,812	51
Other - unspecified	–	(7)	(7)	1
Balance at December 31, 2020	45,978	1	45,979	74

Apparent differences in the sum of the numbers are due to rounding off.

Climate change (unaudited)

The Company considered the impacts related to its climate goals and climate risks in its Strategic Plan (PE). The assumptions and projections of the Plan baseline scenario are used for certain accounting estimates, including the value in use used in asset impairment tests (note 4.2).

i) Climate goals

In 2021, the Company assumed the ambition to neutralize emissions in activities under our control (Scopes 1 and 2) and influence partners to achieve the same ambition in non-operated assets, within a period compatible with the Paris Agreement (net zero ambitions). However, the Company recognizes that there are relevant technological gaps for achieving its net zero ambitions.

The central objective of the Paris Agreement is to strengthen the global response to the threat of climate change by keeping the global temperature rise this century well below 2°C compared to pre-industrial levels and by striving to limit the temperature rise to 1.5 °C.

The Company's net zero ambition adds to the portfolio of sustainability commitments with a horizon of 2025 and 2030, where 6 commitments are related to the mitigation of greenhouse gases (GHG):

- Reduction of absolute operating emissions by 30% by 2030 (compared to 2015);
- Zero routine flaring by 2030, as per the World Bank's Zero Routine Flaring initiative;
- Reinjection of 80 MM ton CO₂ by 2025 in CCUS (Carbon Capture, Usage and Storage) projects;
- Greenhouse Gas (GHG) intensity in the E&P segment: achieve portfolio intensity of 15 kgCO₂e/boe by 2025, maintained at 15 kgCO₂e/boe by 2030;
- GHG intensity in the Refining segment: Achieve an intensity of 36 kgCO₂e/CWT by 2025 and 30 kgCO₂e/CWT by 2030; and
- Consolidation of the 55% reduction (compared to 2015) in the intensity of methane emissions in the upstream segment by 2025, reaching 0.29 t CH₄/thousand tHC.

The above commitments do not constitute guarantees of future performance by the Company and are subject to assumptions that may not materialize and to risks and uncertainties that are difficult to predict.

The Company's commitments to reduce GHG emissions, as well as the ambition to zero its net operating GHG emissions (scopes 1 and 2) up to 2050, were considered in the preparation of PE 23-27, plan updated every year.

ii) Climate risks

Risk of transition to a low-carbon economy

The risk of the transition to a low-carbon economy is mainly reflected in the price of Brent, demand for products and the price of carbon.

The Baseline scenario of the PE contemplates climate and environmental policies that are in line with the goals already announced, in their most general aspects. In such a scenario, there is greater concern with mobility and air quality in large urban centers. More direct solutions for the energy transition, driven by large cities and driven by population pressure, characterize this scenario. The global energy matrix has undergone important changes, especially with regard to the participation of coal and renewable sources. The result of this scenario is a more diversified energy matrix, with growth in the share of renewables and commodity prices in line with what has been observed historically.

In this context, the Base scenario considers an oil price range ranging from an average of US\$ 85/bbl in 2023 and reaching US\$ 55/bbl from 2030 onwards, that is, price expectations similar to the Announced Pledges scenario (APS) by the International Energy Agency, which is aligned with a 50% probability of keeping the temperature increase below 1.7°C by 2100. The APS scenario assumes that all aspirational targets announced by governments are met on time and in full, including its long-term net zero and energy access targets.

The valuation of the portfolio in the Base scenario of the Company used for approval of the Strategic Plan is carried out without the incidence of the carbon price. Despite the publication of Decree No. 11,075/2022, the definition of the instrument to be adopted in Brazil is still being discussed by the federal legislature (PL 412-2022), and the regulated sectors and segments will still be defined within the scope of the

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national executive power. Thus, at the moment, there are uncertainties regarding the functioning of a future carbon market in Brazil, due to the lack of sufficient and reliable information about the future intentions of regulators that allow considering the impact of the price of carbon in the valuation of our portfolio for accounting estimates purposes. More than 97% of the Company's operational GHG emissions occur in Brazilian territory.

