PETROBRAS INTERNATIONAL FINANCE CO Form 20-F April 02, 2012

As filed with the Securities and Exchange Commission on March 30, 2012

# UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549 FORM 20-F ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

for the fiscal year ended December 31, 2011

Commission File Number 001-15106 Commission File Number: 001-33121

Petróleo Brasileiro S.A.—Petrobras Petrobras International Finance Company

(Exact name of registrant as specified in its charter) (Exact name of registrant as specified in its charter)

**Brazilian Petroleum Corporation—Petrobras** 

(Translation of registrant's name into English)

20031-912 - Rio de Janeiro - RJ

The Federative Republic of Brazil Cayman Islands

(Jurisdiction of incorporation or organization) (Jurisdiction of incorporation or organization)

Avenida República do Chile, 65 4th Floor, Harbour Place

20031-912 - Rio de Janeiro - RJ 103 South Church Street

Brazil P.O. Box 1034GT – BWI

(Address of principal executive offices) George Town, Grand Cayman

Cayman Islands

Almir Guilherme Barbassa (Address of principal executive offices) (55 21) 3224-2040 –

barbassa@petrobras.com.br Sérvio Túlio da Rosa Tinoco Avenida República do Chile, 65 – 23<sup>d</sup> Floor

> (55 21) 3224-1410 – ttinoco@petrobras.com.br

**Brazil** 

Avenida República do Chile, 65 – 3<sup>d</sup> Floor 20031-912 – Rio de Janeiro – RJ

(Name, telephone, e-mail and/or facsimile number and address of company contact person)

**Brazil** 

(Name, telephone, e-mail and/or facsimile number and address of company contact person)

Securities registered or to be registered pursuant to Section 12(b) of the Act:

Title	Name of each
<u>of each</u>	exchange on which
<u>class:</u>	<u>registered:</u>
Petrobras Common Shares, without par value*	New York Stock Exchange*
Petrobras American Depositary Shares, or ADSs	
(evidenced by American Depositary Receipts, or	
ADRs),	
each representing two Common Shares	New York Stock Exchange
Petrobras Preferred Shares, without par value*	New York Stock Exchange*
Petrobras American Depositary Shares	_
(as evidenced by American Depositary Receipts),	
each representing two Preferred Shares	New York Stock Exchange
2.875% Global Notes due 2015, issued by PifCo	New York Stock Exchange
6.125% Global Notes due 2016, issued by PifCo	New York Stock Exchange
3.875% Global Notes due 2016, issued by PifCo	New York Stock Exchange
3.500% Global Notes due 2017, issued by PifCo	New York Stock Exchange
5.875% Global Notes due 2018, issued by PifCo	New York Stock Exchange
7.875% Global Notes due 2019, issued by PifCo	New York Stock Exchange
5.75% Global Notes due 2020, issued by PifCo	New York Stock Exchange
5.375% Global Notes due 2021, issued by PifCo	New York Stock Exchange
6.875% Global Notes due 2040, issued by PifCo	New York Stock Exchange
6.750% Global Notes due 2041, issued by PifCo	New York Stock Exchange

<sup>\*</sup> Not for trading, but only in connection with the registration of American Depositary Shares pursuant to the requirements of the New York Stock Exchange.

Securities registered or to be registered pursuant to Section 12(g) of the Act: None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

#### TITLE OF EACH CLASS:

- 9.125% Global Notes due 2013, issued by PifCo
- 7.75% Global Notes due 2014, issued by PifCo
- 8.375% Global Notes due 2018, issued by PifCo

4.875% Global Notes due 2018, issued by PifCo

5.875% Global Notes due 2022, issued by PifCo

6.250% Global Notes due 2026, issued by PifCo

The number of outstanding shares of each class of stock of Petrobras and PifCo as of December 31, 2011 was:

7,442,454,142 Petrobras Common Shares, without par value

5,602,042,788 Petrobras Preferred Shares, without par value

300,050,000 PifCo Common Shares, at par value U.S.\$1 per share

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined by Rule 405 of the Securities Act.

#### Yes R No £

If this report is an annual or transitional report, indicate by check mark if the registrant is not required to file reports pursuant to section 13 or 15(d) of the Securities Exchange Act of 1934.

#### Yes £ No R

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

#### Yes R No £

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

#### Yes R (Petrobras) No £

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer R (Petrobras) Accelerated filer R Non-accelerated filer R (PifCo)

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17 £ Item 18 £

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes £ No R

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#### **FORWARD-LOOKING STATEMENTS**

Many statements made in this annual report are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (Securities Act), and Section 21E of the Securities Exchange Act of 1934, as amended (Exchange Act), that are not based on historical facts and are not assurances of future results. Many of the forward-looking statements contained in this annual report may be identified by the use of forward-looking words, such as "believe," "expect," "anticipate," "should," "planned," "estimate" and "potential," among others. We have made forward-looking statements that address, among other things:

- our marketing and expansion strategy;
- our exploration and production activities, including drilling;
- our activities related to refining, import, export, transportation of petroleum, natural gas and oil products, petrochemicals, power generation, biofuels and other sources of renewable energy;
- our projected and targeted capital expenditures and investments and other costs, commitments and revenues:
- our liquidity and sources of funding;
- development of additional revenue sources; and
- the impact, including cost, of acquisitions.

Our forward-looking statements are not guarantees of future performance and are subject to assumptions that may prove incorrect and to risks and uncertainties that are difficult to predict. Our actual results could differ materially from those expressed or forecast in any forward-looking statements as a result of a variety of factors. These factors include, among other things:

- our ability to obtain financing;
- general economic and business conditions, including crude oil and other commodity prices, refining margins and prevailing exchange rates;
- our ability to find, acquire or gain access to additional reserves and to develop our current reserves successfully;
- · global economic conditions;

- uncertainties inherent in making estimates of our oil and gas reserves, including recently discovered oil and gas reserves;
- competition;
- technical difficulties in the operation of our equipment and the provision of our services;
- changes in, or failure to comply with, laws or regulations;
- receipt of governmental approvals and licenses;
- international and Brazilian political, economic and social developments;
- natural disasters, accidents, military operations, acts of sabotage, wars or embargoes;

- the cost and availability of adequate insurance coverage; and
- other factors discussed below under "Risk Factors."

For additional information on factors that could cause our actual results to differ from expectations reflected in forward-looking statements, please see "Risk Factors" in this annual report.

All forward-looking statements attributed to us or a person acting on our behalf are qualified in their entirety by this cautionary statement. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information or future events or for any other reason.

The crude oil and natural gas reserve data presented or described in this annual report are only estimates and our actual production, revenues and expenditures with respect to our reserves may materially differ from these estimates.

This is the annual report of both Petróleo Brasileiro S.A.—Petrobras (Petrobras) and its direct wholly owned Cayman Islands subsidiary, Petrobras International Finance Company (PifCo). PifCo has become our finance subsidiary functioning as a vehicle to raise funds for us primarily through the issuance of debt securities in the international capital markets, among other means.

Unless the context otherwise requires, the terms "Petrobras," "we," "us," and "our" refer to Petróleo Brasileiro S.A.—Petrobras and its consolidated subsidiaries and special purpose companies, including Petrobras International Finance Company. The term "PifCo" refers to Petrobras International Finance Company and its subsidiaries.

#### **GLOSSARY OF PETROLEUM INDUSTRY TERMS**

Unless the context indicates otherwise, the following terms have the meanings shown below:

ANEEL The Agência Nacional de Energia Elétrica (National Electrical Energy Agency), or ANEEL,

is the federal agency that regulates the electricity industry in Brazil.

ANP The Agência Nacional de Petróleo, Gás Natural e Biocombustíveis (National Petroleum,

Natural Gas and Biofuels Agency), or ANP, is the federal agency that regulates the oil, natural

gas and renewable fuels industry in Brazil.

°API Standard measure of oil density developed by the American Petroleum Institute.

Barrels Barrels of crude oil.

BSW Basic sediment and water, a measurement of the water and sediment content of flowing crude

oil.

Catalytic cracking A process by which hydrocarbon molecules are broken down (cracked) into lighter fractions

by the action of a catalyst.

Coker A vessel in which bitumen is cracked into its fractions.

Condensate Light hydrocarbon substances produced with natural gas, which condense into liquid at normal

temperature and pressure.

CNPE The Conselho Nacional de Política Energética (National Energy Policy Council), or CNPE, is

an advisory body of the President of the Republic responsible for formulating energy policies

and guidelines.

Deep water Between 300 and 1,500 meters (984 and 4,921 feet) deep.

Distillation A process by which liquids are separated or refined by vaporization followed by condensation.

EWT Extended well test.

Exploration Area A region in Brazil under a regulatory contract without a known hydrocarbon accumulation or

with a hydrocarbon accumulation that has not yet been declared commercial.

FPSO Floating Production, Storage and Offloading Unit. Heavy crude oil Crude oil with API density less than or equal to 22°.

Intermediate crude oil Crude oil with API density higher than 22° and less than or equal to 31°.

Light crude oil Crude oil with API density higher than 31°.

LNG Liquefied natural gas.

LPG Liquefied petroleum gas, which is a mixture of saturated and unsaturated hydrocarbons, with

up to five carbon atoms, used as domestic fuel.

MME

The federal Ministry of Mines and Energy, or MME.

**NGLs** 

Natural gas liquids, which are light hydrocarbon substances produced with natural gas, which condense into liquid at normal temperature and pressure.

Oil Crude oil.

Crude oil, including NGLs and condensates.

Pre-salt reservoir Post-salt reservoir Proved reserves

A geological formation containing oil or natural gas deposits located beneath a salt layer. A geological formation containing oil or natural gas deposits located above a salt layer. Consistent with the definitions in the SEC's Amended Rule 4-10(a) of Regulation S-X, 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. Existing economic conditions include prices and costs at which economic producibility from a reservoir is to be determined. The price is the average price during the 12-month period prior to December 31, 2011, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions. The project to extract the hydrocarbons must have commenced or we must be reasonably certain that we will commence the project within a reasonable time.

Proved developed reserves.

Reserves which can be produced economically through application of improved recovery techniques (such as fluid injection) are included in the "proved" classification when successful testing by a pilot project, or the operation of an installed program in the reservoir, provides support for the engineering analysis on which the project or program was based. Proved developed reserves are 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 by means not involving a well.

Proved undeveloped reserves

Proved undeveloped reserves are reserves that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion. Reserves on undrilled acreage are limited to those directly offsetting development spacing areas that are reasonably certain of production when drilled, unless evidence using reliable technology exists that establishes reasonable certainty of economic producibility at greater distances.

Undrilled locations are classified as having undeveloped reserves only if a development plan has been adopted indicating that they are scheduled to be drilled within five years, unless the specific circumstances justify a longer time. Proved undeveloped reserves do not include reserves attributable to any acreage for which an application of fluid injection or other improved recovery technique is contemplated, unless such techniques have been proved effective by actual projects in the same reservoir or an analogous reservoir or by other evidence using reliable technology establishing reasonable certainty.

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SS Semi-submersible unit.

Synthetic oil and A mixture of hydrocarbons derived by upgrading (i.e., chemically altering) natural bitumen synthetic gas from oil sands, kerogen from oil shales, or processing of other substances such as natural gas

or coal. Synthetic oil may contain sulfur or other non-hydrocarbon compounds and has many

similarities to crude oil.

TLWP Tension Leg Wellhead Platform.

Total depth of a well, including vertical distance through water and below the mudline.

Ultra-deep water Over 1,500 meters (4,921 feet) deep.

#### **CONVERSION TABLE**

1 acre =  $0.004047 \text{ km}^2$ 

1 barrel = 42 U.S. gallons = Approximately 0.13 t of oil 1 boe = 1 barrel of crude oil = 6,000 cf of natural gas

equivalent

 $1 \text{ m}^3 \text{ of natural gas} = 35.315 \text{ cf} = 0.0059 \text{ boe}$ 

1 km = 0.6214 miles 1 km<sup>2</sup> = 247 acres 1 meter = 3.2808 feet

1 t of crude oil = 1,000 kilograms of crude oil = Approximately 7.5 barrels of crude oil

(assuming an atmospheric pressure index

gravity of 37° API)

#### **ABBREVIATIONS**

bbl Barrels

Billion (thousand million) bn

bnbbl Billion barrels bncf Billion cubic feet bnm<sup>3</sup>Billion cubic meters Barrels of oil equivalent boe

bbl/d Barrels per day Cubic feet cf **GOM** Gulf of Mexico GW **Gigawatts** 

**GWh** One gigawatt of power supplied or demanded for one hour

Kilometer km  $km^2$ Square kilometers  $m^3$ Cubic meter mbbl Thousand barrels

mbbl/d Thousand barrels per day

Thousand barrels of oil equivalent mboe

Thousand barrels of oil equivalent per day mboe/d

mcf Thousand cubic feet

mcf/d Thousand cubic feet per day  $mm^3$ Thousand cubic meters

mm<sup>3</sup>/d Thousand cubic meters per day

mmbbl Million barrels

mmbbl/d Million barrels per day

Million barrels of oil equivalent mmboe mmboe/d Million barrels of oil equivalent per day

mmcf Million cubic feet

mmcf/d Million cubic feet per day  $mmm^3$ Million cubic meters

mmm<sup>3</sup>/d Million cubic meters per day Million metric tons per year mmt/y

Megawatts MW

Amount of energy (in MWh) divided by the time (in hours) in which such energy is produced **MWavg** 

or consumed

MWh One megawatt of power supplied or demanded for one hour

Parts per million ppm P\$ Argentine pesos Brazilian reais R\$ Metric ton

Trillion cubic feet Tcf U.S.\$ United States dollars

Per day /d /y Per year

#### PRESENTATION OF FINANCIAL INFORMATION

In this annual report, references to "real," "reais" or "R\$" are to Brazilian reais and references to "U.S. dollars" or "U.S.\$" are to the United States dollars. Certain figures included in this annual report have been subject to rounding adjustments; accordingly, figures shown as totals in certain tables may not be an exact arithmetic aggregation of the figures that precede them.

#### **Petrobras**

The audited consolidated financial statements of Petrobras and our consolidated subsidiaries as of and for each of the three years ended December 31, 2011, 2010 and 2009 and the accompanying notes contained in this annual report have been presented in U.S. dollars and prepared in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB). See Item 5. "Operating and Financial Review and Prospects" and Note 2.1 to our audited consolidated financial statements. Petrobras applies IFRS in its statutory financial statements prepared in accordance with Brazilian Corporate Law and regulations promulgated by the *Comissão de Valores Mobiliários* (Securities and Exchange Commission of Brazil, or CVM). Brazilian Corporate Law was amended in 2007 to permit accounting practices adopted in Brazil (Brazilian GAAP) to converge with IFRS.

We discontinued U.S. GAAP and adopted IFRS, as issued by the IASB, as the basis for the preparation and presentation of our financial statements and reporting with the SEC beginning with our financial statements as of and for the year ending December 31, 2011 presented in this annual report. This annual report on Form 20-F and all of our future reports filed with the SEC will only present financial information prepared in accordance with IFRS.

We first adopted IFRS, as issued by IASB, for our financial statements for the year December 31, 2010, which were filed with the local securities regulator in Brazil and made available to the public. Our transition date from Brazilian GAAP to IFRS was January 1, 2009 and we used certain elective transitional treatments under IFRS 1 in such financial statements filed with the local securities regulator in Brazil.

Since we have previously adopted IFRS in Brazil, we are not a "first time adopter" of IFRS for purposes of this annual report on Form 20-F. We are presenting bridging disclosures to IFRS in the form of a reconciliation from U.S. GAAP to IFRS as issued by the IASB of our net income for the years ended December 31, 2010 and 2009 and our shareholders' equity at December 31, 2010. This reconciliation is included in Note 36 in our audited consolidated financial statements.

Our IFRS financial statements filed with the local securities regulator in Brazil use the *real* as its presentation currency, while the financial statements included herein use the U.S. Dollar as its presentation currency. As described more fully in Note 2.3 to our audited consolidated financial statements, the U.S. dollar amounts as of the dates and for the periods presented in our audited consolidated financial statements have been recalculated or translated from the real amounts in accordance with the criteria set forth in IAS 21 – "The effects of changes in

foreign exchange rates." U.S. dollar amounts presented in this annual report have been translated from reais at the period-end exchange rate for balance sheet items and the average exchange rate prevailing during the period for income statement and cash flow items.

Unless the context otherwise indicates:

- historical data contained in this annual report that were not derived from the audited consolidated financial statements have been translated from reais on a similar basis:
- forward-looking amounts, including estimated future capital expenditures and investments, have all been based on our Petrobras 2020 Strategic Plan, which covers the period from 2009 to 2020, and on our 2011-2015 Business Plan, and have been projected on a constant basis and have been translated from reais at an estimated average exchange rate of R\$1.73 to U.S.\$1.00, in accordance with our 2011-2015 Business Plan. In addition, in accordance with our 2011-2015 Business Plan, future calculations involving an assumed price of crude oil have been calculated using a Brent crude oil price of between U.S.\$80 and U.S.\$95 from 2012 through 2015, adjusted for our quality and location differences, unless otherwise stated; and
- estimated future capital expenditures and investments are based on the most recently budgeted amounts, which may not have been adjusted to reflect all factors that could affect such amounts.

#### **PifCo**

PifCo has in the past engaged in both commercial operations and in financing activities for us. In August 2011, as part of its transition to become our finance subsidiary, PifCo transferred two of its wholly owned subsidiaries – Petrobras Europe Limited (PEL) and Petrobras Singapore Private Limited (PSPL) – to Petrobras International Braspetro B.V (PIB BV). PifCo ceased its commercial operations altogether and has become our finance subsidiary, functioning as a vehicle to raise funds for us primarily through the issuance of debt securities in the international capital markets, among other means.

PifCo's functional currency is the U.S. dollar. PifCo's audited consolidated financial statements as of and for each of the years ended December 31, 2011, 2010 and 2009 and the accompanying notes contained in this annual report have been presented in U.S. dollars and prepared in accordance with IFRS and include PifCo's two wholly owned subsidiaries: Petrobras Finance Limited (PFL) and Bear Insurance Company (BEAR).

#### PRESENTATION OF INFORMATION CONCERNING RESERVES

Petrobras continues to utilize the SEC rules for estimating and disclosing oil and gas reserve quantities included in this annual report. In accordance with these rules, adopted by Petrobras at year-end 2009, the year-end 2011 and 2010 reserve volumes have been estimated using the average prices calculated as the unweighted arithmetic average of the first-day-of-the-month price for each month within the 12-month period prior to the end of the reporting period and include non-traditional reserves, such as synthetic oil and gas. In addition, the amended rules also adopted a reliable technology definition that permits reserves to be added based on field-tested technologies. The adoption of the SEC's rules for estimating and disclosing oil and gas reserves and the FASB's issuance of the Accounting Standards Update No. 2010-03 "Oil and Gas Reserve Estimation and Disclosure" in January 2010

generated no material impact on our reported reserves or on our consolidated financial position or results of operations.

DeGolyer and MacNaughton (D&M) used our reserves estimates to conduct a reserves audit of 95.5% of the net proved crude oil, condensate and natural gas reserves as of December 31, 2011 from certain properties we own in Brazil and offshore from Brazil. In addition, D&M used its own estimates of our reserves to conduct a reserves evaluation of 53% of the net proved crude oil, NGL and natural gas reserves as of December 31, 2011 from certain properties we own in South America (outside of Brazil). The reserves estimates were prepared in accordance with the reserves definitions of Rule 4-10(a) of Regulation S-X of the SEC. All reserves estimates involve some degree of uncertainty. See Item 3. "Key Information—Risk Factors—Risks Relating to Our Operations" for a description of the risks relating to our reserves and our reserve estimates.

On January 13, 2012, we filed reserve estimates for Brazil with the ANP, in accordance with Brazilian rules and regulations, totaling net volumes of 13.22 billion barrels of crude oil and condensate and 14.93 trillion cubic feet of natural gas. The reserve estimates filed with the ANP and those provided herein differ by approximately 28% in terms of oil equivalent. This difference is due to: (i) the ANP requirement to estimate proved reserves through the technical-economical abandonment of production wells, as opposed to limiting reserve estimates to the life of the concession contracts as required by Rule 4-10 of Regulation S-X; and (ii) different technical criteria for booking proved reserves, including the use of current oil prices as opposed to the SEC requirement that the 12-month average price be used to determine the economic producibility of reserves in Brazil.

We also file reserve estimates from our international operations with various governmental agencies under the guidelines of the Society of Petroleum Engineers, or SPE. The aggregate reserve estimates from our international operations, under SPE guidelines, amounted to 0.471 billion barrels of crude oil and NGLs and 1.406 billion cubic feet of natural gas, which is approximately 14% higher than the reserve estimates calculated under Regulation S-X, as provided herein. This difference occurs because of different technical criteria for booking proved reserves, including the use of current oil prices as opposed to the SEC requirement that the 12-month average price be used to determine the economic producibility of international reserves. In addition, we have not yet included the volumes from the Gulf of Mexico fields that do not have a production history available for analogous reservoirs.

#### **PART I**

Item 1. Identity of Directors, Senior Management and Advisers

Not applicable.

**Item 2. Offer Statistics and Expected Timetable** 

Not applicable.

**Item 3. Key Information** 

**Selected Financial Data** 

We discontinued U.S. GAAP and adopted IFRS, as issued by the IASB, as the basis for the preparation and presentation of our financial statements and reporting with the SEC beginning with our financial statements as of and for the year ending December 31, 2011 presented in this annual report. This annual report on Form 20-F and all of our future reports filed with the SEC will only present financial information prepared in accordance with IFRS.

We first adopted IFRS, as issued by IASB, for our financial statements for the year December 31, 2010, which were filed with the local securities regulator in Brazil and made available to the public. Our transition date from Brazilian GAAP to IFRS was January 1, 2009 and we used certain elective transitional treatments under IFRS 1 in such financial statements filed with the local securities regulator in Brazil.

