



SECTION 3
Oil data: upstream

Table 3.1**Oil data: upstream**World proven crude oil reserves by country (*m b*)

	2011	2012	2013	2014	2015	% change 15/14
North America	30,625	34,661	37,652	40,503	40,503	–
Canada ¹	4,081	4,132	4,281	4,118	4,118	–
United States	26,544	30,529	33,371	36,385	36,385	–
Latin America	336,996	338,356	341,522	341,296	342,757	0.4
Argentina	2,505	2,805	2,820	2,354	2,380	1.1
Brazil	12,841	13,154	15,050	15,544	16,184	4.1
Colombia	1,900	2,200	2,377	2,445	2,308	–5.6
Ecuador	8,235	8,235	8,832	8,273	8,273	–
Mexico	11,362	11,424	11,079	9,711	9,711	–
Venezuela	297,571	297,735	298,350	299,953	300,878	0.3
Others	2,582	2,803	3,014	3,016	3,023	0.2
Eastern Europe and Eurasia	117,314	119,881	119,874	119,863	119,860	–
Azerbaijan	7,000	7,000	7,000	7,000	7,000	–
Belarus	198	198	198	198	198	–
Kazakhstan	30,000	30,000	30,000	30,000	30,000	–
Russia	77,403	80,000	80,000	80,000	80,000	–
Turkmenistan	600	600	600	600	600	–
Ukraine	395	395	395	395	395	–
Uzbekistan	594	594	594	594	594	–
Others	1,124	1,094	1,087	1,076	1,073	–0.3
Western Europe	10,880	10,800	11,336	10,760	10,064	–6.5
Denmark	900	805	805	611	511	–16.4
Norway	5,320	5,366	5,825	5,497	5,139	–6.5
United Kingdom	2,800	2,800	2,979	2,982	2,755	–7.6
Others	1,860	1,829	1,727	1,670	1,660	–0.6
Middle East	797,155	799,132	802,958	802,512	802,848	–
Iran	154,580	157,300	157,800	157,530	158,400	0.6
Iraq	141,350	140,300	144,211	143,069	142,503	–0.4
Kuwait	101,500	101,500	101,500	101,500	101,500	–
Oman	5,500	5,500	4,974	5,151	5,306	3.0
Qatar	25,382	25,244	25,244	25,244	25,244	–
Saudi Arabia	265,405	265,850	265,789	266,578	266,455	–
Syrian Arab Republic	2,500	2,500	2,500	2,500	2,500	–
United Arab Emirates	97,800	97,800	97,800	97,800	97,800	–
Others	3,138	3,138	3,139	3,140	3,140	–
Africa	125,521	128,371	128,150	127,334	128,049	0.6
Algeria	12,200	12,200	12,200	12,200	12,200	–
Angola	9,055	9,055	9,011	8,423	9,524	13.1
Egypt	4,400	4,400	4,400	4,400	4,400	–
Gabon	2,000	2,000	2,000	2,000	2,000	–
Libya	48,014	48,472	48,363	48,363	48,363	–
Nigeria	36,247	37,139	37,071	37,448	37,062	–1.0
Sudans	5,000	5,000	5,000	5,000	5,000	–
Others	8,605	10,105	10,105	9,500	9,500	–
Asia and Pacific	47,322	47,552	47,860	48,197	48,597	0.8
Australia	3,873	3,922	3,957	3,982	3,982	–
Brunei	1,100	1,100	1,100	1,100	1,100	–
China	23,747	24,428	24,376	24,649	25,132	2.0
India	5,549	5,571	5,643	5,675	5,680	0.1
Indonesia	3,640	3,291	3,303	3,303	3,230	–2.2
Malaysia	3,739	3,668	3,750	3,750	3,750	–
Vietnam	4,400	4,400	4,400	4,400	4,400	–
Others	1,274	1,172	1,331	1,338	1,323	–1.2
Total world	1,465,813	1,478,753	1,489,352	1,490,465	1,492,677	0.1
<i>of which</i>						
OPEC	1,200,979	1,204,121	1,209,474	1,209,685	1,211,432	0.1
<i>OPEC percentage</i>	<i>81.9</i>	<i>81.4</i>	<i>81.2</i>	<i>81.2</i>	<i>81.2</i>	
OECD	57,104	61,153	64,365	65,274	64,572	–1.1
FSU	116,289	118,886	118,886	118,886	118,886	–

Notes: Figures as at year-end.

