



Average sales price of crude oil and gas by geographic area for 2010, 2009 and 2008

€/Boe

	Sales Price						Asia
	Total	Spain	Trinidad and Tobago	Rest of South America	North America	Africa	
Year ended December 31, 2010							
Average sales price of crude oil	54.74	59.36	60.00	50.36	57.22	58.38	–
Average sales price of gas	11.65	42.87	10.72	12.73	38.98	–	–
Year ended December 31, 2009							
Average sales price of crude oil	40.69	44.56	44.89	35.96	47.25	40.58	–
Average sales price of gas	9.31	29.74	8.39	10.92	26.15	–	–
Year ended December 31, 2008							
Average sales price of crude oil	59.33	68.13	67.30	50.65	73.74	67.66	–
Average sales price of gas	16.08	47.42	17.14	13.55	80.19	–	–



Supplementary information
on oil and gas
exploration and production activities

Supplementary information on oil and gas exploration and production activities

(Unaudited information)

Capitalised costs

Capitalised costs represent the historical costs capitalised to assets with proved and non-proved oil and gas reserves, including auxiliary equipment and facilities, and the related accumulated depreciation and accumulated impairment losses.

	Total	Europe	Argentina	Trinidad & Tobago	Rest of South America	North America	Africa	Asia
Million of euros								
AT 31 DECEMBER 2008								
Costs capitalised to assets with proved reserves	26,553	383	20,638	1,271	2,227	1,282	704	48
Costs capitalised to assets with non proved reserves	2,357	10	99	165	300	1,366	410	7
	28,910	394	20,737	1,436	2,527	2,648	1,114	55
Auxiliary equipment and facilities	1,941	426	397	544	273	83	217	1
Total capitalised costs	30,851	819	21,134	1,980	2,800	2,731	1,331	56
Accumulated depreciation and impairment losses	(18,509)	(688)	(15,294)	(762)	(1,210)	(45)	(509)	(1)
Net amounts	12,342	131	5,840	1,218	1,590	2,686	822	55
Million of euros								
AT 31 DECEMBER 2009								
Costs capitalised to assets with proved reserves	26,789	338	20,532	1,218	2,516	1,324	807	54
Costs capitalised to assets with non proved reserves	2,588	103	81	222	532	1,267	376	7
	29,377	441	20,613	1,440	3,048	2,591	1,183	61
Auxiliary equipment and facilities	1,759	48	368	598	245	282	217	1
Total capitalised costs	31,136	489	20,981	2,038	3,293	2,873	1,400	62
Accumulated depreciation and impairment losses	(19,401)	(352)	(15,692)	(876)	(1,575)	(355)	(550)	(1)
Net amounts	11,735	137	5,289	1,162	1,718	2,518	850	61
Million of euros								
AT 31 DECEMBER 2010								
Costs capitalised to assets with proved reserves	30,847	488	23,164	1,342	2,981	1,886	933	53
Costs capitalised to assets with non proved reserves	2,297	5	116	243	531	1,017	377	8
	33,144	493	23,280	1,585	3,512	2,903	1,310	61
Auxiliary equipment and facilities	2,093	52	521	697	265	316	242	–
Total capitalised costs	35,237	545	23,801	2,282	3,777	3,219	1,552	61
Accumulated depreciation and impairment losses	(22,830)	(367)	(18,171)	(1,094)	(1,670)	(732)	(743)	(53)
Net amounts	12,407	178	5,630	1,188	2,107	2,487	809	8

As of 31 December 2009 and 2010, Repsol YPF Group's share in oil and gas exploration and production activities from equity method investees' amounted to EUR 7 and 68 million.

Costs incurred

The costs incurred represent amounts capitalised or charged to profit during the year relating to acquisitions of assets with oil and gas reserves and exploration and development activities.

	Total	Europe	Argentina	Trinidad & Tobago	Rest of South America	North America	Africa	Asia
Million of euros								
AT 31 DECEMBER 2008								
Acquisitions of assets with proved reserves	103	–	–	–	1	–	102	–
Acquisitions of assets with non proved reserves	110	–	–	–	–	–	110	–
Exploration costs	871	47	128	7	148	205	307	29
Development costs	1,782	17	1,266	89	79	273	48	10
TOTAL	2,866	64	1,394	96	228	478	567	39
Million of euros								
AT 31 DECEMBER 2009								
Acquisitions of assets with proved reserves	6	–	–	–	6	–	–	–
Acquisitions of assets with non proved reserves	61	–	–	–	57	4	–	–
Exploration costs	875	119	104	4	283	130	208	27
Development costs	1,240	23	715	112	108	212	64	6
TOTAL	2,182	142	819	116	454	346	272	33
Million of euros								
AT 31 DECEMBER 2010								
Acquisitions of assets with proved reserves	266	–	–	–	266	–	–	–
Acquisitions of assets with non proved reserves	45	–	–	–	45	–	–	–
Exploration costs	818	28	85	9	478	113	80	25
Development costs	1,724	48	1,205	79	278	70	44	0
TOTAL	2,853	76	1,290	88	1,067	183	124	25