Since we have previously adopted IFRS in Brazil, we are not a "first time adopter" of IFRS for purposes of this annual report on Form 20-F. We are presenting bridging disclosures to IFRS in the form of a reconciliation from U.S. GAAP to IFRS as issued by the IASB of our net income for the years ended December 31, 2010 and 2009 and our shareholders' equity at December 31, 2010. This reconciliation is included in Note 36 in our audited consolidated financial statements.

Our IFRS financial statements filed with the local securities regulator in Brazil use the *real* as its presentation currency, while the financial statements included herein use the U.S. Dollar as its presentation currency.

This section contains selected consolidated financial data, presented in U.S. dollars and prepared in accordance with IFRS as of and for each of the three years ended December 31, 2011, 2010 and 2009, derived from our audited consolidated financial statements, which were audited by KPMG Auditores Independentes.

The summary financial data prepared in accordance with IFRS is not comparable to the summary financial data prepared in accordance with U.S. GAAP in our prior annual reports on Form 20-F.

The information below should be read in conjunction with, and is qualified in its entirety by reference to, our audited consolidated financial statements and the accompanying notes and Item 5. "Operating and Financial Review and Prospects."

#### **BALANCE SHEET DATA - PETROBRAS**

#### **IFRS Summary Financial Data**

	As of December 31,		
	2011	2010	2009
	(U.	S.\$ million)	
Assets:			
Cash and cash equivalents	19,057	17,655	16,222
Accounts receivable, net	11,756	10,845	8,147
Inventories	15,165	11,808	11,103
Other current assets	18,614	23,251	6,706
Non-current assets	21,957	22,637	19,991
Investments in non-consolidated companies and			
other investments	6,530	6,957	4,620
Property, plant and equipment, net	182,465	168,104	128,754
Intangible assets	43,866	48,937	3,899
Total assets	319,410	310,194	199,442
Liabilities and shareholders' equity:			
Total current liabilities	36,364	33,577	31,067
Total long-term liabilities(1)	33,218	30,251	23,809
Long-term debt(2)	72,718	60,417	48,963
Total liabilities	142,300	124,245	103,839
Shareholders' equity			
Shares authorized and issued:			
Paid in capital	107,355	107,341	33,790

Reserves and other comprehensive income	68,483	76,769	60,579
Petrobras' shareholders' equity	175,838	184,110	94,369
Non-controlling interest	1,272	1,839	1,234
Total equity	177,110	185,949	95,603
Total liabilities and shareholders' equity	319,410	310,194	199,442

- (1) Excludes long-term debt.
- (2) Excludes current portion of long-term debt.

#### **INCOME STATEMENT DATA - PETROBRAS**

#### **IFRS Summary Financial Data**

	For the Year Ended December 31,		
	2011	2010	2009
	(U.S.\$ millio	n, except for	share and
	pe	r share data)	
Sales revenues	145,915	120,452	91,146
Net income before financial results, profit sharing and income taxes	27,285	26,372	22,923
Net income for the year(1)(2)	20,121	20,055	15,308
Weighted average number of shares outstanding:			
Common	7,442,454,1425		
Preferred	5,602,042,7884	,189,764,6353	,700,729,396
Net income before financial results, profit sharing and income taxes per:			
Common and Preferred Shares	2.09	2.67	2.61
Common and Preferred ADS	4.18	5.34	5.22
Basic and diluted earnings per:(1)			
Common and Preferred Shares	1.54	2.03	1.74
Common and Preferred ADS	3.08	4.06	3.48
Cash dividends per:(3)			
Common and Preferred shares	0.53	0.70	0.59
Common and Preferred ADS	1.06	1.40	1.18

<sup>(1)</sup> Our net income represents our income from continuing operations.

#### **PifCo**

PifCo discontinued U.S. GAAP and adopted IFRS, as issued by the IASB, as the basis for the preparation and presentation of its financial statements and reporting with the SEC beginning with its financial statements as of and for the year ending December 31, 2011 presented in this annual report. This annual report on Form 20-F and all of PifCo's future reports filed with the SEC will only present financial information prepared in accordance with IFRS. As our wholly-owned subsidiary, PifCo prepared financial statements in accordance with IFRS, as issued by the IASB, for purposes of our financial statements as of and for the year ended

<sup>(2)</sup> Excluding non-controlling interests.

<sup>(3)</sup> Represents dividends paid during the year.

December 31, 2010 which were filed with the local securities regulator in Brazil. There was no effect on PifCo's stockholder's deficit as a result of the transition from U.S. GAAP to IFRS as described in Note 1 in PifCo's audited consolidated financial statements.

The summary financial data prepared in accordance with IFRS is not comparable to the summary financial data prepared in accordance with U.S. GAAP in PifCo's prior annual reports on Form 20-F.

This section contains selected consolidated financial data, presented in U.S. dollars and prepared in accordance with IFRS as of and for each of the three years ended December 31, 2011, 2010 and 2009, derived from PifCo's audited consolidated financial statements, which were audited by KPMG Auditores Independentes.

The information below should be read in conjunction with, and is qualified in its entirety by reference to, PifCo's audited consolidated financial statements and the accompanying notes and Item 5. "Operating and Financial Review and Prospects."

#### **BALANCE SHEET DATA - PifCo**

## **IFRS Summary Financial Data**

	As of December 31,		
	2011	2010	2009
	(U.	S.\$ million)	
Assets:			
Total current assets	6,516	11,800	21,773
Property and equipment, net- discontinued			1
operations	_	1	
Total non-current assets	16,998	6,125	4,523
Total assets	23,514	17,926	26,297
Liabilities and stockholders' deficit:			
Total current liabilities	3,311	5,891	13,174
Total long-term liabilities(1)	20,930	12,377	13,203
Total liabilities	24,241	18,268	26,377
Total stockholder's deficit	(727)	(342)	(80)
Total liabilities and stockholder's deficit	23,514	17,926	26,297

<sup>(1)</sup> Excludes current portion of long-term debt.

#### **INCOME STATEMENT DATA - PifCo**

# **IFRS Summary Financial Data**

	For the Year Ended December 31,		
	2011	2010	2009
	(U.S.\$ million)		
Financial results, net	(477)	(724)	(1,296)
Net income from discontinuing operations	119	476	1,794
Net (loss)/income for the year	(376)	(261)	487

#### **RISK FACTORS**

#### **Risks Relating to Our Operations**

#### Exploration and production of oil in deep and ultra-deep waters involves risks.

Exploration and production of oil involves risks that are increased when carried out in deep and ultra-deep waters. The majority of our exploration and production activities are carried out in deep and ultra-deep waters, and the proportion of our deepwater activities will remain constant or increase due to the location of our pre-salt reservoirs in deep and ultra-deep waters. Our activities, particularly in deep and ultra-deep waters, present several risks, such as the risk of oil spills, explosions in platforms and drilling operations and natural disasters. The occurrence of any of these events or other incidents could result in personal injuries, loss of life, severe environmental damage with the resulting containment, clean-up and repair expenses, equipment damage and liability in civil and administrative proceedings.

Our insurance policies do not cover all liabilities, and insurance may not be available for all risks. There can be no assurance that incidents will not occur in the future, that insurance will adequately cover the entire scope or extent of our losses or that we will not be found liable in connection with claims arising from these and other events.

International prices of crude oil, oil products and natural gas may impact us differently than our competitors and may cause our results to differ from our competitors in periods of higher international prices.

The majority of our revenue is derived primarily from sales of crude oil and oil products in Brazil and, to a lesser extent, natural gas. Changes in crude oil prices typically result in changes in prices for oil products and natural gas. Historically, international prices for crude oil, oil products and natural gas have fluctuated widely as a result of many factors. These factors include:

- global and regional economic and geopolitical developments in crude oil producing regions, particularly in the Middle East and Africa;
- the ability of the Organization of Petroleum Exporting Countries (OPEC) to set and maintain crude oil production levels and defend prices;
- global and regional supply and demand for crude oil, oil products and natural gas;
- global financial crises, such as the global financial crisis of 2008;
- · competition from other energy sources;
- domestic and foreign government regulations; and
- weather conditions.

Our pricing policy in Brazil is intended to be at parity with international product prices over the long term, but we do not adjust our prices for diesel, gasoline and LPG to immediately reflect price changes in the international markets. Significant and sustained decreases in the price of crude oil could have a negative impact on our revenues and may cause us to reduce or alter the timing of our capital expenditures and investments, and this could adversely affect our production forecasts in the medium term and our reserves estimates in the future. Thus, substantial or extended declines in international crude oil prices may have a material adverse effect on our business, results of operations and financial condition and the value of our proved reserves. When, however, we are a net importer by volume of oil and oil products, increases in the price of crude oil may have a negative impact on our costs of sales and margins if we are required to import oil and oil products to meet Brazilian demand, since the cost to acquire such products may exceed the selling price in Brazil. Additionally, material rapid or sustained increases in the international price of crude oil and oil products may also result in reduced downstream margins for us and negatively affect our results. We are also exposed to this risk during periods of depreciation of the real in relation to the U.S. dollar, as we sell oil and oil products in Brazil in reais and international prices for crude oil and oil products are set in U.S. dollars. A depreciation of the real reduces our prices in U.S. dollar terms.

### Our ability to maintain our long-term growth objectives for oil production depends on our ability to successfully develop our reserves, and failure to do so could prevent us from achieving our long-term goals for growth in production.

Our ability to maintain our long-term growth objectives for oil production, including those defined in our 2011-2015 Business Plan, is highly dependent upon our ability to successfully develop our existing reserves and, in the long term, upon our ability to obtain additional reserves. The development of the sizable reservoirs in deep and ultra-deep waters, including the pre-salt reservoirs that have been assigned to us by the Brazilian federal government, has demanded and will continue to demand significant capital investments. A primary operational challenge, particularly for the pre-salt reservoirs, will be allocating our resources to build the necessary infrastructure at considerable distances from the shore and securing a qualified labor force and offshore oil services to develop reservoirs of such size and magnitude in a timely manner, a challenge that is particularly heightened by the fact that we are required to acquire a minimum level of goods and services from Brazilian providers. We cannot guarantee that we will have or will be able to obtain, in the time frame that we expect, sufficient resources necessary to exploit the reservoirs in deep and ultra-deep waters that the Brazilian federal government has licensed and assigned to us, or that it may license to us in the future, including as a result of the enactment of the new regulatory model for the oil and gas industry in Brazil.

Our exploration activities also expose us to the inherent risks of drilling, including the risk that we will not discover commercially productive crude oil or natural gas reserves. The costs of drilling wells are often uncertain, and numerous factors beyond our control (such as unexpected drilling conditions, equipment failures or incidents, and shortages or delays in the availability of drilling rigs and the delivery of equipment) may cause drilling operations to be curtailed, delayed or cancelled. These risks are heightened when we drill in deep and

ultra-deep waters. In addition, increased competition in the oil and gas sector in Brazil may increase the costs of obtaining additional acreage in bidding rounds for new concessions. We may not be able to maintain our long-term growth objectives for oil production unless we conduct successful exploration and development activities of our large reservoirs in a timely manner.

# We may not obtain, or it may be difficult for us to obtain, financing for our planned investments, which may have a material adverse effect on us.

Under our 2011-2015 Business Plan, we intend to invest U.S.\$224.7 billion between 2011 and 2015. In addition, approximately 27% of our existing debt, or U.S.\$22.2 billion, will mature in the next three years. In order to implement our 2011-2015 Business Plan, including the development of our oil and natural gas exploration activities in the pre- and post-salt layers and the development of refining capacity sufficient to process increasing production volumes, we will need to raise significant amounts of debt capital in the financial and capital markets, including by, among other means, loans and issuing debt securities. We cannot guarantee that we will be able to obtain the necessary financing to implement our Business Plan and to roll-over our existing debt in a timely and advantageous manner in order to implement our 2011-2015 Business Plan.

# Our crude oil and natural gas reserve estimates involve some degree of uncertainty, which could adversely affect our ability to generate income.

The proved crude oil and natural gas reserves set forth in this annual report are our estimated quantities of crude oil, natural gas and natural gas liquids that geological and engineering data demonstrate with reasonable certainty to be recoverable from known reservoirs under existing economic and operating conditions (i.e., prices and costs as of the date the estimate is made) according to applicable regulations. Our proved developed crude oil and natural gas reserves are reserves that can be expected to be recovered through existing wells with existing equipment and operating methods. There are uncertainties in estimating quantities of proved reserves related to prevailing crude oil and natural gas prices applicable to our production, which may lead us to make revisions to our reserve estimates. Downward revisions in our reserve estimates could lead to lower future production, which could have an adverse effect on our results of operations and financial condition.

# We do not own any of the subsoil accumulations of crude oil and natural gas in Brazil.

Under Brazilian law, the Brazilian federal government owns all subsoil accumulations of crude oil and natural gas in Brazil and the concessionaire owns the oil and gas it produces from those subsoil accumulations pursuant to concession agreements. We possess the exclusive right to develop the volumes of crude oil and natural gas included in our reserves pursuant to concession agreements awarded to us by the Brazilian federal government and we own the hydrocarbons we produce under those concession agreements. Access to crude oil and natural gas reserves is essential to an oil and gas company's sustained production and generation of income, and our ability to generate income would be adversely affected if the Brazilian federal government were to restrict or prevent us from exploiting these crude oil and natural gas reserves. In addition, we may be subject to fines by the ANP and our concessions may be revoked if we do not comply with our obligations under our concessions.

# The Assignment Agreement we entered into with the Brazilian federal government is a related party transaction.

The transfer of oil and gas exploration and production rights to us related to specific pre-salt areas is governed by the Assignment Agreement, which is a contract between the Brazilian federal government, our controlling shareholder, and us. The negotiation of the Assignment Agreement involved significant issues, including negotiations regarding (1) the area covered by the transfer of rights, consisting of exploratory blocks; (2) the price to be paid for the transfer of rights; and (3) the terms of the subsequent revision of the contract price and volume under the Assignment Agreement.

This contract includes provisions for a subsequent revision of the contract terms, which are subject to oil and industry prices at the time the revision is made. At the time the Assignment Agreement was negotiated, the initial contract price paid by us was based on an assumed Brent oil crude price of U.S.\$80. Once the revision process is concluded pursuant to the terms of the Assignment Agreement, if it is determined that the revised contract price is higher than the initial contract price, we will either make an additional payment to the Brazilian federal government or reduce the amount of barrels of oil equivalent subject to the Assignment Agreement. See Item 10. "Material contracts—Petrobras—Assignment Agreement." Over the course of the life of the Assignment Agreement, novel issues may arise in the implementation of the revision process and other provisions that will require negotiations between related parties.

We are subject to numerous environmental, health and safety regulations and industry standards that are becoming more stringent and may result in increased capital and operating expenditures and decreased production.

Our activities are subject to a wide variety of federal, state and local laws, regulations and permit requirements relating to the protection of human health, safety and the environment, both in Brazil and in other jurisdictions in which we operate, as well as to evolving industry standards and best practices. Particularly in Brazil, our oil and gas business is subject to extensive regulation by several governmental agencies, including the ANP, the ANEEL, the Brazilian Water Transportation Agency (*Agência Nacional de Transportes Aquaviários*) and the Brazilian Land Transportation Agency (*Agência Nacional de Transportes Terrestres*).

Failure to observe or comply with these laws and regulations could result in penalties that could adversely affect our operations. In Brazil, for example, we could be exposed to administrative and criminal sanctions, including warnings, fines and closure orders for non-compliance with these environmental, health and safety regulations, which, among other things, limit or prohibit emissions or spills of toxic substances produced in connection with our operations. Waste disposal and emissions regulations may also require us to clean up or retrofit our facilities at substantial cost and could result in substantial liabilities. The *Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis* (Brazilian Institute of the Environment and Renewable Natural Resources, or IBAMA) and the ANP routinely inspect our facilities, and may impose fines, restrictions on operations, or other sanctions in connection with its inspections, including unexpected, temporary production shutdowns. In addition, we are subject to environmental laws that require us to incur significant costs to cover damage that a project may cause to the environment. These additional costs may have a negative impact on the profitability of the projects we intend to implement or may make such projects economically unfeasible.

As environmental, health and safety regulations become more stringent, and as new laws and regulations relating to climate change, including carbon controls, become applicable to us, and as industry standards evolve, it is probable that our capital expenditures and investments for compliance with such laws and regulations and industry standards will increase substantially in the future. In addition, if compliance with such laws and regulations and industry standards results in significant unplanned production shutdowns, this may have a

material adverse effect on our production. We also cannot guarantee that we will be able to maintain or renew our licenses and permits if they are revoked or if the applicable environmental authorities oppose or delay their issuance or renewal. Increased expenditures to comply with environmental, health and safety regulations, to mitigate the environmental impact of our operations or to restore the biological and geological characteristics of the areas in which we operate may result in reductions in other strategic investments. Any substantial increase in expenditures for compliance with environmental, health or safety regulations or reduction in strategic investments and significant decreases in our production from unplanned shutdowns may have a material adverse effect on our results of operations or financial condition.

# We may incur losses and spend time and money defending pending litigations and arbitrations.

We are currently a party to numerous legal proceedings relating to civil, administrative, environmental, labor and tax claims filed against us. These claims involve substantial amounts of money and other remedies. Several individual disputes account for a significant part of the total amount of claims against us. See Item 8. "Financial Information—Legal Proceedings" and Note 28 to our audited consolidated financial statements included in this annual report for a description of the legal proceedings to which we are subject. In the event that claims involving a material amount and for which we have no provisions were to be decided against us, or in the event that the losses estimated turn out to be significantly higher than the provisions made, the aggregate cost of unfavorable decisions could have a material adverse effect on our financial condition and results of operations. We may also be subject to litigation and administrative proceedings in connection with our concessions and other government authorizations, which could result in the revocation of such concessions and government authorizations. In addition, our management may be required to direct its time and attention to defending these claims, which could preclude them from focusing on our core business. Depending on the outcome, certain litigation could result in restrictions on our operations and have a material adverse effect on certain of our businesses.

# We are vulnerable to increased financing expenses resulting from increases in prevailing market interest rates and exchange rate fluctuation.

Fluctuations in exchange rates, especially a depreciation of the *real* in relation to the U.S. dollar rate, may increase our financing expenses as most of our revenues have been denominated in *reais*, while some of our operating expenses and capital expenditures and investments and a substantial portion of our indebtedness are, and are expected to continue to be, denominated in or indexed to U.S. dollars and other foreign currencies.

As of December 31, 2011, approximately 55.9% — U.S.\$45,905 million of our total indebtedness — consisted of floating rate debt. In light of cost considerations and market analysis, we decided not to enter into derivative contracts or make other arrangements to hedge against the risk of an increase in interest rates. Accordingly, if market interest rates rise, our financing expenses will increase, which could have an adverse effect on our results of operations and financial condition. In addition, as we refinance our existing debt in the coming years, the mix of our indebtedness may change, specifically as it relates to the ratio of fixed to floating interest rates, the ratio of short-term to long-term debt, and the currencies in which our debt is denominated in or indexed to. We cannot assure you that such changes will not result in increased financing expenses borne by us.

# We are not insured against business interruption for our Brazilian operations and most of our assets are not insured against war or sabotage.

We do not maintain coverage for business interruptions of any nature for our Brazilian operations, including business interruptions caused by labor action. If, for instance, our workers were to strike, the resulting work stoppages could have an adverse effect on us. In

addition, we do not insure most of our assets against war or sabotage. Therefore, an attack or an operational incident causing an interruption of our business could have a material adverse effect on our financial condition or results of operations.

# Our international operations are subject to substantial risks.

We operate in several countries, particularly in South America and West Africa. Political, economic and social instability in these countries can have a material adverse effect on us. The results of operations and financial condition of our subsidiaries in these countries may be adversely affected by fluctuations in their local economies, political instability and governmental actions relating to the economy, including:

- the imposition of price controls;
- the imposition of restrictions on hydrocarbon exports;
- the fluctuation of local currencies against the real;
- · the nationalization of oil and gas reserves;
- increases in export tax and income tax rates for crude oil and oil products; and
- unilateral (governmental) institutional and contractual changes, including controls on investments and limitations on new projects.

If one or more of the risks described above were to materialize we may lose part or all of our reserves in the affected country and we may not achieve our strategic objectives in these countries or in our international operations as a whole, which may result in a material adverse effect on our results of operations and financial condition. For more information about our operations outside Brazil, see Item 4. "Information on the Company—International."

## **Risks Relating to PifCo**

# PifCo's operations and debt servicing capabilities are dependent on us.

PifCo's financial position and results of operations are directly affected by our decisions. PifCo is a direct, wholly-owned finance subsidiary of Petrobras incorporated in the Cayman Islands as an exempted company with limited liability. PifCo functions as a vehicle for us to raise capital for our operations through the issuance of debt securities in the international capital markets, among other means. PifCo's ability to service and repay its indebtedness is consequently dependent on our own operations. Our support of PifCo's debt obligations has been and will continue to be made through unconditional and irrevocable guaranties of payment. Our own financial condition and results of operations, as well as our financial support of PifCo, directly affect PifCo's operational results and debt servicing capabilities. For a more detailed description of certain risks that may have a material adverse impact on our financial condition or results of operations and therefore affect PifCo's ability to meet its debt obligations, see "Risks Relating to Our Operations."

# Risks Relating to Our Relationship with the Brazilian Federal Government

The Brazilian federal government, as our controlling shareholder, may cause us to pursue certain macroeconomic and social objectives that may have a material adverse effect on us.

As our controlling shareholder, the Brazilian federal government has pursued, and may pursue in the future, certain of its macroeconomic and social objectives through us, as permitted by law. Brazilian law requires the Brazilian federal government to own a majority of our voting stock, and so long as it does, the Brazilian federal government will have the power to elect a majority of the members of our board of directors and, through them, a majority of the executive officers who are responsible for our day-to-day management. As a result, we may engage in activities that give preference to the objectives of the Brazilian federal government rather than to our own economic and business objectives.

In particular, we continue to assist the Brazilian federal government to ensure that the supply and pricing of crude oil and oil products in Brazil meets Brazilian consumption requirements. Accordingly, we may make investments, incur costs and engage in sales on terms that may have an adverse effect on our results of operations and financial condition. Prior to January 2002, prices for crude oil and oil products were regulated by the Brazilian federal government, occasionally set below prices prevailing in the world oil markets. We cannot assure you that price controls will not be reinstated in Brazil.