1. Data refers to conventional crude oil.

Table 3.2

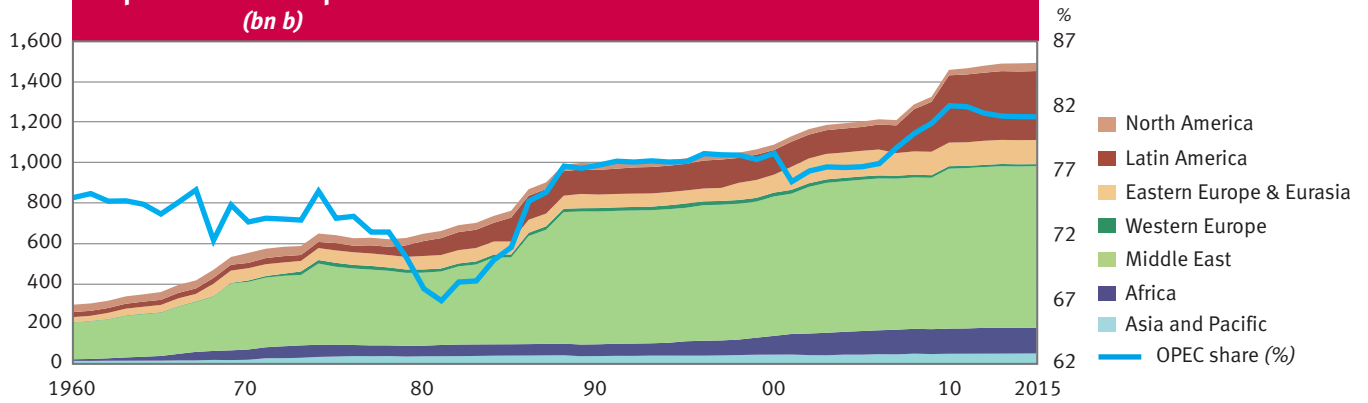
Oil data: upstream

Active rigs by country

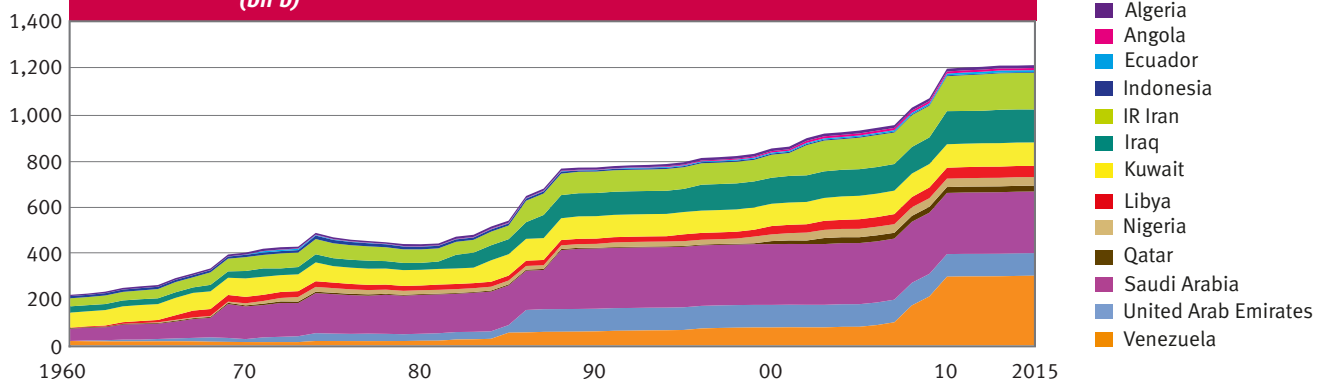
	2011	2012	2013	2014	2015	change 15/14
North America	2,432	2,137	2,146	2,255	855	-1,400
Canada	429	353	372	374	144	-230
United States	2,003	1,784	1,774	1,881	711	-1,170
Latin America	509	517	550	553	389	-164
Argentina	64	75	94	113	91	-22
Bolivia	5	9	11	6	5	-1
Brazil	86	71	54	42	38	-4
Colombia	75	39	45	46	12	-34
Ecuador	39	44	50	41	7	-34
Mexico	105	114	98	72	42	-30
Trinidad & Tobago	4	5	3	3	7	4
Venezuela	116	149	186	221	182	-39
Others	15	11	9	9	5	-4
Eastern Europe and Eurasia	404	428	410	420	427	7
Azerbaijan	14	14	14	17	17	-
Kazakhstan	60	60	59	57	57	-
Poland	11	15	12	12	12	-
Romania	10	10	12	17	18	1
Russia	300	320	304	307	311	4
Turkmenistan	9	9	9	10	12	2
Others	-	-	-	-	-	-
Western Europe	112	136	126	148	114	-34
Germany	5	6	4	3	6	3
Italy	4	5	4	4	3	-1
Netherlands	4	9	5	10	4	-6
Norway	10	25	14	14	17	3
United Kingdom	16	21	12	20	9	-11
Others	73	70	87	97	75	-22
Middle East	446	518	535	505	529	24
IR Iran	123	133	138	135	130	-5
Iraq	59	92	83	69	65	-4
Kuwait	32	31	31	45	58	13
Oman	50	43	65	57	73	16
Qatar	6	6	5	6	6	-
Saudi Arabia	121	148	148	145	145	-