As of December 31, 2009 and 2010, Repsol YPF Group's share in investments made in oil and gas exploration and production activities from equity method investees amounted to €10 and €64 million, respectively

Results of oil and gas production activities

The following table shows the income and expenses associated directly with the Group's oil and gas 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.

	Total	Europe	Argentina	Trinidad & Tobago	Rest of South America	North America	Africa	Asia
2008 Million of euros								
INCOME								
Sales to non-Group companies	2,648	–	871	800	901	42	34	–
Sales between business segments and to Group companies	4,378	47	2,745	491	384	37	674	–
Other income	1,225	–	–	–	55	–	1,170	–
TOTAL INCOME	8,251	47	3,616	1,291	1,340	79	1,878	–
Production costs (1)	(2,941)	(18)	(1,771)	(387)	(582)	(13)	(170)	–
Exploration expenses	(571)	(33)	(132)	(3)	(116)	(55)	(194)	(38)
Other operating expenses	(539)	(6)	(199)	(5)	(46)	–	(283)	–
Depreciation and amortisation charge	(1,657)	(7)	(1,181)	(148)	(209)	(40)	(72)	–
Profit (Loss) before taxes and charges	2,543	(17)	333	748	387	(29)	1,159	(38)
Taxes and charges	(1,623)	5	(153)	(394)	(97)	15	(1,010)	11
Results of oil and gas production activities (2)	920	(12)	180	354	290	(14)	149	(27)
2009 Million of euros								
INCOME								
Sales to non-Group companies	1,560	–	622	323	545	35	35	–
Sales between business segments and to Group companies	4,289	34	2,872	401	332	412	238	–
Other income	446	–	–	–	33	–	413	–
TOTAL INCOME	6,295	34	3,494	724	910	447	686	–
Production costs (1)	(2,365)	(17)	(1,563)	(295)	(365)	(35)	(90)	–
Exploration expenses	(466)	(26)	(100)	(4)	(103)	(50)	(154)	(29)
Other operating expenses	(230)	–	(187)	(3)	(38)	(1)	(1)	–
Depreciation and amortisation charge	(1,895)	(10)	(1,143)	(151)	(202)	(323)	(66)	–
Profit (Loss) before taxes and charges	1,339	(19)	501	271	202	38	375	(29)
Taxes and charges	(643)	12	(232)	(148)	20	(20)	(284)	9
Results of oil and gas production activities (2)	696	(7)	269	123	222	18	91	(20)
2010 Million of euros								
INCOME								
Sales to non-Group companies	2,022	–	906	222	830	37	27	–
Sales between business segments and to Group companies	5,584	50	3,464	699	384	628	359	–
Other income (3)	644	–	–	–	33	–	611	–
TOTAL INCOME	8,250	50	4,370	921	1,247	665	997	–
Production costs (1)	(3,104)	(21)	(2,009)	(360)	(530)	(47)	(137)	–
Exploration expenses	(502)	(30)	(64)	(5)	(249)	(48)	(76)	(30)
Other operating expenses	(332)	(4)	(286)	(4)	(35)	(1)	(2)	–
Depreciation and amortisation charge	(2,066)	(6)	(1,275)	(153)	(209)	(352)	(71)	–
Profit (Loss) before taxes and charges	2,246	(11)	736	399	224	217	711	(30)
Taxes and charges	(1,277)	10	(255)	(206)	(245)	(89)	(500)	8
Results of oil and gas production activities (2)	969	(1)	481	193	(21)	128	211	(22)

(1) Production costs include local taxes, production taxes and other similar payments, as well as withholdings on exports of crude oil from Argentina amounting, €1,477, €995 and €1,191 million in 2008, 2009 and 2010 respectively. It also includes transport and other costs in 2008, 2009 and 2010 totalling €223, €189 and €426 million, respectively.