Our investment budget is subject to approval by the Brazilian federal government, and failure to obtain approval of our planned investments could adversely affect our operating results and financial condition.

The Brazilian federal government maintains control over our investment budget and establishes limits on our investments and long-term debt. As a state-controlled entity, we must submit our proposed annual budgets to the Ministry of Planning, Budget and Management, the MME and the Brazilian Congress for approval. If our approved budget reduces our proposed investments and incurrence of new debt and we cannot obtain financing that does not require Brazilian federal government approval, we may not be able to make all the investments we envision, including those we have agreed to make to expand and develop our crude oil and natural gas fields. If we are unable to make these investments, our operating results and financial condition may be adversely affected.

# **Risks Relating to Brazil**

Brazilian political and economic conditions have a direct impact on our business and may have a material adverse effect on us.

The Brazilian federal government's economic policies may have important effects on Brazilian companies, including us, and on market conditions and prices of Brazilian securities. Our financial condition and results of operations may be adversely affected by the following factors and the Brazilian federal government's response to these factors:

- devaluations and other exchange rate movements;
- inflation;
- exchange control policies;
- price instability;
- interest rates;
- liquidity of domestic capital and lending markets;
- tax policy;

- regulatory policy for the oil and gas industry, including pricing policy; and
- other political, diplomatic, social and economic developments in or affecting Brazil.

Uncertainty over whether the Brazilian federal government will implement changes in policy or regulations that may affect any of the factors mentioned above or other factors in the future may lead to economic uncertainty in Brazil and increase the volatility of the Brazilian securities market and securities issued abroad by Brazilian companies, which may have a material adverse effect on our results of operations and financial condition.

# **Risks Relating to Our Equity and Debt Securities**

The size, volatility, liquidity and/or regulation of the Brazilian securities markets may curb the ability of holders of ADSs to sell the common or preferred shares underlying our ADSs.

Petrobras shares are among the most liquid in the São Paulo Stock Exchange (BM&FBOVESPA), but overall, the Brazilian securities markets are smaller, more volatile and less liquid than the major securities markets in the United States and other jurisdictions, and may be regulated differently from the way in which U.S. investors are accustomed. Factors that may specifically affect the Brazilian equity markets may limit the ability of holders of ADSs to sell the common or preferred shares underlying our ADSs at the price and time they desire.

# The market for PifCo's notes may not be liquid.

Some of PifCo's notes are not listed on any securities exchange and are not quoted through an automated quotation system. We can make no assurance as to the liquidity of or trading markets for PifCo's notes. We cannot guarantee that the holders of PifCo's notes will be able to sell their notes in the future. If a market for PifCo's notes does not develop, holders of PifCo's notes may not be able to resell the notes for an extended period of time, if at all.

# Holders of ADSs may be unable to exercise preemptive rights with respect to the common or preferred shares underlying the ADSs.

Holders of ADSs who are residents of the United States may not be able to exercise the preemptive rights relating to the common or preferred shares underlying our ADSs unless a registration statement under the Securities Act is effective with respect to those rights or an exemption from the registration requirements of the Securities Act is available. We are not obligated to file a registration statement with respect to the common or preferred shares relating to these preemptive rights, and therefore we may not file any such registration statement. If a registration statement is not filed and an exemption from registration does not exist, The Bank of New York Mellon, as depositary, will attempt to sell the preemptive rights, and holders of ADSs will be entitled to receive the proceeds of the sale. However, the preemptive rights will expire if the depositary cannot sell them. For a more complete description of preemptive rights with respect to the common or preferred shares, see Item 10. "Additional Information—Memorandum and Articles of Association of Petrobras—Preemptive Rights."

# If holders of our ADSs exchange their ADSs for common or preferred shares, they risk losing the ability to remit foreign currency abroad and forfeiting Brazilian tax advantages.

The Brazilian custodian for our common or preferred shares underlying our ADSs must obtain a certificate of registration from the Central Bank of Brazil to be entitled to remit U.S. dollars abroad for payments of dividends and other distributions relating to our preferred and

common shares or upon the disposition of the common or preferred shares. If holders of ADSs decide to exchange their ADSs for the underlying common or preferred shares, they will be entitled to continue to rely, for five Brazilian business days from the date of exchange, on the custodian's certificate of registration. After that period, such holders may not be able to obtain and remit U.S. dollars abroad upon the disposition of the common or preferred shares, or distributions relating to the common or preferred shares, unless they obtain their own certificate of registration or register under Resolution No. 2,689, of January 26, 2000, of the National Monetary Council (*Conselho Monetário Nacional*, or CMN), which entitles registered foreign investors to buy and sell on the BM&FBOVESPA. In addition, if such holders do not obtain a certificate of registration or register under Resolution No. 2,689, they may be subject to less favorable tax treatment on gains with respect to the common or preferred shares.

If such holders attempt to obtain their own certificate of registration, they may incur expenses or suffer delays in the application process, which could delay their ability to receive dividends or distributions relating to the common or preferred shares or the return of their capital in a timely manner. The custodian's certificate of registration or any foreign capital registration obtained by such holders may be affected by future legislative or regulatory changes and we cannot assure such holders that additional restrictions applicable to them, the disposition of the underlying common or preferred shares, or the repatriation of the proceeds from the process will not be imposed in the future.

# Holders of ADSs may face difficulties in protecting their interests.

Our corporate affairs are governed by our bylaws and Brazilian Corporate Law, which differ from the legal principles that would apply if we were incorporated in a jurisdiction in the United States or elsewhere outside Brazil. In addition, the rights of an ADS holder, which are derivative of the rights of holders of our common or preferred shares, as the case may be, to protect their interests against actions by our board of directors are different under Brazilian Corporate Law than under the laws of other jurisdictions. Rules against insider trading and self-dealing and the preservation of shareholder interests may also be different in Brazil than in the United States. In addition, shareholders in Brazilian companies ordinarily do not have standing to bring a class action.

We are a state-controlled company organized under the laws of Brazil and all of our directors and officers reside in Brazil. Substantially all of our assets and those of our directors and officers are located in Brazil. As a result, it may not be possible for holders of ADSs to effect service of process upon us or our directors and officers within the United States or other jurisdictions outside Brazil or to enforce against us or our directors and officers judgments obtained in the United States or other jurisdictions outside Brazil. Because judgments of U.S. courts for civil liabilities based upon the U.S. federal securities laws may only be enforced in Brazil if certain requirements are met, holders of ADSs may face greater difficulties in protecting their interest in actions against us or our directors and officers than would shareholders of a corporation incorporated in a state or other jurisdiction of the United States.

# Holders of our ADSs may encounter difficulties in the exercise of voting rights and preferred shares and the ADSs representing preferred shares generally do not give holders of ADSs voting rights.

Holders of ADSs may encounter difficulties in the exercise of some of their rights as a shareholder if they hold our ADS rather than the underlying shares. For example, if we fail to provide the depositary with voting materials on a timely basis, holders of ADSs may not be able to vote by giving instructions to the depositary on how to vote for them.

In addition, a portion of our ADSs represents our preferred shares. Under Brazilian law and our bylaws, holders of preferred shares generally do not have the right to vote in meetings of our stockholders. This means, among other things, that holders of ADSs representing preferred shares are not entitled to vote on important corporate transactions or decisions. See Item 10. "Additional Information—Memorandum and Articles of Incorporation of

Petrobras—Voting Rights" for a discussion of the limited voting rights of our preferred shares.

# We would be required to pay judgments of Brazilian courts enforcing our obligations under the guaranty relating to PifCo's notes only in reais.

If proceedings were brought in Brazil seeking to enforce our obligations in respect of the guaranty relating to PifCo's notes, we would be required to discharge our obligations only in *reais*. Under the Brazilian exchange control rules, an obligation to pay amounts denominated in a currency other than *reais*, which is payable in Brazil pursuant to a decision of a Brazilian court, may be satisfied in *reais* at the rate of exchange, as determined by the Central Bank of Brazil, in effect on the date of payment.

# A finding that we are subject to U.S. bankruptcy laws and that the guaranty executed by us were a fraudulent conveyance could result in PifCo noteholders losing their legal claim against us.

PifCo's obligation to make payments on the PifCo notes is supported by our obligation under the corresponding guaranty. We have been advised by our external U.S. counsel that the guaranty is valid and enforceable in accordance with the laws of the State of New York and the United States. In addition, we have been advised by our general counsel that the laws of Brazil do not prevent the guaranty from being valid, binding and enforceable against us in accordance with its terms. In the event that U.S. federal fraudulent conveyance or similar laws are applied to the guaranty, and we, at the time we entered into the relevant guaranty:

- were or are insolvent or rendered insolvent by reason of our entry into such guaranty;
- were or are engaged in business or transactions for which the assets remaining with us constituted unreasonably small capital; or
- intended to incur or incurred, or believed or believe that we would incur, debts beyond our ability to pay such debts as they mature; and
- in each case, intended to receive or received less than reasonably equivalent value or fair consideration therefor,

then our obligations under the guaranty could be avoided, or claims with respect to that agreement could be subordinated to the claims of other creditors. Among other things, a legal challenge to the guaranty on fraudulent conveyance grounds may focus on the benefits, if any, realized by us as a result of PifCo's issuance of these notes. To the extent that the guaranty is held to be a fraudulent conveyance or unenforceable for any other reason, the holders of the PifCo notes would not have a claim against us under the relevant guaranty and will solely have a claim against PifCo. We cannot assure you that, after providing for all prior claims, there will be sufficient assets to satisfy the claims of the PifCo noteholders relating to any avoided portion of the guaranty.

Concerns regarding the European credit crisis and market perceptions with respect to both the financial stability of Eurozone countries and the stability of the euro could adversely affect the value of our euro notes and the general availability and cost of financing.

There are persistent concerns regarding the debt burden of certain Eurozone countries and their ability to meet future financial obligations, the overall stability of the euro and the suitability of the euro to function as a single currency given the diverse economic and political circumstances in individual Eurozone countries. The risks and prevalent concerns about the credit crisis in Europe could have a detrimental impact on global economic recovery as well as on sovereign and non-sovereign debt in the Eurozone countries. There can be no assurance that the market disruptions in Europe will not spread, nor can there be any assurance that future assistance packages will be available or, even if provided, will be sufficient to stabilize

affected countries and markets in Europe or elsewhere. These and other concerns could lead to the re-introduction of individual currencies in one or more Eurozone countries, or, in more extreme circumstances, the possible dissolution of the euro entirely.

Should the euro dissolve entirely, the legal and contractual consequences for holders of euro-denominated obligations would be determined by laws in effect at such time. It is difficult to predict the real impact of the European sovereign crisis; however, to the extent uncertainty regarding the economic recovery continues to negatively impact the global economy, concerns regarding the effect of this financial crisis globally could also have an adverse impact on the capital and financial markets generally. These potential developments, or market perceptions concerning these and related issues, could negatively impact the value of our euro notes and the general availability and cost of financing.

# Item 4. Information on the Company

# **History and Development**

Petróleo Brasileiro S.A.—Petrobras—was incorporated in 1953 to conduct the Brazilian federal government's hydrocarbon activities. We began operations in 1954 and have been carrying out crude oil and natural gas production and refining activities in Brazil on behalf of the government. As of December 31, 2011, the Brazilian federal government owned 28.66% of our outstanding capital stock and 50.24% of our voting shares. Our common and preferred shares have been traded on the BM&FBOVESPA since 1968 and on the NYSE since 2000.

As part of a comprehensive reform of the oil and gas regulatory system, the Brazilian Congress amended the Brazilian Constitution in 1995 to authorize the Brazilian federal government to contract with any state or privately-owned company to carry out upstream, oil refining, cross-border commercialization and transportation activities in Brazil of oil, natural gas and their respective products. On August 6, 1997, Brazil enacted Law No. 9,478, which established a concession-based regulatory framework, ended our exclusive right to carry out oil and gas activities, and allowed competition in all aspects of the oil and gas industry in Brazil. Since that time, we have been operating in an increasingly deregulated and competitive environment. Law No. 9,478 also created an independent regulatory agency, the ANP, to regulate the oil, natural gas and renewable fuel industry in Brazil and to create a competitive environment in the oil and gas sector. Effective January 2, 2002, Brazil deregulated prices for crude oil, oil products and natural gas. See "Regulation of the Oil and Gas Industry in Brazil—Price Regulation."

In 2010, new laws were enacted to regulate exploration and production activities in pre-salt areas not subject to existing concessions. Pursuant to this new legislation, we entered into an agreement with the Brazilian federal government on September 3, 2010 (Assignment Agreement), under which the government assigned to us the right to activities for the exploration and production of oil, natural gas and other fluid hydrocarbons in specified pre-salt areas, subject to a maximum production of five billion barrels of oil equivalent. The initial purchase price for our rights under the Assignment Agreement was R\$74,807,616,407, which was equivalent to U.S.\$42,533,327,500 as of September 1, 2010. On September 29, 2010, we issued new shares (including shares in the form of ADSs) in a global public offering consisting of a registered offering in Brazil and an international offering that included a registered offering in the United States. We applied part of the net proceeds from the global offering to pay the initial purchase price under the Assignment Agreement.

We operate through subsidiaries, joint ventures, and associated companies established in Brazil and many other countries. Our principal executive office is located at Avenida República do Chile 65, 20031-912 Rio de Janeiro, RJ, Brazil and our telephone number is (55-21) 3224-4477.

## **Overview of the Group**

We are an integrated oil and gas company that is the largest corporation in Brazil and one of the largest companies in Latin America in terms of revenues. As a result of our legacy as Brazil's former sole supplier of crude oil and oil products and our ongoing commitment to development and growth, we operate most of Brazil's producing oil and gas fields and hold a large base of proved reserves and a fully developed operational infrastructure. In 2011, our average domestic daily oil production was 2,022.0 mbbl/d, an estimated 92% of Brazil's total. Over 76% of our domestic proved reserves are in large, contiguous and highly productive fields in the offshore Campos Basin, which allows us to optimize our infrastructure and limit our costs of exploration, development and production. In 43 years of developing Brazil's offshore basins we have developed special expertise in deepwater exploration and production, which we exploit both in Brazil and in other offshore oil provinces.

As of December 31, 2011, we had proved developed oil and gas reserves of 8,124 mmboe, including synthetic oil and synthetic gas from oil shale and proved undeveloped reserves of 4,143 mmboe in Brazil. The exploration and development of this large reserve based and the new pre-salt areas garanted to us by the Brazilian Government under the Assignment Agreement has demanded, and will continue to demand, significant investments and the rapid growth of our operations. To support this growth, we have ordered the construction of 22 new FPSOs and 33 drilling rigs and are also making necessary investments in infrastructure. We have planned capital expenditures and investments of U.S.\$50.6 billion for 2012 and of U.S.\$224.7 billion for the period from 2011 through 2015.

We operate substantially all of the refining capacity in Brazil. Most of our refineries are located in Southeastern Brazil, within the country's most populated and industrialized markets and adjacent to the Campos Basin that provides most of our crude oil. Our domestic refining capacity of 2,013 mbbl/d is well balanced with our domestic refining throughput of 1,862 mbbl/d and sales of oil products to domestic markets of 2,131 mbbl/d. We are also involved in the production of petrochemicals. We distribute oil products through our own "BR" network of retailers and to wholesalers.

We participate in most aspects of the Brazilian natural gas market. We expect the percentage of natural gas in Brazil's energy matrix to grow in the future as a result of the expansion of Brazil's gas transportation infrastructure which began in 2005 and was largely completed in 2011 and as we expand our production of both associated and non-associated gas, mainly from offshore fields in the Campos, Espírito Santo and Santos Basins. We import natural gas from Bolivia and use LNG terminals to meet demand and diversify our supply. We also participate in the domestic power market primarily through our investments in gas-fired thermoelectric power plants. In addition, we participate in the fertilizer business, which is another important source of natural gas demand.

Outside of Brazil, we operate in 24 countries. In South America, our operations extend from exploration and production to refining, marketing, retail services and natural gas pipelines. In North America, we produce oil and gas and have refining operations in the United States. In Africa, we produce oil in Angola and Nigeria, and in Asia, we have refining operations in Japan. In other countries, we are engaged mainly in oil and gas exploration.

Comprehensive information and tables on reserves and production is presented at the end of Item 4. See "—Additional Reserves and Production Information."

Our activities comprise six business segments:

- **Exploration and Production**: oil and gas exploration, development and production in Brazil;
- **Refining, Transportation and Marketing**: includes refining, logistics, transportation, oil products and crude oil exports and imports, as well as petrochemical sector in Brazil;

- **Distribution**: distribution of oil products to wholesalers and through our "BR" retail network in Brazil;
- **Gas and Power**: transportation and trading of natural gas and LNG , as well as, generation and trading of electric power;
- **Biofuel**: production of biodiesel and its co-products and ethanol activities, through equity investments, production and marketing of ethanol, sugar and the excess electric power generated from sugarcane bagasse; and
- **International**: exploration and production, refining, transportation and marketing, distribution and gas and power operations outside of Brazil.

Our Corporate segment comprises our financing activities not attributable to other segments, including corporate financial management, central administrative overhead and actuarial expenses related to our pension and health care plans for inactive participants. As of 2011, the results of our Biofuels segment have been presented separately from our Corporate segment. The 2010 and 2009 financial information related to our Corporate and Biofuel segments were reclassified accordingly.

The following table sets forth key information for each business segment in 2011:

		Key Information by Business Segment, 2011							
		Refining, ransportation nd Marketing		BiofuelDi	stributionInte	ernationalCo	orporate Eli		
		_		(U	.S.\$ million)		-		
	74,117	118,630	9,738	320	44,001	16,956	_		
income taxes	36,809	(8,753)	2,725	(151)	1,134	2,117	(5,003)		
mber 31	141,113	84,330	27,645	1,289	7,885	19,427	45,326		
s and investments	20,405	16,133	2,293	294	679	2,631	729		

# **Exploration and Production**

Exploration and Production Key Statistics					
	2011	2011 2010 2009 (U.S.\$ million)			
<b>Exploration and Production:</b>					
Sales revenues	74,117	54,273	38,759		
Income (loss) before income taxes	36,809	25,439	14,707		
Total assets at December 31	141,113	136,600	75,908		
Capital expenditures and investments	20,405	18,621	16,162		

Oil and gas exploration and production activities in Brazil are the largest component of our portfolio. We have gradually increased production over the past four decades, from 164 mbbl/d of crude oil, condensate and natural gas liquids in Brazil in 1970 to 2,022 mbbl/d in 2011. We aim to grow oil and gas reserves and production sustainably and be recognized for excellence in Exploration and Production operations.

The primary focus of our E&P segment is to:

• Continue to explore and develop the Campos Basin, leveraging the current infrastructure to drill in deeper horizons in existing concessions, including pre-salt reservoirs, and using new technologies for secondary recovery in producing fields;

- Explore and develop Brazil's two other most promising offshore basins, Espírito Santo (light oil, heavy oil and gas) and Santos (gas and light oil), with a particular focus on pre-salt development;
- Explore light oil and natural gas in new frontiers, including Brazil's equatorial margin and eastern and northeastern regions;
- Develop associated and non-associated gas resources in the Santos Basin and elsewhere to meet Brazil's growing demand for gas and to increase the contribution of Brazilian gas production as a proportion of total domestic gas supply; and
- Sustain and increase production from onshore and shallow fields through drilling and enhanced recovery operations.

During 2011, our oil and gas production from Brazil averaged 2,220.5 mboe/d, of which 91% was oil and 9% was natural gas. On December 31, 2011, our estimated net proved crude oil and natural gas reserves in Brazil were 12.26 billion boe, of which 85% was crude oil and 15% was natural gas. Brazil provided 90.7% of our worldwide production in 2011 and accounted for 95% of our worldwide reserves at December 31, 2011 on a barrels of oil equivalent basis. Historically, approximately 85% of our total Brazilian production has been oil. In connection with the development of the pre-salt, the contribution of natural gas to total hydrocarbon production is expected to grow. In 2011, we drilled a total of 398 development wells, of which 84 were offshore and 314 were onshore.

As of December 31, 2011, we had 132 exploration agreements covering 194 blocks, corresponding to a gross exploratory acreage of 119,132 km² (29.4 million acres), or a net exploratory acreage of 95,672.2 km² (23.6 million acres), and 51 evaluation plans. We are exclusively responsible for conducting the exploration activities in 98 of the 132 exploration agreements. As of December 31, 2011, we had exploration partnerships with 20 foreign and domestic companies. We conduct exploration activities under 111 of our 132 partnership agreements.

We focus much of our exploration effort on deepwater drilling, where the discoveries are substantially larger and our technology and expertise create a competitive advantage. In 2011, we invested a total of U.S.\$5.3 billion in exploration activities in Brazil. We drilled a total of 123 exploratory wells in 2011, of which 47 were offshore and 76 onshore.

Brazil's richest oil fields are located offshore, most of them in deep waters. Since 1971, when we started exploration in the Campos Basin, we have been active in these waters and we have become globally recognized as innovators in the technology required to explore and produce hydrocarbons in deep and ultra-deep water. We operate more production (on a boe basis) from fields in deep and ultra-deep water than any other company. In 2011, offshore production accounted for 89% of our production and deepwater production accounted for 77% of our production in Brazil. In 2011, we operated 226 wells in water deeper than 1,000 meters (3,281 feet), and we drilled around 26 exploratory wells in water deeper than 1,000 meters (3,281 feet).

Offshore exploration, development and production costs are generally higher than those onshore, but we have been able to offset these higher costs by higher drilling success ratios, larger discoveries and greater production volumes. We have historically been successful in finding and developing significant oil reservoirs offshore, which has allowed us to achieve economies of scale by spreading the total costs of exploration, development and production over a large base. By focusing on opportunities that are close to existing production infrastructure, we limit the incremental capital requirements of new field development.