Syrian Arab Republic	27	27	22	11	-	-11
United Arab Emirates	19	26	30	30	51	21
Yemen	2	4	6	3	-	-3
Others	7	8	7	4	1	-3
Africa	240	209	265	265	205	-60
Algeria	33	38	49	49	49	-
Angola	22	27	28	37	30	-7
Egypt	71	48	52	52	44	-8
Gabon	6	6	6	7	2	-5
Libya	55	23	31	31	31	-
Nigeria	38	44	59	46	29	-17
Others	15	23	40	43	20	-23
Asia and Pacific	1,095	1,110	1,130	1,113	1,099	-14
Australia	14	23	18	18	16	-2
China	833	827	827	823	824	1
India	117	114	121	114	100	-14
Indonesia	80	84	92	92	104	12
Malaysia	8	13	12	8	5	-3
New Zealand	4	6	8	6	-	-6
Pakistan	12	21	21	19	23	4
Others	27	22	31	33	27	-6
Total world	5,238	5,055	5,162	5,259	3,618	-1,641
<i>of which</i>						
OPEC	743	845	930	947	887	-60
<i>OPEC percentage</i>	<i>14.2</i>	<i>16.7</i>	<i>18.0</i>	<i>18.0</i>	<i>24.5</i>	
OECD	2,642	2,391	2,367	2,466	999	-1,467
FSU	404	428	410	420	427	7

Notes: Figure as at year end. Number of workover rigs for Venezuela is estimated to stand at 393 in 2015, 181 in 2014, 75 in 2013, 144 in 2012 and 128 in 2011. Average active rigs of the USA is estimated to stand at 977 in 2015, 1,862 in 2014, 1,761 in 2013, 1,919 in 2012 and 1,879 in 2011.

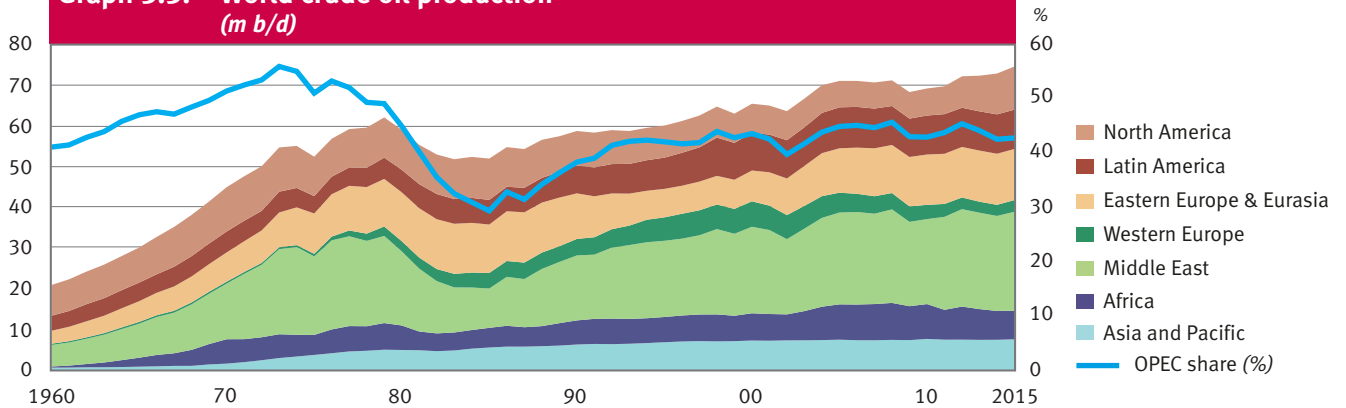
Graph 3.1: World proven crude oil reserves (bn b)



