## SUPPLEMENTARY INFORMATION ON OIL AND GAS EXPLORATION AND PRODUCTION

## ACTIVITIES (Unaudited information)

Below is presented the information on Repsol Group's (\*) oil and gas exploration and production activities.

This information includes the following disclosures:

- Capitalised cost, in relation with capitalized historical costs;
- Cost incurred: which represent the amounts capitalized or charged to profit during the year;
- Results of oil and gas exploration and production activities, including revenue and expenses associated directly to this activity;
- Estimated proved net developed and undeveloped oil and gas reserves;
- Standardized measure of discounted future net cash flows relating to proved oil and gas reserves, which represent the estimate of future net cash flows from proven reserves on the basis of a standardized measure criteria.
- Changes in Standardized measure of discounted future net cash flows relating to proved oil and gas reserves with respect to those presented for the previous year.

This information, which the Group performs and publishes annually, is prepared in accordance with the general accepted principles applied in the oil and gas industry, specifically those principles laid down by the U.S. Financial Accounting Standards Board (FASB) and the guidelines and framework established for the industry by the U.S. Securities and Exchange Commission (SEC), which govern financial information practices in the U.S.A. Proved reserves are also estimated in accordance with the criteria established by the Petroleum Reserves Management System of the Society of Petroleum Engineers (PRMS-SPE).

The Group has applied IFRS 11 *Joint Arrangements* from January 1, 2014; first-time application of this new standard has entailed accounting for the Group's interests in joint ventures using the equity method (see Note 2 "Basis of preparation" of the 2014 consolidated annual financial statements).

The benchmark principles used to prepare the information herein (FASB, Topic 932) require separate disclosures for the companies accounted using the equity method. Accordingly, the information provided below is broken down so as to distinguish between fully-consolidated entities and equity-accounted investees. The corresponding information for 2012 and 2013 has been restated accordingly.

<sup>(\*)</sup> As a result of the expropriation of the shares of YPF, S.A. and YPF Gas, S.A. (formerly Repsol YPF Gas, S.A.) owned at the time by the Group, Repsol lost control of YPF and YPF Gas (see Note 4.1. "Disposal of shares of YPF S.A. and YPF GAS S.A." of the 2014 consolidated annual financial statements). In the tables that follow the information corresponding to YPF at December 31, 2011 has been left unchanged.

## Capitalised costs

Capitalised costs represent the historical costs capitalised related to oil and gas exploration and production activities, including auxiliary equipment and facilities, and the related accumulated depreciation and accumulated impairment losses.

Total			Mult	ions of euro	15			
	Europe	Trinidad & Tobago	Venezuela	Peru	Rest of South America	North America	Africa	Asia
		<u> </u>						
6,184 2,057	462	232	19 7	679 189	1,325	2,249 1,516	1,218	- 64
8,241	477	232	26	868	1,361	3,765	1,448	64
991	172	71	13		30	459	246	
9,232	649	303	39	868	1,391	4,224	1,694	64
(3,457)	(383)	(144)	(7)	(66)	(878)	(1,186)	(793)	-
5,775	266	159	32	802	513	3,038	901	64
3,256	-	1,318	706	-	1,068	-	-	164
981	<u> </u>	376	48	-	491	<u> </u>	22	44 208
	-			-	,			200
1,229 5,466	-	809 2,503	<u>151</u> 905		269 1,828		22	208
(2,267)		(1,276)	(263)	-	(717)	-	-	(11)
		1.227	642		1.111		22	197
			Mill	ions of euro				
Total	Europe		Venezuela	Peru		North America	Africa	Asia
6,350	342	222	47	786	1,323	2,421	1,209	-
2,623 8,973	25 367	5 227	47	154 940	4 1,327	2,090 4,511	257 1,466	88 88
1.0/19	285	95	10	_	33	386	240	
10,022	<u>652</u>	322	57	940	1,360	4,897	1,706	88
(2 952)	(501)	(165)		(0.2)	(850)			
(3,852)	(	(165)	(12)	(83)	(859)	(1,428)	(804)	_
<u> </u>	151	157	<u>(12)</u> 45	(83) 857	501	(1,428) <b>3,469</b>	<u>(804)</u> 902	- 88
								88
6,170		157	45		501			
<b>6,170</b> 3,804 957		1 <b>57</b> 1,434 348	<b>45</b> 768		<b>501</b> 1,351 512		<b>902</b>	251 75
<b>6,170</b> 3,804		<b>157</b> 1,434	45		<b>501</b> 1,351		902	251
6,170 3,804 957 4,761 1,300		1,434 348 1,782 781	45 768 768 246		501 1,351 512 1,863 273		902 	251 75 <b>326</b>
6,170 3,804 957 4,761 1,300 6,061		1,434 348 1,782 781 2,563	45 768 768 246 1,014		501 1,351 512 1,863 273 2,136		<b>902</b>	251 75 <b>326</b> <b>326</b>
6,170 3,804 957 4,761 1,300		1,434 348 1,782 781	45 768 768 246		501 1,351 512 1,863 273		902 	251 75 <b>326</b>
	2,057 8,241 991 9,232 (3,457) 5,775 3,256 981 4,237 1,229 5,466 (2,267) 3,199 Total 6,350 2,623 8,973 1,049	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$						

				Millio	ns of euros				
-			Trinidad &			Rest of	North		
-	Total	Europe	Tobago	Venezuela	Peru S	outh America	America	Africa	Asia
At December 31 <sup>st</sup> , 2014									
Fully-consolidated entities									
Capitalised costs of proved oil and gas properties	7,500	360	326	61	950	1,433	2,954	1,416	-
Capitalised costs of unproved oil and gas properties	3,139	73	22	-	42	48	2,484	391	79
	10,639	433	348	61	992	1,481	5,438	1,807	79
Auxiliary equipment and facilities	1,542	290	122	11	-	57	769	293	-
Total capitalised costs	12,181	723	470	72	992	1,538	6,207	2,100	79
Accumulated depreciation and impairment losses	(5,266)	(560)	(222)	(13)	(135)	(934)	(2,413)	(989)	-
Net amount (1)	6,915	163	248	59	857	604	3,794	1,111	79
Equity-accounted investees									
Capitalised costs of proved oil and gas properties	5,328		1,868	811		2,477			172
Capitalised costs of unproved oil and gas properties	,		395			403		24	51
Cupramised costs of any force on and gas properties	6,201		2,263	811	-	2,880		24	223
Auxiliary equipment and facilities	1,699	-	912	670	-	117	-	-	-
Total capitalised costs	7,900	-	3,175	1,481	-	2,997		24	223
Accumulated depreciation and impairment losses	(3,348)		(1,744)	(374)		(1,175)			(55)
Net amount (1)	4,552	-	1,431	1,107	-	1,822	-	24	168

(1) Does not include capitalised costs regarding non-current assets held for sale in 2014, 2013 and 2012 amounting to €293, €155 and €266 million, respectively.

## Cost incurred

The costs incurred represent amounts capitalised or charged to profit during the year relating to acquisitions of properties and for exploration and development activities.

			Trinidad &			Rest of	of North				
At December 31 <sup>st</sup> , 2012	Total	Europe	Tobago	Venezuela	Peru	South America	America	Africa	Asia	Australia	
Fully-consolidated entities											
Acquisition of proved properties	-	-	-	-	-		-	-	-	-	
Acquisition of unproved properties	309	-	-	-	-		199	110	-	-	
Exploration costs	647	80	1	-	97	79	228	119	43	-	
Development costs	892	96	25	10	115	5 128	466	52			
TOTAL	1,848	176	26	10	212	207	893	281	43	-	
Equity-accounted investees											
Acquisition of proved properties	154	-	-	-	-		-	-	154	-	
Acquisition of unproved properties	79	-	-	-	-		-	-	79	-	
Exploration costs	159	-	-	-	-	- 147	-	12	-	-	
Development costs	531		160	165	-	. 199		-	7		
TOTAL	923	-	160	165		346	-	12	240		

					Millions					
At December 31 <sup>st</sup> , 2013			Trinidad &			Rest of	North			
	Total	Europe	Tobago	Venezuela	Peru	South America	America	Africa	Asia (1)	Australia
Fully-consolidated entities										
Acquisition of proved properties	28	-	-	-			28	-	-	-
Acquisition of unproved properties	371	-	-	-			371	-	-	-
Exploration costs	770	164	6	-	34	52	299	89	104	22
Development costs	569	1	4	15	87	124	290	48		
TOTAL	1,738	165	10	15	121	176	988	137	104	22
Equity-accounted investees										
	•								•	
Acquisition of proved properties	29	-	-	-			-	-	29	-
Acquisition of unproved properties	78	-	-	-			-	-	78	-
Exploration costs	213	-	-	-	-	207	-	4	-	-
Development costs	780		175	277		- 262		-	66	
TOTAL	1,100	-	175	277		- 471	-	4	173	-

(1) Includes, at December 31, 2013 ,the acquisition cost of assets which in previous year, as required by accounting regulations, were classified as non-current assets held for sale, at the percentage finally withheld by Repsol.