Historically, our offshore exploration and production activities were focused on post-salt reservoirs. In recent years, we have focused our offshore exploration efforts on pre-salt reservoirs located in a region of approximately  $149,000 \text{ km}^2$  (36.8 million acres) stretching from the Campos to the Santos Basins. Our existing contracts in this area cover 26.6% (approximately  $39,615 \text{ km}^2$  or 9.8 million acres) of the pre-salt areas, including the pre-salt

areas assigned to us under Concession Contracts and the Assignment Agreement. An additional 4% (approximately  $6,000~\text{km}^2$  or 1.5~million acres) is under concession to other oil companies for exploration. The remaining 69.4% (approximately  $103,000~\text{km}^2$  or 25.4~million acres) of the pre-salt region is open acreage area, not licensed yet, and the licensing of new pre-salt areas will be made under a production-sharing regime under Law No. 12,351, enacted on December 22,2010.

Since 2005, we have drilled 60 exploratory wells that yielded hydrocarbon discoveries within the pre-salt area. We hold interests ranging from 20% to 100% in the pre-salt exploration areas under concession to us. In the southern part of the Santos Basin, where the salt layer is thick and the hydrocarbons have been more perfectly preserved, we have made several particularly promising discoveries since 2006, including those made in Blocks BM-S-11 (lara and Lula) and BM-S-9 (Carioca and Sapinhoá, formerly Guará). In the northern part of the region, we made significant discoveries in 2008 and early 2010 in the area known as Parque das Baleias and in the Barracuda, Marlim and Caratinga fields, all of which are in the Campos Basin. As a result, we are committing substantial resources to develop these pre-salt discoveries, which are located in deep and ultra-deep waters and reservoirs at total depths of up to 7,000 meters (22,965 feet).

Our 2011-2015 Business Plan, which was released in July 2011, foresees investments in our Brazilian exploration and production activities of U.S.\$117.7 billion from 2011 to 2015 (not including investments by our partners). Of this amount, 54.6% will be applied to the exploration, production and development of necessary infrastructure in connection with our post-salt reserves, and 45.4% will be applied to the corresponding investments in our pre-salt reserves.

We have also implemented a variety of programs designed to increase oil recovery from existing fields and reduce natural declines from producing fields.

Our exploration and production activities outside Brazil are included in our International business segment. See "—International."

Information about our principal oil and gas producing fields in Brazil is summarized in the table below.

	Principal (	Oil and Gas Produci	ing Fields in Brazil	
Basin	Fields	Petrobras %	Type	$\mathbf{Fluid}(1)$
Alagoas	Pilar	100%	Onshore	Light Oil/Natural Gas
Camamu	Manati	35%	Shallow	Natural Gas
Campos	Albacora	100%	Shallow	Intermediate Oil
			Deepwater	Intermediate Oil
	Albacora Leste	90%	Deepwater	Intermediate Oil
			Ultra-deepwater	
	Baleia Azul	100%	Deepwater	Intermediate Oil
	Baleia Franca	100%	Deepwater	Intermediate Oil
	Barracuda	100%	Deepwater	Intermediate Oil
	Bijupirá/Salema	22.4%(2)	Deepwater	Intermediate Oil
	Cachalote	100%	Deepwater	Intermediate Oil
	Caratinga	100%	Deepwater	Intermediate Oil
	Espadarte	100%	Deepwater	Intermediate Oil
	Jubarte	100%	Deepwater	Heavy Oil
	Maromba	62.5%	Deepwater	Heavy Oil
	Marlim	100%	Deepwater	Heavy Oil
	Marlim Leste	100%	Deepwater	Intermediate Oil
	Marlim Sul	100%	Deepwater	Intermediate Oil
			Ultra-deepwater	
	Namorado	100%	Shallow	Intermediate Oil
	Ostra	35%(2)	Deepwater	Heavy Oil
	Pampo	100%	Shallow	Intermediate Oil
	Pargo	100%	Shallow	Intermediate Oil
	Roncador	100%	Ultra-deepwater	Intermediate Oil
	Voador	100%	Deepwater	Heavy Oil
Espírito Santo	Fazenda Alegre	100%	Onshore	Heavy Oil
· ·	Peroá	100%	Shallow	Light Oil
	Golfinho	100%	Deepwater	Intermediate Oil
			Ultra-deepwater	Intermediate Oil
	Canapu	100%	Deepwater	Natural Gas
	Camarupim	76%	Deepwater	Natural Gas
Potiguar	Canto do Amaro	100%	Onshore	Intermediate Oil/Natural Gas
C				Heavy Oil/Natural Gas
Recôncavo	Jandaia	100%	Onshore	Light Oil
	Miranga	100%	Onshore	Light Oil/Natural Gas
Santos	Merluza	100%	Shallow	Natural Gas
	Mexilhão	100%	Shallow	Natural Gas

	Uruguá	100%	Deepwater	Intermediate Oil/Natural Gas
	Tambaú	100%	Deepwater	Natural Gas
	Lula	65%	Ultra-deepwater	Intermediate Oil
	Sapinhoá	45%	Ultra-deepwater	Intermediate Oil
Sergipe	Carmópolis	100%	Onshore	Intermediate Oil
	Sirirízinho	100%	Onshore	Intermediate Oil
Solimões	Leste do Urucu	100%	Onshore	Light Oil/Natural Gas
	Rio Urucu	100%	Onshore	Light Oil/Natural Gas

<sup>(1)</sup> Heavy oil = up to 22° API; intermediate oil = 22° API to 31° API; light oil = greater than 31° API

# (2) Petrobras is not the operator in this field.

We have historically conducted exploration, development and production activities in Brazil through concession contracts, which we have obtained through participation in bid rounds conducted by the ANP. Some of our existing concessions were granted by the ANP without an auction in 1998, as provided by Law No. 9,478. These are known as the "Round Zero" concession contracts. Since such time, we have participated in all of the auction rounds, most recently in December 2008.

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Our domestic oil and gas exploration and production efforts are primarily focused on three major basins offshore in Southeastern Brazil: Campos, Espírito Santo and Santos. The following map shows our concession areas in Brazil as of December 2011.

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The map below shows the location of the pre-salt reservoirs as well as the status of our exploratory activities there.

# Campos Basin

The Campos Basin, which covers approximately 115,000 km² (28.4 million acres), is the most prolific oil and gas basin in Brazil as measured by proved hydrocarbon reserves and annual production. Since we began exploring this area in 1971, over 60 hydrocarbon accumulations have been discovered, including eight large oil fields in deep water and ultra-deep water. The Campos Basin is our largest oil- and gas-producing region, producing an average 1,677.0 mbbl/d of oil and 12.9 mmm³/d (487.4 mmcf/d) of associated natural gas during 2011, 79% of our total production from Brazil.

In 2011, we produced oil at an average rate of 1,677.0 mbbl/d from 44 fields in the Campos Basin and held proved crude oil reserves representing 82% of our total proved crude oil reserves in Brazil. In addition, the start-up of operations in 2011 of the P-56 platform located in the Marlim Sul field in the offshore Campos Basin added a capacity of 100 mbbl/d of oil and 6.0 mmm³/d of natural gas. We held proved natural gas reserves in the Campos Basin representing 45% of our total proved natural gas reserves in Brazil. We operated 40 floating production systems, 14 fixed platforms and 6,749 km (4,194 miles) of pipeline and flexible pipes in water depths from 80 to 1,886 meters (262 to 6,188 feet), delivering oil with an average API gravity of 22.9° and an average BSW of 1%. As of December 31, 2011, we held rights to 10 exploratory blocks and 13 evaluation plans in the Campos Basin, comprising a total of 7,975.6 km² (1.97 million acres).

Production growth in the Campos Basin originates mainly from the installation of new platforms to develop our proved reserves in the region. In 2011, the start-up of operations at the P-56 platform located in the Marlim Sul field in the offshore Campos Basin added a capacity of 100 mbbl/d of oil and 6.0 mmm<sup>3</sup>/d of natural gas. The connection of new wells to previously installed platforms is also a significant contributor to production increases in the Campos Basin. The interconnection of new wells in the P-48 and P-57 platforms and the FPSO Capixaba added 68.9 mbbl/d to our average production in the Campos Basin in 2011.

We expect that the source of future production from the Campos Basin will be predominantly from deepwater oil fields. We are currently developing nine major projects in the Campos Basin: Marlim Sul Module 3, Roncador Modules 3 and 4, Papa-Terra Modules 1 and 2, Aruanã (BM-C-36) - EWT, Jubarte Phase II, Parque das Baleias and the pre-salt reservoirs of Baleia Azul.

#### **Principal Campos Basin Development Projects**

Field Baleia Azul & Pirambu	Unit Type FPSO	Production Unit Anchieta			Depth (meters)		]
							e: l ch
Roncador–Module 3 Papa-Terra–Module 1	SS TLWP	P-55 P-61	180,000 0	· ·	-	2013 2013	
Papa-Terra–Module 2 Baleia Azul, Jubarte, Cachalote, Baleia Anã & Baleia Franca Roncador–Module 4	FPSO FPSO FPSO	P-63 P-58 P-62	150,000 180,000 180,000	211,884	1,400		Po Po Po

We have also made important progress in the pre-salt reservoirs of the Campos Basin, where we have drilled a total of 30 wells. Of particular note are the discoveries in the Parque das Baleias area, in the northern part of Campos Basin off the coast of the State of Espírito Santo. The first pre-salt oil production in Parque das Baleias was at the Jubarte field in 2008. We started producing from the Baleia Franca field in the second half of 2010 using the existing FPSO Capixaba. In 2012, we expect to start up a pilot system exclusively dedicated to pre-salt exploration in the Baleia Azul region using the FPSO Cidade de Anchieta, with a capacity to produce 100,000 bpd of oil and 3.5 mmm<sup>3</sup>/d of gas. We have also made promising discoveries near existing infrastructure in our Campos Basin concessions. Specifically, we have discovered pre-salt reserves of Brava, Carimbe and Tracaja in the

pre-salt layers of the Marlim, Caratinga and Marlim Leste concessions. These discoveries represent opportunities to increase pre-salt production in the Campos Basin in the coming years while taking advantage of the existing infrastructure in the area.

#### Santos Basin

The Santos Basin, which covers approximately 348,900 km² (86 million acres) off the city of Santos, in the State of São Paulo, is one of the most promising exploration and production areas offshore Brazil. In the Santos Basin in 2011, we produced oil at an average rate of 66.9 mbbl/d and natural gas at an average rate of 4.1 mmm³/d (156.4 mmcf/d). In the Santos Basin, we held proved crude oil reserves representing 10% of our total proved crude oil reserves in Brazil and held natural gas reserves representing 29% of our total proved natural gas reserves in Brazil. On December 31, 2011, we held exploration rights to 38 blocks in the Santos Basin, comprising 23,625.4 km² (5,835.5 million acres).

The Santos Basin pre-salt was a central focus of E&P activities in 2011. We continue to concentrate our efforts on gathering information about the pre-salt reserves through extended well tests (EWTs) and testing drilling technologies to improve efficiency and to plan the definitive design of production platforms. Throughout the year, we drilled 14 new wells, increasing to 37 the number of wells in the Santos Basin pre-salt. In addition, we expect to drill up to 21 new wells in this region in 2012.

We currently have two platforms, the FPSO Cidade de São Vicente and the FPSO Dynamic Producer, that are dedicated to perform EWTs in the Santos Basin pre-salt. Since 2009, two EWTs have been performed in the Lula and Guará areas. We are currently performing EWTs in the Iracema and Carioca Northeast areas, and have three additional EWTs in other areas planned for 2012. From 2013 through 2017, we plan to install at least 17 FPSOs in the Santos Basin pre-salt to develop the production in the region. These FPSOs are currently being designed or constructed. The subsequent phase, beginning in 2017, will include the application of improved technologies and engineering specifically designed for the pre-salt fields.

The first productive field in the Santos Basin pre-salt was Lula (formerly Tupi), which began producing oil in May 2009 following an 18-month EWT. In November 2010, we replaced the EWT with a long-term production system, the FPSO Cidade de Angra dos Reis, which has a production capacity of 100 mbbl/d. By the end of 2011, we had drilled and connected three production wells to this FPSO, which was producing 65 mbbl/d of oil. A gas injection well was also drilled in the Lula area and was the first injection well to be tested in the pre-salt reservoirs. In 2012, we plan to drill two additional production wells and one injector in the Lula system.

In December 2011, the Declaration of Commerciality for the Guará area was submitted to the ANP for approval. Located in the Santos Basin pre-salt area called Sapinhoá Pilot, the FPSO Cidade de São Paulo has an expected capacity of 120,000 mbbl/d of oil and 5 mmm<sup>3</sup>/d of gas and is expected to come online in 2012.

Under the Assignment Agreement, we have six blocks and one contingent block which comprise our rights to explore, evaluate and produce up to five billion barrels of oil equivalent in the pre-salt area of the Santos Basin. We are developing these blocks in an integrated manner with the areas we already have under concession. In 2011, we drilled our first exploratory well under the Assignment Agreement in the Franco area and we have an EWT planned for that area in 2012. With a view to further develop these blocks, we have acquired four tanker hulls that will be converted into FPSOs. Over the next four years, we will proceed with our exploration program and are currently targeting the production of oil in the Franco area in 2015.

# Principal Santos Basin Development Projects Natural

			Crude Oil	Gas   Nominal			
		Production	Nominal	Capacity	Water Depth	Start Up	
Field	<b>Unit Type</b>	Unit	(bbl/d)	(mcf/d)	(meters)	(year)	Notes
Bauna & Piracaba (BM-S-40)	FPSO	Cidade de Itajai	80,000	70,628	200	2012	Chartered from Teekay
Sapinhoá Pilot (Guará)	FPSO	Cidade de São Paulo	120,000	176,573	2,141	2012	Chartered from Schahin/Modeo
ula (Nordeste) Pilot	FPSO	Cidade de Paraty	120,000	176,573	2,200	2013	Chartered from Queiroz Galvão/SBM
Sapinhoá (Norte) – Module 2	FPSO	Cidade de Ilha Bela	150,000	211,884	2,100	2014	Chartered from Queiroz Galvão/SBM

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Lula Iracema Area	FPSO	Cidade de Mangaratiba	150,000	282,520	2,100 2014	Chartered from Schahin/Modeo
ranco 1 Transfer of Rights	FPSO	P-74	150,000	247,205	2,100 2015	Owned
ula (Central)	FPSO	P-66	150,000	247,205	2,100 2015	Owned
ula (High)	FPSO	P-67	150,000	176,575	2,100 2015	Owned

Santos is also the focus of our plans to develop domestic natural gas. Our average natural gas production in this basin in 2011 was 4.1 mmm<sup>3</sup>/d (156.4 mmcf/d) and our proved natural gas reserves in the Santos Basin represented 29% of our total proved natural gas reserves in Brazil.

In recent years we have been carrying out plans to increase our gas production and build supporting infrastructure in the Santos and Espírito Santo Basins. These plans are now reaching fruition, and we expect that they will increase our average gas production capacity in the Santos Basin from 5.8 mmm³/d (204.8 mmcf/d) in 2011 to 17.8 mmm³/d (628.6 mmcf/d) by the end of 2012. In 2010, we started up post-salt operations at the FPSO Cidade de Santos platform located in the Uruguá field, which produced 0.8 mmm³/d (28.3 mmcf/d) of gas in 2011 and is expected to produce 6.8 mmm³/d (240.1 mmcf/d) by the end of 2012, when the Tambaú field will start production using the same platform. Mexilhão, located in shallow waters in the Santos Basin Block BS-400, started its production in March 2011, and produced 1.7 mmm³/d (60.0 mmcf/d). This production may increase to 8.6 mmm³/d (303.7 mmcf/d) in 2012 in light of the potential production from new wells.

In addition to the foregoing activities, we have made light oil discoveries in shallow water post-salt reservoirs in the BM-S-40 block, called Tiro and Sidon. In 2010, we commenced an EWT in these fields using the SS-11 Atlantic Zephyr platform. We are using the results of that EWT to develop a long-term production system for this block, including a plan to install the FPSO Cidade de Itajaí, with an expected capacity of 80 mbbl/d of oil and 2 mmm³/d of gas. The FPSO Cidade de Itajaí is expected to come online in 2012. In February, 2012 we submitted to the ANP the Declaration of Commerciality for Tiro and Sidon, which were renamed Bauna and Piracaba, respectively.

# Espírito Santo Basin

We have made several discoveries of light oil and natural gas in the Espírito Santo Basin, which covers approximately 75,000 km<sup>2</sup> (18.5 million acres) offshore and 14,000 km<sup>2</sup> (3.5 million acres) onshore. At December 31, 2011, we were producing oil at an average rate of 54.4 mbbl/d from 46 fields and held proved crude oil reserves representing 1% of our total proved crude oil reserves in Brazil. At December 31, 2011, we were producing natural gas at an average rate of 6.9 mmm<sup>3</sup>/d (261.2 mmcf/d) and held proved natural gas reserves representing 4% of our total proved natural gas reserves in Brazil.

In addition to developing new production projects, we are also optimizing existing resources in the Espírito Santo area by constructing the Sul Norte Capixaba gas pipeline with capacity to transport 7 mmm<sup>3</sup>/d (247.2 mmcf/d). The pipeline, which runs from the Parque das Baleias area to the Cacimbas gas treatment unit, is expected to come online in 2012.

On December 31, 2011, we held exploration rights to 20 blocks, one onshore and 19 offshore (five of which are evaluation areas), comprising a total of 8,217.5 km<sup>2</sup> (2,029.7 million acres).

#### Other Basins

We produce hydrocarbons and hold exploration acreage in 19 other basins in Brazil. Of these, the most significant are the shallow offshore Camamu Basin and the onshore Potiguar,

Recôncavo, Sergipe, Alagoas and Solimões Basins. While our onshore production is primarily in mature fields, we plan to sustain and slightly increase production from these fields in the future by using enhanced recovery methods.

We had a total of 297 production agreements as of December 31, 2011, and were the 100% owner in 256 of them. We are operators under 12 of our 27 partnership agreements.

# Critical Resources in Exploration and Production

We have sought to ensure that critical service sector resources are sufficient to permit us to move ahead with our E&P plans. Because offshore Brazil is geographically isolated from other offshore drilling areas, and because we often drill in unusually deep waters, we plan carefully for our future drilling rig needs. By using a combination of our own rigs and units that we contract for periods of three years or longer, we have historically ensured the availability of drilling units to meet our needs, and paid lower average daily rates than if we had contracted the units on a spot basis. We continually evaluate our need for rigs, renew our drilling contracts, contract ahead for rigs as needed, and stimulate new rig construction by signing long-term operating leases with drilling contractors for rigs that are not yet built.

In the last three years we have successfully eased pressures related to a limited supply of deepwater rigs. Whereas in 2008 we only had three rigs capable of drilling in water depths greater than 2000 meters (6,560 feet), we had 19 as of December 31, 2011, and we expect to have 33 by 2013.

More specifically, we have entered into long-term contracts for 16 drilling rigs to engage in deepwater exploration and production development of our offshore fields in Brazil in 2012 and 2013. Of these 16 rigs, one will be capable of operating in water depths of up to 1,500 meters (4,621 feet), and 15 will be capable of drilling in water deeper than 2,000 meters (6,562 feet). All of these rigs will be chartered by us and have been built or are being built in shipyards outside of Brazil. Of the 19 drilling rigs that we had capable of drilling in water depths greater than 2,000 meters (6,562 feet) as of December 31, 2011, two have contracts that expire by 2013.

In addition to these 16 new drilling rigs, we have also announced plans for 33 rigs to be built in Brazil to meet our long-term needs, including satisfying Brazilian local content requirements arising out of the Assignment Agreement and existing concession agreements. To this end, we have awarded contracts for seven drilling rigs to be built by Sete Brasil S.A. (Sete BR), a Brazilian company in which we hold a 10% interest. We are currently negotiating contracts for an additional 21 drilling rigs to be built by Sete BR and five drilling rigs to be built by Ocean Rig UDW Inc. (Ocean Rig). We expect to fulfill our future drilling requirements with a combination of rigs built in Brazil, supplemented when needed by the international fleet of deepwater rigs.

Drilling Units in Use	e by Exploration and	<b>Production on Decem</b>	iber 31 of Each Year
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	2011		201	0	2009		
	Leased	Owned	Leased	Owned	Leased	Owned	
Onshore	17	11	22	12	31	13	
Offshore, by water depth (WD)	54	8	44	8	36	8	
Jack-up rigs	1	4	1	4	2	4	
Floating rigs:	53	4	43	4	34	4	
500 to 1000 meters WD	8	2	11	2	9	2	
1001 to 2000 meters WD	26	2	19	2	20	2	
2001 to 3000 meters WD	19	0	13	0	5	0	

# Refining, Transportation and Marketing

# Refining, Transportation and Marketing Key Statistics

	2011	2010	2009		
	(U.S.\$ million)				
Refining, Transportation and Marketing:					
Sales revenues	118,630	97,936	74,381		
Income (loss) before income taxes	(8,753)	3,141	10,239		
Total assets at December 31	84,330	70,515	50,920		
Capital expenditures and investments	16,133	16,198	9,694		

We are an integrated company with a dominant market share in our home market. We own and operate 12 refineries in Brazil, with a total net distillation capacity of 2,013 mbbl/d, and are one of the world's largest refiners. As of December 31, 2011, we operated substantially

all of Brazil's total refining capacity. We supplied almost all of the refined product needs of third-party wholesalers, exporters and petrochemical companies, in addition to the needs of our Distribution segment. We operate a large and complex infrastructure of pipelines and terminals and a shipping fleet to transport oil products and crude oil to domestic and export markets. Most of our refineries are located near our crude oil pipelines, storage facilities, refined product pipelines and major petrochemical facilities, facilitating access to crude oil supplies and end-users.

We also import and export crude oil and oil products. The demand for oil products in Brazil is increasing rapidly, driven primarily by economic growth. Particularly in 2011, we met this incremental growth in demand by increasing imports as our refining capacity was not sufficient to meet the increased demand. This increase in imports increased our cost of sales and decreased our margins in 2011. See Item 5. "Operating and Financial Review and Prospects." We expect the need for imports to decline in the future as we build additional refining capacity and upgrade our refineries to facilitate the processing of domestically produced crudes.