When simulating the net present value of our portfolio in the Base scenario, through sensitivity to the price of Brent and the price of carbon contained in the APS scenario of the International Energy Agency, it was verified that there would be a 23% total positive impact when compared to the value calculated based on the internal assumptions detailed above.

The simulation considers the impact of the Brent price in the APS scenario only on the E&P segment and the maintenance of margins in the other segments. Regarding the effect of the carbon price in the simulation, the carbon price of the APS scenario was adopted, applied based on assumptions referenced in international carbon markets in operation, since there are still uncertainties regarding the functioning of a future carbon market in Brazil. In the APS scenario, a carbon price range of US\$ 40/bbl in 2030 is considered, going to US\$ 110/bbl in 2040 and reaching US\$ 160/bbl from 2050.

Physical Risks

The company identifies and monitors the physical parameters considered potentially more susceptible to variations that may cause changes in standards in the operating conditions of its assets, such as water availability for our refineries and thermoelectric plants, and wave, wind and ocean current patterns for our platforms .

For environmental variables in the oceanic region, we currently rely on technological partners to simulate atmospheric conditions, ocean circulation and future waves under the effect of climate projections in the Santos, Campos and Espírito Santo Basins, which concentrate approximately 90% of current production of the company. For the studied offshore meteoceanographic variables, in general, over the useful life of our assets, the magnitude of the impacts is within the safety parameters considered in our projects.

The operating conditions of the assets affect certain accounting estimates of the Company.



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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, 2022, 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, 2022, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRS).

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 of the Company and its subsidiaries in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements included in the Accountants Professional Code of Ethics ("*Código de Ética Profissional do Contador*") and in the professional standards issued by the Brazilian Federal Accounting Council ("*Conselho Federal de Contabilidade*"), 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 actuarial obligation of the defined benefit pension and health care plans

According to note 17.3 of the consolidated financial statements.

Key audit matter	How the matter was addressed in our audit
<p>The Company sponsors defined benefit pension and health care plans that provide supplementary post retirement benefits and medical care to its employees.</p> <p>The measurement of the actuarial obligation of the pension and health plans is dependent, in part, of certain actuarial assumptions. These assumptions include the discount rate and projected medical and hospital costs. The Company hires external actuary to assist in the process of assessing the actuarial assumptions and valuing the actuarial obligation under its pension and health care plans.</p> <p>We considered the measurement of the actuarial 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 impact that changes on these assumptions could have on the actuarial obligations of the pension and health care plans.</p>	<p>Our audit procedures included, but were not limited to:</p> <ul style="list-style-type: none"> – 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 assumptions and projected medical and hospital costs; – Assessment of the scope, competency, and objectivity of the external actuary hired to assist in estimate definition the actuarial obligations for the pension and health care plans, including the nature and scope of the work performed, their professional qualification and experience; and – Assessment, with the support of our actuarial specialists, of the assumptions such as discount rates and projected medical and hospital costs, including comparing them to external sources. <p>During the course of our audit procedures, were identified unrecorded adjustments that affect the measurement and disclosure of the actuarial obligation of the defined benefit pension, which were not corrected by management, since they were considered to be immaterial.</p> <p>According to the evidence obtained from performing the procedures described above, we considered that the measurement of the actuarial liability of the defined benefit pension and health care plans is acceptable in the context of the consolidated financial statements taken as a whole, for the year ended December 31, 2022.</p>

2 - Evaluation of the impairment testing of exploration and production cash generating units

According to notes 4.2(b) and 25 of the consolidated financial statements.