(2) The results do not show the income and expenses associated with the impairment provisions accounted as a result of the comparison between market value (discounted cash flows) from proved and non-proved reserves (the latter of which are subject to a risk factor) of oil and gas from each field owned by the Company at year-end and the carrying amount of the assets associated therewith, which represented a net income of €51 and €134 million in 2008 and 2009 respectively and a net expense of €163 million in 2010.

(3) The results do not include gains recognised as consequence of the agreement reached in relation the exploration and production assets in Brazil which amounted to €2,847 million (See note 31 to the consolidated Financial Statements for the year ended December 31, 2010).

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, 2008, 2009 and 2010, 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, 2008, 2009 and 2010.

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 rules and regulations established for the petroleum and gas industry by the U.S. Securities and Exchange Commission (SEC) and the accounting principles laid down by the “Financial Accounting Standards Board”. 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 YPF’s oil and gas reserves have been estimated by the company’s petroleum engineers.

To control the quality of reserves booked, Repsol YPF has established a process that is integrated into Repsol YPF’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 YPF’s proved reserves figures have to be within 7% of the third party reserves audit figures for Repsol YPF 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 YPF reestimates its proved reserves to achieve this tolerance level or discloses the third party reserves audit figures.

In 2010, Gaffney, Cline & Associates Inc., (CGA) audited certain areas in USA Gulf of Mexico and South America; DeGolyer and MacNaughton (D&M) audited certain areas in Argentina; Netherland, Sewell & Associates, Inc., (NSAI) audited certain areas in South America, and Ryder Scott Company (RSC) audited certain areas in South America. The third party engineers’ reports are available at www.repsol.com

PROVED DEVELOPED AND UNDEVELOPED RESERVES OF CRUDE OIL, CONDENSATE GPL:							Thousands of barrels
	Total	Europe	Argentina	Trinidad & Tobago	Rest of South America	North America	Africa
Reserves at December 31, 2007 (1)	951,577	2,872	618,838	47,451	103,613	53,173	125,631
Revisions of previous estimates	63,424	(701)	35,395	4,616	12,195	(3,993)	15,912
Improved recovery	21,398	–	21,398	–	–	–	–
Extensions and discoveries	29,153	–	19,772	–	2,007	–	7,374
Purchases of minerals in place	–	–	–	–	–	–	–
Sales of minerals in place	(1,125)	–	–	–	(1,125)	–	–
Production (1)	(162,092)	(653)	(114,577)	(6,470)	(19,153)	(1,109)	(20,130)
Reserves at December 31, 2008 (1) (2)	902,335	1,518	580,826	45,597	97,537	48,071	128,787
Revisions of previous estimates	91,775	1,578	38,428	569	25,562	20,478	5,160
Improved recovery	14,651	–	14,651	–	–	–	–
Extensions and discoveries	29,999	3,708	14,591	–	259	7,178	4,263
Purchases of minerals in place	4,324	–	–	–	4,324	–	–
Sales of minerals in place	–	–	–	–	–	–	–
Production (1)	(159,812)	(516)	(110,044)	(6,201)	(19,136)	(9,280)	(14,635)
Reserves at December 31, 2009 (1) (2)	883,272	6,288	538,452	39,965	108,546	66,447	123,575
Revisions of previous estimates	91,667	921	44,814	883	31,732	2,230	11,087
Improved recovery	31,570	–	31,570	–	–	–	–
Extensions and discoveries	31,405	–	22,985	–	6,246	41	2,133
Purchases of minerals in place	38,348	–	–	–	38,348	–	–
Sales of minerals in place	(7,800)	–	–	–	(7,800)	–	–
Production (1)	(160,425)	(636)	(106,681)	(5,698)	(20,474)	(11,145)	(15,791)
Reserves at December 31, 2010 (1) (2)	908,037	6,573	531,140	35,150	156,598	57,573	121,004
PROVED DEVELOPED RESERVES OF CRUDE OIL, CONDENSATE AND GPL:							
At December 31, 2007	667,592	2,663	460,929	35,807	77,404	192	90,597
At December 31, 2008	651,906	1,308	451,586	33,889	78,401	2,785	83,937
At December 31, 2009	656,614	2,259	429,039	32,537	85,943	29,361	77,475
At December 31, 2010	648,726	2,300	404,204	27,769	116,272	20,652	77,530

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, 2010, 2009, 2008, and 2007 include an estimated approximately 98,810, 94,016, 94,432 and 94,753 thousands of 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 2010, 2009 and 2008 includes an estimated approximately 16,420, 16,398 and 16,995 thousands of barrels of oil equivalent, respectively, in respect of such types of payments.