					Millions	of euros				
			Trinidad &			Rest of	North			
At December 31 <sup>st</sup> , 2014	Total	Europe	Tobago	Venezuela	Peru	South America	America	Africa	Asia	Australia
Fully-consolidated entities										
Acquisition of proved properties	34	-	-	-			34	-	-	-
Acquisition of unproved properties	20	-	-	-			20	-	-	-
Exploration costs	1,346	211	32	-	67	127	450	306	145	8
Development costs	567	30	83	15	(34)	106	305	62	-	
TOTAL	1,967	241	115	15	33	233	809	368	145	8
Equity-accounted investees										
Acquisition of proved properties	-	-	-	-			-	-	-	-
Acquisition of unproved properties	-	-	-	-			-	-	-	-
Exploration costs	95	-	-	-	-	. 93	-	1	1	-
Development costs	980		245	366	-	347		-	22	
TOTAL	1,075	-	245	366		- 440	-	1	23	-

## Results of oil and gas exploration and production activities

The following table shows the revenues and expenses associated directly with the Group's oil and gas exploration and production activities. It does not include any allocation of the finance costs or general expenses and, therefore, is not necessarily indicative of the contribution to consolidated net profit of the oil and gas activities.

					IVII	lions of euros				
			Trinidad &		P	Rest of	North			
012	Total	Europe	Tobago	Venezuela	Peru	South America	America	Africa	Asia	Australia
,012										
ully-consolidated entities										
Income										
Sales to non-Group companies	386	-	6	6	168	147	21	38	-	
Sales between business segments and to Group Companies	2,066	81	273	-	111	204	820	577	-	
Other income	999			-	-	17		982		
Total income	3,451	81	279	6	279	368	841	1,597		
Production costs (1)	(694)	(20)	(190)	(28)	(133)	(124)	(7)	(192)	-	
Exploration expenses	(495)	(84)	(1)	-	(62)	(75)	(141)	(89)	(43)	
Other operating expenses	(40)	(4)	(3)	-	-	(29)	(3)	(1)	-	
Depreciation and amortisation charge	(577)	(37)	(27)	(2)	(20)	(101)	(313)	(77)		
Profit (Loss) before taxes and charges	1,645	(64)	58	(24)	64	39	377	1,238	(43)	
Taxes and charges		38	(28)	0	(19)	(6)	(137)	(893)	13	
	613	(26)	29	(24)	45	33	240	345	(30)	
Results of oil and gas production activities (2)	613	(26)	29	(24)	45	33	240	345	(30)	
Equity-accounted investees										
Income										
Sales to non-Group companies	1,088	-	289	482	-	278	-	-	39	
Sales between business segments and to Group Companies	472	-	356	-	-	116	-	-	-	
Other income	3				-	3		-		
Total income	1,563		645	482		397			39	
Production costs (1)	(534)	-	(194)	(227)	-	(89)	-	-	(24)	
Exploration expenses	(56)	-	-	-	-	(53)	-	(3)	-	
Other operating expenses	(35)		(1)	(1)	-	(33)	-	-	-	
Depreciation and amortisation charge	(294)		(156)	(42)	-	(85)	-	-	(11)	
Profit (Loss) before taxes and charges	643	-	294	212	-	137	-	(3)	4	
Taxes and charges	(258)		(164)	(22)	-	(72)		1	(1)	
	385	-	130	190	-	65	-	(2)	3	
Results of oil and gas production activities (2)										

Total 503 1,722 620	Europe - 197	Trinidad & Tobago	Venezuela	Peru	Rest of South America	North America	Africa	Asia	Australia
503 1,722			Venezuela	Peru	South America	America	Africa	Asia	Australia
1,722	-	5							
1,722	-	5							
1,722	-	5							
1,722	-	5							
	107	5	8	203	218	39	30	-	
620	17/	258	-	105	118	729	315	-	
			-	-	27		593		
2,845	197	263	8	308	363	768	938	<u> </u>	
(584)	(22)	(183)	(22)	(137)	(78)	(37)	(105)	-	
			· -					(28)	(22
(34)		(2)	-	-	(24)			-	
(581)	(120)	(28)	(2)	(21)	(58)	(305)	(46)	(1)	
1,213	(102)	49	(16)	144	151	311	727	(29)	(22
(722)	62	(27)	(11)	(43)	(28)	(145)	(529)	(2)	1
491	(40)	22	(27)	101	123	166	198	(31)	(21
1,410	-	376	452	-	395	-	-	187	
469	-	369	-	-	100	-	-	-	
7			-	-	7			<u> </u>	
1,886		745	452	-	502	<u> </u>		187	
(689)	-	(212)	(200)	-	(160)	-	-	(117)	
(186)	-	-	-	-	(183)	-	(3)	-	
8	-	(2)	(2)	-	12	-	-	-	
(317)		(144)	(42)	-	(100)	-		(31)	
-0-									
	-			-		-			
(371)		(216)	(73)	-	(73)		1	(10)	· · · ·
331	-	171	135	-	(2)	-	(2)	29	
822	(40)	193	108	101	121	166	196	(2)	(21)
	(581) 1,213 (722) 491 1,410 4699 7 1,886 (689) (186) 8 (317) 702 (371) 331	(433)       (152)         (34)       (5)         (581)       (120)         1,213       (102)         (722)       62         491       (40)         1,410       -         469       -         7       -         1,886       -         (689)       -         (317)       -         331       -	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

					Mi	llions of euros				
			Trinidad &			Rest of	North			
	Total	Europe	Tobago	Venezuela	Peru	South America	America	Africa	Asia	Australia
2,014										
Fully-consolidated entities										
. Income										
Sales to non-Group companies	. 662	-	5	10	260	272	90	25	-	-
Sales between business segments and to Group Companies	1,356	148	223	-	39	100	675	171	-	-
Other income	260			-	-	-		260		-
Total income	2,278	148	228	10	299	372	765	456		
Production costs (1)	(524)	(27)	(160)	(34)	(128)	(66)	(20)	(89)	-	-
Exploration expenses	. ,	(228)	(27)	-	(21)	(80)	(139)	(214)	(120)	18
Other operating expenses		(7)	(3)	-	(1)	(2)	(1)	(2)	-	-
Depreciation and amortisation charge		(60)	(33)	(2)	(38)	(69)	(404)	(27)	(1)	-
Profit (Loss) before taxes and charges	293	(174)	5	(26)	111	155	201	124	(121)	18
Taxes and charges	(215)	65	(9)	6	(38)	(23)	(75)	(176)	41	(6)
Results of oil and gas production activities (2)	78	(109)	(4)	(20)	73	132	126	(52)	(80)	12
Equity-accounted investees										
. Income										
Sales to non-Group companies	. 1,705	-	735	409	-	401	-	-	160	-
Sales between business segments and to Group Companies	229	-	-	-	-	229	-	-	-	-
Other income				-	-	-	-	-	-	-
Total income	1,934		735	409	_	630		<u> </u>	160	-
Production costs (1)	(683)		(222)	(189)		(188)			(84)	
Exploration expenses		-	(222)	(109)	-	(188)	-	-	(04)	-
Other operating expenses	. ,	-	(2)	(2)	-	(92)	-	-	(1)	-
Depreciation and amortisation charge		-	(179)	(43)	-	(147)	-	-	(44)	-
Depreciation and amortisation charge	(413)		(179)	(43)	-	(147)			(44)	-
Profit (Loss) before taxes and charges	739	-	332	175	-	201	-	-	31	-
Taxes and charges	(323)		(186)	(44)	-	(89)		-	(4)	-
Results of oil and gas production activities (2)	416	-	146	131	-	112	-	-	27	-
Total results of oil and gas production activities	494	(109)	142	111	73	244	126	(52)	(53)	12
		(10)						(0-)	(22)	12

(1) Production costs include local taxes, production taxes and other similar payments amounting to €75, €490 and €13 million in 2014, 2013 and 2012 respectively. It also includes transport and other costs totalling €18, €11 and €356 million in 2014, 2013 and 2012 respectively.