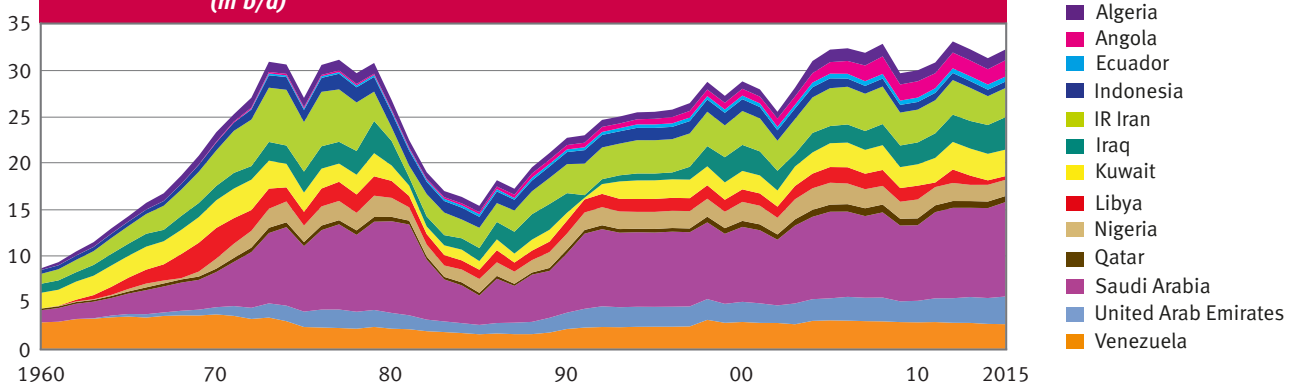
Graph 3.2: OPEC Members' proven crude oil reserves (bn b)



Graph 3.3: World crude oil production (m b/d)



Graph 3.4: OPEC Members' crude oil production (m b/d)



Wells completed in OPEC Members

	2011	2012	2013	2014	2015	change 15/14
Algeria	249	258	191	215	250	35
Angola	112	127	115	87	92	5
Ecuador	207	268	316	327	210	-117
Indonesia	838	766	1,025	818	609	-209
IR Iran	204	323	321	306	288	-18
Iraq	76	228	313	281	154	-127
Kuwait ¹	523	533	590	596	622	26
Libya	76	68	106	162	35	-127
Nigeria	124	107	114	141	116	-25
Qatar	29	87	88	99	77	-22
Saudi Arabia ¹	312	362	429	538	616	78
United Arab Emirates	266	304	277	292	219	-73
Venezuela	1,050	788	415	669	635	-34
OPEC	4,066	4,219	4,300	4,531	3,923	-608
Total world	99,039	101,757	104,888	101,670	74,776	-26,894

Notes:

1. Figures include share of wells completed from Neutral Zone.

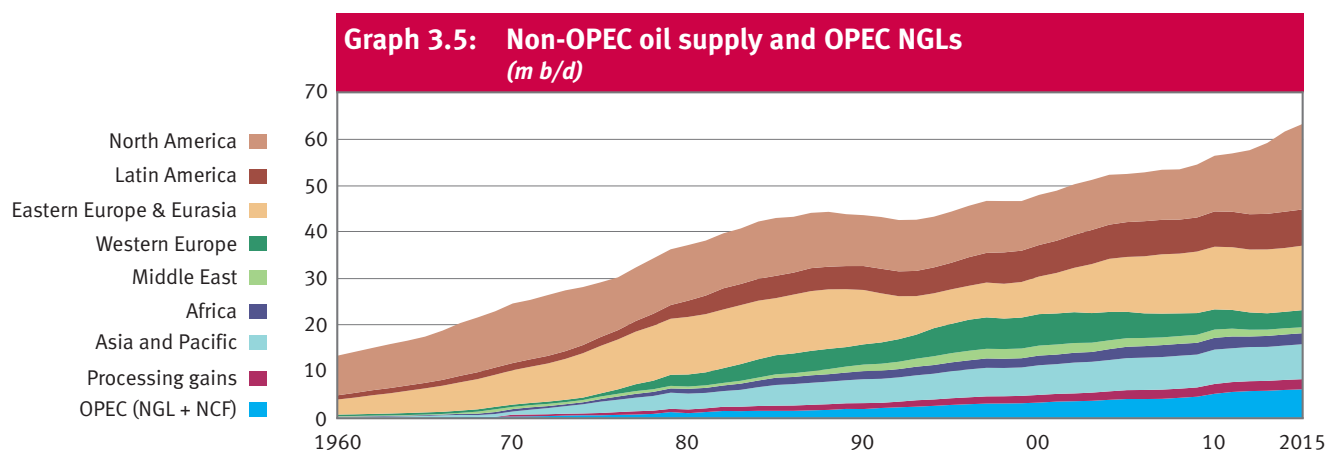


Table 3.4**Oil data: upstream**

Producing wells in OPEC Members

	2011	2012	2013	2014	2015	change 15/14
Algeria	2,010	2,061	2,061	2,042	1,968	-74
Angola	1,476	1,554	1,554	1,509	1,593	84
Ecuador	3,079	3,177	3,414	3,592	3,483	-109
Indonesia	10,423	10,472	10,472	10,263	10,248	-15
IR Iran	2,026	2,119	2,204	2,281	2,339	58
Iraq	1,695	1,700	1,735	1,963	2,361	398
Kuwait ¹	1,798	1,831	1,794	1,760	1,731	-29
Libya	609	1,910	1,308	632	540	-92
Nigeria	2,116	2,168	1,951	2,010	1,947	-63
Qatar	517	517	511	500	467	-33
Saudi Arabia ¹	3,245	3,407	3,372	3,406	3,555	149
United Arab Emirates	1,592	1,640	1,722	1,735	1,792	57
Venezuela	14,915	14,959	14,809	14,710	14,685	-25
OPEC	45,501	47,515	46,907	46,403	46,709	306
Total world	971,879	981,598	981,696	1,060,232	1,113,243	53,011

Notes:

Excluding shut-in wells.

1. Figures include share of producing wells from Neutral Zone.

Daily and cumulative crude oil production in OPEC Members (1,000 b)

Daily crude oil production (average)

	1960	1970	1980	1990	2000	2015
Algeria	181.1	1,029.1	1,019.9	783.5	796.0	1,157.1
Angola	1.1	83.9	150.0	473.8	736.1	1,767.1
Ecuador	7.5	4.1	204.1	286.1	392.2	543.1
Indonesia	409.6	853.6	1,575.7	1,299.3	1,272.5	690.1
IR Iran	1,067.7	3,829.0	1,467.4	3,135.3	3,661.3	3,151.6
Iraq	972.2	1,548.6	2,646.4	2,112.6	2,810.0	3,504.1
Kuwait ¹	1,691.8	2,989.6	1,663.7	858.6	1,996.1	2,858.7
Libya	–	3,318.0	1,831.6	1,389.1	1,347.2	403.9
Nigeria	17.4	1,083.1	2,058.0	1,726.7	2,053.6	1,748.2
Qatar	174.6	362.4	471.4	405.6	648.2	656.0
Saudi Arabia ¹	1,313.5	3,799.1	9,900.5	6,412.5	8,094.5	10,192.6
United Arab Emirates	–	779.6	1,701.9	1,762.6	2,174.7	2,988.9
Venezuela	2,846.1	3,708.0	2,165.0	2,135.2	2,891.0	2,653.9
OPEC	8,682.6	23,388.1	26,855.6	22,780.9	28,873.3	32,315.2

Notes:

1. Figures include share of production from Neutral Zone.

Cumulative crude oil production up to and including year

	1960	1970	1980	1990	2000	2015
Algeria	81,372	2,569,469	6,404,548	8,974,340	11,837,030	18,238,800
Angola	1,127	76,423	623,359	1,681,478	3,972,081	11,902,120
Ecuador	2,745	26,191	617,927	1,526,131	2,843,162	5,507,898
Indonesia	2,235,799	4,217,164	9,325,438	13,978,938	18,869,006	23,811,369
IR Iran	4,167,717	12,357,977	29,969,896	38,410,483	51,367,070	71,419,818
Iraq	2,750,439	7,476,078	15,826,156	22,246,208	26,918,241	40,143,950
Kuwait ¹	4,333,049	13,028,906	21,993,164	25,857,094	32,092,887	45,765,606
Libya	–	5,476,384	12,810,843	16,929,582	21,993,272	28,989,169
Nigeria	12,318	1,138,896	8,389,456	13,656,562	20,572,881	31,572,120
Qatar	451,617	1,428,583	3,199,374	4,334,808	6,032,088	10,017,501
Saudi Arabia ¹	4,345,242	13,283,848	42,306,785	61,814,608	91,266,532	140,142,486
United Arab Emirates	–	1,160,471	7,164,231	11,921,927	19,785,670	33,304,209
Venezuela	13,865,487	26,301,976	36,046,663	42,528,079	51,772,971	67,407,643
OPEC	32,246,910	88,542,364	194,677,840	263,860,237	359,322,888	528,222,687

Notes:

1. Figures include share of production from Neutral Zone.

Table 3.6**Oil data: upstream**

World crude oil production by country (1,000 b/d)