(2) Includes 107,421, 86,091 and 92,871 thousands of barrels of oil equivalent relating to the participation in the minority interest of YPF, as of December 31, 2010, 2009 and 2008, respectively.

PROVED DEVELOPED AND UNDEVELOPED RESERVES OF NATURAL GAS:							Millions of Standard Cubic Feet
	Total	Europe	Argentina	Trinidad & Tobago	Rest of South America	North America	Africa
Reserves at December 31, 2007 (1)	8,156,157	–	3,753,738	2,783,382	1,494,963	15,590	108,484
Revisions of previous estimates	98,944	5,506	(116,363)	(24,562)	159,219	(2,214)	77,358
Improved recovery	2,852	–	2,852	–	–	–	–
Extensions and discoveries	129,219	–	128,746	–	–	–	473
Purchases of minerals in place	–	–	–	–	–	–	–
Sales of minerals in place	–	–	–	–	–	–	–
Production (1)	(1,046,081)	(374)	(624,264)	(274,888)	(124,218)	(1,100)	(21,237)
Reserves at December 31, 2008 (1) (2)	7,341,091	5,132	3,144,709	2,483,932	1,529,964	12,276	165,078
Revisions of previous estimates	289,767	–	53,125	32,005	230,062	5,185	(30,610)
Improved recovery	1,298	–	1,298	–	–	–	–
Extensions and discoveries	70,387	–	68,346	–	–	2,041	–
Purchases of minerals in place	–	–	–	–	–	–	–
Sales of minerals in place	–	–	–	–	–	–	–
Production (1)	(958,278)	(2,263)	(548,510)	(276,600)	(103,528)	(3,683)	(23,694)
Reserves at December 31, 2009 (1) (2)	6,744,265	2,869	2,718,968	2,239,337	1,656,498	15,819	110,774
Revisions of previous estimates	730,078	(336)	313,750	78,589	350,692	4,817	(17,434)
Improved recovery	799	–	799	–	–	–	–
Extensions and discoveries	230,365	–	49,885	–	180,465	15	–
Purchases of minerals in place	–	–	–	–	–	–	–
Sales of minerals in place	(149,198)	–	–	–	(149,198)	–	–
Production (1)	(913,397)	(1,581)	(505,257)	(281,486)	(108,262)	(4,479)	(12,332)
Reserves at December 31, 2010 (1) (2)	6,642,912	952	2,578,145	2,036,440	1,930,194	16,172	81,008
PROVED DEVELOPED RESERVES OF NATURAL GAS:							
At December 31, 2007	4,112,160	–	2,468,611	649,601	923,574	2,620	67,754
At December 31, 2008	3,741,552	5,132	2,264,946	374,713	1,007,425	3,269	86,067
At December 31, 2009	4,512,529	2,869	2,149,002	1,057,943	1,228,058	9,101	65,556
At December 31, 2010	4,275,507	952	1,993,831	875,254	1,317,414	7,413	80,643

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, 2010, 2009, 2008 and 2007 include an estimated approximately 959,117, 812,010, 699,671 and 731,916 millions 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 2010, 2009 and 2008 includes an estimated approximately 73,202, 79,794, and 85,152 millions standard cubic feet of gas, respectively, in respect of such types of payments.

(2) Includes 520,978, 434,308 and 502,252 millions standard cubic feet of gas relating to the participation in the minority interest of YPF, as of December 31, 2010, 2009 and 2008, respectively.