(2) The results do not include the income and expenses associated with the impairment provisions, registered as a result of the comparison between market value (discounted cash flows) from oil and gas proved and non-proved reserves (the latter of which are subject to a risk factor) from each field owned by the Company at year-end and the carrying amount of the assets associated therewith, which amounted to a net expense of €25million in 2014, a net expense of €6 million in 2013, and a net expense of €14 million in 2012.

### Estimated proved net developed and undeveloped oil and gas reserves

The tables below reflect the net developed and undeveloped proved reserves of crude oil, condensed oil and LPG and natural gas as of December 31, 2014, 2013 and 2012, and the variations therein. Proved reserves shown includes the reserves equivalent to the economic income obtained under certain production sharing contracts entered into as of December 31, 2014, 2013 and 2012.

In determining net reserves, we exclude from our reported reserves royalties due to others, whether payable in cash or in kind, where the royalty owner has a direct interest in the underlying production and is able to make lifting and sales arrangements independently. By contrast, to the extent that royalty payments required to be made to a third party, whether payable in cash or in kind, are a financial obligation, or are substantially equivalent to a production or severance tax, the related reserves are not excluded from our reported reserves despite the fact that such payments are referred to as "royalties" under local rules. We follow the same methodology in reporting our production amounts.

Proved reserves in each year were estimated in accordance with the disclosure requirements and framework established for the petroleum and gas industry by the Securities and Exchange Commission (SEC) and on the basis of the criteria established by the Petroleum Reserves Management System of the Society of Petroleum Engineers (PRMS-SPE). In accordance with these rules, proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible – from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations – prior to the time at which contracts providing the right to operate expire, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonable certain that it will commence the project within a reasonable time.

All of Repsol's oil and gas reserves have been estimated by the company's petroleum engineers.

To control the quality of reserves booked, Repsol has established a process that is integrated into Repsol's internal control system. The process to manage reserves booking is centrally controlled by the Reserve Control Direction which is independent from the upstream activities and it is overseen by the Audit and Control Committee. Furthermore, the volumes booked are submitted to third party engineers for a reserves audit on a periodic basis (100% of the reserves on a three years cycle).

For those areas submitted to third party audit, Repsol's proved reserves figures have to be within 7% of the third party reserves audit figures for Repsol to declare that the reserves information meets the third party reserves audit standards. In the event that the difference is greater than 7% tolerance, Repsol reestimates its proved reserves to achieve this tolerance level or discloses the third party reserves audit figures.

In 2014, Repsol commissioned an external audit for various areas of South America, North America, Northern Africa, Asia and Spain. The independent engineers' reports will be available on our website: www.repsol.com.

#### Proved developed and undeveloped reserves of crude oil, condensate GPL:

Argentina Argentina 5 584 )	Trinidad & Tobago 24 1 - - - 3 (3) 20 - - 3 (3) 20 - - 3 (3) 20 - - - 3 (3) 20 - - - - 3 (3) 20 - - - - - - - - - - - - - - - - - -	Millons of H Venezuel a - - - - - - - - - - - - - - - - - -	Peru 63 - 2 - 3 (3) 62 19 (4) 78 (4) 85	Rest of South America 37 (0) (0) (0) (0) (0) (0) (0) (0) (0) (0)	North America 49 2 - 6 - (1) (10) 46 2 - - - (10) 38 18 - - - (10) 38 18 - - - - - - - - - - - - -	Africa 115 23 - (16) 125 (1) - (11) 113 (2) - (11) 113 (2) - (16) 105	Asia
5 584 	24 1 - - - - - - - - - - - - -	a 	- - - - - - - - - - - - - - - - - - -	37 11 (0) (10) (9) 29 1 - - - (6) (6) 24 3 - - - - - - - - - - - - - - - - - -	2 - 6 - (1) (10) 46 2 - - (10) 38 18 - - - (10) (10)	23 3 (16) 125 (1) 13 (2) - - - - - - - - - - - - -	
)	1 - - - - - - - - - - - - - - - - - - -		- - - - - - - - - - - - - - - - - - -	111 (0) (9) <b>29</b> 1 - - - (6) <b>24</b> 3 - - - (6)	2 - 6 - (1) (10) 46 2 - - (10) 38 18 - - - (10) (10)	23 3 (16) 125 (1) 13 (2) - - - - - - - - - - - - -	
)	1 - - - - - - - - - - - - - - - - - - -		- - - - - - - - - - - - - - - - - - -	111 (0) (9) <b>29</b> 1 - - - (6) <b>24</b> 3 - - - (6)	2 - 6 - (1) (10) 46 2 - - (10) 38 18 - - - (10) (10)	23 3 (16) 125 (1) 13 (2) - - - - - - - - - - - - -	
	(3) 22 1 - - (3) 20 - 2 2 (3) 19 8		(3) 62 19 - - - (4) 78 - - - - - - - - - - - - - - - - - -	- (0) (10) (9) 1   (6) 24 3 - - - - - - - - - (6)	6 (1) (10) 46 2 - - (10) 388 18 - - - (10) (10)	3 (16) <b>125</b> (1) - - (11) <b>113</b> (2) - - - (6)	
)	22 1 - - (3) 20 - 2 2 - 3 (3) 19		(3) 62 19 - - - (4) 78 - - - - - - - - - - - - - - - - - -	(10) (9) <b>29</b> 1 - - - (6) <b>24</b> 3 - - - (6)	(1) (10) 46 2 (10) 38 18	3 (16) <b>125</b> (1) (1) (11) <b>113</b> (2) - - - (6)	
)	22 1 - - (3) 20 - 2 2 - 3 (3) 19		(3) 62 19 - - - (4) 78 - - - - - - - - - - - - - - - - - -	(10) (9) <b>29</b> 1 - - - (6) <b>24</b> 3 - - - (6)	(1) (10) 46 2 (10) 38 18	(16) <b>125</b> (1) (1) (11) <b>113</b> (2) (1) (2) (3) (4) (5) (6)	
)	22 1 - - (3) 20 - 2 2 - 3 (3) 19		62 19 - - - - - - - - - - - - - - - - - -	(9) 29 1 - - (6) 24 3 - - - - - - - - - - - - -	(10) 46 2 - - (10) 38 18 - - - (10) (10)	(16) <b>125</b> (1) - - (11) <b>113</b> (2) - - - - - - - - - - - - -	
)	22 1 - - (3) 20 - 2 2 - 3 (3) 19		62 19 - - - - - - - - - - - - - - - - - -	(9) 29 1 - - (6) 24 3 - - - - - - - - - - - - -	(10) 46 2 - - (10) 38 18 - - - (10) (10)	125 (1) - - (11) 113 (2) - - - (6)	
	1 - - - - - - - - - - - - - - - - - - -		19 - - (4) 78 - - - - - - - - - - - - - - - - - -	1 - - (6) <b>24</b> 3 - - - - (6)	2 - - (10) <b>38</b> - - - - - - - - - - - - - - - - - - -	(1) - - (11) <b>113</b> (2) - - - (6)	-
	- - (3) - - 2 - - - (3) 19		-  (4) 78 - - - - - - - - - - - - - - - - - -	- - (6) <b>24</b> 3 - - - - (6)	- (10) 38 18 - - - (10)	(11) <b>113</b> (2) - - (6)	
<b>k</b> -    ) -	20 - - 2 - - - - - - - - - - - - - - - -		<b>78</b> 11 (4)	<b>24</b> 3 - - - (6)	<b>38</b> 18 - - - (10)	113 (2) - - (6)	-
<b>k</b> -    ) -	20 - - 2 - - - - - - - - - - - - - - - -	-	<b>78</b> 11 (4)	<b>24</b> 3 - - - (6)	<b>38</b> 18 - - - (10)	113 (2) - - (6)	-
<b>k</b> -    ) -	20 - - 2 - - - - - - - - - - - - - - - -	-	<b>78</b> 11 (4)	<b>24</b> 3 - - - (6)	<b>38</b> 18 - - - (10)	113 (2) - - (6)	-
<b>k</b> -    ) -	20 - - 2 - - - - - - - - - - - - - - - -	-	<b>78</b> 11 (4)	<b>24</b> 3 - - - (6)	<b>38</b> 18 - - - (10)	113 (2) - - (6)	-
I    ) -	- 2 (3) 19	-	- 11 - (4)	3 - - - (6)	18 - - - (10)	(2) - - (6)	-
I    ) -	- 2 (3) 19	-	- 11 - (4)	3 - - - (6)	18 - - - (10)	(2) - - (6)	-
   )	- (3) 19 8	-	- (4)	- - - (6)		- - - (6)	-
	- (3) 19 8	-	- (4)				-
	- (3) 19 8	-	- (4)				-
	19	-					-
	19	-					-
   	8	-	85	21	46	105	
	-						-
	-						
· · ·	1	50	-	42			-
  		(1)	-	2	-	-	-
· ·	-	-	-	-	-	-	-
· ·	-	-	-	23	-	-	-
	-	-	-	-	-	-	24
	- (1)	(5)	-	- (3)	-	-	- (1)
	8			0			
	<b>a</b> 0	44 3	-	63 3	-	-	23 6
	0	3	-	3	-	-	0
	1	1	-	7	-	-	1
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	(1)	(5)	-	(5)	-	-	(4)
	9	44	-	67	-	-	26
	1	3	-	10	-	-	8
	-	-	-	-	-	-	-
	-	-	-	13	-	-	-
	-	-	-	-	-	-	-
	(1)	(5)	-	- (8)	-	-	(4)
	9	42	_	82			30
			02		16	105	
	28	42	85	103	46	105	30
		1 1  (1) 9 1 1 1 1  - 1  - 1  - 1  - 1  - 1 	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