Our Refining, Transportation and Marketing segment also includes petrochemical operations that add value to the hydrocarbons we produce and meet the needs of the growing Brazilian economy.

We participate in refining, transportation and marketing operations outside of Brazil through our International business segment. See "—International."

## Refining

Our refining capacity in Brazil as of December 31, 2011, was 2,013 mbbl/d and our average throughput during 2011 was 1,862 mbbl/d.

The following table shows the installed capacity of our Brazilian refineries as of December 31, 2011, and the average daily throughputs of our refineries in Brazil and production volumes of principal oil products in 2011, 2010 and 2009.

	Capacity and Average Throughput of Refineries							
		Crude	Avei	rage Throughput				
		Distillation						
		Capacity at						
Name (Alternative		December 31,						
Name)	Location	2011	2011	2010	2009			
		(mbbl/d)		(mbbl/d)				
LUBNOR	Fortaleza (CE)	8	7	8	7			
RECAP (Capuava)	Capuava (SP)	49	43	36	44			
REDUC (Duque de	Rio de Janeiro (RJ)	239	254	256	238			
Caxias)								
REFAP (Alberto	Canoas (RS)	189	148	145	169			
Pasqualini)								
REGAP (Gabriel Passos)	Betim (MG)	151	129	143	140			
REMAN (Isaac Sabbá)	Manaus (AM)	46	42	42	41			
REPAR (Presidente	Araucária (PR)	195	193	170	185			
Getúlio Vargas)								
REPLAN (Paulínia)	Paulinia (SP)	396	373	316	341			
	São Jose dos							
REVAP (Henrique Lage)	Campos (SP)	252	240	238	241			
RLAM (Landulpho	Mataripe (BA)	281	233	250	220			
Alves)								
RPBC (Presidente	Cubatão (SP)	172	166	160	165			
Bernardes)								
RPCC (Potiguar Clara	Guamaré (RN)							
Camarão)		35	34	33				
Total		2,013	1,862	1,798	1,791			

In recent years, we have made substantial investments in our refinery system for the following purposes:

- Improve gasoline and diesel quality to comply with stricter environmental regulations;
- Increase crude slate flexibility to process more Brazilian crude, taking advantage of light/heavy crude price differentials;
- Increase residuum conversion; and
- Reduce the environmental impact of our refining operations.

In 2011, we invested a total of U.S.\$5,613.75 million in our refineries, of which U.S.\$2,108.89 million was invested for hydrotreating units to improve the quality of our diesel and gasoline and U.S.\$1,039.19 million for coking units to convert heavy oil into lighter products. In 2011, as a result of investments that allowed for more flexibility in our refineries, we reduced the need for additional imports of middle distillates by 23 million barrels (or 63 mbbl/d).

During 2012, we expect to complete the following investment projects at our refineries:

- Diesel quality upgrades at REPAR, REGAP and RLAM;
- Gasoline quality upgrades at REPAR, REPLAN, REFAP, RPBC, REVAP, RLAM and RECAP; and
- Delayed coking units at REPAR.

The following refinery upgrades are underway for expected completion between 2013 and 2014:

- Diesel quality upgrades at REGAP, REDUC, REPLAN and RPBC;
- Gasoline quality upgrades at REPLAN; and
- Delayed coking units at REPAR.

The following refinery upgrade projects are scheduled for completion after 2014:

- Diesel quality upgrades at REDUC; and
- Mild thermal cracking units to improve diesel and quality upgrades for diesel and gasoline at REMAN.

By the end of 2013, we will reduce the maximum sulfur content of the diesel produced in our refineries from 1800 ppm to 500 ppm, and nine of our refineries (RLAM, REGAP, REDUC, REPLAN, RPBC, RECAP, REVAP, REPAR, RNEST) are expected to be able to produce 10 ppm sulfur diesel. By the beginning of 2014, we will reduce the maximum sulfur content of the gasoline produced in our refineries from 1,000 ppm to 50 ppm.

## Major Refinery Projects

Brazil has one of the world's most dynamic economies with above average rates of demand growth for transportation fuels, particularly gasoline, diesel and jet fuel. We are planning capacity expansions to meet the needs of this growing market and add value to our growing volumes of crude oil production in Brazil. We are currently building three new refining facilities:

- Complexo Petroquímico do Rio de Janeiro—Comperj, an integrated refining and petrochemical complex. We broke ground in 2008, and began construction in 2010. The 165 mbbl/d refining operation is scheduled to start up in 2014. A second phase, scheduled for 2018, will increase capacity to 330 mbbl/d and add petrochemicals production.
- Abreu e Lima, a refinery in Northeastern Brazil is designed to process 230 mbbl/d of crude oil to produce 162 mbbl/d of low sulfur diesel (10 ppm) as well as LPG, naphtha, bunker fuel and petroleum coke. We expect operations to come on stream in 2013,in a proposed

partnership with Petróleos de Venezuela S.A. (PDVSA), the Venezuelan state oil company.

• Premium I in the State of Maranhão is designed to process 20° API heavy crude oil, maximize production of low sulfur diesel, and also produce LPG, naphtha, low sulfur kerosene, bunker fuel and petroleum coke. This refinery will be built in two phases of 300 mbbl/d each. We broke ground in 2011 and expect operations to come on stream in 2016 (Phase I) and 2019 (Phase II).

We are also in the planning stage for another new refinery in Northeastern Brazil:

• Premium II in the State of Ceará will have a processing capacity of 300 mbbl/d and will follow the same specifications as Premium I. The Premium facilities will be able to reduce costs and achieve efficiencies through simplification and standardization of the projects.

The following tables summarize output of oil products and sales by product in Brazil for the last three years.

# **Domestic Output of Oil Products: Refining and marketing operations, mbbl/d(3)**

	2011	2010	2009
Diesel	745	716	737
Gasoline	395	351	331
Fuel oil	234	243	243
Naphtha	109	133	143
LPG	137	132	135
Jet fuel	93	80	74
Other	183	177	160
Total domestic output of oil products	1,896	1,832	1,823
Installed capacity	2,013	2,007	1,942
Utilization (%)	92	90	92
Domestic crude oil as % of total feedstock processed	82	82	79

<sup>(1)</sup> Unaudited.

(3) Output volumes are larger than throughput volumes as a result of gains during the refining process

Domestic Sales Volumes, mbbl/d	Domestic	Sales	Volumes.	mbbl/d
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	2011	2010	2009
Diesel	880	809	740
Gasoline	489	394	338
Fuel oil	82	100	101
Naphtha	167	167	164
LPG	224	218	210
Jet fuel	101	90	77
Other	188	180	140
Total oil products	2,131	1,958	1,770
Ethanol and other products	86	99	96
Natural gas	304	312	240
Total domestic market	2,521	2,369	2,106
Exports	655	698	707

<sup>(2)</sup> As registered by the ANP.

International sales and other operations	540	581	541
Total international market	1,195	1,279	1,248
Total sales volumes	3,716	3,648	3,354

# **Delivery Commitments**

We sell crude oil through long-term and spot-market contracts. Our long-term contracts specify the delivery of fixed and determinable quantities, subject to a price negotiation with third parties on a delivery-by-delivery basis. We are committed through long-term contracts to deliver a total of approximately 350 mbbl/d in 2012. We believe our domestic proved reserves will be sufficient to allow us to continue to deliver all contracted volumes. For 2012, approximately 68% of our exported crude oil will be committed to meeting our contractual delivery commitments to third parties.

## Imports and Exports

We use exports and imports of crude oil and oil products to balance our domestic production and refinery capacity with market needs and optimize our refining margins. Much of the crude oil we produce in Brazil is heavy or intermediate, and we import some light crude to balance the slate for our refineries, which were originally designed to run on lighter imported crude, and export heavier crude that is surplus to our needs.

We import oil products, for which there is insufficient production capacity in our Brazilian refineries. Our imports and exports of oil products depend on production capacity, demand levels and relative pricing in the Brazilian market. The table below shows our exports and imports of crude oil and oil products in 2011, 2010 and 2009:

Exports and Im	ports of Crude	Oil and Oil Produ	cts, mbbl/d

	2011	2010	2009
Exports(1)			
Crude oil	435	497	478
Fuel oil (including bunker fuel)	173	153	150
Gasoline	3	14	38
Other	41	33	39
Total exports	652	697	705
Imports			
Crude oil	362	316	396
Diesel and other distillates	199	177	78
LPG	61	58	45
Gasoline	43	9	0
Naphtha	64	42	25
Other	20	13	3
Total imports	749	615	547

<sup>(1)</sup> Includes sales made by PifCo to unaffiliated third parties, including sales of oil and oil products purchased internationally.

# Logistics and Infrastructure for oil and oil products

We own and operate an extensive network of crude oil and oil products pipelines in Brazil that connect our terminals, refineries and other primary distribution points. On December 31, 2011, our onshore and offshore, crude oil and oil products pipelines extended 15,436 km (9,593 miles). We operate 28 marine storage terminals and 20 other tank farms with nominal aggregate storage capacity of 65 million barrels. Our marine terminals handle an average 10,643 tankers annually. We are working in partnership with other companies to develop and expand Brazil's ethanol pipeline and logistics network.

Until 1998, we held the monopoly on oil and natural gas pipelines in Brazil and shipping oil products to and from Brazil. The deregulation of the Brazilian oil sector in that year provided for open competition in the construction and operation of pipeline facilities and gave the ANP the power to authorize entities other than Petrobras to transport crude oil, natural gas and oil products. In accordance with this deregulation, we transferred our transportation and storage network and fleet to a separate wholly owned subsidiary, Petrobras Transporte S.A.—Transpetro, to allow third parties to access our excess capacity on a non-discriminatory

basis. We enjoy preferred access to the Transpetro network based on our historical usage levels and, in practice, third parties make very limited use of this network.

We operate a fleet of owned and chartered vessels. These provide shuttle services between our producing basins offshore Brazil and the Brazilian mainland, and shipping to other parts of South America and internationally. The fleet includes double-hulled vessels, which operate internationally where required by law, and single-hulled vessels, which operate in South America and Africa only. We are increasing our fleet of owned vessels to replace older vessels, decrease our dependency on chartered vessels and exposure to charter rates tied to the U.S. dollar, and accommodate growing production volumes. Upgrades will include replacing single-hulled tankers with double-hulled vessels and replacing vessels nearing the end of their 25-year useful life. Our long-term strategy continues to focus on the flexibility afforded by operating a combination of owned and chartered vessels.

We plan to take delivery of another 48 new vessels by 2016, all to be built in Brazilian shipyards. We have ongoing contracts with five shipyards for delivery of 40 large oil tankers, bunkering vessels and LPG carriers between 2011 and 2016. We expect to contract an additional eight product tankers in the beginning of 2012. The first product vessel, the MV Celso Furtado, was delivered on November 25, 2011.

The table below shows our operating fleet and vessels under contract as of December 31, 2011.

Owned and Chartered Vessels in Operation and Under Construction Contracts at December 31, 2011 In Operation **Under Contract/Construction Tons Deadweight Tons Deadweight** Number **Capacity** Number **Capacity** Owned fleet: **Tankers** 2,815,719 32 3,440,450 44 LPG tankers 40,171 38,600 6 8 Anchor Handling Tug Supply 1 0 0 (AHTS) 2,163 Floating, Storage and Offloading (FSO) 1 28,903 0 0 3 Layed-up vessel 129,623 0 0 Total 55 3,016,579 40 3,479,050 Chartered vessels: Tankers 174 16,260,464 0 0 LPG tankers 12 225,744 0 0 Total 186 16,486,208 0 0

#### Petrochemicals

Our petrochemicals operations provide an outlet for our growing production volumes of gas and other refined products, which increases our value added and provides domestic sources for products that would otherwise be imported. Our strategy is to increase domestic production of basic petrochemicals and engage in second generation and biopolymer activities through investments in companies in Brazil and abroad, capturing synergies within all our businesses.

In the past, the Brazilian petrochemicals industry was fragmented, with a large number of small companies that were not internationally competitive. We participated in consolidating and restructuring the Brazilian petrochemicals industry in a series of mergers and capital subscriptions, creating Brazil's largest petrochemicals company – Braskem S.A. (Braskem) – a publically traded company in which we hold a 36.1% interest. Braskem operates 35 petrochemical plants, produces basic petrochemical and plastics and conducts related distribution and waste processing operations.

The table below sets forth the primary production capacities of Braskem as of December 31, 2011:

**Braskem: Nominal Capacity by Petrochemical Type** 

(mmt/y)

Braskem	
Ethylene	3.95
Propylene	1.54
Polyethylene	3.24
Polypropylene	3.97
PVC	0.51
Cumene	0.32

On April 1, 2011, we announced the acquisition of Innova S.A., which produces, among other products, styrene, polystyrene and ethylbenzene.

We have three new petrochemical projects under construction or in various stages of engineering or design:

- Complexo Petroquímico do Rio de Janeiro—Comperj: In the second phase of Comperj, scheduled for 2018, we have plans to develop a petrochemicals complex to be integrated with the Comperj refinery to produce materials for the plastics industry;
- PetroquímicaSuape Complex in Pernambuco: to produce purified terephthalic acid (PTA), polyethylene terephthalate (PET) resin, and polymer and polyester filament textiles; and
- Companhia de Coque Calcinado de Petróleo—Coquepar: calcined petroleum coke plant in the State of Paraná, with a capacity of 0.35 million t/y.

#### **Distribution**

Dis	tribution Key Statistics		
	2011	2010 (U.S.\$ million)	2009
Distribution:			
Sales revenues	44,001	37,282	29,652
Income (loss) before income taxes	1,134	1,081	914
Total assets at December 31	7,885	7,384	6,304
Capital expenditures and investments	679	515	331

We are Brazil's leading oil products distributor, operating through our own retail network, through our own wholesale channels, and by supplying other fuel wholesalers and retailers. Our Distribution segment sells oil products that are primarily produced by our Refining, Transportation and Marketing segment (RTM), and works to expand the domestic market for these oil products and for other fuels, including LPG, ethanol and biodiesel.

The primary focus of our Distribution segment is to:

- Lead the market in the domestic distribution of oil products and biofuels, increasing our market share and profit through an integrated supply chain; and
- Be the preferred brand of our consumers while upholding and promoting social and environmental responsibility.

We supply and operate Petrobras Distribuidora S.A.—BR, which accounts for 39.2% of the total Brazilian retail and wholesale distribution market. BR distributes oil products, ethanol and biodiesel, and vehicular natural gas to retail, commercial and industrial customers. In 2011, BR sold the equivalent of 846.1 mbbl/d of oil products and other fuels to wholesale and retail customers, of which the largest portion (44.1%) was diesel.

At December 31, 2011, our BR branded service station network was Brazil's leading retail marketer, with 7,485 service stations, or 19.2% of the stations in Brazil. BR-owned and franchised stations make up 31.9% of Brazil's retail sales of diesel, gasoline, ethanol, vehicular natural gas and lubricants.

Most BR stations are owned by franchisees that use the BR brand name under license and purchase exclusively from us; we also provide franchisees with technical support, training and advertising. We own 723 of the BR stations and are required by law to subcontract the operation of these owned stations to third parties. We believe that our market share position is supported by a strong BR brand image and by the remodeling of service stations and addition of lubrication centers and convenience stores.

Our wholesale distribution of oil products and biofuels under the BR brand to commercial and industrial customers accounts for 55.4% of the total Brazilian wholesale market. Our customers include aviation, transportation and industrial companies, as well as utilities and government entities.

We also sell oil products produced by RTM to other retailers and to wholesalers.

Our LPG distribution business, Liquigas Distribuidora, held a 22.8% market share and ranked second in LPG sales in Brazil in 2011, according to the ANP.

Oil products sales in Brazil increased 3.4% in 2011 compared to 2010. This increase was due mainly to Brazil's economic growth and its corresponding growth in household income and consumer credit.

We participate in the retail sector in other South American countries through our International business segment. See "—International."

#### **Gas and Power**

Gas ar	nd Power Key Statistics		
	2011	2010	2009
Gas and Power:		(U.S.\$ million)	
Sales revenues	9,738	8,492	4,923
Income (loss) before income taxes	2,725	990	738
Total assets at December 31	2,723 27,645	30,109	24,926
	,	*	,
Capital expenditures and investments	2,293	3,964	5,398

For more than two decades, we have been working actively to simultaneously develop Brazil's natural gas reserves, production, infrastructure and markets. As a result of our efforts, natural gas in 2010 supplied 10.3% of Brazil's total energy needs, compared to 3.7% in 1998, and is projected to supply 14.2% of Brazil's total energy needs by 2020, according to Empresa de Pesquisa Energética, a branch of the MME.

In 2011, we supplied, through our own production and imports, 62.8 mmm<sup>3</sup>/d (2,218.2 mmcf/d). This volume is directed to the market and our refineries, fertilizer operations and gas-fired power plants. The development plans for our Exploration and Production operations are expected to result in substantial increases in gas production from the Espírito Santo and Santos Basins off the Brazilian coast, including from pre-salt reservoirs. We expect domestic gas production to play an increasingly important role in the supply mix, but we will continue to import gas from Bolivia and use LNG imports selectively to provide supplemental supplies, particularly to meet surges in demand from the power sector.

Our Gas and Power segment is responsible for monetizing and delivering the gas produced by our Exploration and Production segment, and gas purchased from other sources, including imported LNG. The segment comprises gas transmission and distribution, LNG regasification, the manufacture of nitrogen-based fertilizers, gas-fired power generation, and power generation from renewable sources, including solar, wind and small-scale hydroelectric.

The primary focus on our Gas and Power segment is to:

- Add value by monetizing Petrobras' natural gas resources;
- Assure flexibility and reliability in the commercialization of natural gas;
- Expand the use of LNG to meet Brazilian gas demand and diversify our supply of natural gas;
- Optimize our thermoelectric power plant portfolio and supplement it with power generation from renewables; and

• Create an additional flexible means of monetizing our natural gas resources by investing in capacity to manufacture nitrogen fertilizers.

# Natural Gas

Natural gas consumption in Brazil by industrial, commercial and retail customers increased 7% in 2011 compared to 2010. This increase was due mainly to Brazil's economic growth and more flexible contractual forms. Natural gas consumption in the power generation industry decreased 34% from 2010 to 2011 due to favorable rainfall, which improved the reservoir storage levels of Brazilian hydroelectric power plants. Natural gas consumption by refineries and fertilizer plants increased 18%.

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Following a multi-year infrastructure development program, including investments of approximately U.S.\$15 billion (R\$29.74 billion) in the last five years, we have built an integrated system centered around two main, interlinked pipeline networks that allow us to deliver natural gas from our main offshore natural gas producing fields in the Santos, Campos and Espírito Santo Basins, as well as from two LNG terminals and a gas pipeline connection with Bolivia.

In 2011, we completed four natural gas pipelines, adding 221.2 km (137.5 miles) to our integrated network. The most significant of these pipeline additions was GASTAU, which connected our natural gas production in the Santos Basin to our integrated network. Our natural gas pipelines span 9,251 km (5,748 miles).

In 2011, we invested U.S.\$1,670 million in our pipeline network, and in 2012, we plan to invest a further U.S.\$904 million for incremental additions to our gas transportation system.

The map below shows our gas pipeline networks and LNG terminals.

We own and operate two LNG terminals, one in Rio de Janeiro with a send-out capacity of 20 mmm<sup>3</sup>/d (706 mmcf/d), and the other in Pecém (Ceará) in Northeastern Brazil with a send-out capacity of 7 mmm<sup>3</sup>/d (247 mmcf/d). The terminals are supported by two LNG regasification vessels with capacities of 14 mmm<sup>3</sup>/d (494 mmcf/d) and 7 mmm<sup>3</sup>/d (247 mmcf/d). These terminals and regasification ships give us the flexibility to import gas to supplement domestic natural gas supplies. In 2011, we purchased 14 LNG cargoes, of which 12 were imported into Brazil and two were sold in international markets, which comprises two re-exports from Brazil. In addition, we will build a third LNG terminal in the State of Bahia, the construction of which will begin in 2012 and which we expect to be completed in 2013.

2009

We hold interests ranging from 24% to 100% in 21 of Brazil's 27 local gas distribution companies. In particular, we acquired a 100% interest in Gas Brasiliano Distribuidora S.A., granting us access to São Paulo, the largest natural gas market in Brazil. We had approximately a 25% net equity interest in the combined 47.6 mmm<sup>3</sup>/d (1,682 mmcf/d) of natural gas distributed by Brazil's local distribution companies in 2011.

According to our estimates, our two most significant holdings, CEG Rio and Bahiagás, are Brazil's third and fourth largest gas distributors. These companies, together with independent distributors Comgás and CEG supply 59% of the Brazilian market.

# **Principal Natural Gas Local Distribution Holdings**

Name	State	Average Group Share % in 2011	ge Gas Sales I (mmm³/d)	Customers
CEG RIO	Rio de Janeiro	37.41	4,307	28,082
BAHIAGAS	Bahia	41.50	3,843	8,571
PETROBRAS DISTRIBUIDORA	Espírito Santo	100.0	2,942	24,295
GASMIG	Minas Gerais	40.00	2,919	405

The table below shows the sources of our natural gas supply, our sales and internal consumption of natural gas, and revenues in our local gas distribution operations for each of the past three years.

Supply and Sales of Natural Gas in Brazil,	, mmm³/d
2011	2010

	2011	2010	2009
Sources of natural gas supply			
Domestic production	34.1	28.6	23.0
Imported from Bolivia	27.1	27.1	22.4
LNG	1.6	7.6	0.7
Total natural gas supply	62.8	63.3	46.1
Sales of natural gas			
Sales to local gas distribution companies(1)	39.8	37.2	32.4
Sales to gas-fired power plants	8.2	12.2	4.1
Total sales of natural gas	48.0	49.4	36.5
Internal consumption (refineries, fertilizer and			
gas-fired power plants)(2)	14.8	13.9	9.6
Revenues (U.S.\$ billion)(3)	5.9	4.7	3.5

<sup>(1)</sup> Includes sales to local gas distribution companies in which we have an equity interest.

Long-Term Natural Gas Commitments

<sup>(2)</sup> Includes gas used in the transport system.

<sup>(3)</sup> Excludes internal consumption.