PROVED DEVELOPED AND UNDEVELOPED RESERVES OF CRUDE OIL, CONDENSATE, NATURAL GAS LIQUIDS AND NATURAL GAS:	Thousands of barrels of Oil Equivalent						
	Total	Europe	Argentina	Trinidad & Tobago	Rest of South America	North America	Africa
Reserves at December 31, 2007 (1)	2,404,144	2,871	1,287,358	543,156	369,858	55,950	144,951
Revisions of previous estimates	81,045	279	14,671	242	40,551	(4,387)	29,689
Improved recovery	21,906	–	21,906	–	–	–	–
Extensions and discoveries	52,165	–	42,700	–	2,007	–	7,458
Purchases of minerals in place	–	–	–	–	–	–	–
Sales of minerals in place	(1,125)	–	–	–	(1,125)	–	–
Production (1)	(348,393)	(720)	(225,755)	(55,426)	(41,275)	(1,305)	(23,912)
Reserves at December 31, 2008 (1) (2)	2,209,742	2,430	1,140,880	487,972	370,016	50,258	158,186
Revisions of previous estimates	143,381	1,578	47,889	6,269	66,535	21,401	(291)
Improved recovery	14,882	–	14,882	–	–	–	–
Extensions and discoveries	42,534	3,708	26,763	–	259	7,541	4,263
Purchases of minerals in place	4,324	–	–	–	4,324	–	–
Sales of minerals in place	–	–	–	–	–	–	–
Production (1)	(330,476)	(919)	(207,731)	(55,462)	(37,574)	(9,935)	(18,855)
Reserves at December 31, 2009 (1) (2)	2,084,388	6,797	1,022,684	438,779	403,560	69,265	143,303
Revisions of previous estimates	221,689	861	100,691	14,879	94,188	3,087	7,983
Improved recovery	31,712	–	31,712	–	–	–	–
Extensions and discoveries	72,432	–	31,870	–	38,386	43	2,133
Purchases of minerals in place	38,348	–	–	–	38,348	–	–
Sales of minerals in place	(34,371)	–	–	–	(34,371)	–	–
Production (1)	(323,095)	(917)	(196,665)	(55,829)	(39,755)	(11,942)	(17,987)
Reserves at December 31, 2010 (1) (2)	2,091,103	6,740	990,292	397,829	500,356	60,454	135,431
At December 31, 2007	1,399,944	2,663	900,574	151,498	241,888	658	102,663
At December 31, 2008	1,318,255	2,222	854,960	100,623	257,818	3,367	99,265
At December 31, 2009	1,460,269	2,770	811,764	220,950	304,653	30,982	89,150
At December 31, 2010	1,410,169	2,470	759,294	183,646	350,896	21,972	91,892

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, 2010, 2009, 2008 and 2007 include an estimated approximately 269,624, 238,630, 219,039 and 225,103 thousands of 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 2010, 2009 and 2008 includes an estimated approximately 29,457, 30,609 and 32,160 thousands of barrels of oil equivalent, respectively, in respect of such types of payments.

(2) Includes 200,204, 163,439 and 182,319 thousands of barrels of oil equivalent relating to the participation in the minority interest of YPF, as of December 31, 2010, 2009 and 2008, respectively.

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 rules and regulations established for the oil and gas industry by the U.S. Securities and Exchange Commission and the accounting principles laid down by the Financial Accounting Standards Board of the U.S. which govern stock market 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 2010 (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 filed, 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 the basis of actual costs borne in 2008, 2009 and 2010. Future development costs were calculated on the basis of technical studies conducted by Repsol YPF and by the operators holding joint title with Repsol YPF. The taxes projected for each of the future years were determined by applying the applicable nominal tax rate, reduced by the tax benefits available to the Company in each of the years. 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:

	Total	Europe	Argentina	Trinidad & Tobago	Rest of South America	North America	Africa
At December 31, 2008							
Million of euros							
Future cash inflows	39,382	2,921	18,902	5,856	5,314	1,498	4,891
Future production costs	(15,920)	(652)	(8,516)	(2,683)	(2,672)	(366)	(1,031)
Future development and abandonment costs	(5,981)	(1,163)	(2,446)	(1,524)	(346)	(224)	(278)
Future income tax expenses	(5,207)	(342)	(1,651)	(419)	(645)	(10)	(2,140)
Future net cash flows after taxes	12,274	764	6,289	1,230	1,651	898	1,442
10% annual discount for estimated timing of cash flows	(4,528)	(778)	(1,657)	(603)	(590)	(342)	(558)
Standardized measure of discounted future net cash flows ⁽¹⁾	7,746	(14)	4,632	627	1,061	556	884
At December 31, 2009							
Million of euros							
Future cash inflows	40,714	260	20,832	4,759	6,168	2,706	5,989
Future production costs	(14,478)	(107)	(7,901)	(2,154)	(2,599)	(571)	(1,146)
Future development and abandonment costs	(5,369)	(179)	(2,525)	(1,268)	(703)	(413)	(281)
Future income tax expenses	(6,595)	–	(2,561)	(473)	(717)	(9)	(2,835)
Future net cash flows after taxes	14,272	(26)	7,845	864	2,149	1,713	1,727
10% annual discount for estimated timing of cash flows	(4,502)	40	(2,189)	(300)	(897)	(491)	(665)
Standardized measure of discounted future net cash flows ⁽¹⁾	9,770	14	5,656	564	1,252	1,222	1,062
At December 31, 2010							
Million of euros							
Future cash inflows	57,177	360	29,900	5,426	10,800	3,227	7,464
Future production costs	(18,593)	(120)	(10,839)	(2,250)	(4,174)	(362)	(848)
Future development and abandonment costs	(6,827)	(183)	(3,203)	(1,385)	(1,231)	(518)	(307)
Future income tax expenses	(10,844)	2	(4,423)	(650)	(1,610)	(191)	(3,972)
Future net cash flows after taxes	20,913	59	11,435	1,141	3,785	2,156	2,337
10% annual discount for estimated timing of cash flows	(6,499)	40	(3,130)	(425)	(1,541)	(578)	(865)
Standardized measure of discounted future net cash flows ⁽¹⁾	14,414	99	8,305	716	2,244	1,578	1,472