Note: The aggregated changes in reserves and total reserves at December 31 may differ from the individual values shown because the calculations use more precise figures than those shown in the table

- (1) Total proved developed and undeveloped net reserves at December 31, 2014, 2013, 2012 and 2011 include an estimated 46, 44, 39 and 109 million barrels of oil equivalent, respectively, in respect of royalty payments which, as described above, are a financial obligation, or are substantially equivalent to a production or similar tax. Net production in 2014, 2013 and 2012 includes an estimated 4, 4 and 3 million barrels of oil equivalent, respectively, in respect of such types of payments.
- (2) Includes 249 million barrels of oil equivalent relating to the participation in the minority interest of YPF, as of December 31, 2011.
- (3) At December 31, 2011, proven reserves of crude oil, condensates and LPG relating to YPF stood at 584 million barrels in "Argentina" and less than 1 million barrels of crude oil equivalent in "North America". Similarly, YPF production at December 31, 2011 amounted to 100 million barrels in "Argentina" and 0.5 million barrels in "North America".

#### Proved developed and undeveloped reserves of natural gas:

al 198 109 - 65 - 400) (82) 891 246 - -	Europe 0 2 - - - (2) 0 1	Argentina 2,400 - - - (2,400) -	Trinidad & Tobago (13) - - (4) 54	and Millions Venezuel a 36 82 - - - (4)	Peru <b>1,243</b> - - - - - - - - - - - - -	Rest of South           America           271           40           -           1           -           (16)	North America 11 (0) - - 	Africa 165 (1) -	Asia - - -
109 - 65 - 400) (82) 891	2 - - (2) 0		(13) - - (4)	82 - - (4)	31	40 - 1 -	(0) - 33 -		-
109 - 65 - 400) (82) 891	2 - - (2) 0		(13) - - (4)	82 - - (4)	31	40 - 1 -	(0) - 33 -		
- 65 - 400) (82) <b>891</b>	- - (2) 0	(2,400)			-	- 1 -	33	(1) - -	-
- 400) (82) <b>891</b>	(2) 0	(2,400)			-	-	-	-	-
- 400) (82) <b>891</b>	(2) 0	(2,400)			-	-	-	-	-
(82) <b>891</b>	(2) 0	(2,400)			(39)	(16)	-	-	
(82) <b>891</b>	0	-			(39)	(16)			_
		-	54				(5)	(12)	-
				114	1,235	295	40	152	
-		-	13	(21)	238	(6)	13	132	
-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
- (94)	- (1)	-	- (4)	(5)	(40)	(24)	- (9)	- (11)	-
043	0	-	63	88	1,433	266	44	148	-
(8)	-	-	(56)	-	-	19	53	(24)	-
- 174	-	-	- 1	-	173	-	-	-	-
- 1/4	_	-	-	-		-	-	-	_
-	-	-	-	-	-	-	-	-	-
121)	-	-	(4)	(6)	(53)	(33)	(14)	(11)	-
088	0	-	4	82	1,553	252	83	113	-
550	-	-	1,770	577	-	203	-	-	-
108	-	-	93	1	-	14	-	-	-
-	-	-	-	-	-	-	-	-	-
626	-	-	-	452	-	19	-	-	155
-	-	-	-	-	-	-	-	-	-
(6) 309)	-	-	(6) (236)	- (44)	-	(30)	-	-	-
969	-	-	1,622	986	-	205	-	-	155
253	-	-	81	136	-	30	-	-	5
-	-	-	-	-	-	-	-	-	-
,282	-	-	148	1,135	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	(79)
330)	-	-	(249)	(42)	-	(31)	-	-	(8)
095	-	-	1,602	2,216	-	204	-	-	73
316	-	-	246	4	-	70	-	-	(4)
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
333)	-	-	(241)	(43)	-	(35)	-	-	(14)
076	-	-	1,607	2,177	-	237	-	-	55
,164	0	-	1.611	2.259	1 553	489	83	113	55
	<b>1943</b> (8) (8) (7) (9) (8) (8) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9	043       0         (8)       -         174       -         -       -         21)       -         188       0         550       -         108       -         108       -         66       -         (6)       -         (6)       -         223       -         282       -         130)       -         905       -         316       -         -       -         (2)       -         333)       -	043       0       -         (8)       -       -         174       -       -         -       -       -         21)       -       -         21)       -       -         21)       -       -         21)       -       -         21)       -       -         21)       -       -         21)       -       -         21)       -       -         21)       -       -         21)       -       -         550       -       -         608       -       -         66       -       -         -       -       -         253       -       -         -       -       -         282       -       -         -       -       -         300)       -       -         -       -       -         -       -       -         -       -       -         -       -       -         -       -       -         -	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

Note: The aggregated changes in reserves and total reserves at December 31 may differ from the individual values shown because the calculations use more precise figures than those shown in the table.

- (1) Total proved developed and undeveloped net reserves at December 31, 2014, 2013, 2012 and 2011 include an estimated 1,144, 1,052, 767 and 1,026 thousand million standard cubic feet of gas, respectively, in respect of royalty payments which, as described above, are a financial obligation, or are substantially equivalent to a production or similar tax. Net production in 2013, 2012 and 2011 includes an estimated approximately 32, 40 and 26 thousands millions of standard cubic feet of gas, respectively, in respect of such types of payments.
- (2) Includes 1,021 thousand million standard cubic feet of gas relating to the participation in the minority interest of YPF, as of December 31, 2011.
- (3) At December 31, 2011, proven reserves of natural gas relating to YPF stood at 2,397 billion cubic feet of gas in "Argentina" and 2 million cubic feet of gas in "North America".