Key audit matter	How the matter was addressed in our audit
<p>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 the carrying amount of these CGUs. The cash flow projections used to determine the recoverable amount depend on certain future assumptions such as: Brent oil price, exchange rate (Brazilian Real/US Dollar), capitalizing expenditures ("CAPEX"), operating expenditures ("OPEX"), and volume and timing estimates of recovery of the oil and gas reserves. The recoverable amount is also sensitive to changes in the discount rate used in the cash flow.</p> <p>The definition of exploration and production segment CGUs considers operational factors that impact the interdependencies between oil and gas assets, and, may result in redefinition through aggregations or segregations of the exploration and production areas into CGUs.</p> <p>We considered the impairment testing of exploration and production cash generating units as a key audit matter due to the level of complexity and subjectivity on the definition of exploration and production's CGUs, and the impact that changes in future assumptions could have on the estimate of the recoverable amount.</p>	<p>Our audit procedures included, but were not limited to:</p> <ul style="list-style-type: none"> – 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; – Assessment of the operational factors considered by the Company for changes in exploration and production CGUs during the year, and compared them to information obtained from internal and external sources; – Assessment of the determination of recovery of oil and gas reserves estimates internally prepared, by comparing it with volumes certified by external reservoirs specialists hired by the Company, and, for a sampling selection of CGUs, with historical data on production; – Assessment of the scope, competency, and objectivity of the Company's internal engineers responsible for the estimate of the oil and gas reserves, as well as the external reservoir specialists hired by the Company, this included assessing the nature and scope of the work performed, and their professional qualifications and experience; – Assessment, for a sampling selection of CGUs, of the CAPEX and OPEX used on the cash flows projection by comparing to the same business plan approved by the Company, and its long-term budgets; – Assessment of Company's ability to project cash flows by comparing the estimated cash flows with actual Company's cash flows for the year ended December 31, 2022 for a selection of CGUs; and – Assessment, with the support of our valuation specialists, of the key assumptions used in the impairment test, such as discount rate, future price of oil and natural gas and exchange rates, comparing them with external market data. <p>According to the evidence obtained from performing the procedures described above, we considered that the recoverable amounts for assets of the exploration and production cash generating units are acceptable in the context of the consolidated financial statements taken as a whole, for the year ended December 31, 2022.</p>

3 – Evaluation of provisions for contingencies and disclosures for certain specific labor, civil and tax lawsuits

According to note 18 of the consolidated financial statements.

Key audit matter	How the matter was addressed in our audit
<p>The Company is involved as a defendant in labor, civil and tax lawsuits during the normal course of its activities.</p> <p>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 loss prognosis of the lawsuit is considered possible, or when the loss prognosis is considered probable but it is not possible to reasonably estimate the amount of the outflow.</p> <p>We considered this subject to be a key audit matter due to the level of judgment embedded on estimating the related amounts, the loss prognosis and the likelihood of an outflow of resources, coming from certain labor, civil and tax lawsuits, considered the most significant.</p>	<p>Our audit procedures included, but were not limited to:</p> <ul style="list-style-type: none"> – 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 loss prognosis, 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 advisors that support the Company on the definition of the loss prognosis, the estimated amounts, and the likelihood of an outflow of resources, as well as their professional qualifications and experience; – Assessment of confirmations, received directly from the external legal advisors and legal department representations, that included an assessment of loss prognosis, the estimate of the amounts and the likelihood of an outflow of resources. We compared these assessments and estimates to those used by the Company, and evaluated the sufficiency of the respective 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 provisions amounts previously recognized. <p>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, 2022.</p>

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

According to note 19 of the consolidated financial statements.

Key audit matter	How the matter was addressed in our audit
<p>As a part of its operations, the Company incurs on costs related to the obligation to restore and rehabilitate the environment upon the area abandonment.</p> <p>The Company's estimate of the provision for decommissioning costs includes assumptions in relation to the extent of the obligations assumed for environmental restoration, the decommissioning and removal of oil and gas production facilities, as well as the timing and estimated costs of the abandonment.</p> <p>We considered the evaluation of the estimate of the provision for decommissioning costs 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 for the environmental repair, which is the criteria to be met when the removal and restoration actually occurs, the timing and estimated costs of abandonment.</p>	<p>Our audit procedures included, but were not limited to:</p> <ul style="list-style-type: none"> – 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 abandonment; – Assessment of the assumptions 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 and gas reserve volumes certified by external reservoirs specialists hired by the Company; – Assessment of the estimated costs of abandonment 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, which included assessing the nature and scope of the work performed, and their professional qualifications and experience; and – Assessment of Company's ability to prepare this estimate by comparing a sampling selection of actual expenditure incurred with the decommissioning of oil and gas production facilities already under abandonment, to the provision for decommissioning previously recognized. <p>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, 2022.</p>

Other Information

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 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 ISAs, 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, actions taken to eliminate threats or safeguards applied.

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, March 1, 2023

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

Ulysses M. Duarte Magalhães
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