When we began investment in the Bolivia-Brazil pipeline in 1996, we entered into long-term contracts with three companies:

• Gas Supply Agreement (GSA) with the Bolivian state-owned company Yacimientos Petrolíferos Fiscales Bolivianos (YPFB), to purchase certain minimum volumes of natural gas at prices linked to the international fuel oil price through 2019, after which the agreement may be extended until all contracted volume has been delivered. On December 18, 2009, Petrobras and YPFB signed the fourth amendment to the GSA, which provides for additional payments to YPFB for liquids contained in the natural gas purchased by Petrobras through the GSA, of between U.S.\$100 million and U.S.\$180 million per year, retroactive to May 2007. As of February 2010, Petrobras has paid all obligations owed for 2007. Additional payments for subsequent years will only be paid with the fulfillment by YPFB of conditions precedent established in the amendment. For the remaining contractual period of the GSA, Petrobras considers that the fulfillment of such conditions precedent is unachievable. Accordingly, such payment obligations have not been considered in our contractual GSA obligations forecast;

- Ship-or-Pay agreement with Gás Transboliviano (GTB), owner and operator of the Bolivian portion of the pipeline to transport certain minimum volumes of natural gas through 2019; and
- Ship-or-Pay agreement with Transportadora Brasileira Gasoduto Bolivia-Brasil (TBG), owner and operator of the Brazilian portion of the pipeline to transport certain minimum volumes of natural gas through 2019.

Our volume obligations under the ship-or-pay arrangements were generally designed to match our gas purchase obligations under the GSA. The tables below show our contractual commitments under these agreements for the five-year period from 2012 through 2016.

Commitments to Purchase and Transport Natural Gas in Connection with Bolivia-Brazil Pipeline					
	2012	2013	2014	2015	2016
Purchase commitments to YPFB					
Volume obligation (mmm <sup>3</sup> /d)(1)	24.06	24.06	24.06	24.06	24.06
Volume obligation (mmcf/d)(1)	850.00	850.00	850.00	850.00	850.00
Brent crude oil projection (U.S.\$)(2)	80.0	80.0	80.0	80.0	75.0
Estimated payments (U.S.\$	2,391.9	2,012.3	1,981.9	1,975.1	1,906.3
million)(3)					
Ship-or-pay contract with GTB					
Volume commitment (mmm <sup>3</sup> /d)	30.00	30.00	30.00	30.00	30.00
Volume commitment (mmcf/d)	1,059.00	1,059.00	1,059.00	1,059.00	1,059.00
Estimated payments (U.S.\$	137.78	138.46	139.14	139.82	140.51
million)(5)					
Ship-or-pay contract with TBG					
Volume commitment (mmm <sup>3</sup> /d)(4)	35.28	35.28	35.28	35.28	35.28
Volume commitment (mmcf/d)	1,246.09	1,246.09	1,246.09	1,246.09	1,246.09
Estimated payments (U.S.\$					
million)(5)	501.32	510.42	526.34	526.87	527.40

<sup>(1) 25.3%</sup> of contracted volume supplied by Petrobras Bolivia.

- (4) Includes ship-or-pay contracts relating to TBG's capacity increase.
- (5) Amounts calculated based on current prices defined in natural gas transport contracts.

<sup>(2)</sup> Brent price forecast based on our 2020 Strategic Plan.

<sup>(3)</sup> Estimated payments are calculated using gas prices expected for each year based on our Brent price forecast. Gas prices may be adjusted in the future based on contract clauses and amounts of natural gas purchased by Petrobras may vary annually.

#### Gas Sales Contracts

In recent years, we introduced a variety of supply contracts designed to create flexibility in matching customer demand with our gas supply capabilities. These include flexible and interruptible long-term gas supply contracts, auction mechanisms for short-term contracts and weekly electronic auctions.

In 2011, a new gas sale contract – a seller delivery option aiming to help balance natural gas supply and demand – was introduced by us. Whenever there is a low dispatch of natural gas from gas-fired power plants, the excess natural gas volumes are offered to end consumers who ordinarily use energy sources other than natural gas. In this context, prices of gas are a function of the alternative energy source that is being replaced. Existing long-term natural gas sales contracts were also renegotiated in 2011 with local distribution company (LDCs) of natural gas in order to promote adjustments tailored to specific market demands. These negotiations encompassed term extensions for some contracts, prolonging our natural gas procurement portfolio. We continued offering contracts for short-term volumes (for both weekly and four-month periods) through electronic auctions.

The table below shows our future gas supply commitments from 2012 to 2016, including sales to both local gas distribution companies and gas-fired power plants.

Future Commitments under Natural Gas Sales Contracts, mmm <sup>3</sup> /d						
	2012	2013	2014	2015	2016	
To local gas distribution						
companies:						
Related parties(1)	19.68	20.86	21.88	21.02	21.54	
Third parties	17.32	17.05	16.83	16.83	16.83	
To gas-fired power plants:						
Related parties(1)	4.46	3.27	3.15	3.13	3.12	
Third parties	5.93	7.30	8.06	7.92	7.78	
Total(2)	47.39	48.48	49.92	48.90	49.27	
Estimated contract revenues (U.S.\$	6.3	6.5	6.6	6.5	6.5	
billion)(3)(4)						

- (1) For purposes of this table, "related parties" include all local gas distribution companies and power generation plants in which we have an equity interest and "third parties" refer to those in which we do not have an equity interest.
- (2) Estimated volumes are based on "take or pay" agreements in our contracts, expected volumes and contracts under negotiation (including renewals of existing contracts), not maximum sales.
- (3) Figures show revenues net of taxes. Estimates are based on outside sales and do not include internal consumption or transfers.
- (4) Prices may be adjusted in the future and actual amounts may vary.

#### Short-Term Natural Gas Commitments

In 2009, we contributed to the development of a short-term market for natural gas sales, focusing on the industrial market as an alternative to the market for power generation when the power plants are not being dispatched. Sales under these short-term contracts were accomplished by an electronic auction system conducted by means of the Internet. These auctions commercialized natural gas volumes reserved for but not otherwise utilized by local gas distributors, and allowed us to offer end users more competitive prices. On average, 4.4 mmm³/d of natural gas were sold under these short-term contracts in 2009, with volumes reaching 7.8 mmm³/d in 2010 and 6.7 mmm³/d in 2011. The last auction resulted in a sales record of 8.8 mmm³/d for a four-month delivery period.

In April 2010, we implemented a new method for selling short-term natural gas. On a weekly basis, we offer for sale to the non-thermoelectric market volumes of natural gas that had been originally reserved for gas-fired power plants but that were not dispatched. Under this method, weekly sales begin with orders from gas distribution companies for deliveries to be made within the subsequent four-week period. Depending on the availability and cost of natural gas during that period, we have the option of either accepting or rejecting the orders. This new method allowed us to sell an average of 348,000 m³/d of natural gas in 2010 and 70,000 m³/d of natural gas in 2011, with a sales record of 500,000 m³/d in December 2011.

# **Fertilizers**

We are expanding production of nitrogenous fertilizers in order to meet the growing needs of Brazilian agriculture, to substitute for imports, and to expand the market for natural gas.

Our fertilizer plants in Bahia and Sergipe produce ammonia and urea for the Brazilian market. In 2011, these plants sold a combined 240,665 t of ammonia and 831,642 t of urea.

Nitrogenous Sales (ton)				
	2010	2011	<b>%</b>	
Ammonia	235,739	240,665	+2.1	
Urea	772,059	831,642	+7.7	

We are also expanding production of nitrogenous fertilizers. To this end, we are conducting feasibility studies for four additional facilities:

- UFN III, with the ability to sell 1.22 million t/y of urea and 70 million t/y of ammonia from 2.2 mmm<sup>3</sup>/d of natural gas, expected to start up in September 2014;
- UFN IV, with the ability to sell 755,000 t/y of urea and 721,000 t/y of methanol from 3.5 mmm<sup>3</sup>/d of natural gas, expected to start up in June 2017. 42,000 t/y of melamine will be produced from the foregoing quantity of urea, and 211,000 t/y of acetic acid and 26,000 t/y of formic acid will be produced from the foregoing quantity of methanol;
- UFN V, with the ability to sell 519,000 t/y of ammonia from 1.3 mmm/d of natural gas, expected to start up in September 2015; and
- Sergipe, with the ability to sell 303,000 t/y of ammonium sulfate from 226 t/d of ammonia, expected to start up in May 2013.

These facilities would reduce Brazil's deficit in these fertilizers while increasing the demand for our natural gas produced offshore.

#### Power

To further our goal of developing natural gas demand in Brazil, we have invested in power plants and the associated system of gas supply contracts. These plants are designed to supplement power from the hydroelectric stations that supply an average of 90% of the country's electric power needs in a given year. Gas-fired power is particularly needed during times of peak demand, high economic growth, and drought.

We own interests in 28 thermoelectric power plants with a combined installed capacity at year-end 2011 of 6,385 MW, equivalent to 73% of Brazil's total thermoelectric gas capacity. Of this total, 6,009 MW was in thermoelectric plants controlled by us and 97% (or 5,806 MW) was in the *Sistema Interligado Nacional*—SIN (National Interconnected Power Grid).

Under Brazil's power pricing regime, we may sell only power-generating capacity that is certified by the MME. At year-end 2011, due to gas supply constraints, the MME certified 3,776 MWavg of commercial capacity, or 65% of the installed capacity controlled by us in the SIN.

In 2011, the Brazilian hydroelectric system generated 51,397 MWavg of electricity, or 90% of the country's needs. The SIN was called upon to supplement this power with an average 4,971 MW, of which we generated an average 653 MW of electricity in 2011, compared to 1,837 MW in 2010.

We also export energy to neighboring countries. In 2011, we exported 113 MWavg to Argentina and Uruguay compared to 110.2 MWavg in 2010.

Commitments for Future Generation Capacity and Electricity Sales

Under a 2007 agreement with the ANEEL, we are committed to increasing our ability to supply power to the grid by increasing natural gas supplies, including LNG, converting some existing power plants to dual-fuel operation and leasing backup oil-fired power plants. By 2012, we are committed to supply up to 5,938 MW of installed capacity and expect to have an average 3,970 MW certified capacity available for sale, exclusive of our own power requirements.

The table below shows the installed capacity and commercial capacity of the thermoelectric power plants controlled by us for 2011 through 2014 under our agreement with the ANEEL:

Installed Power Capacity and Utilization					
	2011	2012(2)	2013	2014	
Gross installed capacity (MW) Certified commercial capacity(1)	5,609	5,938	5,537	5,855	
(MWavg)	3,776	3,970	3,826	4,084	

- (1) Weighted average of certified commercial capacity for the year.
- (2) Our installed and commercial capacity will be reduced in 2013 due to the termination of our lease of the Araucaria thermoelectric power plant.

In 2011, we invested U.S.\$359.9 million (R\$599.9 million) in thermoelectric generation.

We sell our power output under long-term contracts for "standby availability" and long-term bilateral contracts, primarily with power distribution companies. Of the total 4,172 MWavg of power available for sale in 2012 (including the certified commercial capacity of our plants and 202 MWavg of power purchased from third parties), approximately 46% has already been sold as standby availability in the 2005 and 2006 auctions, and approximately 54% has been committed under bilateral contracts. We also have the option to fulfill our contractual commitments by purchasing power from third parties.

In the 2005 and 2006 auctions, we sold standby availability of 1,391 and 205 MWavg, respectively, on 15-year contracts beginning in 2008 to 2011. This represented most of our capacity that is eligible to be sold through the auction system. Under the terms of these contracts, we will be compensated a fixed amount whether or not we generate any power. Additionally, we receive an extra amount for the energy we actually generate at a price that is set on the date of the auction and revised annually based on an inflation-adjusted fuel oil basket. We have been compensated for the standby availability from the 2005 and 2006 auctions since 2008, with the capacity compensation stepping up through 2011, at which time it stabilizes.

In addition, in the new energy auction (*Leilão de Energia Nova*) held on August 17, 2011, we committed to selling 416.4 MWavg from our Baixada Fluminense plant for the period of March 2014 through December 2033.

Our future commitments under bilateral contracts are 1,899 MWavg in 2012, 1,590 MWavg in 2013 and 1,604 MWavg in 2014. The agreements will run off gradually, with the last contract expiring in 2028. As existing bilateral contracts run-off, we will sell our remaining certified power-generation capacity under short- and medium-term bilateral contracts and auctions conducted by us and by the MME.

The following table summarizes our commitments under standby availability and bilateral contracts, power purchased from third parties, and the power we expect to be available for sale.

Power Available for Sale and Power Commitments					
2010	2011	2012	2013	2014	
		(MWavg)			

# **Total available for sale:**

Commercial capacity (MW)(1)	3,619	3,776	3,970	3,826	4,084
Purchased from third parties	234	214	202	200	200
<b>Commitments:</b>					
Standby availability auctions	1,391	1,596	1,596	1,596	1,847
Bilateral contracts	2,442	2,394	1,899	1,590	1,604
Remaining available for sale (1)(2)	20	0	677	840	833

<sup>(1)</sup> Projections based on existing capacity and expected supply of gas.

<sup>(2)</sup> Represents the remaining commercial capacity available for sale beginning in 2011.

# Renewable Energy

We have invested, alone and in partnership with other companies, in renewable power generation sources in Brazil including wind and small hydroelectric plants. Our net interests are equivalent to 316.5 MW of hydroelectric capacity and 105.8 MW of wind capacity. We and our partners sell energy from these plants directly to the Brazilian federal government via "reserve energy" auctions.

#### **International**

In	ternational Key Statistics		
	2011	2010	2009
International:		(U.S.\$ million)	
Sales revenues	16,956	13,519	10,239
Income (loss) before income taxes	2,117	1,053	207
Total assets at December 31	19,427	16,958	15,293
Capital expenditures and investments	2,631	2,712	3,436

We have operations in 24 countries outside of Brazil, encompassing all phases of the energy business. The primary focus of our international operations is to:

- Use our technical expertise in deepwater exploration and production to participate in high-potential and frontier offshore regions; and
- Integrate international downstream operations aligned with our domestic activities.

#### International Upstream Activities

Most of our international activities are in exploration and production of oil and gas. We have long been active in Latin America. In the Gulf of Mexico and West Africa, we focus on opportunities to leverage the deepwater expertise we have developed in Brazil. We have preliminary exploratory efforts underway in other regions.

In 2011, our net production outside Brazil averaged 144.88 mbbl/d of crude oil and NGLs and  $16.54~\text{mmm}^3/\text{d}$  (584.01 mmcf/d) of natural gas, representing 9.8% of our total production on a barrels of oil equivalent basis.

The table below shows our main exploration and production projects being developed worldwide, as of December 31, 2011. Additional information about certain of these projects and our exploration and production activities is provided in the text that follows.

		Main Internation Main projects in	al Exploration and	l Production Assets i	n Development Petrobras interest
	Countries	development	Phase	Operated by	(%)
South A		a: a:	<b>5</b> 0 1 2	<b>5</b> . 1	16
1	Argentina(1)	Sierra Chata	Production	Petrobras	46
		El Tordillo	Production	Partner	36
		Santa Cruz I Oeste	Production	Petrobras	50
		25 de Mayo – Medanito	Production	Petrobras	100
		Rio Neuquen	Production	Petrobras	100
					71
		Santa Cruz I	Production	Petrobras	100
					100
		El Mangrullo	Production	Petrobras	
		Parva Negra	Exploration	Petrobras	
2	Bolivia	San Alberto	Production	Petrobras	35(2)
		San Antonio	Production	Petrobras	35(2)
		Itaú	Exploration	Petrobras	30(2)
3	Colombia	Guando	Production	Petrobras	15
		Yalea	Production	Partner	50
		Espinal	Production	Petrobras	33
		Balay 1	Exploration	Petrobras	45
		Tayrona	Exploration	Petrobras	40
		Cebucan	Exploration	Petrobras	50
		Villarica Norte	Exploration	Petrobras	50
4	Peru	Lote 10	Production	Petrobras	100
		Lote 57	Exploration	Partner	45.16
		Lote 58	Exploration	Petrobras	100
5	Uruguay	Block 3	Exploration	Partner	40
		Block 4	Exploration		
			-	Petrobras	40
6	Venezuela	Oritupano-Leona	Production	Partner	22(3)
		Acema	Production	Partner	34(3)
		La Concepción	Production	Partner	36(3)
		Mata	Production	Partner	34(3)
North A					
7	Mexico	Cuervito	Production	Petrobras	45(4)
		Fronterizo	Production	Petrobras	45(4)
8	U.S.	Cascade	Production	Petrobras	100
		Chinook	Development	Petrobras	66.67
		Coulumb (MC-613)	Production	Partner	33.33
		Cottonwood	Production	Petrobras	100

		St. Malo	Development	Partner	25
		Tiber	Development	Partner	20
		Stones	Development	Partner	25
		Big Bend	Exploration	Petrobras	50
		Latigo	Exploration	Partner	50
		Logan	Exploration	Partner	35
Africa		-	•		
9	Angola	Block 2/85	Production	Partner	27.5
		Block 6/06	Exploration	Petrobras	40
		Block 18/06	Exploration	Petrobras	30
		Block 26	Exploration	Petrobras	40
10	Benin	Block 4	Exploration	Partner	50
11	Gabon	Ntsina Marin	Exploration	Partner	50
		Mbeli Marin	Exploration	Partner	50
12	Namibia	2714A	Exploration	Partner	50

		Main Internat	ional Exploration and	l Production Assets	in Development
		Main projects in			Petrobras interest
(	Countries	development	Phase	Operated by	(%)
13	Nigeria	Akpo	Production	Partner	20
		Agbami	Production	Partner	13
		Egina	Development	Partner	20
		Egina South	Exploration	Partner	20
		Preowei	Exploration	Partner	20
14	Tanzania	Block 5	Exploration	Petrobras	50
		Block 6	Exploration	Petrobras	50
Europe					
15	Portugal	Peniche	Exploration	Petrobras	50
		Alentejo	Exploration	Petrobras	50
Oceania					
16	New Zealand	Block 52707	Exploration	Petrobras	100

- (1) Most of the Argentine exploration and production projects are held through our indirect 67.2% share in Petrobras Argentina S.A. (PESA).
- (2) Production-sharing contract, under which Petrobras' expenditures are reimbursed only if exploration results in economically viable oil discoveries.
- (3) Joint venture through Petrobras Argentina S.A. (PESA).
- (4) Non-risk service contract, under which Petrobras' expenditures are reimbursed regardless of whether exploration results in economically viable oil discoveries.

During 2011, our capital expenditures and investments for international exploration and production totaled U.S.\$2.34 billion, representing 10.3% of our total exploration and production capital spending.

#### South America

We are present in Argentina, Bolivia, Colombia, Peru, Venezuela and Uruguay. In 2011, our average net production from South America (outside of Brazil) was 180.56 mboe/d, or 75% of our international production. Reserves in the region represent 69% of our international reserves. Our most significant natural gas production operations outside of Brazil are located in Argentina and Bolivia, where we produced an average 15.62 mmm³/d (551.74 mmcf/d) of natural gas in 2011, or 94% of our international production. Argentina and Bolivia together

accounted for 31% of our worldwide production of natural gas in 2011.

Our largest operating region outside Brazil is **Argentina**, where we operate primarily through our 67.2% interest in Petrobras Argentina S.A. (PESA). Our main oil production is concentrated in the Medanito, El Tordillo, La Tapera – Puesto Quiroga and Puesto Hernández fields, and our main gas production is concentrated in the El Mangrullo, Santa Cruz I and Sierra Chata fields in the province of Neuquén. We also hold direct and indirect interests of 52.6% in Petrolera Entre Lomas S.A. (PELSA), whose main oil production is in the Entre Lomas field.

In **Bolivia**, our production comes principally from the San Alberto and San Antonio fields. Following enactment of the Bolivian government's May 1, 2006 nationalization of hydrocarbons, we entered into new production-sharing contracts under which we continue to operate the fields, but are required to make all hydrocarbon sales to YPFB with the right to recover our costs and participate in profits. On January 25, 2009, Bolivia adopted a new constitution that prohibits private ownership of the country's oil and gas resources. As a result, we were not able to include any of our Bolivian proved reserves in our proved reserves for year-end 2011. We continue to report production from our operations in Bolivia under our existing contracts in that country. In January 2011, the Bolivian government approved the agreement between Petrobras Bolivia S.A. and Total E&P Bolivie S.A., according to which we have acquired a 30% interest in the Itaú gas field and assumed control of the field's operations.

In **Colombia**, our production of 7.38 mboe/d during 2011 originated mainly from the Guando, Upía, Espinal and Yalea blocks. Our portfolio in Colombia also includes the Canada Norte block, currently in its development stage, and the Cebucan and Balay blocks, among others, which are currently in the exploratory stage. Our last discovery in Colombia occurred in March 2010 in the Balay blocks, where ongoing tests have confirmed the presence of 28° API oil. In December 2011 and in February 2012, the contracts with respect to the Hobo, Upía and Caguan fields expired and their transfer to the Colombian government was completed.

In **Venezuela**, we are present through four joint ventures with subsidiaries of Petróleos de Venezuela S.A. (PDVSA), which hold production rights and in which we hold minority interests. PDVSA is the majority holder and operator.

In **Peru**, our production of 16.39 mboe/d during 2011 originated from Block X. Our portfolio in Peru also includes Lote 57 and Lote 58. Lote 57 comprises the Kinteroni Gas Project, currently in its development stage, and another component of Lote 57 currently in the exploratory stage. Our last discovery in Peru occurred in 2010 in Lote 58.

#### North America

In the **United States** we focus on deepwater fields in the Gulf of Mexico. As of December 31, 2011, we held interests in 176 offshore blocks, 130 of which we operate. Our production in the United States of 4.03 mboe/d during 2011 originated mainly from the Cottonwood field. Our portfolio in the United States also includes the Cascade and Chinook fields, where oil production began in February 2012. This project is the first Gulf of Mexico operation to use a FPSO. Other assets include Saint Malo, Stones and Tiber, which are currently in the development stage, and Latigo and Logan, among others, which are currently in the exploratory stage.