#### Proved developed and undeveloped reserves of crude oil, condensate, natural gas liquids and natural gas:

					mons of Bar	rels of Oil E				
	Total	Europe	Argentina	Trinidad & Tobago	Venezuel a	Peru	Rest of South America	North America	Africa	Asia
			· ·		·					
deserves at December 31 <sup>st</sup> , 2011 (1)(2)(3)	1,626	6	1,013	37	6	285	85	50	145	
Revisions of previous estimates	58	1	-	(1)	15	-	18	2	23	
Improved recovery	-	-	-	-	-	-	-	-	-	
Extensions and discoveries	22	-	-	-	-	7	-	12	3	
Purchases of minerals in place	-	-	-	-	-	-	(10)	-	-	
Sales of minerals in place Production (1)	(1,023) (57)	(1)	(1,013)	(4)	(1)	(10)	(10)	(11)	(19)	
serves at December 31 <sup>st</sup> , 2012 (1)	627	5	-	32	20	282	82	53	152	
Revisions of previous estimates	66	1	-	3	(4)	62	(0)	4	(0)	
Improved recovery	-	-	-	-	-	-	-	-	-	
Extensions and discoveries	-	-	-	-	-	-	-	-	-	
Purchases of minerals in place	-	-	-	-	-	-	-	-	-	
Sales of minerals in place Production (1)	(53)	(3)	-	(4)	(1)	(11)	- (11)	(11)	(13)	
serves at December 31 <sup>st</sup> , 2013 (1)	639	4	-	31	16	333	71	45	139	
Revisions of previous estimates	19	1	-	(9)	-	-	6	28	(7)	
Improved recovery	-	-	-	-	-	-	-	-	-	
Extensions and discoveries	44	-	-	2	-	42	-	-	-	
Purchases of minerals in place	-	-	-	-	-	-	-	-	-	
Sales of minerals in place	(52)	(2)	-	- (4)	- (1)	- (14)	- (11)	- (13)	- (7)	
Production (1)										
Production (1) serves at December 31 <sup>st</sup> , 2014 (1) uity-accounted investees	650	3	-	20	15	361	66	60	125	
erves at December 31 <sup>st</sup> , 2014 (1) <b>iity-accounted investees</b> erves at December 31 <sup>st</sup> , 2011 (1)		3	-	20 323	15	361	66 78	60 -	125	
serves at December 31 <sup>st</sup> , 2014 (1) <b>sity-accounted investees</b> serves at December 31 <sup>st</sup> , 2011 (1) Revisions of previous estimates	650	3	-			361 - -		60 - -	125 -	
serves at December 31 <sup>st</sup> , 2014 (1) <b>uity-accounted investees</b> serves at December 31 <sup>st</sup> , 2011 (1) Revisions of previous estimates Improved recovery	650 554 22	3	-	323	<b>153</b> (0)	361 - -	<b>78</b> 4	60 - - -	125	
serves at December 31 <sup>st</sup> , 2014 (1) <b>nity-accounted investees</b> serves at December 31 <sup>st</sup> , 2011 (1) Revisions of previous estimates Improved recovery Extensions and discoveries	<b>650</b> <b>554</b> 22 - 134	3	-	323	<b>153</b> (0) - 81	361 - - -	78	60 - - -	125	
serves at December 31 <sup>st</sup> , 2014 (1) uity-accounted investees serves at December 31 <sup>st</sup> , 2011 (1) Revisions of previous estimates Improved recovery. Extensions and discoveries Purchases of minerals in place	<b>650</b> <b>554</b> 22 - 134 24	3	-	<b>323</b> 18 - -	<b>153</b> (0)	361 - - - -	<b>78</b> 4	60 - - - -	125	
erves at December 31 <sup>st</sup> , 2014 (1) <b>ity-accounted investees</b> erves at December 31 <sup>st</sup> , 2011 (1) Revisions of previous estimates Improved recovery Extensions and discoveries	<b>650</b> <b>554</b> 22 - 134	3	-	<b>323</b> 18	<b>153</b> (0) - 81	361 - - - - -	<b>78</b> 4	60 - - - - - - -	125	
erves at December 31 <sup>st</sup> , 2014 (1) <b>iity-accounted investees</b> erves at December 31 <sup>st</sup> , 2011 (1) Revisions of previous estimates Improved recovery. Extensions and discoveries Purchases of minerals in place Sales of minerals in place Production (1)	<b>650</b> <b>554</b> 22 - 134 24 (1)	3	-	<b>323</b> 18 - - (1)	<b>153</b> (0) - 81 -	361 - - - - - - -	<b>78</b> 4 - 26 -	60 - - - - - - -	125	
serves at December 31 <sup>st</sup> , 2014 (1) uity-accounted investees serves at December 31 <sup>st</sup> , 2011 (1) Revisions of previous estimates Improved recovery. Extensions and discoveries Purchases of minerals in place Sales of minerals in place Production (1)	<b>554</b> 22 134 24 (1) (65)	3	-	<b>323</b> 18 - - (1) (43)	<b>153</b> (0) - 81 - (13)	361 - - - - - - - - - -	<b>78</b> 4 - 266 - - - (9)	60 - - - - - - - - - - - - -	125	
serves at December 31 <sup>st</sup> , 2014 (1) uity-accounted investees serves at December 31 <sup>st</sup> , 2011 (1) Revisions of previous estimates Improved recovery. Extensions and discoveries Purchases of minerals in place Production (1) serves at December 31 <sup>st</sup> , 2012 (1) Revisions of previous estimates Improved recovery	650 554 22 - 134 24 (1) (65) 667 58	3	-	<b>323</b> 18 - (1) (43) <b>297</b> 15	153 (0) - 81 - (13) 221 28	361 - - - - - - - - - - - - -	<b>78</b> 4 - 26 - (9) <b>99</b> 8 8	60 - - - - - - - - - - - - - -	125	
serves at December 31 <sup>st</sup> , 2014 (1) uity-accounted investees serves at December 31 <sup>st</sup> , 2011 (1) Revisions of previous estimates Improved recovery Extensions and discoveries Purchases of minerals in place Sales of minerals in place Production (1)	650 554 22 - 134 (1) (65) 667 58 - 238	3	-	<b>323</b> 18 - - (1) (43) <b>297</b> 15 - 28	153 (0) - 81 - (13) 221 28 - 203	361 - - - - - - - - - - - - - - - - - - -	<b>78</b> 4 - 26 - (9) <b>99</b>	- - - - - - - - - - - - - - - - -	125	
serves at December 31 <sup>st</sup> , 2014 (1)	650 554 22 134 24 (1) (65) 667 58 238	3	-	<b>323</b> 18 - (1) (43) <b>297</b> 15	153 (0) - 81 - (13) 221 28	361 - - - - - - - - - - - - - - - - - - -	<b>78</b> 4 - 26 - (9) <b>99</b> 8 8	60 - - - - - - - - - - - - - - - - - - -	125	
aerves at December 31 <sup>st</sup> , 2014 (1) <b>nity-accounted investees</b> erves at December 31 <sup>st</sup> , 2011 (1)         Revisions of previous estimates.         Improved recovery.         Extensions and discoveries         Purchases of minerals in place         Sales of minerals in place         Production (1)         erves at December 31 <sup>st</sup> , 2012 (1)         Revisions of previous estimates.         Improved recovery.         Extensions and discoveries	650 554 22 - 134 (1) (65) 667 58 - 238	3	-	<b>323</b> 18 - - (1) (43) <b>297</b> 15 - 28	153 (0) - 81 - (13) 221 28 - 203	361	<b>78</b> 4 - 26 - (9) <b>99</b> 8 8	60 - - - - - - - - - - - - - - - - - - -	125	
aerves at December 31 <sup>st</sup> , 2014 (1)         aity-accounted investees         erves at December 31 <sup>st</sup> , 2011 (1)         Revisions of previous estimates         Improved recovery.         Extensions and discoveries         Purchases of minerals in place         Production (1)         erves at December 31 <sup>st</sup> , 2012 (1)         Revisions of previous estimates.         Improved recovery.         Extensions and discoveries         Production (1)         sales of minerals in place         Sales of minerals in place         Production (1)         Revisions of previous estimates.         Improved recovery.         Extensions and discoveries         Purchases of minerals in place         Sales of minerals in place         Purchases of minerals in place         Sales of minerals in place         Production (1)         erves at December 31 <sup>st</sup> , 2013 (1)	650 554 22 - 134 24 (1) (65) 667 58 - 238 - (14)	3	-	<b>323</b> 18 - - (1) (43) <b>297</b> 15 - 28 - -	153 (0) 	361	<b>78</b> 4 - - (9) <b>99</b> 8 8 - 7 7 -	60 - - - - - - - - - - - - - - - - - - -	125	
aerves at December 31 <sup>st</sup> , 2014 (1) <b>iity-accounted investees</b> erves at December 31 <sup>st</sup> , 2011 (1)         Revisions of previous estimates.         Improved recovery.         Extensions and discoveries         Purchases of minerals in place         Production (1)         Revisions of previous estimates.         Improved recovery.         Extensions and discoveries         Production (1)         Revisions of previous estimates.         Improved recovery.         Extensions and discoveries         Purchases of minerals in place         Sales of minerals in place         Purchases of minerals in place         Production (1)         erves at December 31 <sup>st</sup> , 2013 (1)         Revisions of previous estimates.	<b>554</b> 22 - 134 (1) (65) <b>667</b> 58 - 238 - 238 - (14) (73)	3	-	<b>323</b> 18 - - (1) (43) <b>297</b> 15 - 28 - - 28 - - (46)	153 (0) - 81 - (13) 221 28 - 203 - - (12)	361	78 4 - 26 - (9) 99 8 8 - 7 7 - 7 (10)	60 - - - - - - - - - - - - - - - - - - -	125	
erves at December 31 <sup>st</sup> , 2014 (1)	<b>554</b> 22 - 134 24 (1) (65) <b>667</b> 58 - 238 - (14) (73) <b>876</b> 78	3		323 18 - - (1) (43) 297 5 - 28 - (46) 294	153 (0) - 81 (13) 221 28 - 203 - (12) 438	361	78 4 - 26 - (9) 99 8 8 - 7 - (10) (10) 104 22 -		125	
erves at December 31 <sup>st</sup> , 2014 (1)	650 554 22 - 134 (1) (65) 667 588 - 2388 - (14) (73) 876 788 - 13	3	-	323 18 - - (1) (43) 297 5 - 28 - (46) 294	153 (0) - 81 (13) 221 28 - 203 - (12) 438	361	78 4 - - - (9) 99 8 8 - 7 7 7 - (10)		125	
aerves at December 31 <sup>st</sup> , 2014 (1) <b>iity-accounted investees</b> erves at December 31 <sup>st</sup> , 2011 (1)         Revisions of previous estimates.         Improved recovery.         Extensions and discoveries         Purchases of minerals in place         Production (1)         Revisions of previous estimates.         Improved recovery.         Extensions and discoveries         Production (1)         Revisions of previous estimates.         Improved recovery.         Extensions and discoveries         Purchases of minerals in place         Sales of minerals in place         Purchases of minerals in place         Purchases of minerals in place         Production (1)         erves at December 31 <sup>st</sup> , 2013 (1)         Revisions of previous estimates.         Improved recovery.         Extensions and discoveries         Production (1)         Purchases of minerals in place	650 554 22 - 134 (1) (65) 667 58 - 238 - (14) (73) 876 78 - 13 - 13 - - - - - - - - - - - - -	3		323 18 - - (1) (43) 297 5 - 28 - (46) 294	153 (0) - 81 (13) 221 28 - 203 - (12) 438	361	78 4 - 266 - (9) 99 8 8 - (10) 104 22 - 13 3	60 - - - - - - - - - - - - - - - - - - -	125	
serves at December 31 <sup>st</sup> , 2014 (1)	650 554 22 - 134 (1) (65) 667 588 - 2388 - (14) (73) 876 788 - 13	3		323 18 - - (1) (43) 297 5 - 28 - (46) 294	153 (0) - 81 (13) 221 28 - 203 - (12) 438	361	78 4 - 26 - (9) 99 8 8 - 7 - (10) (10) 104 22 -	60 	125	
aerves at December 31 <sup>st</sup> , 2014 (1) <b>nity-accounted investees</b> erves at December 31 <sup>st</sup> , 2011 (1)         Revisions of previous estimates.         Improved recovery.         Extensions and discoveries         Purchases of minerals in place         Production (1)         erves at December 31 <sup>st</sup> , 2012 (1)         Revisions of previous estimates.         Improved recovery.         Extensions and discoveries         Purchases of minerals in place         Sales of minerals in place.         Purchases of minerals in place.         Paroduction (1)         erves at December 31 <sup>st</sup> , 2013 (1)         Revisions of previous estimates.         Improved recovery.         Extensions and discoveries         Purchases of minerals in place         Production (1)         Revisions of previous estimates.         Improved recovery.         Extensions and discoveries         Purchases of minerals in place         Sales of minerals in place         Sales of minerals in place	650 554 22 - 134 24 (1) (65) 667 58 - 238 - (14) 876 78 - 13 - (1)	3		323 18 - - - - - - - - - - - - - - - - - -	153 (0) - 81 - (13) 221 28 - 203 - (12) 438 4 - - - -	361	78 4 - 26 - (9) 99 8 8 - 7 - (10) 104 22 - 13 13 13 (1)	60 	125	