	2011	2012	2013	2014	2015	% change 15/14
North America	6,898.2	7,784.3	8,835.6	10,107.5	10,694.2	5.8
Canada	1,260.8	1,308.5	1,381.6	1,399.8	1,263.4	-9.7
United States	5,637.4	6,475.8	7,454.0	8,707.6	9,430.8	8.3
Latin America	9,807.6	9,701.3	9,698.3	9,740.6	9,715.7	-0.3
Argentina	553.4	549.3	540.0	532.2	532.2	-
Brazil	2,105.4	2,061.3	2,023.9	2,254.6	2,437.3	8.1
Chile	4.5	6.1	6.7	6.6	6.3	-4.9
Colombia	915.2	944.2	1,008.2	990.3	1,005.6	1.5
Ecuador	500.3	503.6	526.4	556.6	543.1	-2.4
Mexico	2,552.5	2,547.9	2,522.2	2,428.9	2,266.8	-6.7
Peru	69.6	66.6	62.8	69.3	58.0	-16.3
Trinidad & Tobago	92.0	81.7	81.2	81.2	78.6	-3.1
Venezuela	2,880.9	2,803.9	2,789.5	2,682.6	2,653.9	-1.1
Others	133.9	136.7	137.7	138.2	133.9	-3.1
Eastern Europe and Eurasia	12,411.2	12,505.8	12,656.2	12,646.6	12,650.7	-
Azerbaijan	872.0	817.2	814.7	793.1	786.7	-0.8
Kazakhstan	1,325.9	1,306.5	1,372.8	1,344.8	1,321.6	-1.7
Romania	83.8	82.0	82.1	80.2	78.8	-1.8
Russia	9,787.4	9,953.3	10,047.3	10,087.5	10,111.7	0.2
Turkmenistan	173.6	187.3	180.4	185.9	206.2	10.9
Ukraine	48.7	46.0	43.7	40.7	36.2	-11.2
Others	119.7	113.5	115.2	114.2	109.5	-4.1
Western Europe	3,196.3	2,888.2	2,724.2	2,750.3	2,892.9	5.2
Denmark	221.7	201.9	176.0	164.9	156.0	-5.4
France	17.8	16.3	16.0	15.3	16.7	8.7
Germany	51.8	51.1	51.8	48.1	48.1	-0.1
Italy	99.2	101.0	101.6	106.3	100.1	-5.8
Netherlands	21.4	21.6	21.6	29.7	26.9	-9.5
Norway	1,680.1	1,532.8	1,463.6	1,511.8	1,567.4	3.7
Turkey	45.7	44.8	46.2	47.7	48.5	1.8
United Kingdom	1,006.0	868.6	796.1	776.0	879.7	13.4
Others	52.5	50.2	51.3	50.4	49.5	-1.9
Middle East	23,004.8	24,106.5	23,845.3	23,510.9	24,494.9	4.2
Bahrain	190.3	173.0	197.6	202.5	202.6	-
IR Iran	3,576.0	3,739.8	3,575.3	3,117.1	3,151.6	1.1
Iraq	2,652.6	2,942.4	2,979.6	3,110.5	3,504.1	12.7
Kuwait ¹	2,658.7	2,977.6	2,924.7	2,866.8	2,858.7	-0.3
Oman	780.1	813.5	844.3	856.1	885.2	3.4
Qatar	733.5	733.6	723.9	709.2	656.0	-7.5
Saudi Arabia ¹	9,311.0	9,763.0	9,637.0	9,712.7	10,192.6	4.9
Syrian Arab Republic	333.3	151.6	45.3	22.8	19.2	-15.8
United Arab Emirates	2,564.2	2,653.0	2,796.5	2,794.0	2,988.9	7.0
Yemen	205.1	159.2	121.0	119.2	36.0	-69.8
Africa	7,389.2	8,181.6	7,612.2	7,135.6	7,072.8	-0.9
Algeria	1,161.6	1,199.8	1,202.6	1,192.8	1,157.1	-3.0
Angola	1,618.0	1,704.0	1,701.2	1,653.7	1,767.1	6.9
Congo	295.3	294.5	280.7	276.3	277.4	0.4
Egypt	530.4	533.1	531.3	531.8	540.9	1.7
Equatorial Guinea	205.9	238.8	223.1	236.9	245.3	3.6
Gabon	251.0	242.0	234.1	231.3	227.9	-1.5
Libya	489.5	1,450.0	993.3	479.9	403.9	-15.8
Nigeria	1,974.8	1,954.1	1,753.7	1,807.0	1,748.2	-3.3
Sudans	428.0	119.3	232.3	285.6	278.6	-2.5
Others	434.6	446.1	459.8	440.3	426.4	-3.2
Asia and Pacific	7,467.0	7,474.8	7,423.1	7,439.3	7,558.6	1.6
Australia	411.3	405.4	334.7	353.4	321.5	-9.0
Brunei	156.5	145.7	122.1	114.4	115.3	0.8
China	4,052.1	4,074.2	4,163.8	4,208.3	4,273.7	1.6
India	766.9	759.7	755.8	752.8	746.8	-0.8
Indonesia	794.2	763.4	727.1	697.3	690.1	-1.0
Malaysia	564.7	585.4	594.5	614.7	665.0	8.2
New Zealand	46.8	41.1	35.4	39.5	41.3	4.5
Others	674.5	699.9	689.8	658.8	705.0	7.0
Total world	70,174.4	72,642.5	72,794.9	73,330.7	75,079.8	2.4
<i>of which</i>						
OPEC	30,915.4	33,188.1	32,330.9	31,380.2	32,315.2	3.0
OPEC percentage	44.1	45.7	44.4	42.8	43.0	
OECD	13,111.4	13,678.7	14,472.0	15,698.9	16,233.3	3.4
FSU	12,282.3	12,376.6	12,521.8	12,511.1	12,517.7	0.1

Notes:

1. Figures include share of production from Neutral Zone.

Table 3.7

Oil data: upstream

Non-OPEC oil supply and OPEC NGLs (1,000 b/d)