We have held non-risk service contracts for the Cuervito and Fronterizo Blocks in the Burgos Basin of **Mexico** since 2003. Under these service contracts, we receive fees for our services, but any producing wells and production are transferred to the Mexican national oil company Petróleos Mexicanos (Pemex). We also have agreements to share deepwater expertise with Pemex.

#### Europe

Under a concession agreement in partnership with Petrogal (Galp) and Partex, we are acquiring and analyzing seismic data related to the Peniche and Alentejo Basins offshore **Portugal**.

#### Africa

In **Angola**, we changed our portfolio of assets with the sale of 50% of our interest in Block 26 and our entire interest in Block 15. We also withdrew from Block 34, returning it to the government of Angola. In 2011, we produced a net 1.64 mboe/d from Block 2, which we do not operate.

In **Benin**, we acquired a 50% interest in offshore Block 4, which covers an area of approximately 7,400 km² and has water depths ranging from 200 to 3,000 meters (656 to 9,842 feet). Our commitment in Benin includes performing a 3D seismic study and processing of a 2,250 km² area. Once the exploration potential of the area is confirmed, the consortium will commit to drilling one or two wells, depending on the success of the first well. We also have the option to operate the block.

In **Gabon**, we acquired 50% of the rights to explore two offshore blocks, with water depths up to 2,400 meters (7,874 feet). The commitment includes performing a 3D seismic study and drilling wells if we decide to continue to the next phase of the project.

In **Namibia**, we plan to drill an exploratory well in 2012 in Block 2714A. This block is located in offshore Southern Namibia and covers an area of approximately 5,500 km<sup>2</sup> (1.4 million acres) in water depths from 150 to 1,500 meters (492 to 4,921 feet). In 2011, we became the operator of the block.

In **Nigeria**, our net production is 55.99 mboe/d from the Agbami and Akpo fields, and we also have an interest in the Egina field project, currently in its development stage while the Preowei and Egina South fields are under appraisal.

In **Tanzania**, we sold our 50% interest in two offshore exploratory blocks - Blocks 5 and 6 - but remained the operators thereof. In Block 5, we decided to drill one exploratory well after the interpretation of results from the 3D seismic study. In Block 6, we may drill one exploratory well after the interpretation of results from the 3D seismic study.

#### Oceania

In April 2010, we acquired a 50% interest in an exploratory block in the North Carnarvon Basin in **Australia** and committed to drill the first exploration well. We have made no discoveries of natural gas in our Artemis-1 well and withdrew from the project in December 2011.

In **New Zealand**, we undertook a seismic 2D study of offshore Block 52707 in the Raukumara Basin, in which we have a 100% interest. Depending on the results of the 2D seismic study, we may pursue a 3D seismic study, subject to which we may drill one exploratory well.

#### Other International Activities

Our other international activities, including refining, petrochemicals, distribution and gas and power activities, are described below.

#### South America

We have integrated operations in South America, particularly in **Argentina**, where we participate across the energy value chain. In May 2011, we sold our interests in the San Lorenzo Refinery, including loading and unloading facilities, and about 360 points of sale and inventory for U.S.\$102 million. We own, through our interest in PESA, the Bahia Blanca Refinery, with a capacity of 30.5 mbbl/d. We also hold an interest in the Refinor/Campo Duran Refinery and in two petrochemical plants in Argentina. We own 278 retail service stations. We also own the Pichi Picún Leufú hydroelectric plant, the Genelba gas-fired thermoelectric plant, an interest in natural gas transportation company TGS (Transportadora Gas del Sur), and interests in energy marketer Edesur, and Mega Company, a natural gas separation facility.

In **Bolivia**, we operate gas fields that supply gas to Brazil and Bolivia. We hold an 11% interest in GTB, owner of the Bolivian section of the Bolivia-to-Brazil (BTB) pipeline that transports natural gas we produce in Bolivia to the Brazilian market. We also hold a 44.5% interest in Transierra S.A., which owns the Yacuiba-Rio Grande gas pipeline (Gasyrg) linking the San Alberto and San Antonio fields to the BTB pipeline.

In **Chile**, our assets comprise 240 service stations, the distribution and sales of fuel at 11 airports and a lubricant plant.

In Colombia, our assets comprise 93 service stations and a lubricant plant.

In **Paraguay**, our assets comprise 173 service stations, the distribution and sales of fuel at two airports and one LPG refueling plant.

In **Uruguay**, we have fuel distribution operations, with 87 service stations. We also market marine products, asphalt and aviation products and distribution.

The portfolio of our Gas and Power segment includes two gas distribution companies in Uruguay, namely, Distribuidora de Gas Montevideo S.A (with retail sales in Montevideo) and Conecta S.A. (with national commercial sales). See "—Gas and Power".

#### North America

In the **United States** we own 100% of the Pasadena Refining System (PRSI) and 100% of PRSI's related trading company (PRSI Trading Company). On December 20, 2010, the 129th District Court of Harris County, Texas issued a ruling confirming an arbitration award issued on April 10, 2009, which found that Petrobras America, Inc. (PAI), our indirect subsidiary in the United States, and its affiliates had effectively acquired the remaining shares that led PAI to hold 100% of the interest held by our former partner Astra Oil Trading NV (Astra) and its affiliates in both PRSI and PRSI Trading Company, and set the put-option exercise price for PRSI and PRSI Trading Company at U.S.\$296 million and U.S.\$170 million, respectively. PAI does not object to the confirmation of the put option exercised by Astra and its affiliates or PAI's ownership of 100% of PRSI and 100% of PRSI Trading Company. However, PAI is appealing the December 20, 2010 ruling in order to challenge certain other aspects related to the implementation of the arbitral award. Enforcement of the judgment is suspended pending appeal. There are other ongoing judicial proceedings related to indemnifications among the parties involved.

#### Asia

In **Japan**, we own the Nansei Sekiyu Kabushiki Kaisha (NSS) refinery in Okinawa, which currently produces refined products such as gasoline and jet fuel. We also produce and market E3 fuel, a mixture of ethanol and gasoline.

#### **Biofuel**

Biofuel Key Statistics				
	2011	2010 (U.S.\$ million)	2009	
Biofuel:	'	(0.3.5 111111011)		
Sales revenues	320	272	118	
Income (loss) before income taxes	(151)	(77)	(69)	
Total assets at December 31	1,289	1,133	492	
Capital expenditures	294	664	144	

Brazil is a global leader in the use and production of biofuels. Today, 83.1% of new light vehicles sold in Brazil have flexfuel capability, and service stations offer a choice of 100% ethanol and an ethanol/gasoline blend. All diesel fuel sold in Brazil since January 2010 is required to be at least 5% biodiesel.

We supply 15.8% of Brazil's biodiesel and we act as a market catalyst by securing and blending biodiesel supplies and furnishing these to smaller distributors as well as our own service stations. Our biodiesel plants, located at Candeias and Quixada in Northeastern Brazil and at Montes Claros in Southeastern Brazil, purchase vegetable oils from small farmers and industrial producers. After various operational improvements, the capacity of these three

plants totals 7.6 mbbl/d. In 2011, we acquired 50% of BSBIOS, an important player in the biodiesel segment that has two plants in Southern Brazil. This acquisition increased our total capacity to 10.1 mbbl/d.

We participate in the growing ethanol industry through production, transportation, distribution, wholesale and exports, and by stimulating improvements in product quality. In accordance with our strategy to increase our participation in the ethanol industry, we invested U.S.\$13.0 million (R\$22.4 million) in 2011 to increase our interest in Total Agroindústria Canavieira S.A. to 43.58% from 40.37%. Similarly, we invested U.S.\$113.0 million (R\$195.4 million) in 2011 to increase our interest in Guarani S.A. to 31.44% from 26.49%. We also invested U.S.\$94.2 million (R\$163.0 million) in 2011 to increase our interest in Nova Fronteira Bioenergia S.A. to 49.00% from 37.05%. As a result of these partnerships and investments, the total annual milling capacity of our affiliate companies amounts to 25.9 mmt, and the total ethanol production capacity of our affiliate companies amounts to 8.1 million bbl per harvest season.

In 2011, we exported 679,000 bbl of ethanol, 5.54% of Brazil's total ethanol exports, which consisted mainly of industrial ethanol exported to Asia. In addition, we also increased the volume of ethanol bought outside of Brazil.

#### **Corporate**

	<b>Corporate Key Statistics</b>		
	2011	2010 (U.S.\$ million)	2009
Corporate:			
Income (loss) before income taxes	(5,003)	(3,572)	(3,811)
Total assets at December 31	45,326	53,631	31,559
Capital expenditures and investments	729	839	1,057

Our Corporate segment comprises our financing activities not attributable to other segments, including corporate financial management, central administrative overhead and actuarial expenses related to our pension and health care plans for inactive participants. As of 2011, the results of our Biofuels segment have been presented separately from our Corporate segment. The 2010 and 2009 financial information related to our Corporate and Biofuel segments were reclassified accordingly.

#### Information on PifCo

PifCo is a direct, wholly-owned finance subsidiary of Petrobras incorporated in the Cayman Islands as an exempted company with limited liability. PifCo was originally incorporated in order to facilitate and finance the import of crude oil and oil products by us into Brazil, and has been our direct, wholly-owned subsidiary since 2000. As of September 30, 2011, PifCo no longer engages in the sale and purchase of crude oil and oil products to and from us, third parties and related parties. PifCo is a finance subsidiary functioning as a vehicle for us to raise capital for our operations through the issuance of debt securities in the international capital markets, among other means.

We have provided unconditional and irrevocable guaranties of payment for all of PifCo's issuances of SEC-registered debt securities since February 2009. On March 31, 2010, we issued six additional unconditional and irrevocable guaranties of payment to replace the standby purchase agreements that previously supported PifCo's SEC-registered debt securities issued prior to February 2009. As a result, we currently provide unconditional and irrevocable guaranties of payment for all of PifCo's outstanding debt obligations.

# PifCo's Corporate Structure

PifCo was established on September 24, 1997 as Brasoil Finance Company, a wholly owned subsidiary of Braspetro Oil Services Company, or Brasoil, a wholly owned subsidiary of Petrobras Internacional S.A. (Braspetro), which has since been absorbed by us. PifCo's voting shares were transferred from Brasoil to us in 2000, since which time it has been our wholly owned subsidiary. Petrobras International Finance Company is an exempted company incorporated with limited liability under the laws of the Cayman Islands. PifCo's registered office is located at Harbour Place, 103 South Church Street, 4th floor, P.O. Box 1034GT, George Town, Grand Cayman, Cayman Islands, and PifCo's telephone number is 55-21-3224-3467.

#### PifCo's two subsidiaries are:

- **Petrobras Finance Limited (PFL)**: In December 2001, PifCo established PFL, a wholly owned subsidiary incorporated and registered in the Cayman Islands. PFL primarily purchases fuel oil from us and sells the products in the international market in order to generate export receivables to cover its obligations to transfer these receivables to a trust under an exports prepayment program. Until June 1, 2006, PFL also purchased bunker fuel from us. PFL ceased its commercial operations in August 2011 and prepaid its financing program supported by future sales of fuel oil in September 2011.
- **Bear Insurance Company Limited (BEAR)**: In January 2003, BEAR was transferred to PifCo from Brasoil. This transaction took place as part of the restructuring of our international business segment. BEAR currently serves as our captive insurance company, advising on and negotiating the terms and conditions of, certain of our insurance policies and certain insurance and reinsurance policies of our subsidiaries.

In August 2011, two former PifCo subsidiaries – Petrobras Europe Limited (PEL) and Petrobras Singapore Private Limited (PSPL) – were sold to Petrobras International Braspetro BV (PIB BV).

# **Organizational Structure**

Of our 34 direct subsidiaries listed below, 27 are incorporated under the laws of Brazil and 7 (PifCo, Petrobras International Braspetro B.V. (PIB BV), Braspetro Oil Company (BOC), Braspetro Oil Services Company (Brasoil), Petrobras Netherlands B.V. (PNBV), Cordoba Financial Services GmbH and Cayman Cabiúnas) are incorporated abroad. See Exhibit 8.1 for a complete list of our subsidiaries, including their full names, jurisdictions of incorporation and our percentage equity interest.

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The following diagram sets forth our significant consolidated subsidiaries as of December 31, 2011:

# **Property, Plant and Equipment**

#### Petrobras

Our most important tangible assets are wells, platforms, refining facilities, pipelines, vessels and other transportation assets, and power plants. Most of these are located in Brazil. We own and lease our facilities and some owned facilities are subject to liens, although the value of encumbered assets is not material.

We have the right to exploit crude oil and gas reserves in Brazil under concession agreements, but the reserves themselves are the property of the government under Brazilian law. Item 4. "Information on the Company" includes a description of our reserves and sources of crude oil and natural gas, key tangible assets, and material plans to expand and improve our facilities.

PifCo.

PifCo does not itself own or lease any material property, plant or equipment.

## Regulation of the Oil and Gas Industry in Brazil

### Concession Regime for Oil and Gas

Under Brazilian law, the Brazilian federal government owns all crude oil and natural gas subsoil accumulations in Brazil. The Brazilian federal government holds a monopoly over the exploration, production, refining and transportation of crude oil and oil products in Brazil and its continental shelf, with the exception that companies that were engaged in refining and distribution in 1953 were permitted to continue those activities. Between 1953 and 1997, we were the Brazilian federal government's exclusive agent for exploiting its monopoly, including the importation and exportation of crude oil and oil products.

As part of a comprehensive reform of the oil and gas regulatory system, the Brazilian Congress amended the Brazilian Constitution in 1995 to authorize the Brazilian federal government to contract with any state or privately-owned company to carry out upstream, oil refining, cross-border commercialization and transportation activities in Brazil of oil, natural gas and their respective products. On August 6, 1997, Brazil enacted Law No. 9,478, which established a concession-based regulatory framework, ended our exclusive right to carry out oil and gas activities, and allowed competition in all aspects of the oil and gas industry in Brazil. Since that time, we have been operating in an increasingly deregulated and competitive environment. Law No. 9,478 also created an independent regulatory agency, the ANP, to regulate the oil, natural gas and renewable fuel industry in Brazil, and to create a competitive environment in the oil and gas sector. Effective January 2, 2002, Brazil deregulated prices for crude oil, oil products and natural gas.

Law No. 9,478 established a concession-based regulatory framework and granted us the exclusive right to exploit crude oil reserves in each of our producing fields under then existing

concession contracts for an initial term of 27 years from the date when they were declared commercially profitable. These are known as the "Round Zero" concession contracts. This initial 27-year period for production can be extended at the request of the concessionaire and subject to approval from the ANP. Law No. 9,478 also established a procedural framework for us to claim exclusive exploratory rights for a period of up to three years, later extended to five years, to areas where we could demonstrate that we had made commercial discoveries or exploration investments prior to the enactment of the Law No. 9,478. In order to perfect our claim to explore and develop these areas, we had to demonstrate that we had the financial capacity to carry out these activities, either alone or through other cooperative arrangements. Starting in 1999, all areas not already subject to concessions became available for public bidding conducted by the ANP. All the concessions that we have obtained since such time were obtained through participation in public bidding rounds.

## Taxation under Concession Regime for Oil and Gas

According to the Law No. 9,478 and under our concession agreements for exploration and production activities with ANP, we are required to pay the government the following:

- Signature bonuses paid upon the execution of the concession agreement, which are based on the amount of the winning bid, subject to the minimum signature bonuses published in the relevant bidding guidelines (edital de licitação);
- Annual retention bonuses for the occupation or retention of areas available for exploration and production, at a rate established by the ANP in the relevant bidding guidelines based on the size, location and geological characteristics of the concession block;
- Special participation charges at a rate ranging from 0 to 40% of the net income derived from the production of fields that reach high production volumes or profitability, according to the criteria established in the applicable legislation. Net revenues are gross revenues less royalties paid, investments in exploration, operational costs and depreciation adjustments and applicable taxes. The Special Participation Tax uses as a reference international oil prices converted to *reais* at the current exchange rate. In 2011, we paid this tax on 22 of our fields, namely Albacora, Albacora Leste, Barracuda, Cachalote, Canto do Amaro, Caratinga, Carmópolis, Cherne, Espadarte, Golfinho, Jubarte, Leste do Urucu, Manati, Marlim, Marlim Leste, Marlim Sul, Miranga, Namorado, Peroá, Rio Urucu, Roncador and Frade (operated by Chevron); and
- Royalties, to be established in the concession contracts at a rate ranging between 5% and 10% of gross revenues from production, based on reference prices for crude oil or natural gas established by Decree No. 2,705 and ANP regulatory acts. In establishing royalty rates in the concession contracts, the ANP also takes into account the geological risks and expected productivity levels for each concession. Virtually all of our crude oil production is currently taxed at the maximum royalty rate.

Law No. 9,478 also requires concessionaires of onshore fields to pay to the owner of the land a participation fee that varies between 0.5% and 1.0% of the sales revenues derived from the production of the field.

Production-Sharing Contract Regime for Unlicensed Pre-Salt and Potentially Strategic Areas

Discoveries of large petroleum and natural gas reserves in the pre-salt areas of the Campos and Santos Basins prompted a change in the legislation regarding oil and gas exploration and production activities.

In 2010, three new laws were enacted to regulate exploration and production activities in pre-salt and other potentially strategic areas not subject to existing concessions: Law No. 12,351, Law No. 12,304, and Law No. 12,276. The enacted legislation does not impact the existing pre-salt concession contracts, which cover approximately 28% of the pre-salt region.

Law No. 12,351, enacted on December 22, 2010, regulates production-sharing contracts for oil and gas exploration and production in pre-salt areas not under concession and in potentially strategic areas to be defined by the CNPE. It also calls for the creation of a social fund consisting of resources from the Brazilian federal government's share in production sharing-contracts, such as subscription bonuses, royalties and revenues, which must be used by the Brazilian federal government to sponsor social and regional development programs. Under the production-sharing regime, we will be the exclusive operator of all blocks. The exploration and production rights for these blocks can either be granted to us on an exclusive basis or, in the case where they are not awarded to us on an exclusive basis, they will be offered under public bids. If offered under public bids, we would still be required to participate as the operator, with a minimum interest to be established by the CNPE that would not be less than 30% (irrespective of the economic terms of the winning bid). Under the production-sharing regime, the winner of the bid will be the company that offers to the Brazilian federal government the highest percentage of "profit oil," which is the production of a certain field after deduction of royalties and "cost oil," which is the cost associated with oil production.

Although Law No. 12,351 was enacted in 2010, former President Luiz Inácio da Silva vetoed changes to the royalty distribution framework proposed by the Brazilian Congress under this act and submitted a new proposal to the Brazilian Congress that included a royalty rate of 15% applicable to the gross production of oil and natural gas under production sharing contracts and for the distribution of these royalties among Brazilian states. This proposal, as well as other proposals regarding the royalty distribution framework, are currently under consideration by the Brazilian Congress.

Law No. 12,304, enacted on August 2, 2010, authorizes the incorporation of a new state-run non-operating company that will represent the interests of the Brazilian federal government in the production-sharing contracts and will manage the commercialization contracts related to the Brazilian federal government's share of the "profit oil." This new company will participate in operational committees, with a casting vote and veto powers and will manage and control costs arising from production-sharing contracts. Where production-sharing contracts are concerned, this new company will exercise its specific legal activities alongside the ANP, the independent regulatory agency that regulates and oversees oil and gas activities under all exploration and production regimes, and the CNPE, the entity that sets the guidelines to be applied to the oil and gas sector, including with respect to the new regulatory model.

## Assignment Agreement (Cessão Onerosa) and Global Offering

Pursuant to Law No. 12,276, enacted on June 30, 2010, we entered into an agreement with the Brazilian federal government on September 3, 2010 (Assignment Agreement), under which the government assigned to us the right to conduct activities for the exploration and production of oil, natural gas and other fluid hydrocarbons in specified pre-salt areas, subject to a maximum production of five billion barrels of oil equivalent. The initial contract price for our rights under the Assignment Agreement was R\$74,807,616,407, which was equivalent to U.S.\$42,533,327,500 as of September 1, 2010. See Item 10. "Material contracts—Petrobras—Assignment Agreement." In order to ensure transparency, our board of

directors created a special committee comprised of minority shareholders' representatives to monitor the transfer of rights transaction.

Law No. 12,276 also authorized the Brazilian federal government to subscribe for additional shares of our capital stock in a public offering of our shares. On September 29, 2010, we issued 2,293,907,960 common shares (including common shares in the form of ADSs) and 1,788,515,136 preferred shares (including preferred shares in the form of ADSs) in a global public offering consisting of a registered offering in Brazil and an international offering that included a registered offering in the United States. On October 1, 2010, we issued an additional 75,198,838 common shares (including common shares in the form of ADSs) and 112,798,256 preferred shares (including preferred shares in the form of ADSs) pursuant to the exercise of the underwriters' over-allotment option. We complied with all of the Brazilian Corporate Law requirements in carrying out the capitalization process, including the protection of the rights of our minority shareholders. See Item 10. "Memorandum and Articles of Incorporation of Petrobras—Preemptive Rights" for a summary of these requirements.

We applied part of the net proceeds from the global offering to pay the initial purchase price under the Assignment Agreement and to continue to develop all of our business segments in accordance with our Business Plan.

#### Natural Gas Law of 2009

In March 2009, the Brazilian Congress enacted a law regulating activities in the gas industry, including transport and commercialization, which was amended by Decree No. 7,382 enacted in December 2010. The Gas Law created a concession regime for the construction and operation of new pipelines to transport natural gas, while maintaining an authorization regime for pipelines subject to international agreements. According to the Gas Law, after a certain exclusivity period, operators will be required to grant access to transport pipelines and maritime terminals, except LNG terminals, to third parties in order to maximize utilization of capacity. Authorizations previously issued by the ANP for natural gas transport will remain valid for 30 years from the date of publication of the Gas Law, and initial carriers were granted exclusivity in these pipelines for 10 years. The ANP will issue regulations governing third-party access and carrier compensation if no agreement is reached between the parties.