Proved developed reserves of crude oil, condensate, natural gas liquids and natural gas

At December 31st, 2011	1,358	2	759	149	89	188	69	22	82	-
Fully-consolidated entities	1,114	2	759	23	6	188	33	22	82	-
Equity-accounted investees	244	-	-	126	82	-	36	-	-	-
At December 31st, 2012	635	5	-	145	82	178	88	24	88	25
Fully-consolidated entities	372	5	-	21	7	178	50	24	88	-
Equity-accounted investees	263	-	-	124	76	-	38	-	-	25
At December 31st, 2013	594	3	-	137	76	162	99	18	75	22
Fully-consolidated entities	340	3	-	19	8	162	55	18	75	-
Equity-accounted investees	254	-	-	119	68	-	45	-	-	22
At December 31st, 2014	666	3	-	135	66	217	110	33	102	-
Fully-consolidated entities	405	3	-	18	7	217	56	33	71	-
Equity-accounted investees	261	-	-	117	59	-	54	-	31	-

Note: The aggregated changes in reserves and total reserves at December 31 may differ from the individual values shown because the calculations use more precise figures than those shown in the table.

- (1) Total proved developed and undeveloped net reserves at December 31, 2014, 2013, 2012 and 2011 include an estimated volume of approximately 250, 231, 176 and 292 million barrels of oil equivalent, respectively, corresponding to royalty payments which, as described above, are a financial obligation, or are substantially equivalent to a production or similar tax. Net production in 2014, 2013 and 2012 includes an estimated volume of 10, 11 and 7 million barrels of oil equivalent, respectively, in connection with such types of payments.
- (2) Includes 431 million barrels of oil equivalent relating to the participation in the minority interest of YPF, as of December 31, 2011.
- (3) At December 31, 2011, proven reserves of crude oil, condensates, GLP and natural gas relating to YPF stood at 1,011 million barrels of equivalents in "Argentina" and 2 million barrels equivalent in "North America".

## Standardized measure of discounted future net cash flows and changes therein relating to proved oil and gas reserves

The estimate of future net cash flows was performed in accordance with the guidelines and framework established for the oil and gas industry by the Securities Exchange Commission (SEC) and the principles laid down by the U.S Financial Accounting Standards Board (FASB), which govern financial information practices in the U.S.A. The method applied is the impartiality or fairness method and is the result of applying the average oil and gas prices in 2014 (considering price changes only by contractual agreement) to estimated future production of proved reserves of oil and gas as of the date of the last balance sheet, less the estimated future costs (based on current costs) to be incurred in the development and production of proved reserves, assuming the continuation of current economic conditions.

Future production costs were estimated on based on a costs structure at the end of the year. Future development costs were calculated on the basis of technical studies conducted by Repsol and by the operators holding joint title with Repsol. The taxes projected for each of the future years were determined under the contractual and tax regime prevailing at the end of the year. The rate used to discount the future net revenues was 10%.

The present value of the future net cash flows estimated on the basis of the aforementioned assumptions, applying the principle of impartiality, is not intended to be interpreted, and should not be interpreted, as the fair value of the Group's oil and gas reserves. An estimation of the fair value of these reserves should also include the future exploitation of reserves not yet classified as proved reserves, possible changes in future prices and costs and a discount rate which represents the time value of money at the calculation date and the uncertainties inherent to estimating the reserves.

The following table shows the present value of the future net revenues relating to proved oil and gas reserves, calculated on the basis of the aforementioned assumptions:

#### Present value of the future net revenues

	Millons of euros											
				Trinidad &			Rest of	North				
At December 31 <sup>st</sup> , 2012	Total	Europe	Argentina	Tobago	Venezuela	Peru	South America	America	Africa	Asia		
Fully-consolidated entities												
Future cash inflows	25,256	449	-	2,013	238	5,087		3,608	11,474	-		
Future production costs	(6,458)	(139)	-	(1,451)	(109)	(2,637)		(442)	(1,185)	-		
Future development and abandoment costs	(2,078)	(229)	-	(216)	(51)	(233)		(535)	(545)	-		
Future income tax expenses Future net cash flows after taxes	(7,835) 8,885	<u></u>		(178) 168	(14) 64	(657)		(481) 2,150	<u>(6,185)</u> 3,559			
ruture net easi nows arter taxes	0,005	90		108	04	1,200	, 1,200	2,150	5,009			
10% annual discount for estimated timing of cash flows	(3,241)	65	-	(36)	(46)	(723)	) (454)	(629)	(1,418)	-		
Standardized measure of discounted future net cash flows	5,644	161	-	132	18	837	834	1,521	2,141	-		
Equity-accounted investees												
Future cash inflows	18,212	-	-	4,531	6,150	-	6,081	-	-	1,450		
Future production costs	(7,885)	-	-	(1,638)	(2,908)	-	- (2,424)	-	-	(915)		
Future development and abandoment costs	(2,838)	-	-	(1,399)	(627)	-	(637)	-	-	(175)		
Future income tax expenses	(2,377)			(716)	(810)		(778)			(73)		
Future net cash flows after taxes	5,112	-	-	778	1,805	-	- 2,242	-	-	287		
10% annual discount for estimated timing of cash flows	(2,226)	-	-	(366)	(981)		. (740)	-	-	(139)		
Standardized measure of discounted future net cash flows	2,886		-	412	824		1,502			148		
Total Standardized measure of discounted future net cash flows	8,530	161		544	842	837	2,336	1,521	2,141	148		
	Millons of euros Trinidad & Rest of North											
	Total	Europe	Argentina	Tobago	Venezuela	Peru	South America		Africa	Asia		
At December 31 <sup>st</sup> , 2013												
Fully-consolidated entities												
Future cash inflows	24,182	304		1,695	181	6,714	1,989	3,626	9,673	_		
Future production costs	(7,233)	(146)	-	(1,266)	(69)	(3,678)		(558)	(1,114)	_		
Future development and abandoment costs	(2,040)	(239)		(213)	(39)	(322)		(540)	(502)			
Future income tax expenses	(6,619)	50	-	(126)	(8)	(825)		(366)	(5,082)	-		
Future net cash flows after taxes	8,290	(31)	-	90	65	1,889		2,162	2,975	-		
10% annual discount for estimated timing of cash flows	(3,438)	124	-	(10)	(38)	(1,044)	) (348)	(894)	(1,228)	-		
Standardized measure of discounted future net cash flows	4,852	93		80	27	845	792	1,268	1,747	-		
Equity-accounted investees												
Enture each inflows	20 577			2 51 5	0.202		6 5 40			1.124		
Future cash inflows Future production costs	20,576 (8,375)	-	-	3,515 (1,194)	9,393 (3,604)	-	- 6,542 - (3,055)	-	-	1,126 (522)		
Future production costs Future development and abandoment costs	(2,798)	-		(1,194)	(980)		· (3,055) · (442)	-		(145)		
Future income tax expenses	(2,878)	-	-	(419)	(1,622)		. (735)	-	-	(102)		
Future net cash flows after taxes	6,525	-	-	671	3,187	-	- 2,310	-		357		
10% annual discount for estimated timing of cash flows	(3,032)			(288)	(1,953)		. (630)			(161)		
-						-						
Standardized measure of discounted future net cash flows	3,493	-	-	383	1,234		1,680	-	-	196		
Total Standardized measure of discounted future net cash flows				-								
	8,345	93		463	1,261	845	2,472	1,268	1,747	196		
	8,345	93		463	1,261	845	2,472	1,268	1,747	196		
	8,345	93		463			2,472	1,268	1,747	196		
	8,345	93		463 Trinidad &	1,261 Millons o		2,472		1,747	196		

	Trinidad &					Rest of				
	Total	Europe	Argentina	Tobago	Venezuela	Peru S	outh America	America	Africa	Asia
At December 31 <sup>st</sup> , 2014										
Fully-consolidated entities										
Future cash inflows	24,601	265	-	1,652	198	7,437	1,903	3,708	9,438	-
Future production costs	(7,358)	(127)	-	(1,363)	(75)	(3,769)	(421)	(593)	(1,010)	-
Future development and abandoment costs	(2,706)	(207)	-	(198)	(25)	(973)	(171)	(661)	(471)	-
Future income tax expenses	(6,529)	22	-	(32)	(9)	(799)	(236)	(563)	(4,912)	-
Future net cash flows after taxes	8,008	(47)	-	59	89	1,896	1,075	1,891	3,045	-
10% annual discount for estimated timing of cash flows	(3,002)	117	-	29	(42)	(1,123)	(293)	(522)	(1,168)	-
Standardized measure of discounted future net cash flows	5,006	70		88	47	773	782	1,369	1,877	-
Equity-accounted investees										
Future cash inflows	24,360	-	-	4,824	10,364	-	7,336	-	-	1,836
Future production costs	(9,922)	-	-	(1,662)	(3,983)	-	(3,316)	-	-	(961)
Future development and abandoment costs	(3,732)	-	-	(1,804)	(1,009)	-	(830)	-	-	(89)
Future income tax expenses	(3,087)	-	-	(480)	(1,750)	-	(681)	-	-	(176)
Future net cash flows after taxes	7,619	-	-	878	3,622	-	2,509	-	-	610
10% annual discount for estimated timing of cash flows	(3,291)	-	-	(271)	(2,147)	-	(594)	-	-	(279)
Standardized measure of discounted future net cash flows	4,328	-	-	607	1,475	-	1,915	-	-	331
Total Standardized measure of discounted future net cash flows	9,334	70	<u> </u>	695	1,522	773	2,697	1,369	1,877	331

# Changes in Standardized measure of discounted future net cash flows relating to proved oil and gas reserves

The detail of the changes in the standardized measure of discounted future net cash flows for 2011, 2012 and 2013 is as follows:

Changes in the standardized measure of discounted future net cash flows	Millons of euros											
5				Trinidad &		Rest of North			th			
	Total	Europe	Argentina	Tobago	Venezuela	Peru	South America	America	Africa	Asia		
Fully-consolidated entities												
Balance at December 31 <sup>st</sup> , 2011 (1)	12,216	157	6,437	142	23	945	799	1,733	1,980			
Changes due to sale or transfer prices of future production costs	(182)	(3)	-	1	(10)	(228)	35	(40)	63			
Changes in future development costs	(73)	(9)	-	(25)	(14)	59	(35)	(86)	37			
Oil and gas sales and transfers in the period	(2,129)	(56)	-	(83)	(5)	(142)	(209)	(654)	(980)			
Net changes due to extensions, discoveries and improvements in the recovery of reserves	278	-	-	-	-	28	2	100	148			
Net changes due to purchases/sales of assets	(6,438)		(6,312)	-	-	-	(110)	(16)	-			
Net changes due to revisions in quantity estimates	1,053	6	-	39	21	(98)	146	131	808			
Previously estimated development costs incurred in the year	521	48	-	56	-	69	141	165	42			
Efect of discounting to a different date and exchange rate effect	244	11	(125)	11	1	70	57	96	123			
Other non-specific changes	-		-	-	-	-	-	-				
Changes in income tax	154	7	-	(9)	2	134	8	92	(80)	-		
Net change	(6,572)	4	(6,437)	(10)	(5)	(108)	35	(212)	161	<u> </u>		
Balance at December 31 <sup>st</sup> , 2012	5,644	161		132	18	837	834	1,521	2,141			
· ·	- ,											
Changes due to sale or transfer prices of future production costs	(48)	(22)	_	(56)	2	272	(60)	35	(219)	_		
Changes in future development costs	(242)	38		(12)	(25)	(54)	(32)	(128)	(21))			
Oil and gas sales and transfers in the period	(2,327)	(127)	-	(72)	(4)	(230)	(202)	(603)	(1,089)	_		
Net changes due to extensions, discoveries and improvements in the recovery of reserves	(2,527)	(127)	_	(72)	(4)	(250)	(202)	(005)	(1,00))	_		
Net changes due to exclusions, discoveries and improvements in the recovery of reserves			_		_			_	_	_		
Net changes due to purchases and or assessments and a second seco	155	13	_	31	_	(57)	88	162	(82)	_		
Previously estimated development costs incurred in the year	416	13	-	18	29	46	103	140	66	-		
Efect of discounting to a different date and exchange rate effect	196	(2)		5	4	40	37	42	79			
Other non-specific changes	170	(2)	-	5	4	51	51	42	1)	-		
Changes in income tax.	1.058	18		34	3		24	- 99	880			
	1,050	10	-	54	5	-	24	,,,	880	-		
Net change	(792)	(68)	-	(52)	9	8	(42)	(253)	(394)			
Balance at December 31 <sup>st</sup> , 2013	4,852	93	-	80	27	845	792	1,268	1,747			
Changes due to sale or transfer prices of future production costs	(774)	4	-	(118)	(1)	11	(79)	(303)	(288)	-		
Changes in future development costs	(165)	34	-	26	-	(133)	(14)	(8)	(70)	-		
Oil and gas sales and transfers in the period	(2,248)	(77)	-	(83)	(2)	(162)	(273)	(625)	(1,026)	-		
Net changes due to extensions, discoveries and improvements in the recovery of reserves	112	-	-	44	-	65	3		-	-		
Net changes due to purchases/sales of assets	-		-	-	-	-	-	-	-			
Net changes due to revisions in quantity estimates	857	11	-	4	(4)	(147)	54	682	257	-		
Previously estimated development costs incurred in the year	490	13	-	31	16	15	80	193	142	-		
Efect of discounting to a different date and exchange rate effect	1,035	12	-	19	9	175	169	264	387	-		
Other non-specific changes	-	-	-	-	-	-	-	-	-	-		
Changes in income tax	847	(20)	-	85	2	104	50	(102)	728	-		
Net change	154	(23)		8	20	(72)	(10)	101	130			
Balance at December 31 <sup>st</sup> , 2014	F 0.07							1.2(0	1.077			
Datance at December 31, 2014	5,006	70		88	47	773	782	1,369	1,877	<u> </u>		