(1) Includes 741, 905 and 1,681 million euro relating to the share of minority interest of YPF, as of December 31, 2008, 2009 and 2010.

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 2008, 2009 and 2010 is as follows:

	Total	Europe	Argentina	Trinidad & Tobago	Rest of South America	North America	Africa
Million of euros							
Balance at 31 December 2007	15,191	107	7,815	1,388	1,872	1,283	2,725
Changes due to sale or transfer prices or future production costs	(13,108)	288	(5,159)	(1,399)	(1,108)	(1,144)	(4,586)
Changes in future development costs	(1,515)	(434)	(522)	(294)	(30)	(139)	(96)
Oil and gas sales and transfers in the period	(5,592)	(40)	(2,340)	(700)	(618)	(79)	(1,815)
Net changes due to extensions, discoveries, and improvements in the recovery of reserves	650	–	468	–	62	–	120
Net changes due to purchases/sales of assets	3	–	–	–	3	–	–
Net changes due to revisions of reserves	264	81	340	(154)	32	(42)	7
Previously estimated development costs incurred in the year	1,159	–	508	144	120	317	70
Effect of discounting to a different date and exchange rate effect	2,262	14	1,156	201	271	234	386
Other non-specific changes	–	–	–	–	–	–	–
Changes in income tax	8,433	(30)	2,366	1,441	457	126	4,073
Net change	(7,444)	(121)	(3,183)	(761)	(811)	(727)	(1,841)
Balance at 31 December 2008 ⁽¹⁾	7,746	(14)	4,632	627	1,061	556	884
Changes due to sale or transfer prices or future production costs	3,327	5	2,091	(319)	529	267	754
Changes in future development costs	(476)	53	(445)	463	(330)	(182)	(35)
Oil and gas sales and transfers in the period	(3,063)	(23)	(1,776)	(367)	(315)	(111)	(471)
Net changes due to extensions, discoveries, and improvements in the recovery of reserves	782	39	502	–	7	134	100
Net changes due to purchases/sales of assets	19	(21)	–	–	40	–	–
Net changes due to revisions of reserves	1,302	(20)	643	28	169	372	110
Previously estimated development costs incurred in the year	900	3	384	221	78	147	67
Effect of discounting to a different date and exchange rate effect	343	(5)	190	29	48	39	42
Other non-specific changes	–	–	–	–	–	–	–
Changes in income tax	(1,110)	(3)	(565)	(118)	(35)	–	(389)
Net change	2,024	28	1,024	(63)	191	666	178
Balance at 31 December 2009 ⁽¹⁾	9,770	14	5,656	564	1,252	1,222	1,062
Changes due to sale or transfer prices or future production costs	5,074	56	2,679	370	596	501	872
Changes in future development costs	(1,218)	14	(747)	(55)	(212)	(194)	(24)
Oil and gas sales and transfers in the period	(3,887)	7	(2,021)	(373)	(423)	(417)	(660)
Net changes due to extensions, discoveries, and improvements in the recovery of reserves	1,718	–	1,388	–	258	–	72
Net changes due to purchases/sales of assets	193	–	–	–	193	–	–
Net changes due to revisions of reserves	2,215	1	1,104	64	447	222	377
Previously estimated development costs incurred in the year	993	3	389	130	233	167	71
Effect of discounting to a different date and exchange rate effect	1,623	3	935	92	212	203	178
Other non-specific changes	–	–	–	–	–	–	–
Changes in income tax	(2,067)	1	(1,078)	(76)	(312)	(126)	(476)
Net change	4,644	85	2,649	152	992	356	410
Balance at 31 December 2010 ⁽¹⁾	14,414	99	8,305	716	2,244	1,578	1,472

(1) Includes 741, 905 and 1,681 million euro relating to the share of minority interest of YPF, as of December 31, 2008, 2009 and 2010.