The Gas Law also authorized certain consumers, which can purchase natural gas on the open market or obtain their own supplies of natural gas, to construct facilities and pipelines for their own use in the event local gas distributors controlled by the states, which have monopoly over local gas distribution, do not meet their distribution needs. These consumers are required to delegate the operation and maintenance of the facilities and pipelines to local gas distributors, but they are not required to sign gas supply agreements with the local gas distributors.

In December 2010, Decree No. 7,382 was enacted in order to regulate Chapter I to VI and VIII of the Gas Law as it relates to activities in the gas industry, including transportation and commercialization.

## Price Regulation

Until the passage of the Law No. 9,478 in 1997, the Brazilian federal government had the power to regulate all aspects of the pricing of crude oil, oil products, ethanol, natural gas, electric power and other energy sources. In 2002, the government eliminated price controls for crude oil and oil products, although it retained regulation over certain natural gas sales contracts and electricity. Also in 2002, the Brazilian federal government established an excise tax on the sale and import of crude oil, oil products and natural gas products (*Contribuição de Intervenção no Domínio Econômico*, Contribution for Intervention in the Economic Sector, or CIDE). The Brazilian federal government has periodically used CIDE as a tool to maintain price stability to end consumers, primarily by decreasing the CIDE rate when we increase our prices to reflect higher international prices and vice versa. In 2009, the Gas Law authorized the ANP to regulate prices for the use of gas transport pipelines subject to the new concession regime, based on a procedure defined in the Gas Law as a "chamada pública," and to approve prices submitted by carriers, according to previously established criteria, for the use of new gas transport pipelines subject to the authorization regime.

## **Environmental Regulations**

All phases of the crude oil and natural gas business present environmental risks and hazards. Our facilities in Brazil are subject to a wide range of federal, state and local laws, regulations and permit requirements relating to the protection of human health and the environment. At the federal level, our offshore activities and those that involve more than one Brazilian state are subject to the regulatory authority of the *Conselho Nacional do Meio Ambiente* (National Council for the Environment, or CONAMA) and to the administrative authority of IBAMA, which issues operating and drilling licenses. We are required to submit reports, including safety and pollution monitoring reports (IOPP) to IBAMA in order to maintain our licenses. Onshore environmental, health and safety conditions are controlled at the state rather than federal level, and there is strict liability for environmental damage, mechanisms for enforcement of environmental standards and licensing requirements for polluting activities.

Individuals or entities whose conduct or activities cause harm to the environment are subject to criminal and administrative sanctions. Government environmental protection agencies may also impose administrative sanctions for noncompliance with environmental laws and regulations, including:

- Fines;
- Partial or total suspension of activities;
- Requirements to fund reclamation and environmental projects;
- Forfeiture or restriction of tax incentives or benefits;
- Closing of establishments or operations; and
- Forfeiture or suspension of participation in credit lines with official credit establishments.

We are subject to a number of administrative and legal proceedings relating to environmental matters. See Item 8. "Financial Information—Legal Proceedings." and Note 28 to our audited consolidated financial statements included in this annual report for a description of the legal and administrative proceedings to which we are subject.

In 2011, we invested approximately U.S.\$1,625 million in environmental projects, compared to approximately U.S.\$1,377 million in 2010 and U.S.\$984 million in 2009. These investments were primarily directed at reducing emissions and wastes resulting from industrial processes, managing water use and effluents, remedying impacted areas, implementing new environmental technologies, upgrading our pipelines and improving our ability to respond to emergency situations.

## **Health, Safety and Environmental Initiatives**

The protection of human health and the environment is one of our primary concerns, and is essential to our success as an integrated energy company.

As a result of an internal reorganization carried out in 2010, our Health, Safety and Environment (HSE) Management Committee was disbanded and its functions were assigned to a newly-created Technology, Engineering and Services Integration Committee. This committee is composed of corporate executive managers from both business and services areas and is chaired by Chief Corporate and Services Officer. The following three committees gather representatives from the business and services areas as well as from subsidiary companies to deal with health, safety, environmental and energy efficiency issues: the HSE Management Committee; the Energy Efficiency, Air Emissions and Climate Change Committee; and the Environmental Licensing and Compensation Committee. We have also created an Environmental Committee composed of three members of our board of directors, the charter of which is awaiting approval by our board of directors.

Our actions to address health, safety and environmental concerns and ensure compliance with environmental regulations involved an investment of approximately U.S.\$3,135 million in 2011 and included:

- A HSE management system based on principles of sustainable development which seeks to minimize the impacts of operations and products on health, safety and the environment, reduce the use of natural resources and pollution, and prevent accidents;
- ISO 14001 (environment) and OHSAS 18001 (health and safety) certification of our operating units. As of December 2011, Petrobras had 90% of the total number of 295 certifiable sites in Brazil and abroad certified in accordance with the standards mentioned above. The *Frota Nacional de Petroleiros* (National Fleet of Vessels) has been fully certified by the International Maritime Organization (IMO) International Management Code for Safe Operation of Ships and for Pollution Prevention (ISM Code) since December 1997;
- Regular and active engagement with the MME and IBAMA, including negotiating new environmental compensation regulations and discussing environmental issues connected with new gas pipelines, oil and gas production projects and other aspects of our operations.
- "Climate Change" and "Energy Efficiency" strategic projects, which aim to implement the highest standards in the energy industry regarding the efficient use of energy and greenhouse gas management. By reducing the environmental impact of our operations, we will contribute to our sustainability and mitigate global climate change.
- A new strategic challenge seeking to maximize energy efficiency and reduce greenhouse gases emission intensity, which was approved by our board of executive officers in November 2010 along with a set of performance indicators with targets to monitor progress with respect to this new challenge. Our goal is to reach excellence levels in the oil and gas industry and to contribute to business sustainability.
- The HSE and Energy Efficiency in Investment Projects project, which began in 2011 and aim at identifying opportunities, risks as well as ensuring the integration of health, safety, environment and energy efficiency (HSEE) aspects throughout the life cycle of new investment projects. Given the high volume of investments planned for the coming years, the project will benefit from the opportunity to increase our HSEE performance with lower marginal costs, contributing to the reduction of losses, to operational continuity and to a lower exposure to penalties and liabilities.

Every project is evaluated to confirm its compliance with all HSE requirements and adoption of the best HSE practices throughout the project's life cycle. In addition, we conduct more extensive environmental studies for new projects when required by applicable environmental legislation.

We are committed to reduce greenhouse gas emission intensity from our processes and products, as expressed in our 2020 Strategic Plan. Our strategy focuses on energy efficiency, energy production from renewable sources and research and technological development.

This strategy aims both at improving business sustainability and mitigating the effects of climate change.

Our Internal Program on Energy Conservation works to improve energy efficiency in all our units. Over the past five years, we have invested approximately U.S.\$287 million in optimization projects whose economic results include energy savings of 4,200 barrels of oil equivalent per day.

#### Environmental Remediation Plans and Procedures

In 2000, we implemented a company-wide program for environmental management and operational safety (PEGASO) that was designed to identify risks to human life and the environment, control and monitor those risks with safety procedures that comply with best international practices, and maintain a permanent state of readiness for prompt and effective emergency response.

In light of, among other things, the Gulf of Mexico oil spill, we commenced our two-year program, Management and Response to Disasters (GRADE), in 2011 that aims at improving our capability to manage major accidents. The goal of this program is to provide international logistics and sharing agreements with Oil Spill Response Organizations (OSROs) and petroleum companies, to develop a network of international specialists on accident management, to ensure an appropriate assignment of government and industry roles in the context of major accidents as well as to contribute to the regulation of *in situ* burning operations and the subsea use of chemical dispersants.

In 2011, we conducted 18 regional emergency drills with the Brazilian Navy, the Civil Defense, firefighters, the military police, environmental organizations, and local governmental and community entities.

In 2011, we experienced oil spills totaling 1,471 barrels of crude oil, compared to 4,200 barrels of crude oil in 2010 and 1,598 barrels of crude oil in 2009.

We have maintained oil spill levels in our upstream operations well below 1m3 per mmbbl produced, which corresponds to a standard of excellence within the global oil and gas industry. Data for 2010 compiled by the International Association of Oil & Gas Producers indicates that the industry average is 0.72 m3 of oil spilled per mmbbl produced. We continue to evaluate and develop initiatives to address HSE concerns and to reduce our exposure to HSE risks.

As part of our environmental plans, procedures and efforts, we have developed detailed response and remediation contingency plans to be implemented in the event of an oil spill or leak from our offshore operations. We have more than 660 trained workers available to respond to oil spills 24 hours a day, seven days a week, and we can mobilize an additional 5,000 trained workers for shoreline cleanups on short notice. While these workers are located in Brazil, they are also available to respond to an offshore oil spill outside of Brazil. We also have stockpiles of the equipment needed to quickly and effectively contain offshore spills or leaks, including over 146 miles of containment and absorbent booms, 444 different oil skimmers, over 55,000 gallons of oil dispersants and 385 oil pumps. Petrobras has 30 dedicated oil spill recovery vessels (OSRVs) fully equipped for oil spill control and fire fighting, as well as 130 additional support and recovery boats and barges available to fight offshore oil spills and leaks 24 hours a day, seven days a week. In addition, we have contracts with local emergency responders Clean Caribbean and Americas Cooperative in North America and Oil Spill Response Limited in Africa and Asia. We also maintain relationships with major OSROs and other oil companies.

We created ten environmental protection centers in strategic areas in which we operate throughout Brazil in order to ensure rapid and coordinated response to onshore or offshore oil spills. These regional facilities are supported by 13 local advance bases dedicated to oil spill prevention, control and response. Our environmental protection centers and their advanced bases would be mobilized in the event of a spill or leak at one of our offshore operations. Each of our local and regional response centers is self sufficient and available to respond either individually or jointly together with neighboring facilities depending on the severity and scale of the emergency.

#### **Insurance**

Our insurance programs focus principally on the evaluation of risks and the replacement value of assets, which is customary for our industry. Under our risk management policy, risks associated with our principal assets, such as refineries, tankers and offshore production units and drilling rigs, are insured for their replacement value with third-party Brazilian insurers. Although some policies are issued in Brazil, most of our policies are reinsured abroad with reinsurers rated A- or higher by Standard & Poor's rating agency or B+ or higher by A.M. Best. Part of our international operations are insured or reinsured by our Bermudian subsidiary BEAR following the same rating criteria.

Less valuable assets, including but not limited to small auxiliary boats, certain storage facilities, and some administrative installations, are self-insured. We do not maintain coverage for business interruption, except for a minority of our international operations and a few specific assets in Brazil. We also do not maintain coverage for our wells for all of our Brazilian operations. Although we do not insure most of our pipelines, we have insurance against damage or loss to third parties resulting from specific incidents, as well as oil pollution. We also maintain coverage for risks associated with cargo, hull and machinery risk. All projects and installations under construction that have an estimated maximum loss above U.S.\$60 million are covered by a construction policy.

We have operations in 24 countries outside Brazil and maintain varying levels of third-party liability insurance for our domestic and international operations as a result of a variety of factors, including our country risk assessments, whether we have onshore and offshore operations and legal requirements imposed by the particular country in which we operate. We maintain insurance coverage for operational third-party liability with respect to our onshore and offshore activities, including environmental risks such as oil spills, in Brazil up to an aggregate policy limit of U.S.\$250 million for a period of 12 months. We also maintain additional protection and indemnity (P&I) marine insurance against third-party liability related to our domestic offshore operations up to an aggregate policy limit of up to U.S.\$500 million for a period of 12 months. In the event of an explosion or similar event at one of our offshore rigs in Brazil, these policies can provide combined third-party liability coverage of up to U.S.\$750 million for a period of 12 months.

Our domestic and international operational third-party liability policies cover claims made against us by or on behalf of individuals who are not our employees in the event of personal injury or death, subject to the policy limits set forth above. As a general rule, our service providers are required to indemnify us for a claim we pay directly to a third party as a result of a court decision holding us liable for the actions of that service provider. Our operational third-party liability policies also cover environmental damage from oil spills (including liability arising from an explosion or similar sudden and accidental event at one of our offshore rigs) as well as litigation, clean-up and remediation costs, but do not cover governmental fines or punitive damages.

We maintain separate "control-of-well" insurance policies at our international operations to cover liability arising from the uncontrolled eruption of oil, gas, water or drilling fluid, as well

as to cover claims for environmental damage from well blow-outs and similar events as well as related clean-up costs, with aggregate policy limits up to U.S.\$500 million for a period of 12 months depending on the country. In the U.S. Gulf of Mexico, for example, we maintain third-party liability coverage up to an aggregate policy limit of U.S.\$250 million for a period of 12 months, and control-of-well liability insurance up to U.S.\$500 million for a period of 12 months. Depending on the particular circumstances, either of these policies could apply in the event of an explosion or similar event at one of our offshore rigs in the U.S. Gulf of Mexico.

We do not maintain control-of-well insurance for our domestic operations onshore and offshore Brazil. As a result, we would bear the costs of clean-up, decontamination and any proceedings arising out of a control-of-well incident. Any loss of hydrocarbon containment from our domestic operations onshore and offshore that is not attributable to a control-of-well issue would be covered by either our Protection & Indemnity (P&I) insurance, with coverage of up to U.S.\$500 million for our mobile offshore units, or our onshore-offshore liability policy, with coverage of up to U.S.\$250 million.

The premium for renewing our domestic property risk insurance policy for a 12-month period commencing June 2011 was U.S.\$58.2 million. This represented a nominal increase of 20% over the preceding 12-month period. The insured value of our assets, in the same period, increased by 21% to U.S.\$122 billion. The average rate for the period was 0.048%, representing a decrease of 5.01% relative to the previous period. Since 2001, our risk retention has increased and our deductibles may reach U.S.\$60 million in certain cases.

#### **Additional Reserves and Production Information**

Production of crude oil and natural gas in Brazil is divided into onshore and offshore production, comprising 11% and 89% of total production in Brazil, respectively. The Campos Basin is one of Brazil's main and most prolific oil and gas offshore basins, with over 59 hydrocarbon fields discovered, eight large oil fields and a total area of approximately 115,000 km² (28.4 million acres). In 2011, the Campos Basin produced an average 1,677.0 mbbl/d of oil and 12.9 mmm³/d (487.4 mmcf/d) of associated natural gas, comprising 79% of our total production from Brazil. We also conduct limited oil shale mining operations in São Mateus do Sul, in the Paraná Basin of Brazil, and we use oil shale from these deposits to produce synthetic oil and gas.

On December 31, 2011, our estimated proved reserves of crude oil and natural gas in Brazil totaled 12.26 billion barrels of oil equivalent, including 10.41 billion barrels of crude oil and natural gas liquids and 293.24 bnm³ (11.07 tcf) of natural gas. As of December 31, 2011, our domestic proved developed crude oil reserves represented 67% of our total domestic proved developed and undeveloped crude oil reserves, and our domestic proved developed natural gas reserves represented 62% of our total domestic proved developed and undeveloped natural gas reserves. Total domestic proved crude oil reserves increased at an average annual rate of 4% in the last five years, and total natural gas proved reserves increased at an average annual rate of 3% over the same period.

We calculate reserves based on forecasts of field production, which depend on a number of technical parameters, such as seismic interpretation, geological maps, well tests, reservoir engineering studies and economic data. All reserve estimates involve some degree of uncertainty. The uncertainty depends primarily on the amount of reliable geological and engineering data available at the time of the estimate and the interpretation of that data. Our estimates are thus made using the most reliable data and technology at the time of the estimate, in accordance with the best practices in the oil and gas industry and regulations promulgated by the Securities and Exchange Commission.

#### Internal Controls over Proved Reserves

The reserves estimation process begins with an initial evaluation of our assets by geophysicists, geologists and engineers. Corporate Reserves Coordinators (*Coordenadores de Reservas Corporativo*, or CRCs) safeguard the integrity and objectivity of our reserves estimates by supervising and providing technical support to Regional Reserves Coordinators (*Coordenadores de Reservas Regionais*, or CRRs) who are responsible for preparing the reserves estimates. Our CRRs and CRCs have degrees in geophysics, geology, petroleum

engineering, accounting and economics and are trained internally and abroad in international reserves estimates seminars. CRCs are responsible for compliance with Securities and Exchange Commission rules and regulations, consolidating and auditing the reserves estimation process. The technical person primarily responsible for overseeing the preparation of our domestic reserves is a member of the SPE, with 22 years of experience in the field and has been with Petrobras for 28 years. The technical person primarily responsible for overseeing the preparation of our international reserves has five years of experience in the field, a doctorate in reservoir engineering and has been with Petrobras for 32 years. Our reserves estimates are presented to our board of executive officers and submitted to the board of directors for final approval.

DeGolyer and MacNaughton (D&M) used our reserves estimates to conduct a reserves audit of 95.5% of the net proved crude oil, condensate and natural gas reserves as of December 31, 2011 from certain properties we own in Brazil and offshore from Brazil. In addition, D&M used its own estimates of our reserves to conduct a reserves evaluation of 53% of the net proved crude oil, NGL and natural gas reserves as of December 31, 2011 from certain properties we own in South America (outside of Brazil). The reserves estimates were prepared in accordance with the reserves definitions of Rule 4-10(a) of Regulation S-X of the SEC. For further information on our proved reserves, see "Supplementary Information on Oil and Gas Exploration and Production" beginning on page F-110.

### Changes in Proved Reserves

At year-end 2011 compared to year-end 2010, we added a net total of 98.65 mmboe from our domestic proved undeveloped reserves and 18.90 mmboe from our international proved undeveloped reserves, resulting in a net increase of 117.55 mmboe company-wide. Thus, we had a total of 4,471.84 mmboe of proved undeveloped reserves company-wide at December 31, 2011, compared to 4,354.27 mmboe of proved undeveloped reserves company-wide at December 31, 2010.

In Brazil, the net increase in our proved undeveloped reserves in 2011 compared to 2010 resulted from the 142.43 mmboe of extensions and discoveries in the pre-salt regions of the Santos Basin, the 404.42 mmboe of revisions to previous estimates and the 1.92 mmboe of improved recovery. In addition, we converted a net total of 450.12 mmboe of our proved undeveloped reserves to proved developed reserves in Brazil in 2011, mainly through the start-up of production of the P-56 platform in the Campos Basin and the drilling of several wells in existing production fields.

Outside Brazil, the net increase in our proved undeveloped reserves in 2011 compared to 2010 was mainly due to newly estimated reserves in the United States and resulted from the conversion of 58.23 mmboe of proved undeveloped reserves to proved developed reserves, which was offset by 31.71 mmboe of extensions and discoveries, 39.25 mmboe of revisions to previous estimates and 6.17 mmboe of improved recovery.

All reserves volumes described above are "net" to the extent that they only include Petrobras' proportional participation in reserve volumes and exclude reserves attributed to our partners.

In 2011, we invested a total of U.S.\$11.19 billion to convert proved undeveloped reserves into proved developed reserves, of which approximately 93.1% (U.S.\$10.42 billion) was invested in Brazil. We converted a total of 508.34 mmboe of proved undeveloped reserves to proved developed reserves in 2011, approximately 88.5% (450.12 mmboe) of which were Brazilian reserves. In recent years, we have developed projects and increased investments to convert our proved undeveloped reserves into proved developed reserves.

We had a total of 4,471.84 mmboe of proved undeveloped reserves company-wide at year-end 2011, approximately 5.23% (234.14 mmboe) of which have remained undeveloped for five years or more as a result of several factors affecting development and production, including

the inherent complexity of ultra-deepwater developments projects, particularly in Brazil, and constraints in the capacity of our existing infrastructure.

A portion of the 234.14 mmboe of our proved undeveloped reserves that have remained undeveloped for five years or more consist of heavy crude oil located in the Parque das Baleias (Whales Park) area of the Campos Basin offshore Brazil. We originally disclosed these reserves as proved undeveloped reserves between 2003 and 2004 after completing a development plan for the Parque das Baleias region. However, due to the discovery in 2007 of more valuable light crude oil in the same region, we deliberately postponed production from these proved undeveloped reserves until we could allocate the necessary ultra-deep water infrastructure and production resources to develop both our existing proved undeveloped reserves of heavy crude oil and our recently discovered pre-salt light crude oil simultaneously. We started the development of these light crude pre-salt reservoirs in 2008 by means of an EWT. In 2010, we started the production of heavy crude oil and pre-salt light crude oil with the FPSO Capixaba. In 2011, we drilled the first wells to be connected to the leased FPSO Cidade de Anchieta, which will start production of pre-salt light crude oil in the second guarter of 2012. As a result, at year-end 2011, we reclassified a portion of these pre-salt light crude oil proved undeveloped reserves in the Parque das Baleias area of the Campos Basin offshore Brazil. The majority of our remaining proved undeveloped reserves that have remained undeveloped for five years or more consist of reserves in shallow water fields in the Santos Basin and deep waters in the Campos Basin, for which we are making investments to develop necessary infrastructure.

The following tables set forth our production of crude oil, natural gas, synthetic oil and synthetic gas by geographic area in 2011, 2010 and 2009:

					Hydrocarbon Production by Geo			
			2011					2010
		Synthetic		Synthetic	ı			
	Oil	Oil	Nat. Gas				Synthetic	
	(mbbl/d)	(mbbl/d)	(mmcf/d)	(mmcf/d)			Oil	1
					Total	Oil	(mbbl/d)	Nat. Ga
	(5)	(4)	(1)	(1)(4)	(mboe/d)	(mbbl/d)	(4)	(mmcf/d)
Brazil:								1
Roncador								1
field(2)	297.9	9 0.0	115.6	5 0.0	317.2	343.4	4 0.0	
Other	1,721.1	1 2.8	3 1,075.5	5 1.4	1,903.3	3 1,657.1	1 3.6	8
Total Brazil	2,019.0	0 2.8	3 1,191.1	1.4	2,220.5	5 2,000.5	5 3.6	9
International:	:							
South America								
(outside of								
Brazil)	77.4	4 0.0	569.4	1 0.0	172.3	80.2	2 0.0	5.
North America	2.2	2 0.0	) 11.1	0.0	4.0	1.3	3 0.0	)
Africa	57.6	6 0.0	0.0	0.0	57.6	56.5	5 0.0	ı
Total								
International	137.2	2						ļ