	Millons of euros											
				Trinidad &			Rest of	North				
	Total	Europe	Argentina	Tobago	Venezuela	Peru	South America	America	Africa	Asia		
Equity-accounted investees												
Balance at December 31 <sup>st</sup> , 2011 (1)	2,484			704	710		1,070					
Balance at December 51, 2011 (1)	2,404		·	/04	/10	-	1,070			<u> </u>		
Changes due to sale or transfer prices of future production costs	(23)	-		(100)	114	-	(37)		-	-		
Changes in future development costs	(363)	-	-	(124)	(148)	-	(91)	-	-	-		
Oil and gas sales and transfers in the period	(883)		-	(381)	(256)		(246)	-				
Net changes due to extensions, discoveries and improvements in the recovery of reserves	875			(301)	180		615			80		
Net changes due to purchases/sales of assets	65			(3)	-		015			68		
Net changes due to revisions in quantity estimates	(19)			(1)	(57)	_	39		_			
Previously estimated development costs incurred in the year	415			152	178		85					
Efect of discounting to a different date and exchange rate effect	148	-	-	46	57	-	45	-	-	-		
Other non-specific changes	140	-	-	40	57	-	45		-	-		
Changes in income tax.	187	-	-	119	- 46	-	22		-	-		
Changes in income tax	187	-	-	119	40	-	22	-	-	-		
Net change	402	-	-	(292)	114	-	432	-	-	148		
Balance at December 31 <sup>st</sup> , 2012	2,886		-	412	824	-	1,502	-	-	148		
Changes due to sale or transfer prices of future production costs	(203)			(321)	212		(104)			10		
Changes in future development costs	(129)	-	-	(321)	(111)	-	(104)	-	-	(44)		
Oil and gas sales and transfers in the period	(129)	-	-	(174)	(111) (242)	-	(319)	-	-	(44)		
	(796)	-	-	(174)	(242) 509	-	(319)	-	-	(61)		
Net changes due to extensions, discoveries and improvements in the recovery of reserves Net changes due to purchases/sales of assets	(5)	-	-	80	509	-	150	-	-	(5)		
	414	-	-	51	153	-	150	-	-	60		
Net changes due to revisions in quantity estimates	591	-	-	147	133	-	130	-	-	75		
Previously estimated development costs incurred in the year	138	-	-	23	44	-		-	-	10		
Efect of discounting to a different date and exchange rate effect	158	-	-	25	44	-	61	-	-	10		
Other non-specific changes	-	-	-	- 120	-	-	-	-	-	-		
Changes in income tax	(153)	-	-	139	(338)	-	54	-	-	(8)		
Net change	607	_		(29)	410	-	178	-	-	48		
Balance at December 31 <sup>st</sup> , 2013	3,493			383	1,234		1.680			196		
Balance at December 51, 2015	3,493		<u> </u>	383	1,234	-	1,680	-		196		
Changes due to sale or transfer prices of future production costs	(529)	-	-	307	(148)	-	(710)	-		22		
Changes in future development costs	(445)	-	-	(228)	(138)	-	(101)	-	-	22		
Oil and gas sales and transfers in the period	(1,185)	-	-	(317)	(239)	-	(560)	-	-	(69)		
Net changes due to extensions, discoveries and improvements in the recovery of reserves	143	-	-	()	(	-	143	-	-	-		
Net changes due to purchases/sales of assets	(4)						(4)	-				
Net changes due to revisions in quantity estimates	1,091			112	78		823			78		
Previously estimated development costs incurred in the year	604	_	_	148	265	_	143	_	-	48		
Efect of discounting to a different date and exchange rate effect	846			99	314		378			-10		
Other non-specific changes		-	-	,,,	514	-	576	-	-	55		
Changes in income tax.		-	-	103	109	-	123	-	-	(21)		
- · · · · · · ·				105			120			(=-)		
Net change	835			224	241	-	235			135		
Balance at December 31 <sup>st</sup> , 2014	4.328			607	1,475		1.915			331		
Dumice in December 51, 2014	4,328	-		607	1,475	-	1,915	-	-	331		

	Millons of euros												
				Trinidad &			Rest of	North	North				
	Total	Europe	Argentina	Tobago	Venezuela	Peru	South America	America	Africa	Asia			
Total Fully-consolidated entities and Equity-accounted investees													
Balance at December 31 <sup>st</sup> , 2011 (1)	14,700	157	6,437	846	733	945	1,869	1,733	1,980				
Changes due to sale or transfer prices of future production costs	(205)	(3)		(99)	104	(228)	(2)	(40)	63	-			
Changes in future development costs	(436)	(9)	-	(149)	(162)	59	(126)	(86)	37	-			
Oil and gas sales and transfers in the period	(3,012)	(56)	-	(464)	(261)	(142)	(455)	(654)	(980)				
Net changes due to extensions, discoveries and improvements in the recovery of reserves	1,153	-	-	-	180	28	617	100	148	80			
Net changes due to purchases/sales of assets	(6,373)	-	(6,312)	(3)	-	-	(110)	(16)	-	68			
Net changes due to revisions in quantity estimates	1.034	6		38	(36)	(98)	185	131	808				
Previously estimated development costs incurred in the year	936	48		208	178	69	226	165	42				
Efect of discounting to a different date and exchange rate effect	392	11	(125)	57	58	70	102	96	123				
Other non-specific changes			()	-	-	-		-	-				
Changes in income tax.	341	7		110	48	134	30	92	(80)				
changes in income tax	541	,		110	40	1.54	50	,2	(00)				
Net change	(6,170)	4	(6,437)	(302)	109	(108)	467	(212)	161	148			
Balance at December 31 <sup>st</sup> , 2012	8,530	161		544	842	837	2,336	1,521	2,141	148			
Changes due to sale or transfer prices of future production costs	(251)	(22)	-	(377)	214	272	(164)	35	(219)	10			
Changes in future development costs	(371)	38		14	(136)	(54)	(32)	(128)	(29)	(44)			
Oil and gas sales and transfers in the period	(3,123)	(127)		(246)	(246)	(230)	(521)	(603)	(1,089)	(61)			
Net changes due to extensions, discoveries and improvements in the recovery of reserves	750	(127)		80	509	(200)	150	(005)	(1,00))	11			
Net changes due to exclusions, discoveries and improvements in the recovery of reserves	(5)						150			(5)			
Net changes due to purchases such of assets	569	13		82	153	(57)	238	162	(82)	60			
Previously estimated development costs incurred in the year	1.007	14	_	165	212	46	289	140	66	75			
Efect of discounting to a different date and exchange rate effect	334	(2)		28	48	31	- 98	42	79	10			
Other non-specific changes		(2)		20		51		42		10			
Changes in income tax.		18		173	(335)		78	99	880	(8)			
Changes in income tax	905	18	-	175	(333)	-	78	<u>,,,</u>	880	(8)			
Net change	(185)	(68)		(81)	419	8	136	(253)	(394)	48			
Balance at December 31 <sup>st</sup> , 2013	8,345	93		463	1,261	845	2,472	1,268	1,747	196			
Changes due to sale or transfer prices of future production costs	(1,303)	4	-	189	(149)	11	(789)	(303)	(288)	22			
Changes in future development costs	(610)	34	-	(202)	(138)	(133)	(115)	(8)	(70)	22			
Oil and gas sales and transfers in the period	(3,433)	(77)	-	(400)	(241)	(162)	(833)	(625)	(1,026)	(69)			
Net changes due to extensions, discoveries and improvements in the recovery of reserves	255		-	44	-	65	146		-				
Net changes due to purchases/sales of assets	(4)	-	-	-	-	-	(4)	-	-				
Net changes due to revisions in quantity estimates	1,948	11	-	116	74	(147)	877	682	257	78			
Previously estimated development costs incurred in the year	1,094	13	-	179	281	15	223	193	142	48			
Efect of discounting to a different date and exchange rate effect	1,881	12	-	118	323	175	547	264	387	55			
Other non-specific changes		-	-	-	-	-	-	-	-	-			
Changes in income tax.	1,161	(20)	-	188	111	104	173	(102)	728	(21)			
Net change	989	(23)		232	261	(72)	225	101	130	135			
Balance at December 31 <sup>st</sup> , 2014	9,334	70		695	1,522	773	2.697	1,369	1,877	331			

(1) Includes €2,741 million relating to the share of minority interest of YPF, as of December 31, 2011.