	2011	2012	2013	2014	2015	% change 15/14
North America	12,564.3	13,801.5	15,269.7	17,272.6	18,407.1	6.6
Canada	3,542.3	3,779.1	4,038.0	4,312.4	4,419.8	2.5
United States	9,022.1	10,022.4	11,231.7	12,960.2	13,987.2	7.9
Latin America	7,635.3	7,596.6	7,659.7	7,818.1	7,794.0	-0.3
Argentina	705.4	708.3	684.0	692.5	681.0	-1.7
Brazil	2,601.1	2,567.9	2,602.5	2,859.2	3,064.7	7.2
Chile	12.8	11.4	10.4	8.7	7.2	-17.1
Colombia	934.2	965.2	1,030.2	1,013.3	1,029.6	1.6
Mexico	2,945.4	2,922.5	2,892.2	2,801.2	2,598.8	-7.2
Peru	152.7	153.1	167.3	172.9	149.4	-13.6
Trinidad & Tobago	135.8	116.5	115.4	112.1	108.4	-3.3
Others	147.9	151.7	157.7	158.2	154.9	-2.1
Eastern Europe and Eurasia	13,513.3	13,552.1	13,756.4	13,745.9	13,889.3	1.0
Azerbaijan	933.3	883.5	891.5	866.2	860.1	-0.7
Kazakhstan	1,602.7	1,586.4	1,642.7	1,623.5	1,596.3	-1.7
Romania	87.8	86.0	85.1	82.9	80.8	-2.5
Russia	10,398.8	10,491.8	10,635.3	10,675.4	10,846.8	1.6
Turkmenistan	197.6	213.3	209.4	217.9	238.3	9.4
Ukraine	73.6	75.1	69.2	60.3	54.0	-10.5
Others	219.5	216.1	223.3	219.7	213.0	-3.0
Western Europe	4,029.5	3,724.3	3,519.1	3,546.6	3,695.7	4.2
Denmark	223.7	203.9	180.0	168.9	160.0	-5.3
France	98.3	94.3	90.5	89.8	91.0	1.4
Germany	153.1	149.9	145.2	141.2	141.4	0.2
Italy	140.4	144.7	144.3	140.8	142.8	1.4
Netherlands	42.2	48.1	54.2	49.7	48.0	-3.5
Norway	2,040.1	1,917.1	1,837.7	1,888.6	1,947.6	3.1
Turkey	45.7	44.8	46.2	47.7	48.5	1.8
United Kingdom	1,121.1	956.0	874.7	872.3	971.8	11.4
Others	165.0	165.4	146.4	147.7	144.6	-2.1
Middle East	1,692.1	1,469.0	1,361.1	1,338.8	1,273.5	-4.9
Bahrain	212.3	195.0	218.6	223.5	223.6	-
Oman	885.5	918.6	942.1	943.3	981.2	4.0
Syrian Arab Republic	367.1	176.6	59.5	32.8	27.2	-17.0
Yemen	227.1	178.7	141.0	139.2	41.6	-70.1
Africa	2,535.3	2,266.9	2,361.8	2,377.5	2,370.4	-0.3
Congo	295.3	294.5	280.7	276.3	277.4	0.4
Egypt	702.4	710.1	714.3	709.8	717.9	1.1
Equatorial Guinea	251.9	282.7	267.0	280.8	289.2	3.0
Gabon	251.0	242.0	234.1	231.3	227.9	-1.5
Sudans	428.0	119.3	232.3	285.6	278.6	-2.5
Others	606.6	618.3	633.4	593.7	579.3	-2.4
Asia and Pacific	7,289.9	7,358.6	7,316.3	7,407.0	7,529.4	1.7
Australia	484.0	475.4	401.4	428.3	378.6	-11.6
Brunei	169.2	158.6	135.3	126.7	126.8	0.1
China	4,114.5	4,158.1	4,247.2	4,295.3	4,366.7	1.7
India	888.0	875.5	866.4	869.3	865.6	-0.4
Malaysia	647.7	659.4	648.0	682.7	735.0	7.7
New Zealand	50.3	45.6	41.4	46.6	48.0	2.9
Others	936.2	986.0	976.6	958.1	1,008.7	5.3
Non-OPEC production	49,259.7	49,769.0	51,244.1	53,506.5	54,959.4	2.7
Processing gains	2,126.0	2,130.0	2,130.0	2,162.0	2,185.0	1.1
Non-OPEC supply	51,385.7	51,899.0	53,374.1	55,668.5	57,144.4	2.7
OPEC NGL	5,402.1	5,517.0	5,557.7	5,703.6	5,833.7	2.3
OPEC non-conventional (NCF)	158.4	231.3	265.0	293.0	296.3	1.1
OPEC (NGL+NCF)	5,560.5	5,748.3	5,822.7	5,996.6	6,130.1	2.2
Non-OPEC & OPEC (NGL+NCF)	56,946.2	57,647.3	59,196.8	61,665.1	63,274.4	2.6
<i>of which</i>						
OECD	20,170.2	21,073.2	22,234.9	24,202.0	25,232.4	4.3
FSU	13,325.7	13,360.4	13,555.9	13,546.3	13,693.8	1.1